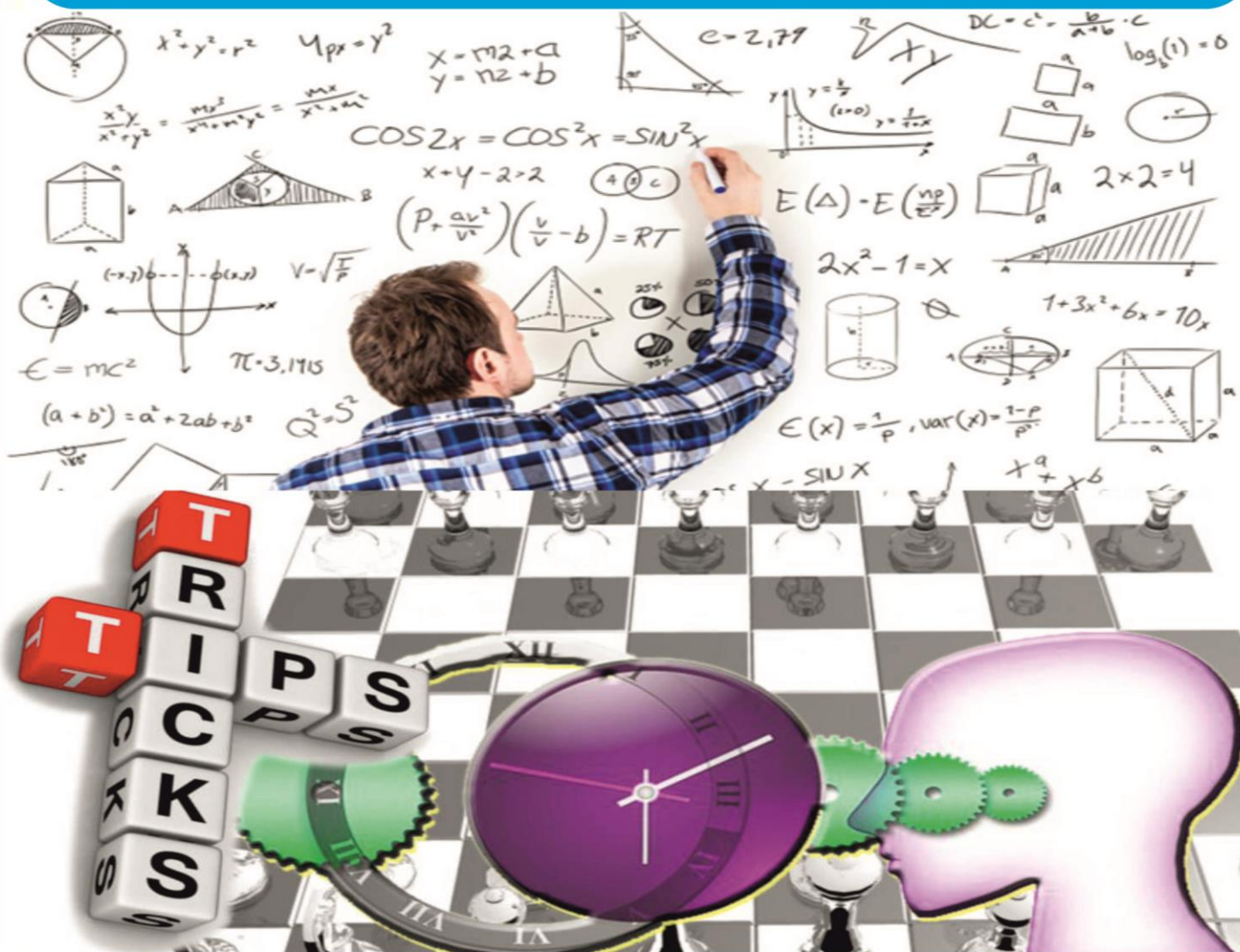


# Quantitative Aptitude

RBI / SBI / IBPS / SSC / RLY



Mr. Manohar Patil

The Reliable Publication, Pune

The Name Of Quality

Knowledge is Power

संस्थापक : श्री. मनोहर पाटील

# Reliable Academy®

ISO 9001 : 2015

## Reliable Bankers



**Ratish Ingole**  
**IPPB - Probationary Officer**



**Nayana Chandure**  
**Indian Post Assistant**



**Ravi Pankhade**  
**DNS Bank Asst. Manager**



**Sumedh Gajbhiye**  
**State Bank of India**  
**Probationary Officer (PO)**



**Kanchan Ghuge**  
**State Bank of India**  
**Probationary Officer (PO)**



**Sumit Gerela**  
**Canara Bank - Probationary Officer (PO)**



**Pushpa Gupta**  
**Saraswat Bank - Deputy Manager**



**Kimaya Kathade**  
**ICICI Bank PO**



**Sonu Singh**  
**Axis Bank - Assistant Manager**



**Anisha Tonde**  
**CIDCO - Account Clerk**



**Deepak Patil**  
**CIDCO - Accountant Clerk**



**Yogesh Das**  
**GP Parsi Bank - Jr. Officer / PNB-MT**



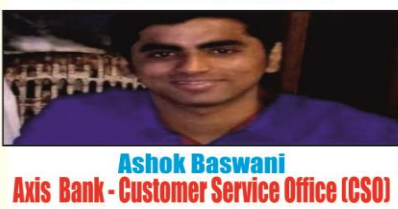
**Bhumit Shah**  
**Bank Of India - Clerk**



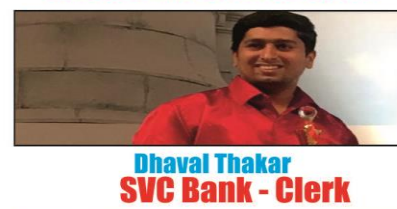
**Priyanka Mhapankar**  
**Union Bank Of India - Clerk**



**Gaurav Meena**  
**Canara Bank - Clerk**



**Ashok Baswani**  
**Axis Bank - Customer Service Office (CSO)**



**Dhaval Thakar**  
**SVC Bank - Clerk**



**Smita Prabhu**  
**SVC Bank - Clerk**



**Poonam Mishra**  
**PMC Bank - Management Trainee**



**Athera Malethi**  
**Viaya Bank - Clerk**



**Pooja Bhilare**  
**PMC Bank - Management Trainee**

for more selected Students visit :-

[www.reliableacademy.com](http://www.reliableacademy.com)

This book is helpful for upcoming RBI, SBI, IBPS, SSC, Railway and other PSC exams

# Quantitative Aptitude

## Importance:-

- 1) Updated Information with Current references.
- 2) Simple language for all to easy understand.
- 3) Detail information of all topics.
- 4) Exam oriented Material.

**Mr. Manohar Eknath Patil**

**Reliable Academy**  
**For**  
**RBI-SBI-IBPS-SSC-RLY**

**The Reliable Publication, Pune**

This book is helpful for upcoming RBI, SBI, IBPS, SSC,  
Railway and other PSC exams

# ‘ Quantitative Aptitude ’

**Editor**

**Mr. Manohar Eknath Patil**

**Author**

**Team Reliable**

## Publication

**The Reliable Publication, Pune**

Office address: 5<sup>th</sup> floor , C J Joshi Complex, Above Vodafone gallery,  
Opp to Railway Reservation booking office, Kalyan (W). PIN- 421301

**Website** : [www.reliableacademy.com](http://www.reliableacademy.com)

**Email** : [thereliableacademy@gmail.com](mailto:thereliableacademy@gmail.com)

**Facebook** : <http://www.facebook.com/@reliableacademy>

**Telegram** : @mpsofficers , @bankofficers

**Prepared under Guidance of : Mr. Manohar Eknath Patil**

**Assistance : Team Reliable**

Publication : Pune

Price : 310/-

**Second Edition : January 2019**

**Contact Number : 9222333999**

© Copyright

© All rights reserved. No part of this publication may be reproduced or transmitted, in any form or by any means, without permission. Any person who does any unauthorized act in relation to this publication may be liable to criminal prosecution and civil claims for damages.



# Introduction

Dear Friends,

The Battle of Competitive Examination is like the world war new a days. To stay in the war and conquer over the competitors you should have proper guidance and perfect practice. Presenting the book which is in you hand is the painstaking effort of our Team Reliable. The book cover all the topics with sufficient and quality materials to get success in all the Competitive exam like RBI/SBI/IBPS/ SSC/Railway etc.

We heard that “Practice makes a man Perfect” and I say “Perfect Practice makes Everyone Perfect”. - **Manohar Patil**

It is with a sense of great delight that we are presenting to you the study material binded from our team of qualified authors take painstaking efforts to present keeping in view the requirements of our esteemed readers. We are sure that if you read it intelligently and wisely, it will go a long way in equipping you with knowledge to face the grueling battle of the examination and bring you sure success. We make all efforts to include essential topics, as far as possible.

A minute observation of the past and accumulated experiences helps us in shaping our present. The positive and compendious conclusions drawn from the past becomes our pioneer in charting new ways and teaches us to rectify our remedies. Our present is, thus, beautified. Where there is beauty, attraction cannot be negated. Aspirations turn into realities. This is a realistic reflection.

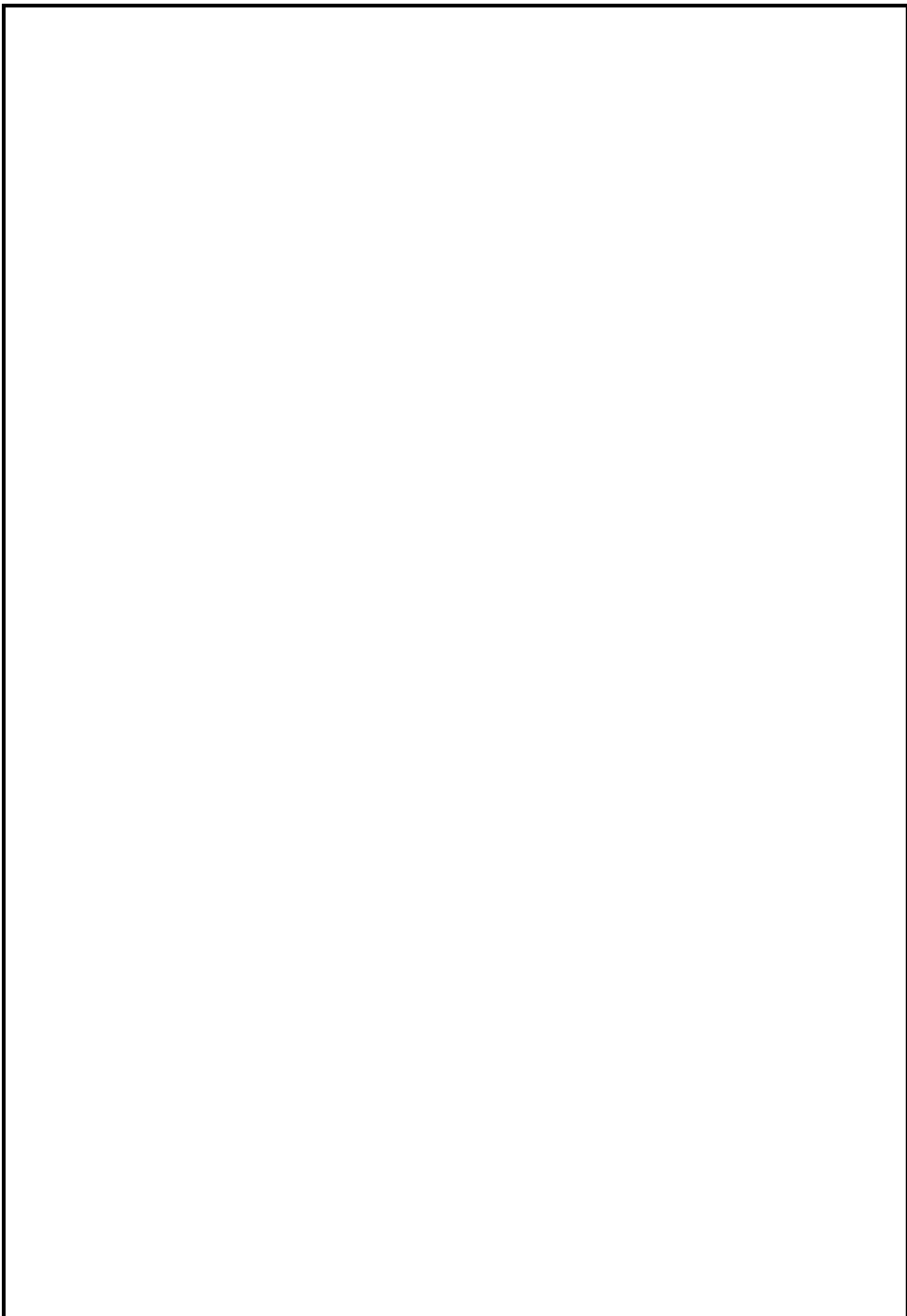
**Mr. Manohar Eknath Patil**  
**(Founder)**  
**Reliable Academy**



# QUANTITATIVE APTITUDE

## INDEX

<b>CHAPTER NO.</b>	<b>CHAPTER NAME</b>	<b>PAGE NO.</b>
	CONCEPTS & FORMULAS	i – xlix
1	SIMPLIFICATION AND NUMERICAL ABILITY	1 – 11
2	LCM - HCF	12 -17
3	SURDS AND INDICES	18 – 20
4	AVERAGE	21 – 37
5	PROBLEM ON AGES	38 – 46
6	PERCENTAGE	47 – 66
7	RATIO PROPORTION	67 – 104
8	PROFIT AND LOSS	105 – 133
9	SIMPLE AND COMPOUND NTEREST	134 – 152
10	QUARDRETIC EQUATION	153 – 175
11	TIME AND DISTANCE	176 – 204
12	TIME AND WORK	205 – 224
13	MENSURATION	225 – 243
14	MIXTURE ALLIGATION	244 – 254
15	PERMUTATION AND COMBINATION	255 – 260
16	PROBABILITY	261 – 272
17	DATA INTERPRETATION	273 – 310
18	NUMBER SERIES	311 - 356





# 1. Important Short Tricks To Find Unit Digit of Powers

### Finding the Unit Digit of Powers of 2

- First of all, divide the Power of 2 by 4.
- If you get any remainder, put it as the power of 2 and get the result using the below given table.
- If you don't get any remainder after dividing the power of 2 by 4, your answer will be  $(2)^4$  which always give 6 as the remainder

POWER	UNIT PLACE
$(2)^1$	2
$(2)^2$	4
$(2)^3$	8
$(2)^4$	6

Let's solve few Examples to make things clear.

(1) Find the Units Digit in  $(2)33$

Sol – Step-1: Divide the power of 2 by 4. It means, divide 33 by 4.

Step-2: You get remainder 1.

Step-3: Since you have got 1 as a remainder , put it as a power of 2 i.e  $(2)^1$ .

Step-4: Have a look on table,  $(2)^1=2$ . So,

**Answer will be 2**

### Finding the Unit Digit of Powers of 3

POWER	UNIT PLACE
$(3)^1$	3
$(3)^2$	9
$(3)^3$	7
$(3)^4$	1

Finding the Unit Digit of Powers of 3

Let's solve few Examples to make things clear.

(1) Find the Units Digit in  $(3)33$

Sol – Step-1: Divide the power of 3 by 4. It means, divide 33 by 4.

Step-2: You get remainder 1.

Step-3: Since you have got 1 as a remainder , put it as a power of 3 i.e  $(3)^1$ .

Step-4: Have a look on table,  $(3)^1=3$ . So, **Answer will be 3**

- First of all, divide the Power of 3 by 4.
- If you get any remainder, put it as the power of 3 and get the result using the below given table.
- If you don't get any remainder after dividing the power of 2 by 4, your answer will be  $(3)^4$  which always give 1 as the remainder.

### Finding the Unit Digit of Powers of 0, 1, 5, 6

The unit digit of 0,1,5,6 always remains same i.e 0,1,5,6 respectively for every power.

### Finding the Unit Digit of Powers of 4 & 9

In case of 4 & 9, if powers are Even, the result will be 6 & 4. However, when their powers are Odd, the result will be 4 & 9. The same is depicted below.

- If the Power of 4 is Even, the result will be 6
- If the Power of 4 is Odd, the result will be 4
- If the Power of 9 is Even, the result will be 1
- If the Power of 9 is Odd, the result will be 9.

**For Example –**

- $(9)^{84} = 1$      $(9)^{21} = 9$
- $(4)^{64} = 6$      $(4)^{63} = 4$

**Finding the Unit Digit of Powers of 7**

- First of all, divide the Power of 7 by 4.
- If you get any remainder, put it as the power of 7 and get the result using the below given table.
- If you don't get any remainder after dividing the power of 7 by 4, your answer will be (7)4 which always give 1 as the remainder

POWER	UNIT PLACE
$(7)^1$	7
$(7)^2$	9
$(7)^3$	3
$(7)^4$	1

**Let's solve few Examples to make things clear.**

**(1) Find the Units Digit in  $(7)^{34}$**

**Sol –**

**Step-1: Divide the power of 7 by 4. It means, divide 34 by 4.**

**Step-2: You get remainder 2.**

**Step-3: Since you have got 2 as a remainder , put it as a power of 7 i.e Step-4:**

**Have a look on table,  $(7)^2 = 9$ . So, Answer will be 9**

**Finding the Unit Digit of Powers of 8**

- First of all, divide the Power of 8 by 4.
- If you get any remainder, put it as the power of 8 and get the result using the below given table.
- If you don't get any remainder after dividing the power of 8 by 4, your answer will be  $(8)^4$  which always give 6 as the remainder

POWER	UNIT PLACE
$(8)^1$	8
$(8)^2$	4
$(8)^3$	2
$(8)^4$	6

**Let's solve few Examples to make things clear.**

**(1) Find the Units Digit in  $(8)^{34}$**

**Sol –**

**Step-1: Divide the power of 8 by 4. It means, divide 34 by 4.**

**Step-2: You get remainder 2.**

**Step-3: Since you have got 2 as a remainder , put it as a power of 8 i.e  $8^2$**

**Step-4: Have a look on table,  $(8)^2 = 4$ . So, Answer will be 4**

## 2. Divisibility Rules

**Divisibility by 2:**

**Rule:** Any number, the last digit of which is either even or zero, is divisible by 2.

Ex: 12, 86 and 130 are divisible by 2 but 13, 133 and 193 are not divisible by 2.

**Divisibility by 3:**

**Rule:** if the sum of the digits of a number is divisible by 3, the number is also divisible by 3.

**Ex:**

1. 123:  $1 + 2 + 3 = 6$  is divisible by 3; hence 123 is also divisible by 3.

5673 :  $5 + 6 + 7 + 3 = 21$ ; therefore divisible by 3.

**Divisibility by 4:**

**Rule :** if the last two digits of a number is divisible by 4, the number is divisible by 4 the number having two or more zeros at the end is also divisible by 4.

**Ex:**

526428: 28 is divisible by 4. Therefore, the number is divisible by 4.

5300; there are two zeros at the end , so it is divisible by 4.

**Note:** The same rule is applicable to check the divisibility by 25. That is, a number is divisibility by 25 if its last two digits are either zeros or divisible by 25.

**Divisibility by 5:**

Rule : if a number ends in 5 or 0, the number is divisible by 5

**Ex:**

1. 345: As its last digit is 5, it is divisible by 5.

2. 1340: as its last digit is 0, it is divisible by 5.

**Divisibility by 6:**

**Rule:** if a number is divisible by both 3 and 2, the number is also divisible by 6. So, for a number to be divisible by 6, The number should end with an even digit or 0 and the sum of its digits should be divisible by 3.

**Ex:**

1. 63924 : the first condition is fulfilled as the last digit (4) is an even number and also  $(6+3+9+2+4=)$  24 is divisible by 3; therefore the number is divisible by 6

2. 154: The first condition is fulfilled but not the second; therefore , the number is not divisible by 6.

**Special Cases :**

The rules for divisibility 7, 13 , 17, 19 ... are very much unique and are found very rarely. Before going on for the rule, we should know some terms like "one-more" osculator and negative osculator.

"One- more" osculator means the number needs one more to be a multiple of 10.

**Ex:** osculator for 19 needs 1 to become 20 ( $=2 \times 10$ ), thus osculator for 19 is 2 (taken from  $2 \times 10 = 20$ ). Similarly osculator for 49 is 5 (taken from  $5 \times 10 = 50$ )

Negative osculator means the number should be reduced by one to be a multiple of 10.

**Ex:** Negative osculator for 21 is 2 (taken from  $2 \times 10 = 20$ ).

Similarly, negative osculator for 51 is 5 (taken from  $5 \times 10 = 50$ )

**Note: (1) What is the osculator for 7?**

Now, we look for that multiple of  $7 \times 3 = 21$ , as 21 is one more than  $2 \times 10$ ; our negative osculator is 2 for 7.

And  $7 \times 7 = 49$  or 49 is one less than  $5 \times 10$ ; "one – more " osculator is 5 for 7. Similarly, osculators for 13, 17 and 19 are ;

**Ex:**  $13 \times 3 = 39$ , " one more " osculator is 4 (from  $4 \times 10$ )

Can you define osculators for 29, 39, 21, 31 ,27 and 23.

Can you get any osculators for an even number or a number ending with '5'?

**Divisibility by 7:**

First of all we recall the osculator for 7. Once again, for your convenience, as  $7 \times 3 = 21$  (one more than  $2 \times 10$ ), our negative osculator is 2. This osculator of any number by 7. See how it works:

**Ex : Is 112 divisible by 7 ?**

**Solution:**

Step I :  $112 : 11 - 2 \times 2 = 7$

As 7 is divisible by 7, the number 112 is also divisible by 7.

**Divisibility by 8:**

**Rule :** If the last three digits of a number is divisible by 8, the number is also divisible by 8. Also, if the last three digits of a number are zeros, the number is divisible by 8.

**Ex:**

1 1256 As 256 is divisible by 8, the number is also divisible by 8.

2 135923120 : as 120 is divisible by 8, the number is also divisible by 8.

**Divisibility by 9:**

**Rule :** If the sum of all the digits of a number is divisible by 9, the number is also divisible by 9.

**Ex** 39681 :  $3 + 9 + 6 + 8 + 1 = 27$  is divisible by 9, hence the number is also divisible by 9.

**Divisibility by 10:**

**Rule :** Any number which ends with zero is divisible by 10. There is no need to discuss this rule.

**Divisibility by 11:**

**Rule :** If the sums of digits at odd even places are equal or differ by a number divisible by 11, then the number is also divisible by 11.

**Ex** 1: 3245682 :  $S1 = 3 + 4 + 6 + 2 = 15$  and  $S2 = 2 + 5 + 8 = 15$  As  $S1 = S2$ , the number is divisible by 11.

**Divisibility by 12:**

**Rule :** Any number which is divisible by both 4 and 3, is also divisible by 12. To check the divisibility by 12, we 1. first divide the last two-digit number by 4. If it is not divisible by 4, the number is not divisible by 12. If it is divisible by 4 then 2. check whether the number is divisible by 3 or not.

**Ex 1:** 135792 : 92 is divisible by 4 and also  $(1+3+5+7+9+2=)27$  is divisible by 3; hence the number is divisible by 12.

**Divisibility by 13:**

Rule :Oscuator for 13 is 4 (see note). But time, our osculator is not negative (as in case of 7). It is 'one-more' osculator. So, the working principle will be different now. This can be seen in the following examples.

**Ex 1:**Is 143 divisible by 13?

**Solution :**  $14\ 3 : 14 + 3 \times 4 = 26$

**Divisibility by 14:**

Rule: Any number which is divisible by both 2 and 7, in also divisible by 14. That is, the number's last digit should be even and at the same time the number should be divisible by 7.

**Divisibility by 15:**

Rule: Any number which is divisible by both 3 and 5 is also divisible by 15.

**Divisibility by 16:**

Rule: Any number whose last 4 digit number is divisible by 16 is also divisible by 16.

**Divisibility by 17:**

Negative osculator for 17 is 5 (see note). The working for this is the same as in the case of 7.

**Ex1:** Check the divisible of 1904 by 17

**Solution :**  $190\ 4 : 190 - 5 \times 4 = 170$

Since 170 is divisible by 17, the given number is also divisible by 17.

**Note :** students are suggested not to go upto the last calculation. Whenever you find the number divisible by the given number on right side of your calculation stop further calculation and conclude the result.

**Divisibility by 18:**

**Rule :** Any number which is divisible by 9 and has its last digit even or zero, is divisible by 18.

**Ex1:**926565 : digit -sum is a multiple of nine

(i.e. divisible by 9) and unit digit(8) is even, hence the number is divisible by 18.

**Divisibility by 19:**

If you recall, the 'one- more' osculator for 19 is 2. The method is similar to that of 13, which is well known to you.

### 3. Concepts on HCF & LCM

HCF & LCM are acronym for words, Highest common factor and Lowest common multiple respectively.

#### 1. H. C. F

While we all know what a multiplication is like  $2 * 3 = 6$ . HCF is just the reverse of multiplication which is known as Factorization.

Now factorization is breaking a composite number into its prime factors. Like  $6 = 2 * 3$ , where 6 is a composite number and 2 & 3 are prime number.

“In mathematics, the Highest Common Factor (HCF) of two or more integers is the largest positive integer that divides the numbers without a remainder. For example, the HCF of 8 and 12 is 4.”

Calculation

##### – By Prime Factorizations

Highest Common Factor can be calculated by first determining the prime factors of the two numbers and then comparing those factors, to take out the common factors.

As in the following example: HCF (18, 42), we find the prime factors of  $18 = 2 * 3 * 3$  and  $42 = 7 * 2 * 3$  and notice the “common” of the two expressions is  $2 * 3$ ; So  $HCF(18, 42) = 6$ .

##### – By Division Method

In this method first divide a higher number by smaller number.

Put the higher number in place of dividend and smaller number in place of divisor.

Divide and get the remainder then use this remainder as divisor and earlier divisor as dividend.

- Do this until you get a zero remainder. The last divisor is the HCF.
- If there are more than two numbers then we continue this process as we divide the third lowest number by the last divisor obtained in the above steps.

First find H.C.F. of 72 and 126

$$\begin{array}{r}
 72 \overline{)126} \underline{1} \\
 72 \\
 \hline
 54 \overline{)72} \underline{1} \\
 54 \\
 \hline
 18 \overline{)54} \underline{3} \\
 54 \\
 \hline
 0
 \end{array}$$

If there are more than two numbers then we continue this process as we divide the third lowest number by the last divisor obtained in the above steps.

H.C.F. of 72 and 126 = 18

#### 2. L.C.M

The Least Common Multiple of two or more integers is always divisible by all the integers it is derived from.

**Ex:** 20 is a multiple of 5 because  $5 \times 4 = 20$ , so 20 is divisible by 5 and 2. Because 10 is the smallest positive integer that is divisible by both 5 and 2, it is the least common multiple of 5 and 4.

LCM can also be understood by this example:

Multiples of 5 are:

5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70 ...

**And the multiples of 6 are:**

6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, ...

**Common multiples of 5 and 6 are:**

30, 60, 90, 120, ....

Hence, the lowest common multiple is simply the first number in the common multiple list i.e 30.

Calculation

➤ **By Prime Factorizations**

The prime factorization theorem says that every positive integer greater than 1 can be written in only one way as a product of prime numbers.

First, find the factor of each number and express it as a product of prime number powers.

Like  $9 = 3^2$ ,  $48 = 2^4 \times 3$ ,  $21 = 3 \times 7$

Then, write all the factors with their highest power like  $2^4$ ,  $3^2$ , and  $7$ . And multiply them to get their LCM.

Hence, LCM (9, 21, and 48) is  $2^4 \times 3^2 \times 7 = 1008$ .

➤ **By Division Method**

Here, divide all the integers by a common number until no two numbers are further divisible. Then multiply the common divisor and the remaining number to get the LCM.

$$\underline{2 \mid 72, 240, 196}$$

$$\underline{2 \mid 36, 120, 98}$$

$$\underline{2 \mid 18, 60, 49}$$

$$\underline{3 \mid 9, 30, 49}$$

$$\quad \mid 3, 10, 49$$

L.C.M. of the given numbers = Product of divisors and the remaining numbers

$$= 2 \times 2 \times 2 \times 3 \times 3 \times 10 \times 49$$

$$= 72 \times 10 \times 49 = 35280.$$

➤ **Relation between L.C.M. and H.C.F. of two natural numbers**

The product of L.C.M. and H.C.F. natural numbers = The product of the of two numbers.

Ex: LCM (8, 28) = 56 & HCF (8, 28) = 4

Now,  $8 \times 28 = 224$  and also,  $56 \times 4 = 224$

➤ **HCF & LCM Fractions**

Formula for finding the HCF & LCM of a fractional number.

HCF of fraction = HCF of numerator / LCM of denominator

LCM of Fraction = LCM of Numerator / HCF of Denominator

### 4. Problem on Ages

**By the conventional method :-**

**Ex. 1:**

The age of the father 3 years ago was 7 times the age of his son. At present, the father’s age is five times that of his son. What are the present ages of the father and the son?

Solution:

Let the present age of son = x yrs

Then, the present age of father = 5x yr

3 years ago

$$7(x - 3) = 5x - 3$$

Or,  $7x - 21 = 5x - 3$  Or,  $2x = 18$   $x = 9$  yrs

Therefore, son’s age = 9 years , Father’s age = 45 years

➤ **Short Cut = Son’s age =  $\frac{t1(x-1)}{x-y}$**

$$\frac{3 \times (7 - 1)}{7 - 5}$$

➤ **Ex. 2:**

At present, the age of the father is five times the age of his son. Three years hence, the father’s age would be four times that of his son. Find the present ages of the father and the son.

➤ **Solution:**

Let the present age of son = x yrs

Then, the present age of father = 5x yrs

3 yrs hence,

$$4(x+3) = 5x+3$$
 Or,  $4x + 12 = 5x + 3$   $x = 9$  yrs.

Therefore, son’s age = 9 yrs and father’s age = 45 years

➤ **Short Cut : Son’s age =  $\frac{t1(x-1)}{x-y}$**

$$= \frac{3 \times (4 - 1)}{5 - 4}$$

➤ **Ex. 3:**

Three years earlier, the father was 7 times as old as his son. Three years hence, the father’s age would be four times of his son. What are the present ages of the father and the son?

Let the present age of son = x yrs , The present age of father = y yrs

3 yrs earlier,  $7(x - 3) = y - 3$  or,  $7x - y = 18$ .....(i)

3 yrs hence,  $4(x+3) = y + 3$

Or,  $4x + 12 = y + 3$  or,  $4x - y = - 9$  .....(ii)

Solving (1) & (2) we get,

$x = 9$  yrs &  $y = 45$  yrs

➤ **Short Cut : Son’s age =  $\frac{t1(x-1)}{x-y} = \frac{3 \times (4 - 1)}{5 - 4}$**

$$5 - 4$$

**Ex. 3:**

Three years earlier, the father was 7 times as old as his son. Three years hence, the father’s age would be four times of his son. What are the present ages of the father and the son?

Let the present age of son = x yrs



The present age of father = y yrs

3 yrs earlier,  $7(x - 3) = y - 3$  or,  $7x - y = 18$ .....(i)

3 yrs hence,  $4(x+3) = y + 3$

Or,  $4x + 12 = y + 3$  or,  $4x - y = -9$  .....(ii)

Solving (1) & (2) we get,

$x = 9$  yrs &  $y = 45$  yrs

➤ **Short Cut : Son's age** =  $\frac{t^2(z-1)+t^1(x-1)}{(x-z)} = \frac{3 \times (4 - 1) + 3(7 - 1)}{7 - 4}$

$$= \frac{9+18}{3}$$

➤ **Ex. 4:**

The sum of the ages of a mother and her daughter is 50 yrs. Also 5 yrs ago, the mother's age was 7 times the age of the daughter. What are the present ages of the mother and the daughter?

➤ **Solution:**

Let the age of the daughter be x yrs.

Then, the age of the mother is  $(50 - x)$  yrs

5 yrs ago,  $7(x - 5) = 50 - x - 5$

Or,  $8x = 50 - 5 + 35 = 80$

$x = 10$

Therefore, daughter's age = 10 yrs

mother's age = 40 yrs

➤ **Short Cut : Total ages + No. of yr ago (Times - 1)**

$$= \frac{50 + 5(7 - 1)}{7 + 1}$$

➤ **Ex. 5:**

The sum of the ages of a son and father is 56 yrs. After 4 yrs, the age of the father will be three times that of the son. What is the age of the son?

➤ **Solution:**

Let the age of the son be x yrs. Then, the age of the father is  $(56 - x)$  yrs.

After 4 yrs,  $3(x+4) = 56 - x + 4$

➤ **Ex. 6:**

The ratio of the ages of the father and the son at present is 6 : 1. After 5 years, the ratio will become 7 : 2. What is the present age of the son?

➤ **Solution:** Father : Son

Present age = 6 : 1

After 5 yrs = 7 : 2

Son's age =  $1 \times \frac{5(7-2)}{6 \times 2 - 7 \times 1}$

Father's age =  $6 \times \frac{5(7-2)}{6 \times 2 - 7 \times 1}$

➤ **Short Cut : Son's Age** =  $y \times \frac{T(a-b)}{\text{Difference of cross products}}$

And father's age =  $x \times \frac{T(a-b)}{\text{Difference of cross products}}$

**Father : Son**

Present age = x : y

After T yrs = a : b

## 5. Average

### What is Average?

The result obtained by adding several quantities together and then dividing this total by the number of quantities is called Average.

Here is average based some fact and formula and some average shortcut tricks examples.

$$\text{Formula: Average} = \frac{\text{Sum of observations}}{\text{Number of observation}}$$

### Find the Average Speed

1.

If a person travels a distance at a speed of  $x$  km/hr and the same distance at a speed of  $y$  km/hr then the average speed during the whole journey is given by  $\frac{2xy}{x+y}$

2.

If a person covers  $A$  km at  $x$  km/hr and  $B$  km at  $y$  km/hr and  $C$  km at  $z$  km/hr, then the average speed in covering the whole distance is-

$$= \frac{A+B+C}{\frac{A}{x} + \frac{B}{y} + \frac{C}{z}}$$

When a person leaves the group and another person joins the group in place of that person then-

If the average age is increased,

Age of new person

$$= \text{Age of separated person} + (\text{Increase in average} \times \text{total number of persons})$$

➤ If the average age is decreased,

Age of new person

$$= \text{Age of separated person} - (\text{Decrease in average} \times \text{total number of persons})$$

### When a person joins the group-

➤ In case of increase in average

Age of new member

$$= \text{Previous average} + (\text{Increase in average} \times \text{Number of members including new member})$$

➤ In case of decrease in average

Age of new member

$$= \text{Previous average} - (\text{Decrease in average} \times \text{Number of members including new member})$$

1. In the Arithmetic Progression there are two cases when the number of terms is odd and second one is when number of terms is even
2. So when the number of terms is odd the average will be the middle term.
3. when the number of terms is even then the average will be the average of two middle terms.

**Ex1:** what will be the average of 13, 14, 15, 16, 17?

**Solution:** Average is the middle term when the number of terms is odd, but before that let's check whether it is in A.P or not, since the common difference is same so the series is in A.P. So the middle term is 15 which is our average of the series.

**Ex2:** What will be the average of 13, 14, 15, 16, 17, 18?

**Solution:** We have discussed that when the number of terms are even then the average will be the average of two middle terms. Now the two middle terms are 15 and 16, but before that the average we must check that the series should be A.P. Since the common difference is same for each of the term we can say that the series is in A.P. and the average is  $\frac{16+15}{2} = 15.5$

**Ex3:** The average of five numbers is 29. If one number is excluded the average becomes 27. What is the excluded number ?

**Solution:** let the excluded number is  
 $= (29 \times 5) - (27 \times 4) = 145 - 108 = 37$

**Ex 4:** Find the average of first 20 natural numbers?

**Solution :** Sum of first n natural numbers =  $n(n + 1) / 2$

So, we can find easily average of first 20 natural numbers =  $\frac{20 \times 21}{2} = 210$

So, then Required average is =  $\frac{210}{20} = 10.5$

**Ex5:** Find the average of first 20 multiples of 5 .

**Solution :Required average =**  $\frac{5(1+2+3+\dots+20)}{20 \times 2}$

$$= \frac{5 \times 20 \times 21}{20 \times 2} = \frac{2100}{40} = 52.5$$

**So the Required average is 52.5**

## 6. Ratio and Propotion

The number of times one quantity contains another quantity of the same kind is called the ratio of the two quantities. Observe carefully that the two quantities must be of the same kind. There can be a ratio between Rs.20 and Rs 30, but there can be no ratio between Rs 20 and 30 mangoes.

The ratio 2 to 3 is written as 2 : 3 or  $\frac{2}{3}$ .

2 and 3 are called the terms of the ratio.

2 is the first term and 3 is the second term.

### Consequent

In the ratio 2 :3 , 2 is the antecedent and 3 is the consequent

### Note

1. The word 'consequent' literally means 'that which goes after'.
2. since the quotient obtained on dividing one concrete quantity by another of the same kind is an abstract number, the ratio between two concrete quantities of the same kind is an abstract number. Thus, the ratio between Rs 5 and 7 is 5:7.

### Compound Ratio

Ratios are compound by multiplying together the antecedents for a new antecedent, and the consequents for a new consequent.

**Ex: find the ratio compound of the ratio:**

4:3, 9: 13, 26 : 5 and 2:15

**Solution:**

$$\text{The required ratio} = \frac{4 \times 9 \times 26 \times 2}{3 \times 13 \times 5 \times 15}$$

### Inverse Ratio

If 2:3 be the given ratio, then 3 : 2 is  $\frac{1}{2} : \frac{1}{3}$  called its inverse or reciprocal ratio.

If the antecedent = the consequent, the ratio is called the ratio of equality, such as 3:3.

If the antecedent >the consequent, the ratio is called the ratio of greater inequality, as 4 :3

If the antecedent <the consequent,

the ratio is called the ratio of less inequality, as 3 : 4.

**Ex: Divide 1458 into two parts such that one may be to the other as 2: 7.**

**Solution:**

$$1\text{st part} = 2 \times \frac{1458}{2+7} = 2 \times \frac{1458}{9} = 324$$

$$2\text{nd part} = 7 \times \frac{1458}{9} = 1134$$

### Proportion

Consider the two ratios:

1<sup>st</sup>ratio 2<sup>nd</sup> ratio

6 : 18    8 : 24

Since 6 is one-third of 18, and 8 is one-third of 24, the two ratios are equal. The equality of ratio is called proportion.

The number 6, 18, 8 and 24 are said to be in proportion. The proportion may be written as

6 : 18 :: 8 : 24 (6 is to 18 as 8 is to 24)

or, 6 :18 = 8:24 or  $\frac{6}{18} = \frac{8}{24}$

The numbers 6, 18, 8 and 24 are called the terms. 6 is the first terms, 18 the second, 8 the third, and 24 the fourth. The first and fourth terms, i.e. 6 and 24 are called the extremes (end terms), and the second and the third terms, i.e., 18 and 8 are called the means (middle terms). 24 is called the fourth proportional.

➤ **Type 1:**

If your quantities be in proportion, the product of the extremes is equal to the product of the means.

Let the four quantities 3, 4, 9 and 12 be in proportion. We have,

$$\begin{aligned} 3 / 9 &= 4 / 12 = \frac{3}{4} \times 4 \times 12 = 9 / 12 \times 4 \times 12 \\ &= \mathbf{3 \times 12 = 9 \times 4} \end{aligned}$$

➤ **Type 2:**

Three quantities of the same kind are said to be in continued

proportion when the ratio of the first to the second is equal to the ratio of the second the third.

The second quantity is called the mean proportional between the first and the third ; and the third quantity is called the third proportional to the first and second.

Thus, 9, 6 and 4 are in continued proportion for 9 :6 ::6 :4. Hence, 6 is the mean proportional between 9 and 4, and 4 is the third proportional to 9 and 6.

**Ex1:**

Find the fourth proportional to the numbers 6, 8 and 15.

**Solution:**

If x be the fourth proportional, then 6 : 8 = 15:x

$$8 \times 15 = 20$$

**Ex2:**

Find the third proportional to 15 and 20.

**Solution**

Here, we have to find a fourth proportional to 15, 20 and 20. If x be the fourth proportional, we have 15 :20 = 20:x

$$x = \frac{20 \times 20}{15} = \frac{80}{3} = 26\frac{2}{3}$$

**Direct Proportion**

Consider the following example .

**Ex. 1: If 5 ball cost Rs 8, what do 15 balls cost?**

**Solution:**

It will be seen at once that if the number of balls be increased 2, 3, 4,....times, the price will also be increased 2, 3, 4... times. Therefore, 5 balls is the same fraction of 15 balls that the cost of balls is of the cost of 15 balls.

5 balls : 15 balls :: Rs8 : required cost

$$\text{the required cost} = \text{Rs. } 15 \times 8 / 5 = \text{Rs. } 24/-$$

This, example is an illustration of what is called direct proportion. In this case, the two given quantities are so related to each other that if one of them is multiplied (or divided) by any number, the other is also multiplied (or divided) by the same number.

➤ **Inverse Proportion**

**Consider the following example**

**Ex 1:**

If 15 men can reap a field in 28 days, in how many days will 10 men reap it?

**Solution:**

Here, it will be seen that if the number of men be increased 2, 3, 4, ... times, the number of days will be decreased 2, 3, 4, ... times. Therefore, the inverse ratio of the number of men is equal to the ratio of the corresponding number of days.

Or, 10 : 15 :: 28 : the required number of days

$$\therefore \frac{1}{15} : \frac{1}{10} :: 28 : \text{the required number of days}$$

**the required number of days =  $15 \times 28 / 10 = 42$**

The above example is an illustration of what is called inverse proportion. In this case, the two quantities are so related that if one of them is multiplied by any number, the other is divided by the same number, and vice versa.

**Ex 2:**

The employer decreases the number of his employees in the ratio 10 : 9 and increase their wages in the ratio 11 : 12. What is the ratio of his two expenditures?

**Solution:**

The required ratio =  $10 \times 11 : 9 \times 12 = 55 : 54$

**Ex3:**

A vessel contains liquid A and B in ratio 5 : 3. If 16 liters of the mixture are removed and the same quantity of liquid B is added, the ratio becomes 3 : 5. What quantity does the vessel hold?

**Solution:**

**Quicker Method:**

When the ratio is reversed (i.e., 5:3 becomes 3 : 5), we can use the formula; Total quantity =

$$= \frac{(5 + 3)^2}{5^2 - 3^2} \times \text{Quantity of A in the removed mixture}$$

$$= \frac{64}{16} \times 10 = 40 \text{ liters}$$

**7. Percentage**

➤ **Percentage**

- Percentage is per-cent which means parts per hundred.

➤ **Percent sign**

- The percent sign is the symbol: %
- It is written to the right side of the number: 50%

➤ **Percentage Definition**

- Percentage is a value that represents the proportion of one number to another number. 1 percent represents 1/100 fraction.

If we have to convert percentage into fraction than it is divide by 100.

**Example 1:-** if we write 45% then its equal to 45/100 or in fraction 9/20 or in decimal 0.45

If we have to convert fraction into percentage we have to multiple with 100.

**Example 2:-** if we write 3/5 in fraction it is equal to 60% = 3/5 × 100 = 60.

**Convert Percentage into Decimal:**

- 20% = 20/100 = 0.5

**Convert Decimal Into Percentage:**

- 0.25 = (0.25 × 100) % = 25%
- 1.50 = (1.50 × 100) % = 150%

➤ **Here is a table of commonly used values shown in Percent, Decimal and Fraction**

Percent	Decimal	Fraction
1%	0.01	1/100
5%	0.05	1/20
10%	0.1	1/10
12½%	0.125	1/8
20%	0.2	1/5
25%	0.25	1/4
33⅓%	0.333...	1/3
50%	0.5	1/2
75%	0.75	3/4
80%	0.8	4/5
90%	0.9	9/10
99%	0.99	99/100
100%	1	
125%	1.25	5/4
150%	1.5	3/2

**Types of Formulas and Short Tricks****Type 1 : Percentage Increase/Decrease:**

If the price of a commodity increases by R%, then the reduction in consumption so as not to increase the expenditure is:

$$\left[ \frac{R}{100 + R} \right] \times 100\%$$

If the price of a commodity decreases by R%, then the increase in consumption so as not to decrease the expenditure is:

$$\left[ \frac{R}{100 - R} \right] \times 100\%$$

**Type 2: Results on Population:**

Let the population of a town be P now and suppose it increases at the rate of R% per annum, then:

1. Population after n years =  $P(1 + R/100)^n$
2. Population n years ago =  $P/(1 + R/100)^n$

**Type 3: Results on Depreciation:**

Let the present value of a machine be P. Suppose it depreciates at the rate of R% per annum. Then:

1. Value of the machine after n years =  $P(1 - R/100)^n$
2. Value of the machine n years ago =  $P/[(1 - R/100)^n]$
3. If A is R% more than B, then B is less than A by =  $\left[ \frac{R}{100 + R} \right] \times 100\%$
4. If A is R% less than B, then B is more than A by =  $\left[ \frac{R}{100 - R} \right] \times 100\%$

**Note:** For two successive changes of x% and y%, net change =  $\{x + y + xy/100\}\%$



## 8. Profit and Loss

➤ **Cost Price :**

The price, at which an article is purchased, is called its cost price, abbreviated as C.P.

➤ **Selling Price :**

The price, at which an article is sold, is called its selling price, abbreviated as S.P.

- Profit/gain = SP – CP
- Profit % = Profit/(C P)×100
- S P = (100+gain % )/100 ×C P
- C P = 100/(100+gain % )×S P

➤ **Loss :**

If the overall Cost Price exceeds the selling price of the buyer then he is said to have incurred loss.

- Loss = C P – S P
- Loss % = LOSS/(C P)×100
- S P = (100-loss %)/100×C P
- C P = 100/(100-loss % )×S P

➤ **Profit and Loss Based on Cost Price :**

To find the percent gain or loss, divide the amount gained or lost by the cost and multiply it by 100.

**Example:**

A toy that cost 80 rupees is sold at a profit of 20 rupees. Find the percent or rate of profit.

**Answer:**

Gain/cost × 100 = % profit.

$20/80 \times 100 = 25\%$ . – Answer

To find the loss and the selling price when the cost and the percent loss are given, multiply the cost by the percent and subtract the product from the cost.

**Example :**

A damaged chair that cost Rs.110 was sold at a loss of 10%. Find the loss and the selling price.

**Answer:**

Cost x percent loss = loss.

$110 \times 1/10 = 11$ , loss.

Cost – loss = selling price.

$110 - 11 = 99$ , selling price.

**Profit and Loss Based on Selling Price**

To find the profit and the cost when the selling price and the percent profit are given, multiply the selling price by the percent profit and subtract the result from the selling price.

**Example :** A toy is sold for Rs. 6.00 at a profit of 25% of the selling price. Separate this selling price into cost and profit.

**Answer :** Selling price  $\times$  % profit = profit.

Selling price = profit + cost.

$6.00 \times .25 = 1.50$ , profit.

$6.00 - 1.50 = 4.50$ , cost.

To find the loss and the cost when the selling price and the percent loss are given, multiply the selling price by the percent loss and subtract the result from the selling price.

**Example :** At a sale, neckties selling at Rs. 50.00 are sold at a loss of 60% of selling price. What is the loss and the original cost?

**Answer:** Selling price  $\times$  % loss = loss.

Selling price + loss = cost.

$50.00 \times .60 = 30.00$ , loss.

$50.00 - 30.00 = 20.00$ , cost.

- To find the selling price when the cost and the percent loss are given, add the percent loss to 100% and divide the cost by this sum.

**Example :** Socks that cost 7.00 per pair were sold at a loss of 25% of selling price. What was the selling price?

**Answer:**

Cost / (100% + % loss) = selling price.

$7.00 / 1.25 = 5.60$ , selling price.

- To find the selling price when the profit and the percent profit are given, or to find the selling price when the loss and the percent loss are given, divide the profit or loss by the percent profit or loss.

**Note:**

This rule should be compared with the one under Profit and Loss Based on Cost. The two rules are exactly similar except that in one case 100% represents cost while in the other case 100% represents selling price.

**Example :** A kind of tape is selling at a profit of 12% of selling price, equal to 18 per yard. What is the selling price of the tape?

**Answer:** Profit / % profit = selling price.

$18 / .12 = 1.50$  selling price.

**To find the percent profit or loss, divide the amount gained or lost by the selling price.**

**Example:**

A candy bar sells for 1.30 at a profit of 65. What percent of profit on selling price does this represent?

**Answer:**

Gain / selling price = % profit.

$65 / 1.30 = .5$  or 50% profit.

- **Mark-up Price :**

Generally the SP is less than the marked price (MP) the difference MP – SP is known as discount, D.

- **Discount = M P – S P**

Discount %, D% = (Discount) / (M P)  $\times$  100

To reduce percent loss on cost to percent loss on selling price, divide percent loss on cost by 100% minus percent loss on cost.

**Example 1:** 20% loss on cost is what percent loss on selling price?

**Answer:** % loss on cost / (100% – % loss on cost) = % loss on selling price.

$$0.20 / 80 = .0025 \text{ or } 25\% \text{ loss on selling price}$$

- To reduce percent loss on selling price to percent loss on cost, divide percent loss on selling price by 100% plus percent loss on selling price.

**Example 2:** 20% loss on selling price is what percent loss on cost?

**Answer:** % loss on selling price / (100% + % loss on selling price) = % loss on cost.

$$.20 / 1.20 = .16666 \text{ or } .16.67\% \text{ loss on cost.}$$

- To reduce percent mark-up (percent profit on cost) to percent profit on selling price, divide percent mark-up by 100% plus percent mark-up.

**Example 3:** A coat marked up 60% carries what percent of profit on selling price?

**Answer :** % profit on cost / ( 100% + % profit on cost ) = % profit on selling price.

$$.60 / 1.60 = .375 \text{ or } 37.5\% \text{ on selling price.}$$

Here we are providing you all the types of questions that have been asked in SSC Exams and How to solve it in an Easy way with Grade Stack methods:-

**Type 1**

**Example :**

The cost price of 40 articles is the same as the selling price of 25 articles. Find the gain per cent. **(CGL-2012)**

- (a) 65%                      (b) 60%                      (c) 15%                      (d) 75%

**Answer:**

(b) Gain per cent  
 = ( 40 - 25 ) / 25 × 100  
 = 15 / 25 × 100 = 60%

**Short cut:**

In Above question We take x = 40 , y = 25  
 Then Gain % = (x –y) x 100/ y

**Type2:**

**Example :**

Bananas are bought at the rate of 6 for Rs. 5 and sold at the rate of 5 for Rs. 6. Profit per cent is: **(CGL-2004)**

- (a) 36%                      (b) 42%                      (c) 44%                      (d) 48%

**Answer :**

(c) To avoid fraction, let the number of bananas bought  
 LCM of 5 and 6 = 30  
 CP of 30 bananas = 5 x 6 = Rs. 30  
 SP of 30 Bananas = 6 x 5 = Rs. 30  
 Profit = Rs. (30-30) = Rs. 0 Profit %= 0/30×100 = 0%

**Short cut :**

$$[(6 \times 6 - 5 \times 5) / (5 \times 5)] \times 100 = 44\%$$

**Example :**

A man bought oranges at the rate of 8 for Rs 34 and sold them at the rate of 12 for Rs. 57. How many oranges should be sold to earn a net profit of Rs 45? **(CGL-2011)**

- (a) 90                      (b) 100                      (c) 135                      (d) 150

**Answers: (a) Let the man buy 24 (LCM of 8 and 12) oranges.**

C.P. of 24 oranges =  $34/8 \times 24 = \text{Rs. } 102$

S.P. of 24 oranges =  $27/12 \times 24 = \text{Rs. } 114$

Gain =  $114 - 102 = \text{Rs. } 12$

Rs. 12 = 24 oranges

Rs. 45 =  $24/12 \times 45 = \text{90 oranges}$

**Type 5:**

**Example :**

A dealer sold two types of goods for Rs 10,000 each. On one of them, he lost 20% and on the other he gained 20%.

His gain or loss per cent in the entire transaction was **(CGL-2012)**

- (a) 2% loss                      (b) 2% gain                      (c) 4% gain                      (d) 4% loss

**Answers:**

(d) Here, S.P. is same, Hence there is always a loss. Loss per =  $(20 \times 20) / 100 = \text{4\%}$

**Grade stack Trick**

Loss % =  $(n^2) / 100 = (20)^2 / 100 = \text{4\%}$  Where **n = 20**

**Type 6:**

**Example :**

On selling an article for Rs170, a shopkeeper loses 15%. In order to gain 20%, he must sell that article at rupees:

**(CGL-2013)**

- (a) 215.50                      (b) 212.50                      (c) 240                      (d) 210

**Answer ;**

(c) C.P. of article =  $(200 \times 120) / 100 = \text{Rs. } 240$

**Type 7:**

**Example :**

An article is sold at a loss of 10%. Had it been sold for Rs. 9 more, there would have been a gain of  $12 \frac{1}{2}\%$  on it. The cost price of the article is **(CGL – 2002)**

- (a) Rs. 40                      (b) Rs. 45                      (c) Rs. 50                      (d) Rs. 35

**Answers: (a) Let the cost price of the article = Rs. x**

S.P. at 10% loss =  $x \times 90 / 100 = \text{Rs. } 9x/10$

1. P. at  $12 \frac{1}{2}\%$  gain  $x \times (100 + 12 \frac{1}{2}) / 100 = \text{Rs. } 225x/200$

According to the question  $9x/10 + 9 = 225x/200$

$180x + 1800 = 225x$  **x = Rs. 40**

**Type 8:****Example :**

A sells a suitcase to B at 10% profit. B sells it to C at 30% profit. If C pays Rs 2860 for it, then the price at which a bought it is (CGL-2013)

- (a) 1000                      (b) 1600                      (c) 2000                      (d) 2500

**Answer:** (c) If the C.P. of the suitcase for A be Rs. x, then

$$x \times 110/100 \times 130/100 = 2860$$

$$x = (2860 \times 100 \times 100) / (110 \times 130) = \text{Rs. 2000}$$

**Type 9:****Example :**

Arun marks up the computer he is selling by 20% profit and sells them at a discount of 15%. Arun's net gain percent is (CGL-2013)

- (a) 4                              (b) 2                              (c) 3.5                              (d) 2.5

**Answer (b)**

**Grade stack method:**  $r_1 = 20$ ,  $r_2 = 15$

$$\text{Formula} = r_1 - r_2 - (r_1 \times r_2) / 100$$

$$(20 - 15 - (20 \times 15) / 100) = 20 - 18 = 2\%$$

**Type 10 :****Example :**

A tradesman sold an article at a loss of 20%. If the selling price had been increased by Rs. 100, there would have been a gain of 5%. The cost price of the article was: (CGL-2004)

- (a) Rs. 200                      (b) Rs. 25                      (c) Rs. 400                      (d) Rs. 250

**Answer (c)** Let the C.P. of article be Rs. x.

$$105\% \text{ of } x - 80\% \text{ of } x = \text{Rs. } 100$$

$$25\% \text{ of } x = \text{Rs. } 100 \quad x = \text{Rs. } (100 \times 100) / 25 = \text{Rs. 400}$$

## 9. Speed, Distance & Time

### Important formula and facts of Time and Distance :

Speed is a very basic concept in motion which is all about how fast or slow any object moves. We define speed as distance divided by time. Distance is directly proportional to Velocity when time is constant.

- **Speed Distance Time formula mathematically written as:-**

$$\text{Speed} = \text{distance}/\text{time}$$

- **Formula of Time :-time = distance/ Speed**

**So Formula of time is, time is equal to distance upon speed.**

- **Formula of Distance:-Distance = (Speed \* Time)**

$$\text{Distance} = \text{Rate} \times \text{Time}$$

- **To find rate, divide through on both sides by time:**

$$\text{Rate} = \text{Distance}/\text{Time}$$

- Rate is distance (given in units such as miles, feet, kilometers, meters, etc.) divided by time (hours, minutes, seconds, etc.). Rate can always be written as a fraction that has distance units in the numerator and time units in the denominator, e.g., 25 miles/1 hour. So distance is simply speed into time.

**Note: All three formula that formula of speed, formula of time and formula of distance are interrelated.**

- Convert from kph (km/h) to mps(m/sec) For converting kph(kilometre per hour) to mps(meter per second) we use following formula  $\text{km/hr}=(x*5/18) \text{ m/sec}$

### Convert from mps(m/sec) to kph(km/h)

For converting mps(meter per second) to kph(kilometre per hour) we use following formula

$$x \text{ m/sec} = X * (18/5) \text{ km/h}$$

- If the ratio of the speeds of A and B is  $a : b$ , then the ratio of the times taken by them to cover the same distance is  $:1/a : 1/b$  or  $b : a$
- Suppose a man covers a certain distance at  $x \text{ km/hr}$  and an equal distance at  $y \text{ km/hr}$ . Then, the average speed during the whole journey is  $:- 2xy/(x + y)$
- Relation between time, distance and speed: Speed is distance covered by a moving object in unit time:  
Speed= Distance covered/ Time Taken

### ➤ Rule : 1

Ratio of the varying components when other is constant: Consider 2 objects A and B having speed  $S_a$ ,  $S_b$ .

Let the distance travelled by them are  $D_a$  and  $D_b$  respectively and time taken to cover these distances be  $T_a$  and  $T_b$  respectively.

**Let's see the relation between time, distance and speed when one of them is kept constant**

1. When speed is constant distance covered by the object is directly proportional to the time taken. ie; If  $S_a=S_b$  then  $D_a/D_b = T_a/T_b$
2. When time is constant speed is directly proportional to the distance travelled. ie; If  $T_a=T_b$  then  $S_a/S_b=D_a/D_b$
3. When distance is constant speed is inversely proportional to the time taken ie if speed increases then time taken to cover the distance decreases. ie; If  $D_a=D_b$  then  $S_a/S_b= T_b/T_a$

➤ **Rule 2:**

We know that when distance travelled is constant, speed of the object is inversely proportional to time taken

1. If the speeds given are in Harmonic progression or HP then the corresponding time taken will be in Arithmetic progression or AP

**Average Speed=  $(n)/[(1/s_1 + 1/s_2+ \dots 1/s_n)]$**

**2. If the speeds given are in AP then the corresponding time taken is in HP**

**Distance Constant:**

If distance travelled for each part of the journey, ie  $d_1 = d_2 = d_3 = \dots = d_n = d$ , then average speed of the object is Harmonic Mean of speeds.

Let each distance be covered with speeds  $s_1, s_2, \dots, s_n$  in  $t_1, t_2, \dots, t_n$  times respectively.

Then  $t_1 = d/s_1 \quad t_2 = d/s_2 \quad t_n = d/s_n$

**then, Average Speed=**

$[(d + d + d + \dots n \text{ times})] / [d/s_1 + d/s_2 + d/s_3 + \dots d/s_n]$

**Average Speed=  $(n)/[(1/s_1 + 1/s_2+ \dots 1/s_n)]$**

**Time Constant:**

- If time taken to travel each part of the journey, ie  $t_1=t_2=t_3=\dots=t_n=t$ , then average speed of the object is Arithmetic

Let distance of parts of the journey be  $d_1, d_2, d_3, \dots, d_n$  and let them be covered with speed  $s_1, s_2, s_3, \dots, s_n$  respectively.

Then  $d_1=s_1 t, d_2=s_2 t, d_3=s_3 t, \dots d_n=s_n t$

then , **Average Speed=  $[(s_1/t+ s_2/t+ \dots s_n/t)/(t + t+ \dots n \text{ times})]$**

**Average Speed=  $(s_1+ s_2+s_3+ \dots + s_n)/n$**

**Relative Speed:**

- If two objects are moving in same direction with speeds a and b then their relative speed is  $|a-b|$
- If two objects are moving in opposite direction with speeds a and b then their relative speed is  $(a+b)$

**Some Question on Above formulas**

**Ques 1:**—A man covers a distance of 600m in 2min 30sec. What will be the speed in km/hr?

**Sol:** Speed =Distance / Time =Distance covered = 600m, Time taken = 2min 30sec = 150sec Therefore, Speed=  $600 / 150 = 4 \text{ m/sec} = 4 \text{m/sec} = (4*18/5) \text{ km/hr} = \mathbf{14.4 \text{ km/ hr}}$ .

**Ques 2:**— A car travels along four sides of a square at speeds of 200, 400, 600 and 800 km/hr. Find average speed?

**Sol:** Let x km be the side of square and y km/hr be average speed

Using basic formula, Time = Total Distance / Average Speed

$$x/200 + x/400 + x/600 + x/800 = 4x/y$$

$$= 25x/2400 = 4x/y$$

$$= y = 384$$

**Average speed = 384 km/hr**

**Ques 3:**

A motor car does a journey in 10 hrs, the first half at 21 kmph and the second half at 24 kmph. Find the distance?

**Sol:** Distance =  $(2 \times 10 \times 21 \times 24) / (21 + 24)$

$$= 10080 / 45 = \mathbf{224 \text{ km.}}$$

**Ques 4:**

A boy goes to school at a speed of 3 kmph and returns to the village at a speed of 2 kmph. If he takes 5 hrs in all, what is the distance between the village and the school?

**Sol :**

Let the required distance be x km.

Then time taken during the first journey =  $x/3$  hr. and time taken during the second journey =  $x/2$  hr.

$$x/3 + x/2 = 5 \Rightarrow (2x + 3x) / 6 = 5 \Rightarrow 5x = 30. \Rightarrow x = 6 \mathbf{Required \text{ distance} = 6 \text{ km.}}$$

**Ques 5:**

**Walking of his speed, a person is 10 min late to his office. Find his usual time to cover the distance?**

**Sol :**

$$\text{Usual time} = \text{Late time} / \{1/ (3/4) - 1\} = 10 / (4/3 - 1) = 10 / (1/3) = \mathbf{30 \text{ minutes.}}$$



## 10. Boat and Stream

➤ **Upstream :**

When the boat moves against the current of the river (i.e. in opposite direction), then the relative speed of the boat is the difference of the speed of the boat and stream. It is known as upstream speed.

Remember it with UP as going up the hill means against the direction of the force (speed) of the river.

If speed of boat or swimmer is  $x$  km/h and the speed of stream is  $y$  km/h then,

➤ **Speed of boat upstream =  $(x - y)$  km/h**

➤ **Downstream :**

When the boat moves with the current of the river (i.e. in same direction), then the relative speed of the boat is the sum of the speed of the boat and stream. It is known as downstream speed.

Remember it with DOWN as going down the hill means towards the direction of the force (speed) of the river.

**If speed of boat or swimmer is  $x$  km/h and the speed of stream is  $y$  km/h then,**

**Speed of boat downstream =  $(x + y)$  km/h**

➤ **Important Points:**

When speed of boat is given then it means speed in the still water, unless it is stated otherwise.

**Some Basic Formulas :**

Speed of boat in still water is = **(Downstream Speed + Upstream Speed)**

Speed of stream is = **(Downstream Speed – Upstream Speed)**

➤ **Types of Questions asked in Previous Exam By SSC**

**Type 1:**

When the distance covered by boat in downstream is same as the distance covered by boat upstream. The speed of boat in still water is  $x$  and speed of stream is  $y$  then ratio of time taken in going upstream and downstream is,

➤ **Short Trick:**

**Time taken in upstream : Time taken in Downstream =  $(x+y)/(x-y)$**

**Example :**

A man can row 9km/h in still water. It takes him twice as long as to row up as to row down. Find the rate of the stream of the river.

**Solution:**

Time taken in upstream : Time taken in Downstream = **2 : 1**

Downstream speed : Upstream speed = **2 : 1**

Let the speed of man =  $B$ , & speed of stream =  $S$

$B + S : B - S = 2/1$

**Stream speed=6km/hr**

**Type 2:**

A boat cover certain distance downstream in  $t_1$  hours and returns the same distance upstream in  $t_2$  hours. If the speed of stream is  $y$  km/h, then the speed of the boat in still water is:

**Short Trick:**

Speed of Boat =  $y [(t_2 + t_1) / (t_2 - t_1)]$

**Example**

A man can row certain distance downstream in 2 hours and returns the same distance upstream in 6 hours. If the speed of stream is 1.5 km/h, then the speed of man in still water is

**Solution:**

By using above formula

$$= 1.5 [(6+2) / (6-2)] = 1.5 * (8/4) = 1.5 * 2 = 3\text{km/h}$$

**Type 3:**

A boat's speed in still water at x km/h. In a stream flowing at y km/h, if it takes it t hours to row to a place and come back, then the distance between two places is

**Short Trick: Distance =  $[t*(x^2 - y^2)]/2x$**

**Example**

A motor boat can move with the speed 7 km/h. If the river is flowing at 3 km/h, it takes him 14 hours for a round trip. Find the distance between two palces?

**Solution: By using above formula**

$$= [14 * (7^2 - 3^2)]/2* 7 = [14 * (49-9)]/2*7 = 14*40/2*7 = 40\text{km}$$

**Type 4:**

A boat's speed in still water at x km/h. In a stream flowing at y km/h, if it takes t hours more in upstream than to go downstream for the same distance, then the distance is

**Short Trick: Distance =  $[t*(x^2 - y^2)]/2y$**

**Example**

A professional swimmer challenged himself to cross a small river and back. His speed in swimming pool is 3km/h. He calculated the speed of the river that day was 1km/h. If it took him 15 mins more to cover the distance upstream than downstream, then find the width of the river?

**Solution: By using the above formula**

$$\text{Distance} = [t*(x^2 - y^2)]/2y = [(15/60) (3^2 - 1^2)]/2*1 = [(1/4) * 8] / 2 = 2/2 = 1 \text{ km.}$$

**Type 5:**

A boat's speed in still water at x km/h. In a stream flowing at y km/h, if it cover the same distance up and down the stream, then its average speed is

**Short Trick:**

**Average speed = upstream \* downstream / man's speed in still water**

Note: The average speed is independent of the distance between the places.

**Example**

Find the average speed of a boat in a round trip between two places 18 km apart. If the speed of the boat in still water is 9km/h and the speed of the river is 3km/h?

**Solution:**

Average speed = upstream \* downstream / man's speed in still water

$$\text{Average speed} = 6 * 12 / 9 = 8\text{km/h}$$

## 11. Time and Work

➤ **Basic Concepts of Work and Time:**

In solving the problems based on time and work, we need to calculate the following parameters.

- ❑ **Time :** – Time taken to complete an assigned job.
- ❑ **Individual time :-** Time needed by single person to complete a job.
- ❑ **Work:-** It is the amount of work done actually.

➤ **Types of Questions and its Short Tricks**

- ❑ Case 1: A complete job will be considered = 1
- ❑ Case 2: Assume a person 'M' complete a job alone in t days, then time taken by 'M' = t
- ❑ Case 3: 1 day's work by any person

$$\left(\frac{1}{\text{individual time}}\right)^{th} = \text{part of total work i.e.} = 1/t$$

**Example:-** Ram can whitewash a building in 17 days. Find the work done by Ram in one day.

**Solution:** Here, time taken by Ram = 17 days, so 1 day's work by Ram = **1/7 th part of total work.**

Case 4: The reciprocal of 1 day's work gives the individual time. i.e., time taken by a single persons to complete the

$$\frac{1}{\text{1 day's work}} \text{ i.e. } \frac{1}{\frac{1}{t}} = t$$

job =

**Example :**Sunny can do 1/5th of an work in 1 day. In how many days can he complete the same work.

**Solution:** Time of completion by Sunny alone = individual time =

$$\frac{1}{\text{1 day's work}} = \frac{1}{\frac{1}{5}} = 5 \text{ days}$$

**Therefore , sunny can complete the job alone in 5 days.**

**Case: 5:**

When more than one person are working on the same piece of work then their combined 1 day's work = sum of 1 day's work by each person. i.e., if A, B and C are three persons working on a job, then (A+B+C)'s 1 day's work = A's 1 day work + B's 1 days work + C's 1 days work.

**Example:** A person 'P' can do a work in 15 days and 'Q' can do it in 20 days. What amount of work is done by P and Q together in one day?

**Solution:** (P+Q)'s 1 day work = P's 1 day work + Q's 1 day work. 1 day's work =  $\frac{1}{\text{individual time}}$

We can find (P+Q)'s 1 day work =  $(1/15 + 1/20)$  th part of total work. So, **1 day work of P and Q = 7/60**

**Corollary:** Work done by A in 1 day = 1 day work of (A+B+C) – (1 day work of B + 1 day work of C) Similarly, Work done by B in 1 day = work done by (A+B+C) in 1 day – (work done by A in 1 day + work done by C in 1 day)

**Case 6:** 1. The reciprocal of combined work done in 1 day gives the time for completion by the persons working together.

i.e., time of completion =  $\frac{1}{\text{Combined}} = 1 \text{ day's work.}$

2. It implies that if three persons, say, A, B and C are working together on a job, then Time for completion of work by Them =  $\frac{1}{(a+b+c)'s \text{ 1st day's work}}$

**Example:**

Three persons Ram, Shyam and Kamal can do a job in 10 days, 12 days and 15 days respectively. In how many days can they finish the job working together?

**Solution:** Time for completion of work =  $\frac{1}{\text{Combined work (A+B+C)}}$

**Now, as specified in case 5**

Combined work in 1 day = sum of individual work done by Ram, Shyam and Kamal (Ram + Shyam+Kamal)'s 1 day work = Ram's 1 day work + Shyam's 1 day work +Kamal's 1 day work =  $(1/10 + 1/12 + 1/15)$

th part of work = 1/4th part of work

Time taken to complete the work =  $\frac{1}{1/4} = 4 \text{ days}$

**Case 7:** Part of work done at any time 't' by one or more persons =  $t \times (1 \text{ day's work})$

**Example:**

A persons 'M' can do a job in 25 days. How much of the job is done by him in 5 days?

**Solution:** Part of work done by M in 5 days =  $5 \times (1/25) = 1/5 \text{th part of work}$

**Example:**

Two friends A and B can complete a piece of work in 12 days and 8 days respectively. Find the amount of work done by them in 4 days.

**Solution:**

Part of work done by (A+B) in 4 days =  $4 \times (A+B)'s \text{ 1 day work}$

=  $4(1/12 + 1/8)$  th part of work =  $5/6 \text{th}$

**Example:**

Two persons P and Q can do a piece of work individually in 10 days and 15 days respectively. If P work for 2 days and Q works for 5 days, then find the total amount of work done.

**Solution:**

Part of work done by P + Q = Part of work done by P in 2 days + part of work done by Q in 5 days =  $2(1/10) + 5(1/15) = (1/5 + 1/3)$  the part of work =  $8/15 \text{th}$

**Case 8:**

If more than one person are working for different time schedules to complete a piece of work, then

(i) Assume the time for completion = T

(ii) Number of days worked by each persons in found with reference to T, if not mentioned in the problem.

(iii) Sum of the parts of work done by each person = 1, since the job is complete.

**Example:** Deepak and Anil can do a piece of work in 10 days and 30 days respectively. They work together and Deepak leaves 5 day's before the work is finished. Anil finishes the remaining work alone. In how many days is the total work finished?

**Solution:** Assume the time for completion = T

Since Deepak leaves 5 days before the work is finished. So, no. of days worked by Deepak = T – 5 and Anil works, so, number of days worked by Anil = T

Deepak's work + Anil's work = 1

Total work is finished in 11.25 days.

$$\Rightarrow \frac{T-5}{10} + \frac{T}{30} = 1$$

$$\Rightarrow T = 11.25$$

**Case 9:**

The ration of the work done by the two persons in the same time is the inverse ratio of their individual time.

e.g., if 'A' can do a work in 5 days and B can do in 9 days, then, in the same time,

$$\frac{A's\ work}{B's\ work} = \frac{9}{5} \text{ (inverse of time taken when working alone)}$$

**Case 10:**

If a person 'P' is 'n' times as good a workman as Q, individual time for

$$P = \frac{\text{Individual time for Q}}{n} \text{ and after some time (using case 9)}$$

**Example:**Tannu and Rekha can do a job in 12 days. Rekha alone can finish it in 36 days. In how many days can Tannu and alone finish the work?

**Solution:**

(Tannu + Rekha)'s 1 days work = Tannu's 1 day work + Rekha's 1 day work = 1/12 Tannu's 1 day work + 1/36

Tannu's 1 day work = 1/12 – 1/36 = 1/18 th of work. So, Tannu can finish it in 18 days.

**Trick :**

If T = 12, R = 36 then

$$\text{Required time} = \frac{TR}{(R-T)} = \frac{36 \times 12}{(36-12)} = 18 \text{ days}$$

## 12. Simple Interest

➤ **Important Short Tricks to solve Simple Interest Questions :**

- Interest is the money paid by the borrow to the lender for the use of money lent. The sum lent is called the Principal. Interest is usually calculated at the rate of so many rupees for every Rs.100 of the money lent for a year. This is called the rate percent per annum.
- 'Per annum' means for a year. The words 'per annum' are sometimes omitted. Thus, 6 p.c. means that Rs.6 is the interest on Rs.100 in one year. The sum of the principal and interest is called the amount. The interest is usually paid yearly, half-yearly or quarterly as agreed upon.

Interest is of two kind, Simple and Compound. When interest is calculated on the original principal for any length of time it is called simple interest. Compound interest is defined in the next chapter.

To find Simple Interest, multiply the principal by the number of years and by the rate per cent and divide the result by 100.

This may be remembered in the symbolic form =  $SI = \frac{P \times T \times R}{100}$

Where I = Interest, p = principle, t = number of years, r = % rate

**Ex. 1. Find the simple interest on Rs.400 for 5 years at 6 per cent.**

**Solution:** Interest for a number of days When the time is given in days or in years and days, 365 days are reckoned to a year. But when the time is given in months and days, 12 months are reckoned to a year and 30 days to the month.

**Ex. 2.**

Find the simple interest on Rs.306. 25 from March 3rd to July 27th at per annum.

Solution :Interest = Rs.  $306 \frac{1}{4} \times \frac{146}{365} \times \frac{15}{4} \times \frac{1}{100} = \text{Rs. } 4.59$

**To find principal:-**

Since  $I = \frac{P \times T \times R}{100} = 100 I / tr$

**Ex.3.**

What sum of money will produce Rs.143 interest in  $3 \frac{1}{4}$  years at  $2 \frac{1}{2}$  p.c. simple interest?

**Solution:** Let the required sum be Rs. P. Then Rs P =

$$\text{Rs. } \frac{100 \times 143}{3 \frac{1}{4} \times 2 \frac{1}{2}} = \frac{100 \times 143 \times 4 \times 2}{13 \times 5} = \text{Rs. } 1760$$

To find rate % Since  $I = PRT / 100$  so,  $r = 100 I / pt$

**Ex. 4.**

A sum of Rs.468.75 was lent out at simple interest and at the end of 1 year 8 months the total amount was Rs 500. Find the rate of interest per cent annum.

**Solution:**

Here, P =Rs468.75, t =  $1 \frac{2}{3}$  or  $5/3$  year

$$I = \text{Rs.}(500-468.75) = \text{Rs.}31.25$$

$$\frac{100 \times 31.25}{468.75 \times \frac{5}{3}} = 100 \times \frac{3125}{46875} \times \frac{3}{5} = 4$$

rate p.c. =

To find Time:-Since,  $I = P t r / 100$  , So  $100 I / PR$

**Ex. 5.**

In what time will Rs.8500 amount to Rs.15767.50 at 4 ½ per cent per annum?

**Solution:**

Here , interest = Rs.15767.50 – Rs.8500 =Rs.7267.50

$$\therefore t = \frac{7267.50 \times 100}{8500 \times 4.5} = 19 \text{ years}$$

➤ **Miscellaneous Examples on Simple Interest:-**

**Ex.6:**

The simple interest on a sum of money is 1/9th of the principal, and the number of years is equal to the rate per cent per annum. Find the rate per cent.

**Solution:**

Let principal = P, time = t year, rate = t

Then,  $r^2 = 100/9$

$t = 10/3$

Hence, rate = 3 1/3 %

Direct formula:

$$\text{Rate} = \text{time} = \sqrt{100 \frac{1}{9}} = \frac{10}{3} = 3 \frac{1}{3} \%$$

**Ex. 7:**

The rate of interest for the first 2 yrs is 3% per annum, for the next 3 years is 8% per annum and for the period beyond 5 years 10% per annum. To fetch an interest of 1520, money did he deposit?

**Solution**

Let his deposit be = Rs 100

Interest for first 2 yrs = Rs 6

Interest for next 3 yrs = Rs 24

Interest for the last year = Rs 10

Total interest = Rs 40

When interest is Rs 40, deposited amount is Rs 100

when interest is Rs 1520, deposited amount =  $\frac{100}{40} \times 1520 = \text{Rs } 3800$

**Direct formula:**

$$\text{Principle} = \frac{\text{Interest} \times 100}{r_1 t_1 + r_2 t_2 + r_3 t_3 \dots} = \frac{1520 \times 100}{2 \times 3 + 3 \times 8 + 1 \times 10} = \frac{1520 \times 100}{40} = \text{Rs } 3800$$

**Ex.8:** A sum of money doubles itself in 10 years at simple interest. What is the rate of interest?

**Solution:**

Let the sum be Rs 100

After 10 years it becomes Rs 200

Interest = 200 – 100 = 100

Then, rate =  $100 \text{ I/pt} = \frac{100 \times 100}{100 \times 10} = 10\%$

**Direct formula:**

Time × Rate = 100 (Multiple number of principal – 1)

Or, Rate =  $100 * \text{multiple number of principal} - 1 / \text{time}$

Using the above formula rate =  $\frac{100(2-1)}{10} = 10\%$

**Ex.9:**

A sum was put at a certain rate for 2 yrs. Had it been put at 3% higher rate, it would have fetched Rs 300 more. Find the sum.

**Solution:**

Let the sum be Rs x and the original rate be y% per annum. Then, new rate = (y+3) % per annum

$$\frac{x(y+3) \times 2}{100} - \frac{x(y) \times 2}{100} = 300$$

$xy + 3x - xy = 15,000$  or,  $x = 5000$

Thus, the sum = Rs 5000

**Gradestack Method : Direct Formula**

$$\text{Sum} = \frac{\text{more interest} \times 100}{\text{time} \times \text{more rate}} = \frac{300 * 100}{2 * 3} = 5000$$

**Ex.10.**

The simple interest on a certain sum of money at 4% per annum for 4 yrs is Rs 80 more than the interest on the same sum for 3 yrs at 5% per annum. Find the sum.

**Solution:**

Let the sum be Rs.x , then, at 4% rate for 4 yrs the simple interest =  $\frac{x \times 4 \times 4}{100}$

$4x/25 = \text{Rs.}$

At 5% rate for 3 yrs the simple interest =  $\frac{x \times 5 \times 3}{100} = \text{Rs } 3x/20$

Now, we have,  $\frac{4x}{25} - \frac{3x}{20} = 80$  or,

$$\frac{16x - 15x}{100} = 80$$

$x = \text{Rs } 8000$



**Gradestack Method : For this type of question**

Sum =

$$\frac{\text{Difference} \times 100}{[r_1 t_1 - r_2 t_2]}$$

$$\frac{80 \times 100}{4 \times 4 - 3 \times 5}$$

= Rs 8000

**Important Formulas and Short Cuts on Simple Interest :**

➤ **Simple Interest (SI) :**

If the interest on a sum borrowed for certain period is calculated uniformly, it is called simple interest(SI). (fix percentage of principal)

➤ **Principal (sum) :**

Principal (or the sum) is the money borrowed or lent out for a certain period. It is denoted by P.

➤ **What is Amount?**

The Addition of Simple Interest and Principle is called the Amount.

$$A = S.I + P \text{ ( Principle )}$$

➤ **Interest :**

Interest is the extra money paid by the borrower to the owner (lender) as a form of compensation for the use of the money borrowed calculated on the basis of Principle.

➤ **Time :**

This is the duration for which money is lend / borrowed.

➤ **Rate of Interest :**

It is the rate at which the interest is charge on principal.

➤ **What is Per annul means?**

“Rate of interest R% per annum” means that the interest for one year on a sum. If not stated explicitly, rate of interest is assumed to be for one year.

➤ **Formulas Need to Remember :**

$$S.I = [( P \times R \times T ) / ( 100 )].$$

Where P = Principle, R = Rate of per annul, T = Number of years

➤ **From the above formula , we can derive the followings :**

$$P = (100 \times SI) / RT$$

$$R = (100 \times SI) / PT$$

$$T = (100 \times SI) / PR$$

Conversion of Time Period – Rate of Interest			
Given (r%)	Given (t)	Required (r%)	Required (t)
r% annual	t Year	r/2 (%) half – yearly	2t
r% annual	t Year	r/4 (%) quarterly	4t
r% annual	t Year	r/12 (%) monthly	12t

**Some Tricks to Solve easily :**

**Trick 1 :**

If a sum of money becomes “n” times in “T years” at simple interest, then the rate of interest per annum can be given Be

$$R = \frac{100 (n-1)}{T}$$

**Trick 2:**

If an amount P1 is lent out at simple interest of R1% per annum and another amount P2 at simple interest rate of R2% per annum, then the rate of interest for the whole sum can be given by

$$R = \frac{P1R1+P2 R2}{P1+P2}$$

**Trick 3:**

A sum of money at simple interest n1 itself in t1 year. It will become n2 times of itself in (If Rate is constant)

$$\frac{t1}{t2} = \frac{(n1 - 1)}{(n2 - 1)}$$

**Trick 4:**

In what time will the simple interest be “n” of the principal at “r %” per annum:-  
 $rt = n \times 100$

**Trick 5:**

If a certain sum of money is lent out in n parts in such a manner that equal sum of money is obtained at simple interest on each part where interest rates are R1, R2, ... ,Rn respectively and time periods are T1, T2, ... , Tn respectively, then the ratio in which the sum will be divided in n parts can be given by

$$\frac{1}{R1T1} : \frac{1}{R2T2} : \dots\dots\dots \frac{1}{Rn.Tn}$$

## 13. Compound Interest

Sometimes it so happens that the borrower and the lender agree to fix up a certain unit of time, say yearly or half-yearly or quarterly to settle the precious account.

In such cases, the amount after first unit of times becomes the principal for the second unit the amount after second unit becomes the principle for the third unit and so on.

After a specified period, the difference between the amount and the money borrowed is called the *Compound Interest* (abbreviated as C.I.) for that period.

### ➤ Important Facts & Formulas on Compound Interest

**Case 1:** Let principle = P, time = n years and rate = r% per annum and let A be the total amount at the end of n years, then

$$A = P \left[ 1 + \frac{r}{100} \right]^n$$

#### Example:

Albert invested an amount of Rs.8000 in a fixed deposit scheme for 2 years at compound interest rate 5 p.c.p.a. how much amount will Albert get on maturity of the fixed deposit.

Solution:

**Amount =**

$$\left[ 8000 \times \left( 1 + \frac{5}{100} \right)^2 \right] = \text{Rs.}$$

$$\left( 8000 \times \frac{21}{20} \times \frac{21}{20} \right) = \text{Rs.} 8820$$

#### Case 2: When compound interest is reckoned half-yearly.

If the annual rate is r% per annum and is to be calculated for n years, then in this case, rate = (n/2%) half yearly and time = (2n) half-yearly.

Form the above we get

$$A = P \left[ 1 + \frac{r/2}{100} \right]^{2n}$$

**Example:** Sam investment Rs.15,000 @ 10% per annum for one year. If the interest is compounded half-yearly, then the amount received by Sam at the end of the year will be.

**Solution:**

P = Rs. 15000; R = 10% p.a = 5% half-year, T = 1 year = 2 half year

Amount = Rs

$$\left[ 15000 \times \left( 1 + \frac{5}{100} \right)^2 \right] = \text{Rs.} \left( 15000 \times \frac{21}{20} \times \frac{21}{20} \right)$$

= Rs.16537.50

**Case 3: When compound interest is reckoned quarterly.**

In this case, rate = (r/4%) quarterly and time = (4n) quarter years.

As before,

$$A = P \left[ 1 + \frac{r/4}{100} \right]^{4n}$$

**Example:** Find the compound interest on Rs. 15,625 for 9 months at 16% per annum compounded quarterly.

**Solution:**

P = Rs. 15625, n = 9 months = 3 quarters, R = 16% p.a. = 4% per quarter.

Amount = Rs.

$$\left[ 15625 \times \left( 1 + \frac{4}{100} \right)^3 \right] = \text{Rs} \left( 15625 \times \frac{26}{20} \times \frac{26}{20} \times \frac{26}{20} \right)$$

= Rs.17576

**C.I = Rs. (17576 – 15625 ) = Rs. 1951.**

Note: The difference between the compound interest and the simple interest over two years is given by

$$\frac{Pr^2}{100^2}$$

Or

$$P \left[ \frac{r}{100} \right]^2$$

**Case 4: When interest is compounded annually but time is in fraction, say years.**

Amount =

$$P \left( 1 + \frac{R}{100} \right)^3 \times \left( 1 + \frac{\frac{2}{5}R}{100} \right)$$

**Example:**

What is the difference between the compound interest on Rs. 5000 for at 4% per annum compounded yearly and half yearly?

**Solutions:**

**C.I. when interest is compounded yearly**

= Rs.

$$\left[ 5000 \times \left( 1 + \frac{4}{100} \right) \times \left( 1 + \frac{\frac{1}{2} \times 4}{100} \right) \right]$$

$$= \text{Rs} \left( 5000 \times \frac{26}{25} \times \frac{51}{50} \right)$$

= Rs.5304

**C.I. when interest is compounded half-yearly**

$$\left[ 5000 \times \left( 1 + \frac{2}{100} \right)^3 \right]$$

$$= \text{Rs} \left( 5000 \times \frac{51}{50} \times \frac{51}{50} \times \frac{51}{50} \right) = \text{Rs.} = 5306.04$$

Difference = Rs.(5306.04 – 5304 ) = Rs.2.04.

**Case 5: when rates are different for different years, say for 1st, 2nd, 3rd year respectively.**

Then, amount =

$$P \left( 1 + \frac{R_1}{100} \right) \left( 1 + \frac{R_2}{100} \right) \left( 1 + \frac{R_3}{100} \right)$$

**Example:**

The population of Jhumri Tilaiya increases by 10% in the first year, it increase by 20% in the second year and due to mass exodus, it decreases by 5% in the third year. What will be its population after 3 years, if today it is 200,000?

**Solution:**

Population at the end of 1 year will be 10,000 + 10% of 10,000= 11,000

At the end of second year it will be 11,000 + 20% of 11,000 = 13,200

At the end of third year it will be 13,200 – 5% of 13, 20 = 12,540

**Case 6: Present worth of Rs. x due n years hence is given by:**

Present Worth =

$$\frac{x}{\left( 1 + \frac{R}{100} \right)^n}$$

**Example:**

The principle that amounts to Rs.4913 in 3 years at per annum compound interest compounded annually, is :

**Solution:** Principle = Rs.

$$\left[ \frac{4913}{\left( 1 + \frac{25}{4 \times 100} \right)^3} \right] = \text{Rs} \left( 4913 \times \frac{16}{17} \times \frac{16}{17} \times \frac{16}{17} \right) = \text{Rs.} = 4096$$

**14. Tabular Chart in DI**

**How to solve Table Chart Questions Introduction :**

Table chart is simplest method used for data. In a table, data is arranged systematically in columns and rows. The first row and the first column are generally used to indicate the titles. It is one of the easiest and most accurate way of presenting the data.

**Important Points :**

- Read the data very carefully and try to understand what you are being asked to do. To prevent wasting time in calculation and find out what is required.
- Check the data and information carefully before jumping to answer the questions. Be sure you are looking at the right part of column and tables.
- Carefully check the units, Be sure you are taking same unit as you have given like in thousand, millions etc. A mistake in units and your answer may be different.

**Sample Question :**

Direction: Refer to the following table and answer the given questions.

**Number of cars sold by 6 Stores in 5 different months The above**

Stores \ Months	P	Q	R	S	T	U
Jan	133	161	213	225	282	196
Feb	183	123	277	176	239	268
March	278	154	226	98	178	198
April	178	272	269	284	293	277
May	264	107	237	167	379	237

**The above Table shows:**

The number of cars sold by store P, In  
 Jan = 133, Feb = 183, March = 278, April = 178, May = 264  
 Like this we can see the others. Lets do solve some questions.

**Example 1.**

Number of cars sold by store T in march is what percent less then number of cars sold by Store P in may?  
 (Rounded off to nearest integer)

- (a) 29%    (b) 31%    (c) 37%    (d) 33%

**Solution:**

Number of cars sold by Store T in March = 178

Number of cars sold by store P in May = 264

Required percentage =  $(264 - 178 / 264) * 100$  (in question asked less then number that's why we deducted) =  $(86/264) * 100 = 32.57\%$

**So rounded figure it will be 33%, Answer D**

**Example 2.**

What is the average number of cars sold by all the given stores in Feb?

- (a) 207                      (b) 211                      (c) 219                      (d) 223

**Solution:**

To find average we have to add all the figures of Feb month and then divided by 6 =  $183 + 123 + 277 + 176 + 239 + 268 / 6 = 1266/6 = 211$ ,

**Answer B**

**Example 3.**

Total number of cars sold by store Q during all the given months together is what percent of the total number of cars sold by store S during all the given month together?

- (a) 82%                      (b) 88%                      (c) 92%                      (d) 86%

**Solution:**

Total number of cars sold by store Q during all the given months together =  $161 + 123 + 154 + 272 + 107 = 817$

Total number of cars sold by store S during all the given months together =  $225 + 176 + 98 + 284 + 167 = 950$

**Required percentage =  $(817/950) * 100 = 86\%$ ,**

**Answer D**

**Example 4.**

What is the difference between total number of cars sold by all the given stores together in Jan and total number of cars sold by all the given stores together in April?

- (a) 353                      (b) 379                      (c) 363                      (d) 347

**Solution:**

Total number of cars sold by all the given stores together in Jan =  $133 + 161 + 213 + 225 + 282 + 196 = 1210$

Total number of cars sold by all the given stores together in April =  $178 + 272 + 269 + 284 + 293 + 277 = 1573$

**Required difference =  $1573 - 1210 = 363$ , Answer C**

**Example 5.**

What is the respective ratio between total number of cars sold by stores P and R together in March and total number of cars sold by stores T and U together in May?

- (a) 9:11                      (b) 11:13                      (c) 5:7                      (d) 13:17

**Solution:**

Total number of cars sold by stores P and R together in March =  $278 + 226 = 504$

Total number of cars sold by stores T and U together in May =  $379 + 237 = 616$

**Ratio =  $504 : 616 = 9 : 11$ , Answer A**

## 15. Line Graph in DI

Data interpretation is the most scoring but time consuming section in competitive examinations. But if you understand carefully, Data Interpretation problems can be solved with little ease with some easy tricks. Here are some important techniques to make Data Interpretation calculations fast.

**The presentation of data is classified into various categories viz. Bar Graphs, Line Graphs, Pie**

Nearly all DI questions are founded upon these three chapters of Mathematics viz. Percentages, Averages and Ratios.

**All the questions (usually five) are solved from the given set of DI presentation.**

**We have also discovered that while solving the questions**

Understanding the various headings of DI table/graph/chart is very important.

**Data Interpretation depends upon the type of questions asked.**

Some questions are solved via reasoning process. And solving some questions helps solving the other questions.

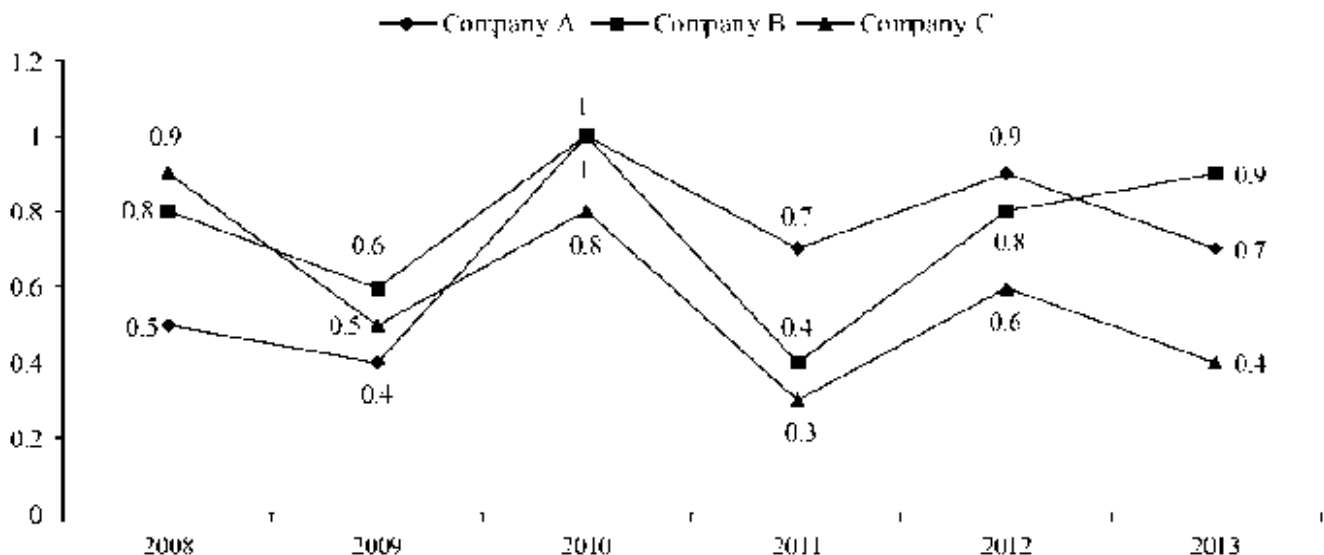
This same process applies to every type of DI. In this article, we are covering the next type of Data Presentation, i.e. Line Graphs.

➤ **Introduction:**

Line Graph is the innovative version of Bar Graph representation. If we connect the upper point of the first Bar to the upper point of the second Bar and then tie these dots, we will get a line. Repeating the procedure gives us the Line Graph representation. Line graph and bar graph are easy to comprehend. A Line Graph looks like this:

➤ **Sample Question**

Following line graph shows the ratio of expenditure to income of three companies A, B and C during the period 2008–2013.



1. Reading the headings are important otherwise you will not be able to understand what these lines are all about.
2. Along Y-Axis are the ratios. Along X-Axis are the years. In between are the lines.
3. Following Line Graph shows the ratio of expenditure to income of three companies A, B and C.

➤ **Learn a few things from the heading:**

1. For Company A in 2008, if Expenditure is Rs 0.9, then Income will be Rs 1, and so on.
2. It's Expenditure to Income Ratio expressed as E:I and not Income to Expenditure.
3. To have Profit, Expenditure is to be less than Income. Reverse is for Loss.



4. Profit and Loss percentages are calculated using the formulas for the same.

**Profit = Income – Expenditure • Profit Percentage = [Profit/Expenditure]\*100**

**Loss = Expenditure – Income • Loss Percentage = [Loss/Expenditure]\*100**

**5. The lower is the E:I ratio, higher is the profit.**

The questions of Expenditure and Income seem difficult to solve. But, let’s apply the above mentioned points to solve the questions in no time!

**Steps to Solve**

**Question 1:**

In which of the following years is the percentage loss/profit of Company C the maximum?

- [1] 2008                      [2] 2009                      [3] 2010                      [4] 2011

**Answer:** From point no. 5, we conclude that profit is maximum when E:I is minimum which is 0.3 in 2011. Hence answer is [4].

**Question 2:**

If the expenditure of Company A in 2008 and 2009 together is Rs 60 lakhs, then what is its income in 2008 and 2009 together?

- [1] Rs 120 lakhs              [2] Rs 150 lakhs              [3] Rs 66.66 lakhs              [4] Data inadequate

**Answer :**

E:I for Company A in 2008 and 2009 is 0.5 and 0.4. This means for Rs 0.5 Expenditure in 2008, Income is Rs 1 in 2008 and for Rs 0.4 Expenditure in 2009, Income is Rs 1 in 2009. But combined Expenditure of 60 lakhs is given. So, ratios being different, it’s not possible to calculate the Income from the combined expenditure. **Answer is [4].**

**Question 3:**

If the expenditure of Company B in 2008 and 2012 together is Rs 60 lakhs then what is its income in 2008 and 2012 together?

- [1] Rs 66.66 lakhs              [2] Rs 75 lakhs              [3] Rs 48 lakhs              [4] 96 Rs lakhs

**Answer :**

E:I for 2008 and 2012 is 0.8 and 0.8. Ratios being same, combined Income from the combined Expenditure can be calculated.  $Income = E/0.8 = 60/0.8 = 75$  lakhs. **Answer is [2].**

**Question 4:**

In which of the years does Company C gain 100% profit?

- [1] 2008                      [2] 2009                      [3] 2010                      [4] 2011

**Answer :**

For 100% profit, E:I ratio must be 0.5 so that  $I = E/0.5 = 2E$ . It’s in 2009. **Answer is [2]**

**Question 5:**

What is the percentage decrease in the percentage profit of Company C from 2009 to 2010?

- [1] 75%                      [2] 300%                      [3] 62.5%                      [4] 160%

**Answer :**

E:I of Company C in 2009 = 0.5 : 1 Profit =  $1 - 0.5 = 0.5$  Percentage profit of profit of Company C in 2009 =  $[0.5/0.5]*100 = 100\%$

E:I of Company C in 2010 = 0.8 : 1 Profit =  $1 - 0.8 = 0.2$

Percentage profit of profit of Company C in 2009 =  $[0.2/0.8]*100 = 25\%$  , Percentage decrease = 75%. **Answer is [1].**

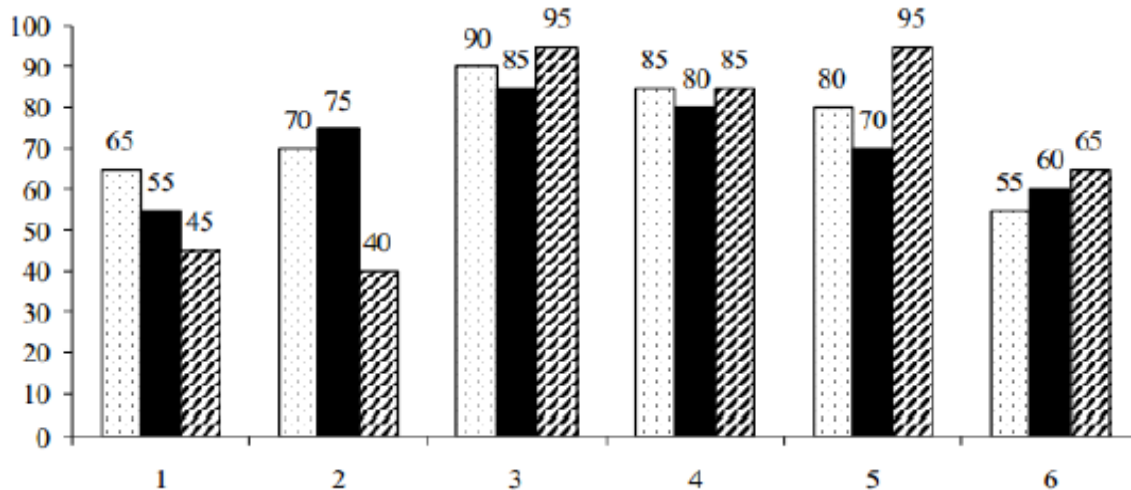
**16. Bar Graph in DI**

➤ **Introduction :**

In this article, we are discussing the Bar Graphs in a manner which is comparatively lucid. Don't worry, the rest of the types we will cover in the upcoming articles. If you want to fully understand the techniques, you will have to pay attention to each and everything that's been taught here.

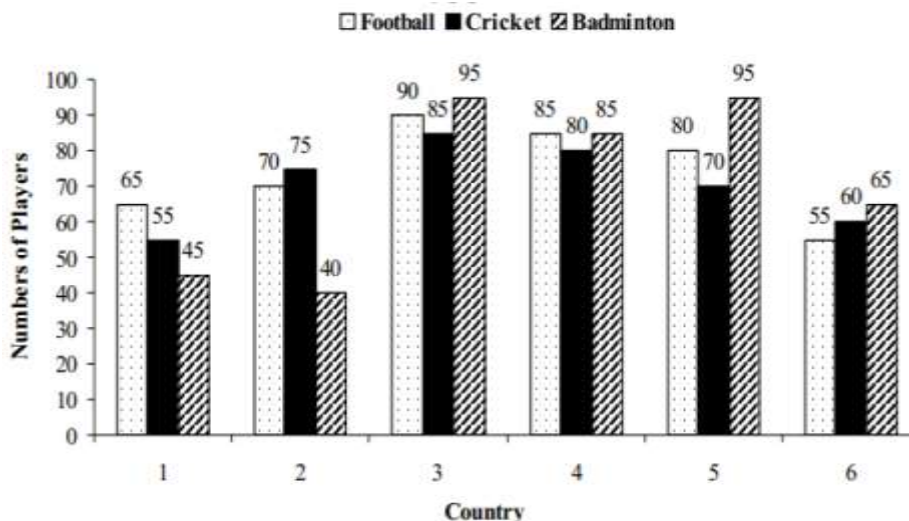
➤ **Reading Bar Graphs :**

❖ A bar graph looks like the following:



Along the X-axis (horizontal axis) we have some numbers. Along the Y-axis (vertical axis) we have some other numbers. And in between the area, we have some Bars. Try to understand the data that's been presented here. Finding it a bit difficult? Of course it's difficult because you don't know what these bars represents.

❑ **Now, try to understand the same bar chart, but with the headings.**



This won't be difficult. From the above bar graph we conclude that:  
 Three different bars represent three different games: Football, Cricket, and Badminton.  
 On the X-axis, we have a number of countries from 1 to 6. On the Y-axis we have the number of players.  
 The length of the Bars denotes the number of players.

**CONCEPT 1:**

Before you solve any of the questions, first you have to understand what the Bar Graph is trying to say. Make a habit of scanning the headings first. You have to understand what's on the X-axis, what's on the Y-axis, what's the relation between these two in terms of the length of Bars. There will be five questions based on one Bar Graph and that

means you can get five full marks if and only if you understand the format of data that's presented in the question. That's what Data Interpretation actually means!!

**Let's proceed to solving five questions based upon this Bar Graph.**

**Sample Questions****Question 1:**

The number of players participating in Cricket from country-4 is what percentage of the number of players participating in Badminton from country-1?

- [1] 177.77                      [2] 176.78%                      [3] 178.87%                      [4] 180.82%

**CONCEPT 2:**

From this question we conclude that: data in Bar Graph tell us so many things. But it's pointless to waste time interpreting all the data. It's not necessary to know how many Football players or Badminton players are from Country-4 or from Country-6. Interpret what's necessary! Just point out Cricket players from Country-4 = 80 players. Number of Badminton players from Country-1 = 45 players. The rest is just the application of percentage formula. Percentage =  $80/45 * 100 = 177.77\%$

**Question 2:**

What is the total number of players participating in Cricket from country 4, 5 and 6 and the number of players participating in Football from country 1, 2 and 3?

- [1] 335                      [2] 635                      [3] 435                      [4] 535

Applying Lesson number two, Number of Cricket players from Country 4, 5 and 6 =  $[80+70+60] = 210$ .

Number of Football players from Country 1, 2 and 3 =  $[65+70+90] = 225$ . And  $210+225 = 435$

**Question 3:**

The number of players participating in Badminton from all the country is what percentage of the total number of players participating in all the games from country-3?

- [1] 134%                      [2] 164%                      [3] 126%                      [4] 157%

Badminton players from all countries =  $[45+40+95+85+95+65] = 425$ . Total players from all games from Country-3 =  $[90+85+95] = 270$ . Required Percentage =  $[425/270]*100 \approx 157\%$

**Question 4:**

In which country is the number of players participating in Football is the highest and the number of players participating in Badminton is the lowest?

- [1] Country 3 & 2                      [2] Country 4 & 6                      [3] Country 3 & 4                      [4] Country 5 & 1

**CONCEPT 3:**

These sort of questions are pretty easy to solve. Just interpret the data in your mind. Check the length of the Bars. The answer will surely come.

**Football highest = 90 = Country -3 and Badminton lowest = 40 = Country-2**

**Question 5:**

60% of players participating in all game from country-5 are male and 30% players participating in all game from country-3 are female. What will be their ratio?

- [1] 127:170                      [2] 13:7                      [3] 49:27                      [4] 87:55

Number of players from all games of Country-5 =  $[80+70+95] = 245$ . 60% of 245 = 147

Number of players from all games of Country-3 =  $[90+85+95] = 270$ . 30% of 270 = 81

Number of players from all games of Country-3: we already have calculated this number before in Question 3.

**CONCEPT 4:**

Sometimes the calculation of one questions helps in the calculation of some other question. In this question, the ratio is = **147:81 = 49:27**

## 17. Measurement (Triangle)

➤ **MENSURATION-I (Area & Perimeter) :**

**AREA :**

The area of any figure is the amount of surface enclosed within its bounding lines. Area is always expressed in square units.

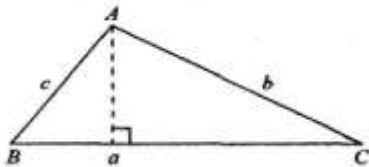
➤ **UNITS OF MEASURING AREA :**

- 100 sq Millimeters = 1sq centimeter
- 100 sq centimeter = 1sq decimeter
- 100 sq decimeters = 1sq meter
- 100 sq meters = 1sq decameter or arc
- 10,000 sq meters = 1 hectare
- 1,000,000 sq meters = 100 hectares = 1 sq kilometer

➤ **Perimeter :**

The perimeter of a geometrical figure is the total length of the sides enclosing the figure.

**1. Triangle :**



Triangles and their formulas

A triangle is a closed figure bounded by three sides. ABC is a triangle.

The sides AB, BC and AC are respectively denoted by c, a and b.

Area of a triangle (A)

$$A = \frac{1}{2} (\text{base} \times \text{height}) = \frac{1}{2} a \times h$$

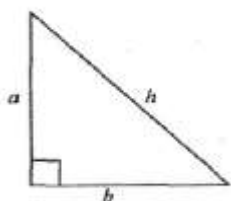
$$A = \sqrt{s(s-a)(s-b)(s-c)},$$

(b)

where formula is known as Hero's formula. Perimeter (P) = a + b + c = 2s.

**2. Right Angled Triangle**

A triangle having one of its angles equal to 90° is called a right-angled triangle. The side opposite to the right angle is



called the hypotenuse.

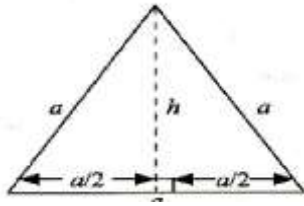
In a right angled triangle,

$$(\text{Hypotenuse})^2 = \text{sum of squares of sides i.e } h^2 = a^2 + b^2$$

Area (a) =  $\frac{1}{2}$ (product of the sides containing the right angle)

i.e.  $A = \frac{1}{2} ab$

**3. Equilateral Triangle :**



**A triangle whose all sides are equal is called an equilateral triangle.**

The diagonals of a rectangle bisect each other and are equal.

Area of rectangle = length x breadth =  $l \times b$

OR Area of rectangle =  $(l \times \sqrt{d^2 - l^2})$ , if one sides (l) and diagonal (d) are given.

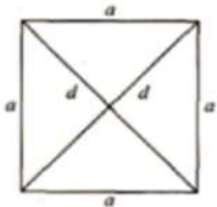
OR Area of rectangle =  $\left(\frac{p^2}{8} - \frac{d^2}{2}\right)$ , if perimeter (P) and diagonal (d) are given.

Perimeter (P) of rectangle = 2 (length + breadth) =  $2(l + b)$ .

OR Perimeter of rectangle =  $l(1 + \sqrt{d^2 - l^2})$ , if one sides (l) and diagonal (d) are given.

**4. Square :**

A four-sided shape that is made up of four straight sides that are the same length and that has four right angles.



The diagonals of a square are equal and bisect each other at 90°

(a) Area (a) of a square

$$= a^2, \text{ i.e. (side)}^2$$

Perimeter (P) of a square

$$= \frac{d^2}{2}, \text{ i.e. } \frac{(\text{diagonal})^2}{2} = \frac{P^2}{16}, \text{ i.e. } \frac{(\text{perimeter})^2}{16}$$

=  $4a$ , i.e. 4 x side

$$= \sqrt{16 \times \text{area}} = 2\sqrt{2}a, \text{ i.e. } \sqrt{2} \times \text{diagonal}$$

Length (d) of the diagonal of a square

$$= \sqrt{2}a, \text{ i.e. } \sqrt{2} \times \text{side}$$

$$= \sqrt{16 \times \text{area}} = \frac{P}{2\sqrt{2}}, \text{ i.e. } \frac{\text{Perimeter}}{2\sqrt{2}}$$

**5. Circle :**

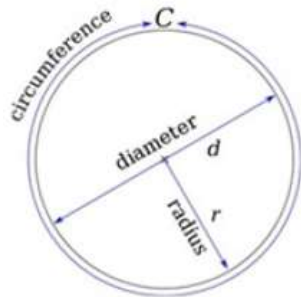
A circle is the path traveled by a point which moves in such a way that its distance from a fixed point remains constant.

The fixed point is known as center and the fixed distance is called the radius.

(a) Circumference or perimeter of circle =  $2\pi r$

where r is radius and d is diameter of circle

(b) Area of circle



**Area of circle**

$= \pi r^2$ , r is radius

$= \frac{\pi d^2}{2}$ , d is diameter

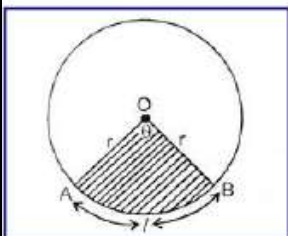
$= \frac{c^2}{4\pi}$ , c is circumference

$= \frac{1}{2} \times \text{circumference} \times \text{radius}$

(c) Radius of circle =

$$\sqrt{\frac{\text{Area}}{\pi}} = \frac{\text{Perimeter or circumference}}{2\pi}$$

**6. Sector :**



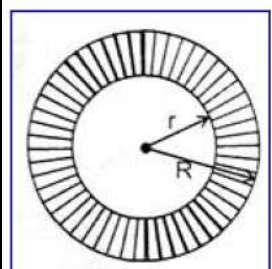
A sector is a figure enclosed by two radii and an arc lying between them.

here AOB is a sector

length of arc AB =  $2\pi r \theta / 360^\circ$

Area of Sector ACBO =  $1/2 [\text{arc AB} \times \text{radius}] = \pi r \times r \times \theta / 360^\circ$

Ring or Circular Path:



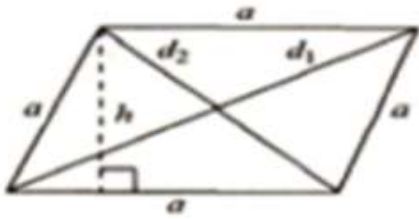
R=outer radius

r=inner radius

area =  $\pi(R^2 - r^2)$

Perimeter =  $2\pi(R+r)$

**7. Rhombus :**



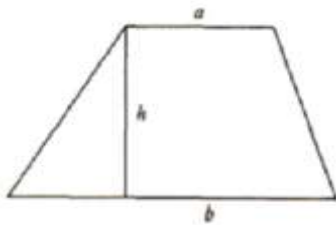
Rhombus is a quadrilateral whose all sides are equal.  
 The diagonals of a rhombus bisect each other at 90°  
 Area (a) of a rhombus = a \* h, i.e. base \* height

In a parallelogram, the sum of the squares of the diagonals = 2 (the sum of the squares of the two adjacent sides).  
 i.e.,

$$d_1^2 + d_2^2 = 2(a^2 + b^2)$$

Perimeter (P) of a parallelogram = 2 (a+b),  
 Where a and b are adjacent sides of the parallelogram.

**8. Trapezium (Trapezoid) :**



A trapezoid is a 2-dimensional geometric figure with four sides, at least one set of which are parallel. The parallel sides are called the bases, while the other sides are called the legs. The term ‘trapezium,’ from which we got our word trapezoid has been in use in the English language since the 1500s and is from the Latin meaning ‘little table.’

**Area (a) of a trapezium**

1/2 x (sum of parallel sides) x perpendicular Distance between the parallel sides  
 i.e.,

$$S = \frac{c+d+1}{2}$$

$$(a+b)/1 \sqrt{s(s-1)(s-c)(s-d)}$$

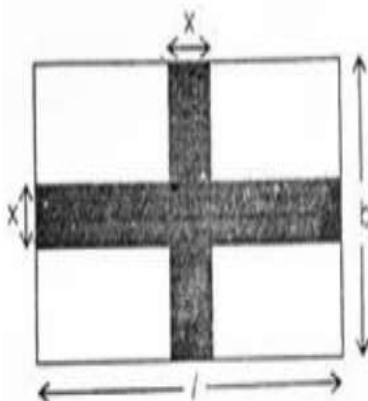
Where, l = b - a if b > a = a - b if a > b ,And

$$= \frac{1}{2} \times (a+b) \times h$$

Height (h) of the trapezium

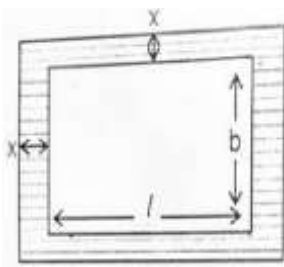
$$= 2/l \sqrt{s(s-1)(s-c)(s-d)} = \frac{2A}{a+b}$$

➤ **Pathways Running across the middle of a rectangle:**



**X is the width of the path**  
**Area of path = ( l + b - x ) x**  
**Perimeter = 2 ( l + b - 2x )**

➤ Outer Pathways:



Area =  $(l + b + 2x) 2x$   
 Perimeter =  $4 (l + b + 2x)$

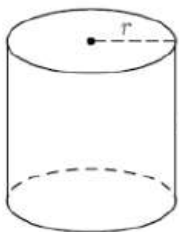
➤ Inner Pathways:

Area =  $(l + b - 2x) 2x$       Perimeter =  $4 (l + b - 2x)$

➤ Some useful Short trick:

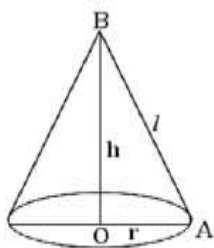
- ❖ If there is a change of X% in defining dimensions of the 2-d figure then its perimeter will also changes by X%
- ❖ If all the sides of a quadrilateral is changed by X% then its diagonal will also changes by X%.
- ❖ The area of the largest triangle that can be inscribed in a semi circle of radius r is  $r^2$ . The area of the largest triangle that can be inscribed in a semi circle of radius r is  $r^2$ .
- ❖ The number of revolution made by a circular wheel of radius r in travelling distance d is given by

➤ Right Circular Cylinder



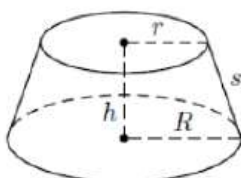
Volume of Cylinder =  $\pi r^2 h$   
 Lateral Surface Area (LSA or CSA) =  $2\pi r h$   
 Total Surface Area = TSA =  $2\pi r (r + h)$

➤ Right Circular Cone



- $l^2 = r^2 + h^2$
- Volume of cone =  $\frac{1}{3} \pi r^2 h$
- Curved surface area: CSA =  $\pi r l$
- Total surface area = TSA =  $\pi r (r + l)$

➤ Frustum of a Cone

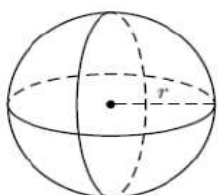


- r = top radius, R = base radius,
- h = height, s = slant height
- Volume:  $V = \frac{\pi}{3} (r^2 + rR + R^2)h$
- Surface Area:  $S = \pi s(R + r) + \pi r^2 + \pi R^2$

Sphere :

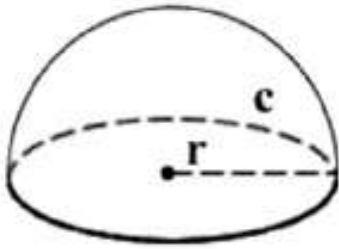
r = radius

- Volume:  $V = \frac{4}{3} \pi r^3$
- Surface Area:  $S = 4\pi r^2$



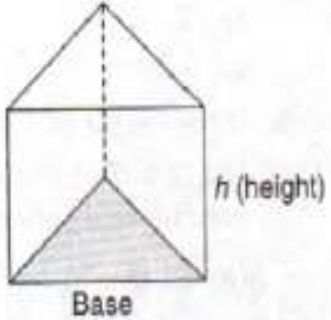


➤ Hemisphere :

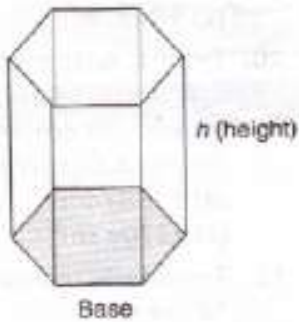


- Volume-Hemisphere =  $\frac{2}{3} \pi r^3$
- Curved surface area(CSA) =  $2 \pi r^2$
- Total surface area = TSA =  $3 \pi r^2$

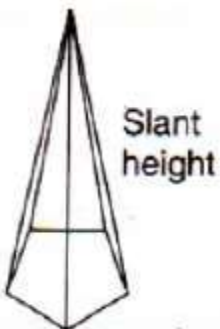
➤ Prism :



- Volume = Base area x height
- Lateral Surface area = perimeter of the base x height



➤ Pyramid :



- Volume of a right pyramid =  $\frac{1}{3} \times \text{area of the base} \times \text{height}$ .
- Area of the lateral faces of a right pyramid =  $\frac{1}{2} \times \text{perimeter of the base} \times \text{slant height}$ .
- Area of whole surface of a right pyramid = area of the lateral faces + area of the base.

**ALL THE BEST**

## 1. SIMPLIFICATION AND NUMERICAL ABILITY

1. Simplify :

$$b - [b - (a + b) - \{b - a - b\} + 2a]$$

- A)  $3b-a$                       B)  $b-a$                       C)  $3b-2a$                       D)  $2a$

2. What value will replace the question mark in the following equation ?

$$4\frac{1}{2} + 3\frac{1}{6} + ? + 2\frac{1}{3} = 13\frac{2}{5}$$

- A)  $1\frac{2}{5}$                       B)  $3\frac{2}{5}$                       C)  $3\frac{3}{4}$                       D)  $6$

3. Simplify :  $\left[3\frac{1}{4} + \left\{1\frac{1}{4} - \frac{1}{2}\left(2\frac{1}{2} - \frac{1}{4} - \frac{1}{6}\right)\right\}\right]$

- A)  $1\frac{2}{5}$                       B)  $54$                       C)  $89$                       D)  $\frac{79}{24}$

4. Simplify :  $108 \div 36 \text{ of } \frac{1}{4} + \frac{2}{5} \times 3\frac{1}{4}$

- A)  $13\frac{3}{10}$                       B)  $13\frac{2}{5}$                       C)  $11\frac{3}{10}$                       D)  $76$

5. Simplify :  $\frac{\frac{7}{2} \div \frac{5}{2} \times \frac{3}{2}}{\frac{7}{2} \div \frac{5}{2} \text{ of } \frac{3}{2}} \div 5.25$

- A)  $\frac{8}{7}$                       B)  $\frac{2}{5}$                       C)  $\frac{15}{2}$                       D)  $\frac{7}{9}$

6. If  $\frac{x}{y} = \frac{6}{5}$ , find the value of  $\frac{x^2 + y^2}{x^2 - y^2}$

- A)  $\frac{12}{11}$                       B)  $\frac{61}{11}$                       C)  $\frac{11}{61}$                       D)  $\frac{11}{12}$

7. Find the value of  $4 - \frac{5}{1 + \frac{1}{3 + \frac{1}{2 + \frac{1}{4}}}}$

- A)  $\frac{8}{7}$                       B)  $\frac{11}{8}$                       C)  $\frac{7}{8}$                       D)  $\frac{1}{8}$

8. If  $\frac{2x}{1 + \frac{1}{1 + \frac{x}{1-x}}} = 1$ , then find the value of x.

- A)  $\frac{1}{3}$                       B)  $\frac{2}{3}$                       C)  $\frac{4}{3}$                       D)  $\frac{5}{3}$

9. Find the value of  $\left(\frac{75983 \times 75983 - 45983 \times 45983}{30000}\right)$

- A)  $121966$                       B)  $211966$                       C)  $121964$                       D)  $999824$

10. Find the value of  $\left(\frac{343 \times 343 \times 343 - 113 \times 113 \times 113}{343 \times 343 + 343 \times 113 + 113 \times 113}\right)$

A] 320

B] 1

C] 343

D] 230

11.  $5 - \left[ \frac{3}{4} + \left\{ 2\frac{1}{2} - \left( 0.5 + \frac{1}{6} - \frac{1}{7} \right) \right\} \right]$  is equal to :

A]  $1\frac{19}{84}$ B]  $2\frac{61}{84}$ C]  $2\frac{63}{84}$ D]  $2\frac{47}{84}$ 

12. When  $\left( \frac{1}{2} - \frac{1}{4} + \frac{1}{5} - \frac{1}{6} \right)$  is divided by  $\left( \frac{2}{5} - \frac{5}{9} + \frac{3}{5} - \frac{7}{18} \right)$ , the result is :

A]  $2\frac{1}{18}$ B]  $3\frac{1}{6}$ C]  $3\frac{3}{10}$ D]  $5\frac{1}{10}$ 

13. Find the value of \* in the following :  $1\frac{2}{3} \div \frac{2}{7} \times \frac{*}{7} = 1\frac{1}{4} \times \frac{2}{3} \div \frac{1}{6}$

A] 0.006

B]  $\frac{1}{6}$ 

C] 0.6

D] 6

14. The value of  $999\frac{995}{999} \times 999$  is :

A] 990809

B] 998996

C] 998999

D] 999824

15.  $74 + 12 \times 0.75 - 6 = ?$

A] 77

B] 58.5

C] 75

D] 91.25

16.  $2432 \div ? = \sqrt{23104}$

A] 15

B] 16

C] 20

D] 18

17.  $(?)^2 + (123)^2 = (246)^2 - (99)^2 - 2462$

A] 152

B] 162

C] 202

D] 182

18.  $[(84)^2 \div 28 \times 12] \div 24 = 7 \times ?$

A] 18

B] 22

C] 20

D] 52

19.  $(7.9\% \text{ of } 134) - (3.4\% \text{ of } 79) = ?$

A] 10.3

B] 16.9

C] 7.9

D] 9.5

20.  $\frac{?^{0.8}}{49} = \frac{189}{?^{2.2}}$

A] 21

B] 20

C] 91

D] None of these

21.  $\frac{(13)^3 + 7^3}{(13)^2 + 7^2 - ?} = 20$

A] 6

B] 20

C] 91

D] None of these

22.  $\frac{180 \times 15 - 12 \times 20}{140 \times 8 + 2 \times 55} = ?$

- A]  $\frac{1}{7}$       B]  $\frac{4}{5}$       C] 2      D] 4      E] None of these

**Ques. No. 23. to 30. What should come in place of ? mark. In the following ?**

23.  $254 \times ? \times 8 = 95504$

- (1) 47      (2) 349      (3) 356      (4) 363      (5) None of these

24.  $25^3 \times 4^3 - 800^2 = (?)^2$

- (1) 360000      (2) 60000      (3) 3600      (4) 6000      (5) None of these

25.  $12\frac{1}{3} + 10\frac{5}{6} - 7\frac{2}{3} - 1\frac{4}{7} = ?$

- (1)  $11\frac{13}{14}$       (2)  $13\frac{11}{14}$       (3)  $13\frac{13}{14}$       (4)  $14\frac{11}{13}$

26.  $\frac{48 - 12 \times 3 + 9}{12 - 9 \div 3} = ?$

- (1)  $4\frac{1}{3}$       (2) 3      (3)  $2\frac{1}{3}$       (4) 21

27.  $\frac{3}{8} + \frac{1}{2}$  of  $\frac{3}{16} = ?$

- (1)  $\frac{15}{16}$       (2)  $\frac{21}{128}$       (3)  $\frac{15}{32}$       (4)  $\frac{3}{4}$

28.  $\frac{7+7+\frac{7}{7}}{\frac{7+7+7}{7}} = ?$

- (1)  $\frac{15}{21}$       (2) 5      (3)  $14\frac{2}{3}$       (4)  $15\frac{1}{3}$

29.  $999\frac{1}{7} + 999\frac{2}{7} + 999\frac{3}{7} + 999\frac{4}{7} + 999\frac{5}{7} + 999\frac{6}{7} = ?$

- 1) 2997      2) 5979      3) 5997      4) 5994

30.  $(1\frac{2}{9} \div 1\frac{2}{5} \text{ of } \frac{5}{21}) + \frac{1}{3} = ?$

- 1) 3      2)  $3\frac{2}{3}$       3) 4      4) 12

**Ques. No. 31. To 35. What approximate value should come in place of the question mark (?) in the following question ? (you are not expected to calculate the exact value)**

31.  $18.999 \times 12.005 \times 25.998 = ?$

- (1) 5930      (2) 4860      (3) 4590      (4) 3320      (5) 6470

32.  $543911 \times 8.5 = ? \times 4645$

- (1) 955      (2) 1005      (3) 1015      (4) 995      (5) 975

33.  $? \times 3294 = (1513)^2$

- (1) 695      (2) 706      (3) 674      (4) 700      (5) 688

34.  $\frac{5}{6} \times \frac{2}{9} \div \frac{4}{9} \div \frac{6}{7} = ?$

- (1) 0.36      (2) 0.49      (3) 0.40      (4) 0.44      (5) 0.32

35.  $(8531 + 6307 + 1093) \div (501 + 724 + 396) = ?$

- (1) 12 (2) 10 (3) 15 (4) 20 (5) 6

**Ques. No. 36. to 40. What should come in place of the question mark (?) in the following number Series.**

36. 121, 100, 81, 64, 49, ?, 25

- (1) 28 (2) 16 (3) 36 (4) 32 (5) None of these

37. 11, 13, 17, 19, 23, 25, ?

- (1) 26 (2) 27 (3) 29 (4) 37 (5) None of these

38. 10, 100, 200, 310, ?

- (1) 400 (2) 410 (3) 420 (4) 430 (5) None of these

39. 4, 6, 12, 14, 28, 30, ?

- (1) 32 (2) 60 (3) 62 (4) 64 (5) None of these

40. 1, 3, 3, 6, 7, 9, ?, 12, 21

- (1) 10 (2) 11 (3) 12 (4) 13 (5) None of these

41. 40 % of 15 % of  $\frac{3}{4}$  th of a number is 153. What is the no. ?

- (1) 3400 (2) 3650 (3) 3600 (4) 3200 (5) None of these

42. What is 786 times 964 ?

- (1) 759276 (2) 749877 (3) 75416 (4) 757704 (5) None of these

43. If  $(89)^2$  is added to the square of a no, the answer obtained is 16202. What is the number ?

- (1) 91 (2) 8281 (3) 8649 (4) 93 (5) None of these

44. A car covers a distance of 816 km in 12 hr. What is the speed of the car ?

- (1) 60 km/hr (2) 62 km/hr (3) 64 km/hr  
(4) Cannot be determined (5) None of these

45. The product of two consecutive even numbers is 12768. What is the greater number ?

- (1) 110 (2) 108 (3) 114 (4) 112 (5) None of these

46. If  $47a + 47b = 5452$ , What is the average of a and b ?

- (1) 116 (2) 23.5 (3) 96 (4) 58 (5) None of these

47. The owner of a Cell Phone shop charges his customer 23 % more than the cost price. If a customer paid Rs. 7011 for a cell phone, then what was the cost price of the cell phone ?

- (1) Rs. 5845 (2) Rs. 6750 (3) Rs. 5900 (4) Rs. 6925 (5) None of these

48. The Average of 5 consecutive even numbers A, B, C, D and E is 106. What is the product of B & D ?

- (1) 11440 (2) 11024 (3) 10608 (4) 11232 (5) None of these

- 49.** Ms. Bharya Luthara deposits an amount of Rs. 45000 to obtain a simple interest at the rate of 10 % per annum for 3 yr. What total amount will Ms. Bharya Luthara get at the end of 3 yr. ?  
(1) Rs. 56525 (2) Rs. 57550 (3) Rs. 58500 (4) Rs. 59575 (5) None of these
- 50.** 30 % of first number is 75 % of the second no. What is the respective ratio of the first no. to the second no. ?  
(1) 5 : 2 (2) 5 : 3 (3) 25 : 14 (4) Cannot be determined (5) None of these
- 51.** The cost of 4 bottles & 6 Bowls is Rs. 142.5, What is the cost of 12 Bowls & 8 bottles ?  
(1) Rs. 445 (2) Rs. 285 (3) Rs. 345 (4) Cannot be determine (5) None of these
- 52.** In an examination it is required to get 210 of the aggregate marks to pass. A student get 168 marks and is declared failed by 8 % marks. What are the maximum aggregate marks a student can get.  
(1) 635 (2) 575 (3) 445 (4) Cannot be determine (5) None of these
- 53.** The average age of a woman and her daughter is 21 years. The ratio of their ages is 5 : 1 respectively what will be ratio of their ages after 5 years ?  
(1) 10 : 3 (2) 5 : 2 (3) 4 : 1 (4) 3 : 1 (5) None of these
- 54.** If the fractions  $\frac{4}{5}$ ,  $\frac{6}{7}$ ,  $\frac{2}{9}$ ,  $\frac{9}{11}$  and  $\frac{3}{8}$  are arranged in decending order of their values, which one will be the fourth ?  
(1)  $\frac{9}{11}$  (2)  $\frac{4}{5}$  (3)  $\frac{3}{8}$  (4)  $\frac{6}{7}$  (5) None of these
- 55.** What will come in place of both the question mark (?) in the following.  
$$\frac{(?)^{2.3}}{8} = \frac{2}{(?)^{1.7}}$$
  
(1) 8 (2) 1 (3) 4 (4) 16 (5) 2
- 56.** A 240 m long train crosses a platform twice its length in 2 min. What is the speed of the train ?  
(1) 8 m/sec (2) 4 m/sec (3) 6 m/s (4) Cannot be determind (5) None of these
- 57.** What is the difference between the compound interest and simple interest accrued on an amount of Rs. 12000 at the end of 3 yr at the rate of 12 % ?  
(1) Rs. 539.136 (2) Rs. 602.242 (3) Rs. 495.248 (4) Rs. 488.322  
(5) None of these
- 58.** 2 women & 10 children together takes 8 days to complete a piece of work. How many days will 10 children alone take to complete the piece of work if 8 women alone can complete the piece of work in 6 days ?  
(1) 15 (2) 12 (3) 10 (4) 24 (5) None of these
- 59.** A man riding a bicycle, completes one lap of circular field along its circumference at the speed of 79.2 km/hr in 2 min 40 sec. What is the area of the field ?  
(1) 985600 m<sup>2</sup> (2) 848500 m<sup>2</sup> (3) 795600 m<sup>2</sup> (4) Cannot be determined

(5) None of these

60. In how many different ways can the letter of the word "TROUBLE" be arranged ?  
 (1) 840 (2) 5040 (3) 1260 (4) 2520 (5) None of these

**Ques. No. 61. to 70. What should come in place of question mark (?) In the following question.**

61.  $2 ? 6 - 12 \div 4 + 2 = 11$

(1) + (2) - (3)  $\times$  (4)  $\div$  (5) None of these

62.  $\frac{4+4 \times 18 - 6 - 8}{123 \times 6 - 146 \times 5} = ?$

(1) 1 (2) 2 (3) 6.65 (4) 7.75 (5) None of these

63.  $\frac{(6+6+6+6) \div 6}{4+4+4+4 \div 4} = ?$

(1) 1 (2)  $\frac{3}{2}$  (3)  $\frac{4}{13}$  (4)  $3 \frac{3}{13}$  (5) None of these

64.  $3600 \div 14 \times 16 + 340 = ?$

(1) 0.70 (2) 3525 (3) 4480 (4) 9600 (5) None of these

65.  $(3080 + 6160) \div 28 = ?$

(1) 320 (2) 440 (3) 3320 (4) 3350 (5) None of these

66.  $1001 \div 11$  of 13 = ?

(1) 7 (2) 91 (3) 143 (4) 169 (5) None of these

67.  $525.25 + 52.52 + 5.2 = ?$

(1) 578.79 (2) 528.97 (3) 588.97 (4) 582.79 (5) None of these

68.  $(49)^2 \times (7)^8 \div (343)^3 = (7)^?$

(1) 3 (2) 13 (3) 7 (4) 9 (5) None of these

69.  $1260 \div 15 \div 7 = ?$

(1) 12 (2) 58 (3) 122 (4) 588 (5) None of these

70.  $6 \frac{5}{6} \times 5 \frac{1}{3} + 17 \frac{2}{3} \times 4 \frac{1}{2} = ?$

(1)  $112 \frac{1}{3}$  (2)  $116 \frac{2}{3}$  (3) 240 (4) 663 (5) None of these

**Ques. No. 71. To 80. What approximate value should come in place of the question mark (?) in the following question ? (you are not expected to calculate the exact value)**

71.  $(12.999)^3 = ?$

(1) 1800 (2) 1650 (3) 2000 (4) 2500 (5) 2200

72.  $50550 \div 50 \div 5 = ?$

(1) 350 (2) 150 (3) 300 (4) 250 (5) 200

73.  $49.0003 \div 74.999 = ?$

- (1) 0.05 (2) 0.2 (3) 1 (4) 0.7 (5) 2

74.  $23.003 \times 22.998 + 100.010 = ?$

- (1) 630 (2) 550 (3) 700 (4) 720 (5) 510

75.  $125.009 + 69.999 + 104.989 = ?$

- (1) 420 (2) 300 (3) 285 (4) 415 (5) 325

76.  $4563 \div 63 \times 2.5 = ?$

- (1) 180 (2) 200 (3) 150 (4) 165 (5) 185

77.  $74\% \text{ of } 366 + 12.6\% \text{ of } 317 = ?$

- (1) 350 (2) 330 (3) 310 (4) 320 (5) 280

78.  $4096 \times \frac{2}{7} \times \frac{3}{4} = ?$

- (1) 820 (2) 880 (3) 800 (4) 760 (5) 920

79.  $389 \div (2.6 \times 6.9) = ?$

- (1) 28 (2) 12 (3) 33 (4) 17 (5) 22

80.  $(\sqrt{746} \times \sqrt{93}) \times \sqrt{25} = ?$

- (1) 1390 (2) 1425 (3) 1400 (4) 1300 (5) 1410

**Ques. No. 81. to 85. What should come in place of (?) question mark in the following number series.**

81. 4, 10, 28, 82, 244, 730, ?

- (1) 1875 (2) 2188 (3) 2088 (4) 1898 (5) None of these

82. 3, 128, 6, 64, 9, ?, 12, 16, 15, 8

- (1) 32 (2) 12 (3) 108 (4) 72 (5) None of these

83. 17, 7, 24, 19, 9, 28, ?, 8, 31, 27, 10, 37

- (1) 20 (2) 21 (3) 18 (4) 23 (5) None of these

84. 1, 0, 5, 8, 17, 24, 37, ?

- (1) 40 (2) 43 (3) 46 (4) 48 (5) None of these

85. 4, 10, 22, 46, ?

- (1) 56 (2) 66 (3) 76 (4) 94 (5) None of these

86. Which number should replace both  $x$  in the following equation ?

$$\frac{x}{188} = \frac{47}{x}$$

- (1) 88 (2) 124 (3) 66 (4) 94 (5) None of these

87. If  $2x - 3y = 1$  and  $3x + y = 18$  then what is the value of  $x - y = ?$

- (1) -2 (2) 2 (3) -3 (4) 3 (5) None of these



88. Find the least number which divided by 9, 12, 16 & 30 leaves in each case of remainder 3.  
(1) 723 (2) 717 (3) 720 (4) 727 (5) None of these
89. The total no. of students in a school is 2025. If the number of girls in the school is 1175. Then what is the respective ratio of the total no. of boys to the total no. of girls in the school ?  
(1) 47 : 34 (2) 19 : 23 (3) 23 : 17 (4) 34 : 47 (5) None of these
90. If the length of a rectangle is increased by 40 % and the breadth is reduced by 20 %, what will be the effect on its area ?  
(1) Increase by 8 % (2) Increase by 20 %  
(3) Increase by 12 % (4) Increase by 16 %  
(5) None of these
91. The average weight of 10 man is increased by 1.5 kg when out of the man who weights 68 kg is replaced by a new man find the weight of new man ?  
(1) 73 kg (2) 83 kg (3) 79 kg (4) 82 kg (5) None of these
92. A sum of Rs. 820 is to be paid back in two equal annual installment. If the rate of interest compounded is 5 % per annum, then installment is of ?  
(1) Rs. 410 (2) Rs. 420 (3) Rs. 416.80 (4) Rs. 441 (5) None of these
93. A DVD player was purchased for Rs. 4860. At what price should it be sold so that 25 % profit is earned ?  
(1) Rs. 6225 (2) Rs. 6275 (3) Rs. 6075 (4) Rs. 6025 (5) None of these
94. The difference between 75 % of a number and 20 % of the same no. is 378.4. What is 40 % of that no.?  
(1) 275.2 (2) 274 (3) 267.2 (4) 266 (5) None of these
- What should come in place of question mark (?) In the following question.**
95.  $\frac{1344}{1435} \times \frac{984}{2016} \times \frac{25}{32} = ?$   
(1)  $1\frac{1}{7}$  (2)  $\frac{5}{7}$  (3)  $\frac{5}{8}$  (4)  $\frac{5}{14}$  (5) None of these
96.  $12728 \div \sqrt{7396} + \sqrt{?} = 269$   
(1) 15129 (2) 14161 (3) 14884 (4) 13689 (5) None of these
97.  $\sqrt{1849} \times \sqrt{?} = 2451$   
(1) 3136 (2) 3481 (3) 3249 (4) 3364 (5) None of these
98. 63 % of 870 - ? % of 630 = 214.2  
(1) 52 (2) 54 (3) 56 (4) 58 (5) None of these
99.  $7^5 - 7^3 = ?$   
(1) 16464 (2) 16644 (3) 16446 (4) 16444 (5) None of these
100.  $8.2 \times 11.7 \times 17.1 - 200.20 = ?$

- (1) 1444.374 (2) 1442.374 (3) 1440.374 (4) 1438.374 (5) None of these

- 101.** 45 % of 978 = ?  
 (1) 444.15 (2) 430.3 (3) 449.88 (4) 440.1 (5) None of these

- 102.**  $11.6 \times 13.4 \times 19.2 - 1384.048 = ?$   
 1) 1596.15 2) 1600.4 3) 1616.4 4) 1648.4 (5) None of these

- 103.**  $39 \times ? = 19656 \div 28$   
 1) 26 2) 14 3) 22 4) 18 5) None of these

- 104.**  $700 \div 70 \div 0.5 = ?$   
 (1) 10 (2) 2.5 (3) 1.5 (4) 20 (5) None of these

**What approximate value should come in place of the question mark (?) in the following question ? (you are not expected to calculate the exact value)**

- 105.**  $16.003 \times 27.998 - 209.010 = ?$   
 (1) 150 (2) 200 (3) 75 (4) 240 (5) 110

- 106.**  $840.0003 \div 23.999 = ?$   
 (1) 47 (2) 8 (3) 35 (4) 18 (5) 23

- 107.**  $6885.009 - 419.999 - 94.989 = ?$   
 (1) 6650 (2) 6830 (3) 6370 (4) 6200 (5) 6450

- 108.**  $(6.5)^2 = ?$   
 (1) 58 (2) 25 (3) 43 (4) 35 (5) 50

- 109.**  $11111 \div 111 \div 11 = ?$   
 (1) 9 (2) 20 (3) 5 (4) 4 (5) 25

**What should come in place of the question mark (?) in the following number Series.**

- 110.** 2, 16, 112, 672, 3360, 13440, ?  
 (1) 3430 (2) 3340 (3) 40320 (4) 43240 (5) None of these

- 111.** 4, 9, 19, ?, 79, 159, 319  
 (1) 59 (2) 39 (3) 49 (4) 29 (5) None of these

- 112.** 4000, 2000, 1000, 500, 250, 125, ?  
 (1) 80 (2) 65 (3) 62.5 (4) 83.5 (5) None of these

- 113.** 588, 563, 540, 519, ?, 483, 468

- (1) 500 (2) 496 (3) 494 (4) 490  
(5) None of these
- 114.** 121, ?, 81, 64, 49, 36, 25  
(1) 92 (2) 114 (3) 98 (4) 100 (5) None of these
- 115.** It present Kavita is twice sarita's age. Eight years hence. The respective ratio between Kavita & Sarita's ages then will be 22 : 13, what is Kavita's present age ?  
(1) 26 yr (2) 18 yr (3) 42 yr (4) 36 yr (5) None of these
- 116.** Out of fraction  $\frac{4}{9}$ ,  $\frac{5}{11}$ ,  $\frac{3}{7}$ ,  $\frac{1}{4}$  and  $\frac{2}{5}$  what is the difference between the second largest and second smallest fractions ?  
(1)  $\frac{2}{35}$  (2)  $\frac{1}{45}$  (3)  $\frac{3}{35}$  (4)  $\frac{4}{45}$  (5) None of these
- 117.** If the length of a rectangle is increased by 20 % and the breadth is decreased by 10 %. What will be the effect on its area ?  
(1) 8 % increase (2) 8 % decrease (3) 2 % increase (4) 2 % decrease (5) None of these
- 118.** What is 413 times 129 ?  
(1) 50386 (2) 79296 (3) 55599 (4) 53277 (5) None of these
- 119.** 59 % of a number is 8791. What is 43 % of that number ?  
(1) 7301 (2) 6705 (3) 7003 (4) 6407 (5) None of these
- 120.** Satya invests Rs. 7434 which is 18 % of his monthly income in mutual funds. What is his annual income ?  
(1) Rs. 41300 (2) Rs. 495600 (3) Rs. 482300 (4) Rs. 45600 (5) None of these
- 121.** 38 % of first number is 43 % of the second number. What is the respective ratio of first no. to the Second no. ?  
(1) 44 : 37 (2) 38 : 43 (3) 43 : 38 (4) Cannot be determined (5) None of these
- 122.** If  $(44)^3$  added to the square of a number, the answer so obtained is 94788. What is the number ?  
(1) 98 (2) 94 (3) 102 (4) 106 (5) None of these
- 123.** An owner divided some money among three servants Ramu, Shyamu & Babu in the ratio of 9 : 7 : 4. If the parts of Babu & Shyamu together is Rs. 2400 more than that of Ramu, then the part of Shyamu will ?  
(1) Rs. 8400 (2) Rs. 7200 (3) Rs. 9600 (4) Rs. 10800 (5) None of these
- 124.** What is the average of first five multiple of 10 ?

- (1) 27.5      (2) 50      (3) 30      (4) 40      (5) None of these

- 125.** Mohan purchased a calculator with 30 % discount on marked price. He sold it with 15 % profit, what was his profit/loss percentage on marked price ?  
(1) 19.50 % Loss      (2) 19.50 % Profit      (3) 10 % Loss      (4) 12 % Profit      (5) None of these
- 126.** What least number shall be added to 8115 to make it a perfect square ?  
(1) 349      (2) 166      (3) 144      (4) 194      (5) None of these
- 127.** If the sum of the digits of a two digit number equal to  $\frac{3}{5}$  of that number. What will be the difference between the digits ?  
(1) 5      (2) 6      (3) 7      (4) Data insufficient      (5) None of these
- 128.** A canteen required 798 bananas for a week. Totally how many bananas will it required for the months of January, February and March 2008 ?  
(1) 10480      (2) 10277      (3) 10586      (4) 10374      (5) None of these
- 129.** The product of two consecutive even numbers is 12768 what is the greater number ?  
(1) 110      (2) 108      (3) 114      (4) 112      (5) None of these
- 130.** If the value of  $x + y = 18$  and  $xy = 72$  what is the value of  $(x)^2 + (y)^2 = ?$   
(1) 324      (2) 54      (3) 180      (4) Cannot be determined      (5) None of these

## 2. LCM - HCF

1. Find the LCM of 8, 15, 24 and 72.  
(A) 350 (B) 360  
(C) 720 (D) 735  
(E) None of these
2. Find the HCF of 132, 204 and 228.  
(A) 12 (B) 18  
(C) 6 (D) 21  
(E) None of these
3. Find the LCM of  $(2^3 \times 3 \times 5^2 \times 7)$ ,  $(2^4 \times 3^2 \times 5 \times 7^2 \times 11)$  and  $(2 \times 3^3 \times 5^4)$   
(A)  $2^4 \times 3^3 \times 5^4$   
(B)  $2 \times 3 \times 7 \times 5 \times 11$   
(C)  $2^4 \times 3^3 \times 5^4 \times 7^2 \times 11$   
(D)  $2^4 \times 3^4 \times 5^4 \times 7$   
(E) None of these
4. What will be the HCF of  $(2 \times 3 \times 7 \times 9)$ ,  $(2 \times 3 \times 9 \times 11)$  and  $(2 \times 3 \times 4 \times 5)$   
(A)  $2 \times 3 \times 7$   
(B)  $2 \times 3 \times 9$   
(C)  $2 \times 3$   
(D)  $2 \times 7 \times 9 \times 11$   
(E) None of these
5. Find the LCM of  $\frac{1}{3}$ ,  $\frac{2}{9}$ ,  $\frac{5}{6}$  and  $\frac{4}{27}$   
(A)  $\frac{1}{54}$  (B)  $\frac{10}{27}$   
(C)  $\frac{20}{3}$  (D)  $\frac{3}{20}$   
(E) None of these
6. Find the LCM of  $\frac{2}{3}$ ,  $\frac{3}{5}$ ,  $\frac{4}{7}$  and  $\frac{9}{13}$   
(A) 36 (B)  $\frac{1}{36}$   
(C)  $\frac{1}{1365}$  (D)  $\frac{12}{455}$   
(E) None of these
7. Find the HCF of  $\frac{4}{5}$  and  $\frac{7}{15}$   
(A)  $\frac{1}{13}$  (B)  $\frac{1}{5}$   
(C)  $\frac{1}{15}$  (D)  $\frac{1}{25}$   
(E) None of these
8. Find the HCF of  $\frac{1}{2}$ ,  $\frac{3}{4}$  and  $\frac{4}{5}$   
(A)  $\frac{1}{20}$  (B)  $\frac{1}{40}$   
(C) 20 (D) 15

- (E) None of these
9. Which of the following will be the LCM of 0.25, 0.1 and 0.125?  
(A) 0.25 (B) 0.005  
(C) 0.05 (D) 0.5  
(E) None of these
10. Find the LCM of 2.5, 1.2, 20 and 7.5  
(A) 60 (B) 65  
(C) 70 (D) 50  
(E) None of these
11. In a school, all the students can stand in a row so that each row has 5, 9 or 10 students. Find the least number of students in the school.  
(A) 90 (B) 95  
(C) 85 (D) 100  
(E) None of these
12. If HCF of two numbers is 8, which of the following can never be their LCM ?  
(A) 24 (B) 48  
(C) 56 (D) 60  
(E) None of these
13. If a number is exactly divisible by 11 and 13, which of the following types the number must be?  
(A) Divisible by (11 + 13)  
(B) Divisible by (13 - 11)  
(C) Divisible by (11×13)  
(D) Divisible by (13 ÷ 11)  
(E) None of these
14. Find the simplest form of  $\frac{1485}{4356}$   
(A)  $\frac{17}{44}$  (B)  $\frac{13}{44}$   
(C)  $\frac{31}{44}$  (D)  $\frac{15}{44}$   
(E) None of these
15. Find the simplest form of  $\frac{76}{336}$   
(A)  $\frac{19}{84}$  (B)  $\frac{17}{84}$   
(C)  $\frac{13}{84}$  (D)  $\frac{7}{84}$   
(E) None of these
16. Find the least number that is exactly divided by 8, 12 and 36.  
(A) 72 (B) 36  
(C) 18 (D) 44  
(E) None of these
17. What is the least number which is exactly divisible by 8, 9, 12, 15 and 18 and is also a perfect square?  
(A) 3600 (B) 7200

- (C) 5200            (D) 6500  
(E) None of these

**18.** The product of two relatively prime numbers is 143. Find their HCF.

- (A) 3                            (B) 9  
(C) 13                         (D) 1  
(E) None of these

**19.** The ratio of two numbers is 3 : 4 and their HCF is 4. What will be their LCM?

- (A) 12                         (B) 16  
(C) 24                         (D) 48  
(E) None of these

**20.** If the two numbers are in the ratio of 2 : 3 and the product of their HCF and LCM is 33750, what will be the sum of the numbers ?

- (A) 375                        (B) 475  
(C) 275                        (D) 575  
(E) None of these

**21.** If HCF and LCM of two numbers are 4 and 496. If one of the numbers is 124, find the another number.

- (A) 14                         (B) 18  
(C) 16                         (D) 13  
(E) None of these

**22.** The LCM of two numbers is 495 and their HCF is 5. If sum of the numbers is 100, find the difference of the numbers.

- (A) 10                         (B) 46  
(C) 70                         (D) 90  
(E) None of these

**23.** The sum of HCF and LCM of two numbers is 403 and their LCM is 12 times their HCF. If one number is 93, find the another number.

- (A) 115                        (B) 122  
(C) 124                        (D) 138  
(E) None of these

**24.** The difference of two numbers is  $\frac{1}{9}$  of their sum. Their sum is 45. Find the LCM.

- (A) 225                        (B) 100  
(C) 150                        (D) 200  
(E) None of these

**25.** Express 360 as a product of primes.

- (A)  $2 \times 2 \times 5 \times 3$   
(B)  $3 \times 3 \times 5 \times 2$   
(C)  $5 \times 2 \times 3 \times 2 \times 7$   
(D)  $2 \times 2 \times 2 \times 3 \times 3 \times 5$   
(E) None of these

**26.** In a store, there are 345 L mustard oil, 120 L sunflower oil and 225 L soyabean oil. What will be the capacity of the largest container to measure these types of oil?

- (A) 8 L                    (B) 20 L  
(C) 23 L                  (D) 15 L  
(E) None of these

- 27.** Find the greatest number of 3 digits which when divided by 6, 9, 12 leaves 3 as remainder in each case.  
(A) 975                    (B) 996  
(C) 903                    (D) 939  
(E) None of these
- 28.** What will be the greatest number that divides 1356, 1868 and 2764 leaving 12 as remainder in each case?  
(A) 64                      (B) 124  
(C) 156                    (D) 260  
(E) None of these
- 29.** Find the largest number which divides 1305, 4665 and 6905 leaving same remainder in each case. Also find the common remainder.  
(A) 1210, 158            (B) 1120, 158  
(C) 1120, 185            (D) 1210, 185  
(E) None of these
- 30.** What will be the greatest number that divides 1023 and 750 leaving remainders 3 and 2, respectively?  
(A) 68                      (B) 65  
(C) 78                      (D) 19  
(E) None of these
- 31.** Find the greatest number that divides 130, 305 and 245 leaving remainders 6, 9 and 17, respectively?  
(A) 4                        (B) 5  
(C) 14                      (D) 24  
(E) None of these
- 32.** What is the greatest four digit number which when divided by 10, 15, 21 and 28 leaves remainders 4, 9, 15 and 22, respectively?  
(A) 9654                    (B) 9666  
(C) 9664                    (D) 9864  
(E) None of these
- 33.** The least number which divided by 12, 16 and 18 leaves 5 as remainder in each case. Find the number.  
(A) 139                    (B) 144  
(C) 149                    (D) 154  
(E) None of these
- 34.** The product of two whole numbers is 1500 and their HCF is 10. Find the LCM.  
(A) 15000                    (B) 150  
(C) 1500                    (D) 15  
(E) None of these



35. The LCM of two numbers is 20 times of their HCF and  $(\text{LCM} + \text{HCF}) = 2520$ . If one number is 480, what will be the triple of another number ?  
(A) 1200 (B) 1500  
(C) 2100 (D) 1800  
(E) None of these
36. What will be the least number which when divided by 12, 21 and 35 leaves 6 as remainder in each case?  
(A) 426 (B) 326  
(C) 536 (D) 436  
(E) None of these
37. The HCF of three numbers is 23. If they are in the ratio of 1 : 2 : 3, then find the numbers.  
(A) 69, 15, 22 (B) 23, 46, 69  
(C) 25, 31, 41 (D) 23, 21, 35  
(E) None of these
38. Three numbers are in the ratio of 3 : 4 : 5 and their LCM is 1200. Find the HCF of the numbers.  
(A) 40 (B) 30  
(C) 80 (D) 20  
(E) None of these
39. Which of the following is the smallest fraction ?  
(A)  $\frac{63}{80}$  (B)  $\frac{13}{16}$   
(C)  $\frac{7}{8}$  (D)  $\frac{31}{40}$   
(E) None of these
40. What is the smallest possible length that can be exactly measured by the scales of lengths 3 cm, 5 cm and 10 cm ?  
(A) 15 cm (B) 30 cm  
(C) 28 cm (D) 40 cm  
(E) None of these
41. Three pieces of timber 84 m, 98 m and 126 m long have to be divided into planks of the same length. What is the greatest possible length of each plank?  
(A) 14 m (B) 28 m  
(C) 7 m (D) 21 m  
(E) None of these
42. The product of two co-primes is 21, find their LCM.  
(A) 1 (B) 21  
(C) equal to their HCF (D) 42  
(E) None of these
43. The sum of two numbers is 1056 and their HCF is 66, find the number of such pairs.  
(A) 6 (B) 2  
(C) 4 (D) 8  
(E) None of these

44. The HCF and LCM of two numbers  $m$  and  $n$  are respectively 6 and 210. If  $m + n = 72$ , then  $\frac{1}{m} + \frac{1}{n} = ?$

(A)  $\frac{1}{35}$

(B)  $\frac{3}{35}$

(C)  $\frac{5}{37}$

(D)  $\frac{2}{35}$

(E) None of these

## 3. SURDS AND INDICES

1.  $\sqrt[4]{10000} = (100)^?$   
 (A)  $\frac{1}{2}$  (B)  $\frac{1}{4}$   
 (C)  $\frac{1}{8}$  (D) 2  
 (E) None of these
2. If  $\sqrt{4^n} = 1024$ , then  $n = ?$   
 (A) 5 (B) 8  
 (C) 10 (D) 12  
 (E) None of these
3. If  $\sqrt{2^n} = 64$ , then  $n = ?$   
 (A) 2 (B) 4  
 (C) 6 (D) 12  
 (E) None of these
4.  $\sqrt[4]{(625)^3}$   
 (A)  $\sqrt[3]{1875}$  (B) 25  
 (C) 125 (D) None of these
5.  $27^{\frac{5}{2}} \times 9^{\frac{5}{2}} \div 3^7 = 3^?$   
 (A)  $\frac{7}{2}$  (B)  $\frac{11}{2}$   
 (C)  $\frac{21}{2}$  (D) 14  
 (E) None of these
6.  $(256)^{0.16} \times (16)^{0.18} = ?$   
 (A) 4 (B) 16  
 (C) 64 (D) 256.25  
 (E) None of these
7.  $10^{7.5} \times 5^{2.5} \times 2^{2.5} = 10^?$   
 (A) 9.5 (B) 10  
 (C) 11.5 (D) 12.5  
 (E) None of these
8.  $8^{4.2} \times 64^{2.1} \times 7^{8.4} \times 56^{3.5} = (56)^?$   
 (A) 9.8 (B) 11.9  
 (C) 12.6 (D) 18.2  
 (E) None of these
9.  $9^{8.6} \times 8^{3.9} \times 72^{4.4} \times 9^{3.9} \times 8^{8.6} = 72^?$   
 (A) 15.1 (B) 17.9  
 (C) 20.9 (D) 29.4  
 (E) None of these
10. If  $\left(\frac{a}{b}\right)^{x-1} = \left(\frac{b}{a}\right)^{x-3}$ , then  $x = ?$   
 (A)  $\frac{1}{2}$  (B) 1  
 (C) 2 (D)  $\frac{7}{2}$   
 (E) None of these
11. If  $5\sqrt{5} \times 5^3 \div 5^{-\frac{3}{2}} = 5^{a+2}$ , then  $a = ?$   
 (A) 4 (B) 5  
 (C) 6 (D) 8  
 (E) None of these
12. If  $2^{2x+4} = 16^x$ , then  $x^3 = ?$   
 (A) 2 (B) 4  
 (C) 8 (D) 16  
 (E) None of these
13.  $\frac{1}{1+a^{n-m}} + \frac{1}{1+a^{m-n}} = ?$   
 (A) 0 (B)  $\frac{1}{2}$   
 (C) 1 (D)  $a^{m+n}$   
 (E) None of these
14.  $(x^{b+c})^{(b-c)} \cdot (x^c+a)^{(c-a)} \cdot (x^{a+b})^{(a-b)} = ?$   
 (A) 0 (B) 1  
 (C)  $x$  (D)  $x^{a^2+b^2+c^2}$   
 (E) None of these
15.  $\left(\frac{x^b}{x^c}\right)^{(b+c-a)} \left(\frac{x^c}{x^a}\right)^{(c+a-b)} \left(\frac{x^a}{x^b}\right)^{(a+b-c)} = ?$   
 (A) 1 (B)  $x^{abc}$   
 (C)  $x^{a+b+c}$  (D)  $x^{ab+bc+ca}$   
 (E) None of these
16.  $\frac{1}{1+x^{(b-a)+x^{(c-a)}}} + \frac{1}{1+x^{(a-b)+x^{(c-b)}}} + \frac{1}{1+x^{(b-c)+x^{(a-c)}}} = ?$   
 (A) 0 (B) 1  
 (C)  $x^{a-b-c}$  (D) None of these
17.  $\left(\frac{x^a}{x^b}\right)^{(a+b)} \cdot \left(\frac{x^b}{x^c}\right)^{(b+c)} \cdot \left(\frac{x^c}{x^a}\right)^{(c+a)} = ?$   
 (A) 0 (B) 1  
 (C)  $x^{abc}$  (D)  $x^{a+b+c}$   
 (E) None of these

18.  $\frac{3^{n+2} - 3^{n+1}}{3^{n+4} - 3^{n+1}} = ?$

- (A)  $\frac{1}{5}$  (B)  $\frac{1}{10}$   
 (C)  $\frac{1}{14}$  (D)  $\frac{1}{28}$   
 (E) None of these

19. If  $5^{5x+5} = 1$ , then  $x = ?$

- (A) -1 (B)  $-\frac{4}{5}$   
 (C) 0 (D) 1  
 (E) None of these

20. If  $3^{x+3} + 7 = 250$ , then  $x = ?$

- (A) 1 (B) 2  
 (C) 3 (D) 5  
 (E) None of these

21. If  $a^{2x+2} = 1$ , where  $a$  is a positive real number other than 1, then  $x = ?$

- (A) -2 (B) -1  
 (C) 0 (D) 1  
 (E) None of these

22.  $\left\{(2^4)^{\frac{1}{2}}\right\}^? = 256$

- (A) 1 (B) 2  
 (C) 4 (D) 8  
 (E) None of these

23. If  $a = \frac{\sqrt{3}}{2}$ , then  $\sqrt{1+a} + \sqrt{1-a} = ?$

- (A)  $(2 - \sqrt{3})$  (B)  $(2 + \sqrt{3})$   
 (C)  $\frac{\sqrt{3}}{2}$  (D)  $\sqrt{3}$   
 (E) None of these

24.  $\frac{\sqrt{5}-\sqrt{3}}{\sqrt{5}+\sqrt{3}} = ?$

- (A) 1 (B) 2  
 (C) 3 (D) None of these

25. If  $a = \frac{\sqrt{5}+1}{\sqrt{5}-1}$  and  $b = \frac{\sqrt{5}-1}{\sqrt{5}+1}$ , then  $\frac{(a^2+ab+b^2)}{(a^2-ab+b^2)} = ?$

- (A)  $\frac{3}{4}$  (B)  $\frac{4}{3}$   
 (C)  $\frac{3}{5}$  (D)  $\frac{5}{3}$   
 (E) None of these

26. If  $2^x \times 8^{\frac{1}{5}} = 2^{\frac{1}{5}}$ , then  $x = ?$

- (A)  $\frac{1}{5}$  (B)  $-\frac{1}{5}$   
 (C)  $\frac{2}{5}$  (D)  $\frac{-2}{5}$   
 (E) None of these

27. If  $5^{x+3} = (25)^{3x-4}$ , then  $x = ?$

- (A)  $\frac{5}{11}$  (B)  $\frac{11}{5}$   
 (C)  $\frac{11}{3}$  (D)  $\frac{13}{5}$   
 (E) None of these

28. If  $2^{x+4} - 2^{x+2} = 3$ , then  $x = ?$

- (A) 0 (B) 2  
 (C) -1 (D) -2  
 (E) None of these

29. If  $2^{x-1} + 2^{x+1} = 320$ , then  $x = ?$

- (A) 6 (B) 8  
 (C) 5 (D) 7  
 (E) None of these

30. If  $2^{2x-1} = \frac{1}{8^{(x-3)}}$ , then  $x = ?$

- (A) 3 (B) 2  
 (C) -2 (D) 0  
 (E) None of these

31. If  $\frac{9^n \times 3^5 \times (27)^3}{3 \times (81)^4} = 27$ , then  $n = ?$

- (A) 0 (B) 2  
 (C) 3 (D) 4  
 (E) None of these

32. If  $(\sqrt{3})^5 \times 9^2 = 3^\alpha \times 3\sqrt{3}$ , then  $\alpha = ?$

- (A) 2 (B) 3  
 (C) 4 (D) 5  
 (E) None of these

33.  $\sqrt{a^{-1}b} \cdot \sqrt{b^{-1}c} \cdot \sqrt{c^{-1}a} = ?$

- (A)  $abc$  (B)  $\sqrt{abc}$   
 (C)  $\frac{1}{abc}$  (D) 1  
 (E) None of these

34. If  $\sqrt[3]{32} = 2^x$ , then  $x = ?$

- (A) 5 (B) 3  
 (C)  $\frac{3}{5}$  (D)  $\frac{5}{3}$   
 (E) None of these

35. If  $x = y^a$ ,  $y = z^b$  and  $z = x^c$ , then  $abc = ?$

- (A) 4 (B) 3  
 (C) 2 (D) 1

(E) None of these

36. If  $a^x = b^y = c^2$  and  $b^2 = ac$ , then  $y = ?$

(A)  $\frac{xz}{x+z}$

(B)  $\frac{xz}{2(x-z)}$

(C)  $\frac{xz}{2(z-x)}$

(D)  $\frac{2xz}{(x+z)}$

(E) None of these

37. If  $2^x = 3^y = 6^{-z}$ , then  $\left(\frac{1}{x} + \frac{1}{y} + \frac{1}{z}\right) = ?$

(A) 0

(B) 1

(C)  $\frac{3}{2}$

(D)  $-\frac{1}{2}$

(E) None of these

38. If  $2^x = 4^y = 8^z$  and  $\left(\frac{1}{2x} + \frac{1}{4y} + \frac{1}{6z}\right) = \frac{24}{7}$ , then  $z = ?$

(A)  $\frac{7}{16}$

(B)  $\frac{7}{32}$

(C)  $\frac{7}{48}$

(D)  $\frac{7}{64}$

(E) None of these

39.  $(2^3 + 2^2 + 2^{-2} + 2^{-3}) = ?$

(A)  $\frac{99}{8}$

(B)  $\frac{99}{16}$

(C)  $\frac{97}{8}$

(D) 6

(E) None of these

40. If  $(27)^{\frac{2}{3}} \times (81)^{-\frac{1}{2}} = 3^n$ , then  $n = ?$

(A) 1

(B) 0

(C) 27

(D) 81

(E) None of these

41.  $\left(\frac{1}{216}\right)^{-\frac{2}{3}} \div \left(\frac{1}{27}\right)^{-\frac{4}{3}} = ?$

(A)  $\frac{3}{4}$

(B)  $\frac{2}{3}$

(C)  $\frac{4}{9}$

(D)  $\frac{1}{8}$

(E) None of these

42. If  $x = 3 + 2\sqrt{2}$ , then  $\left(x^4 + \frac{1}{x^4}\right) = ?$

(A) 1024

(B) 1154

(C) 1734 (D) None of these

43.  $\frac{(5)^{0.25} \times (125)^{0.25}}{(256)^{0.10} \times (256)^{0.15}} = ?$

(A)  $\frac{25}{16}$

(B)  $\frac{25}{2}$

(C)  $\frac{5}{4}$

(D)  $\frac{\sqrt{5}}{2}$

(E) None of these



- 14.** The average of 4 consecutive odd numbers A, B, C and D is 54. What is the product of A and C ?  
a) 2805                      b) 2703  
c) 2915                      d) 2907  
e) None of these
- 15.** Find the average of first 20 multiples of 7.  
1) 73.5                      2) 74.5  
3) 73                              4) 74  
5) None of these
- 16.** The average of four consecutive even numbers is 27. Find the largest of these numbers.  
1) 15                              2) 30  
3) 45                              4) 60  
5) None of these
- 17.** The average of 25 results is 18. The average of first twelve of them is 14 and that of last twelve is 17. Find the thirteenth result.  
1) 46                              2) 56  
3) 68                              4) 78  
5) None of these
- 18.** Find the average of all the numbers between 6 and 34 which are divisible by 5.  
1) 18                              2) 20  
3) 24                              4) 30  
5) None of these
- 19.** The average of five consecutive odd numbers is 61. What is the difference between the highest and lowest numbers ?  
1) 2                              2) 5  
3) 8                              4) None of these  
5) Cannot be determined
- 20.** The average of 50 numbers is 30. If two numbers, 35 and 40 are discarded, then the average of the remaining numbers is nearly :  
1) 28.32                      2) 28.78  
3) 29.27                      4) 29.68  
5) None of these
- 21.** The average score of a cricketer for ten matches is 38.9 runs. If the average for the first six matches is 42, then find the average for the last four matches.  
1) 33.25                      2) 33.5  
3) 34.25                      4) 35  
5) None of these
- 22.** The average price of 10 books is Rs. 12 while the average price of 8 of these books is Rs. 11.75. Of the remaining two books, if the price of one book is 60% more than the price of the other, what is the price two books ?  
1) Rs. 5, Rs. 7.50  
2) Rs. 8, Rs. 12  
3) Rs. 10, Rs. 16  
4) Rs. 12, Rs. 14  
5) None of these
- 23.** A pupil's marks were wrongly entered as 83 instead of 63. Due to that the average marks for the class got increased by half. The number of pupils in the class is :  
1) 10                              2) 20  
3) 40                              4) 73  
5) None of these
- 24.** Three years ago, the average age of A and B was 18 years, With O joining them, the average age becomes 22 years. How old is C now?  
1) 24 years                      2) 27 years  
3) 28 years                      4) 30 years  
5) None of these
- 25.** The average age of the mother and her six children is 12 years which is reduced by 5 years if the age of the mother is excluded. How old is the mother ?  
1) 40 years                      2) 42 years  
3) 48 years                      4) 50 years  
5) None of these
- 26.** The average of first 50 natural numbers is :

- 1] 12.25                      2] 21.25  
3] 25                            4] 25.5  
5] None of these
- 27.** The average weight of three boys. A, B and C is  $54\frac{1}{3}$  kg, while the average weight of three boys B, D and E is 53 kg. What is the average weight of A, B, C, D and E ?  
1] 52.4 kg                      2] 53.2 kg  
3] 53.8 kg                      4] Data inadequate  
5] None of these
- 28.** After replacing an old member by a new member, it was found that the average age of five members of a club is the same as it was 3 years ago. What is the difference between the ages of the replaced and the new member?  
1] 2 years                      2] 4 years  
3] 8 years                      4] 15 years  
5] None of these
- 29.** A motorist travels to a plane 150 km away at an average speed of 50 km/hr and returns at 30 km/hr. His average speed for the whole journey in km/hr is :  
1] 35                              2] 37  
3] 37.5                          4] 40  
5] None of these
- 30.** The average age of 24 students and the principal is 15 years. When the principal's age is excluded, the average age decreases by 1 year. What is the age of the principal?  
(a) 38                              (b) 40  
(c) 39                              (d) 37
- 31.** The average weight of 3 men A, B and C is 84 kg. Another man D joins the group and the average now becomes 80 kg. If another man E, whose weight is 3 kg more than that of D, replaces A then the average weight of B, C, D and E becomes 78 kg. The weight of A is  
(a) 70 kg                      (b) 72 kg  
(c) 79 kg                      (d) 78 kg
- 32.** The mean temperature of Monday to Wednesday was  $37^{\circ}\text{C}$  and of Tuesday to Thursday was  $34^{\circ}\text{C}$ . If the temperature on Thursday was  $\frac{4}{5}$  that of Monday, the temperature on Thursday was  
(a)  $38^{\circ}\text{C}$                       (b)  $36^{\circ}\text{C}$   
(c)  $40^{\circ}\text{C}$                       (d)  $39^{\circ}\text{C}$
- 33.** Three years ago, the average age of A, B and C was 27 years and that of B and C 5 years ago was 20 years. A's present age is  
(a) 30 years                      (b) 35 years  
(c) 40 years                      (d) 48 years
- 34.** Ajit Tendulkar has a certain average for 9 innings. In the tenth inning, he scores 100 runs thereby increasing his average by 8 runs. His new average is  
(a) 20                              (b) 24  
(c) 28                              (d) 32
- 35.** The average of the first five multiples of 7 is  
(a) 20                              (b) 21  
(c) 28                              (d) 30
- 36.** The marks obtained by Hare Rama in Mathematics, English and Biology are respectively 93 out of 100, 78 out of 150 and 177 out of 200. Find his average score in percent.  
(a) 87.83                      (b) 86.83  
(c) 76.33                      (d) 77.33
- 37.** The average monthly expenditure of a family was Rs. 2750 for the first 3 months, Rs. 3150 for the next three months and Rs. 6750 for the next three months. Find the average income of the family for the 9 months, if they save Rs. 650 per month.  
(a) 4866.66                      (b) 5123.33  
(c) 4666.66                      (d) 4216.66



- 38.** The average height of 30 girls out of a class of 40 is 160 cm and that of the remaining girls is 156cm. The average height of the whole class is  
(a) 158 cm (b) 158.5 cm  
(c) 159 cm (d) 157 cm
- 39.** The average age of a family of 6 members is 22 years. If the age of the youngest member be 7years, what was the average age of the family at the birth of the youngest member?  
(a) 15 (b) 18  
(c) 21 (d) 12
- 40.** The average age of 8 persons in a committee is increased by 2 years when two men aged 35 years and 45 years are substituted by two women. Find the average age of the two women.  
(a) 48 (b) 45  
(c) 51 (d) 42
- 41.** The average temperature for Wednesday, Thursday and Friday was 40 °C. The average for Thursday, Friday and Saturday was 41 °C. If the temperature on Saturday was 42 °C, what was the temperature on Wednesday?  
(a) 39 °C (b) 44 °C  
(c) 38 °C (d) 41 °C
- 42.** The speed of the train in going from Nagpur to Allahabad is 100 km/hr while when coming back from Allahabad to Nagpur, its speed is 150 km/hr. Find the average speed during the whole journey.  
(a) 125 (b) 75  
(c) 135 (d) 120
- 43.** The average weight of a class of 29 students is 40 kg. If the weight of the teacher be included, the average rises by 500 gm. What is the weight of the teacher?  
(a) 40.5 kg (b) 50.5 kg  
(c) 45 kg (d) 55 kg
- 44.** The average of 3 numbers is 17 and that of the first two is 16. Find the third number.  
(a) 15 (b) 16  
(c) 17 (d) 19
- 45.** The average weight of 19 men in a ship is increased by 3.5 kg when one of the men, who weighs 79 kg, is replaced by a new man. Find the weight of the new man upto 2 decimal places  
(a) 105.75 (b) 107.55  
(c) 145.50 (d) 140.50
- 46.** The age of Shaurya and Kauravki is in the ratio 2 : 6. After 5 years, the ratio of their ages will become 6 : 8. Find the average of their ages after 10 years.  
(a) 12 (b) 13  
(c) 17 (d) 24
- 47.** Find the average of the first 97 natural numbers.  
(a) 47 (b) 37  
(c) 48 (d) 49
- 48.** Find the average of all prime numbers between 30 and 50.  
(a) 39.8 (b) 38.8  
(c) 37.8 (d) 41.8
- 49.** If we take four numbers, the average of the first three is 16 and that of the last three is 15. If the last number is 18, the first number is  
(a) 20 (b) 21  
(c) 23 (d) 25
- 50.** The average of 5 consecutive numbers is n. If the next two numbers are also included, the average will.  
(a) increase by 1  
(b) remain the same  
(c) increase by 1.4  
(d) increase by 2
- 51.** The average of 50 numbers is 38. If two numbers, namely, 45 and 55 are

- discarded, the average of the remaining numbers is  
(a) 36.5 (b) 37  
(c) 37.6 (d) 37.5
- 52.** The average of ten numbers is 7. If each number is multiplied by 12, then the average of the new set of numbers is  
(a) 7 (b) 19  
(c) 82 (d) 84
- 53.** In a family of 8 males and a few ladies, the average monthly consumption of grain per head is 10.8 kg. If the average monthly consumption per head be 15 kg in the case of males and 6 kg in the case of females, find the number of females in the family.  
(a) 8 (b) 7  
(c) 9 (d) 15
- 54.** Average marks obtained by a student in 3 papers is 52 and in the fourth paper he obtains 60 marks. Find his new average.  
(a) 54 (b) 52  
(c) 55 (d) 53.5
- 55.** The average earning of Shambhu Nath Pandey for the initial three months of the calendar year 2002 is Rs. 1200. If his average earning for the second and third month is Rs. 1300 find his earning in the first month?  
(a) 900 (b) 1100  
(c) 1000 (d) 1200
- 56.** In a hotel where rooms are numbered from 101 to 130, each room gives an earning of Rs. 3000 for the first fifteen days of a month and for the latter half, Rs. 2000 per room. Find the average earning per room per day over the month. (Assume 30 day month)  
(a) 2250 (b) 2500  
(c) 2750 (d) 2466.66
- 57.** The average weight of 5 men is decreased by 3 kg when one of them weighing 150 kg is replaced by another person. Find the weight of the new person.  
(a) 165 kg (b) 135 kg  
(c) 138 kg (d) 162 kg
- 58.** The average age of a group of men is increased by 5 years when a person aged 18 years is replaced by a new person of aged 38 years. How many men are there in the group?  
(a) 3 (b) 4  
(c) 5 (d) 6
- 59.** The average score of a cricketer in three matches is 22 runs and in two other matches, it is 17 runs. Find the average in all the five matches.  
(a) 20 (b) 19.6  
(c) 21 (d) 19.5
- 60.** The average of 13 papers is 40. The average of the first 7 papers is 42 and of the last seven papers is 35. Find the marks obtained in the 7th paper.  
(a) 23 (b) 38  
(c) 19 (d) 39
- 61.** The average age of the Indian cricket team playing the Nagpur test is 30. The average age of 5 of the players is 27 and that of another set of 5 players, totally different from the first five, is 29. If it is the captain who was not included in either of these two groups, then find the age of the captain.  
(a) 75 (b) 55  
(c) 50 (d) 58
- 62.** Siddhartha has earned an average of 4200 dollars for the first eleven months of the year. If he justifies his staying on in the US on the basis of his ability to earn at least 5000 dollars per month for the entire year, how much should he earn (in dollars)

- in the last month to achieve his required average for the whole year?  
(a) 14,600 (b) 5,800  
(c) 12,800 (d) 13,800
- 63.** A bus goes to Ranchi from Patna at the rate of 60 km per hour. Another bus leaves Ranchi for Patna at the same time as the first bus at the rate of 70 km per hour. Find the average speed for the journeys of the two buses combined if it is known that the distance from Ranchi to Patna is 420 kilometers.  
(a) 64.615 kmph (b) 64.5 kmph  
(c) 63.823 kmph (d) 64.82 kmph
- 64.** A train travels 8 km in the first quarter of an hour, 6 km in the second quarter and 40 km in the third quarter. Find the average speed of the train per hour over the entire journey.  
(a) 72 km/h (b) 18 km/h  
(c) 77.33 km/h (d) 78.5 km/h
- 65.** The average weight of 6 men is 68.5 kg. If it is known that Ram and Tram weigh 60 kg each, find the average weight of the others.  
(a) 72.75 kg (b) 75 kg  
(c) 78 kg (d) 80 kg
- 66.** The average score of a class of 40 students is 52. What will be the average score of the rest of the students if the average score of 10 of the students is 61.  
(a) 50 (b) 47  
(c) 48 (d) 49
- 67.** The average age of 80 students of IIM, Bangalore of the 1995 batch is 22 years. What will be the new average if we include the 20 faculty members whose average age is 37 years?  
(a) 32 years (b) 24 years  
(c) 25 years (d) 26 years
- 68.** Out of three numbers, the first is twice the second and three times the third. The average of the three numbers is 88. The smallest number is  
(a) 72 (b) 36  
(c) 42 (d) 48
- 69.** The sum of three numbers is 98. If the ratio between the first and second is 2 : 3 and that between the second and the third is 5 : 8, then the second number is  
(a) 30 (b) 20  
(c) 58 (d) 48
- 70.** The average weight of a class of 30 students is 40 kg. If, however, the weight of the teacher is included, the average becomes 41 kg. The weight of the teacher is  
(a) 31 kg (b) 62 kg  
(c) 71 kg (d) 70 kg
- 71.** Ram bought 2 toys for Rs. 5.50 each, 3 toys for Rs. 3.66 each and 6 toys for Rs. 1.833 each. The average price per toy is  
(a) Rs. 3 (b) Rs. 10  
(c) Rs. 5 (d) Rs. 9
- 72.** 30 oranges and 75 apples were purchased for Rs. 510. If the price per apple was Rs. 2, then the average price of oranges was  
(a) Rs. 12 (b) Rs. 14  
(c) Rs. 10 (d) Rs. 15
- 73.** The average income of Sambhu and Ganesh is Rs. 3,000 and that of Arun and Vinay is Rs. 500. What is the average income of Sambhu, Ganesh, Arun and Vinay?  
(a) Rs. 1750 (b) Rs. 1850  
(c) Rs. 1000 (d) Rs. 2500
- 74.** A batsman made an average of 40 runs in 4 innings, but in the fifth inning, he was out on zero. What is the average after fifth inning?  
(a) 32 (b) 22

- (c) 38 (d) 49
- 75.** The average weight of 40 teachers of a school is 80 kg. If, however, the weight of the principal be included, the average decreases by 1 kg. What is the weight of the principal?  
(a) 109 kg (b) 29 kg  
(c) 39 kg (d) None of these
- 76.** The average temperature of 1st, 2nd and 3rd December was 24.4 °C. The average temperature of the first two days was 24 °C. The temperature on the 3rd of December was  
(a) 20 °C (b) 25 °C  
(c) 25.2 °C (d) None of these
- 77.** The average age of Ram and Shyam is 20 years. Their average age 5 years hence will be  
(a) 25 years (b) 22 years  
(c) 21 years (d) 20 years
- 78.** The average of 20 results is 30 and that of 30 more results is 20. For all the results taken together, the average is.  
(a) 25 (b) 50  
(c) 12 (d) 24
- 79.** The average of 5 consecutive numbers is 18. The highest of these numbers will be  
(a) 24 (b) 18  
(c) 20 (d) 22
- 80.** The average of 6 students is 11 years. If 2 more students of age 14 and 16 years join, their average will become.  
(a) 12 years (b) 13 years  
(c) 21 years (d) 19 years
- 81.** The average of 8 numbers is 12. If each number is increased by 2, the new average will be  
(a) 12 (b) 14  
(c) 13 (d) 15
- 82.** Three years ago, the average age of a family of 5 members was 17 years. A baby having been born, the average of the family is the same today. What is the age of the baby?  
(a) 1 year (b) 2 years  
(c) 6 months (d) 9 months
- 83.** Sambhu's average daily expenditure is Rs. 10 during May, Rs. 14 during June and Rs. 15 during July. His approximate daily expenditure for the 3 months is  
(a) Rs. 13 approximately  
(b) Rs. 12  
(c) Rs. 12 approximately  
(d) Rs. 10
- 84.** A ship sails out to a mark at the rate of 15 km per hour and sails back at the rate of 20 km/h. What is its average rate of sailing?  
(a) 16.85 km (b) 17.14 km  
(c) 17.85 km (d) 18 km
- 85.** The average temperature on Monday, Tuesday and Wednesday was 41 °C and on Tuesday, Wednesday and Thursday it was 40 °C. If on Thursday it was exactly 39 °C, then on Monday, the temperature was  
(a) 42 °C (b) 46 °C  
(c) 23 °C (d) 26 °C
- 86.** The average of 20 results is 30 out of which the first 10 results are having an average of 10. The average of the rest 10 results is  
(a) 50 (b) 40  
(c) 20 (d) 25
- 87.** A man had seven children. When their average age was 12 years a child aged 6 years died. The average age of the remaining 6 children is  
(a) 6 years (b) 13 years  
(c) 17 years (d) 15 years
- 88.** The average income of Ram and Shyam is Rs. 200. The average income of Rahul and Rohit is Rs.

250. The average income of Ram, Shyam, Rahul and Rohit is  
(a) Rs. 275 (b) Rs. 225  
(c) Rs. 450 (d) Rs. 250
- 89.** The average weight of 35 students is 35 kg. If the teacher is also included, the average weight increases to 36 kg. The weight of the teacher is  
(a) 36 kg (b) 71 kg  
(c) 70 kg (d) 45 kg
- 90.** The average of  $x$ ,  $y$  and  $z$  is 45.  $x$  is as much more than the average as  $y$  is less than the average. Find the value of  $z$ .  
(a) 45 (b) 25  
(c) 35 (d) 15
- 91.** With an average speed of 40 km/h, a train reaches its destination in time. If it goes with an average speed of 3 km/h, it is late by 15 minutes. The length of the total journey is:  
(a) 40 km (b) 70 km  
(c) 30 km (d) 80 km
- 92.** In the month of July of a certain year, the average daily expenditure of an organisation was Rs. 68. For the first 15 days of the month, the average daily expenditure was Rs. 85 and for the last 17 days Rs. 51. Find the amount spent by the organisation on the 15th of the month.  
(a) Rs. 42 (b) Rs. 36  
(c) Rs. 34 (d) Rs. 52
- 93.** In 1919, W. Rhodes, the Yorkshire cricketer, scored 891 runs for his county at an average of 34.27; in 1920, he scored 949 runs at an average of 28.75; in 1921, 1329 runs at an average of 42.87 and in 1922, 1101 runs at an average of 36.70. What was his county batting average for the four years?  
(a) 36.23 (b) 37.81  
(c) 35.88 (d) 28.72
- 94.** A train travels with a speed of 20 m/s in the first 10 minutes, goes 8.5 km in the next 10 minutes, 11 km in the next 10, 8.5 km in the next 10 and 6 km in the next 10 minutes. What is the average speed of the train in kilometer per hour for the journey described?  
(a) 42 kmph (b) 35.8 kmph  
(c) 55.2 kmph (d) 46 kmph
- 95.** One-fourth of a certain journey is covered at the rate of 25 km/h, one-third at the rate of 30 km/h and the rest at 50 km/h. Find the average speed for the whole journey.  
(a)  $600/53$  km/h (b)  $1200/53$  km/h  
(c)  $1800/53$  km/h (d)  $1600/53$
- 96.** Typist A can type a sheet in 6 minutes, typist B in 7 minutes and typist C in 9 minutes. The average number of sheets typed per hour per typist for all three typists is  
(a)  $265/33$  (b)  $530/63$   
(c)  $655/93$  (d)  $530/33$
- 97.** Find the average increase rate if increase in the population in the first year is 30% and that in the second year is 40%.  
(a) 41 (b) 56  
(c) 40 (d) 38
- 98.** The average income of a person for the first 6 days is Rs. 29, for the next 6 days it is Rs. 24, for the next 10 days it is Rs. 32 and for the remaining days of the month it is Rs. 30. Find the average income per day.  
(a) Rs. 31.64 (b) Rs. 30.64  
(c) Rs. 29.26  
(d) Cannot be determined
- 99.** In hotel Jaysarmin, the rooms are numbered from 101 to 130 on the first floor, 221 to 260 on the second floor and 306 to 345 on the third floor. In the month of June 2012, the room occupancy was 60% on

the first floor, 40% on the second floor and 75% on the third floor. If it is also known that the room charges are Rs. 200, Rs. 100 and Rs. 150 on each of the floors, then find the average income per room for the month of June 2012.

- (a) Rs. 151.5                      (b) Rs. 88.18  
(c) Rs. 78.3                        (d) Rs. 65.7

**100.** A salesman gets a bonus according to the following structure: If he sells articles worth Rs.  $x$  then he gets a bonus of Rs.  $(x/100 - 1)$ . In the month of January, his sales value was Rs. 100, in February it was Rs. 200, from March to November it was Rs. 300 for every month and in December it was Rs. 1200. Apart from this, he also receives a basic salary of Rs. 30 per month from his employer. Find his average income per month during the year.

- (a) Rs. 31.25                      (b) Rs. 30.34  
(c) Rs. 32.5                        (d) Rs. 34.5

**101.** A man covers half of his journey by train at 60 km/h, half of the remainder by bus at 30 km/h and the rest by cycle at 10 km/h. Find his average speed during the entire journey.

- (a) 36 kmph                        (b) 30 kmph  
(c) 24 kmph                        (d) 18 kmph

**102.** The average weight of 5 men is decreased by 3 kg when one of them weighing 150 kg is replaced by another person. This new person is again replaced by another person whose weight is 30 kg lower than the person he replaced. What is the overall change in the average due to this dual change?

- (a) 6 kg                              (b) 9 kg  
(c) 12 kg                            (d) 15 kg

**103.** There are five boxes in a cargo hold. The weight of the first box is 200 kg and the weight of the

second box is 20% higher than the weight of the third box, whose weight is 25% higher than the first box's weight. The fourth box at 350 kg is 30% lighter than the fifth box. Find the difference in the average weight of the four heaviest boxes and the four lightest boxes.

- (a) 51.5 kg                        (b) 75 kg  
(c) 37.5 kg                        (d) 112.5 kg

**104.** For Question 14, find the difference in the average weight of the heaviest three and the lightest three.

- (a) 116.66 kg                      (b) 125 kg  
(c) 150 kg                         (d) 112.5 kg

**105.** A batsman makes a score of 270 runs in the 87th inning and thus increases his average by a certain number of runs that is a whole number. Find the possible values of the new average.

- (a) 98                                (b) 184  
(c) 12                                (d) All of these

**106.** 19 persons went to a hotel for a combined dinner party. 13 of them spent Rs. 79 each on their dinner and the rest spent Rs. 4 more than the average expenditure of all the 19. What was the total money spent by them?

- (a) 1628.4                        (b) 1534  
(c) 1492                            (d) None of these

**107.** There were 42 students in a hostel. Due to the admission of 13 new students, the expenses of the mess increase by Rs. 31 per day while the average expenditure per head diminished by Rs. 3. What was the original expenditure of the mess?

- (a) Rs. 633.23                      (b) Rs. 583.3  
(c) Rs. 623.3                        (d) Rs. 632

**108.** The average weight of 47 balls is 4 gm. If the weight of the bag (in which the balls are kept) be

included, the calculated average weight per ball increases by 0.3 gm.

What is the weight of the bag?

- (a) 14.8 gm (b) 15.0 gm  
(c) 18.6 gm (d) None of these

**109.** The average of 71 results is 48. If the average of the first 59 results is 46 and that of the last 11 is 52. Find the 60th result.

- (a) 132 (b) 122  
(c) 134 (d) 128

**110.** A man covers  $\frac{1}{3}$ rd of his journey by cycle at 50 km/h, the next  $\frac{1}{3}$  by car at 30 km/h, and the rest by walking at 7 km/h. Find his average speed during the whole journey.

- (a) 14.2 kmph (b) 15.3 kmph  
(c) 18.2 kmph (d) 12.8 kmph

**111.** The average age of a group of 14 persons is 27 years and 9 months. Two persons, each 42 years old, left the group. What will be the average age of the remaining persons in the group?

- (a) 26.875 years (b) 26.25 years  
(c) 25.375 years (d) 25 years

**112.** In an exam, the average was found to be  $x$  marks. After deducting computational error, the average marks of 94 candidates got reduced from 84 to 64. The average thus came down by 18.8 marks. The numbers of candidates who took the exam were:

- (a) 100 (b) 90  
(c) 110 (d) 105

**113.** The average salary of the entire staff in an office is Rs. 3200 per month. The average salary of officers is Rs. 6800 and that of non-officers is Rs. 2000. If the number of officers is 5, then find the number of non-officers in the office?

- (a) 8 (b) 12

- (c) 15 (d) 5

**114.** The average of 5 numbers is 306.4. The average of the first two numbers is 431 and the average of the last two numbers is 214.5. What is the third number?

- (1) 108 (2) 52  
(3) 321 (4) Cannot be determined  
(5) None of these

**(Bank Of Maharashtra PO Exam. 25.05.2008)**

**115.** Kamlesh bought 65 books for 1,050 from one shop and 50 books for 1,020 from another. What is the average price he paid per book?

- (1) 36.40 (2) 18.20  
(3) 24 (4) 18  
(5) None of these

**(Bank Of Maharashtra PO Exam. 25.05.2008)**

**116.** The sum of five numbers is 290. The average of the first two numbers is 48.5 and the average of last two numbers is 53.5. What is the third number?

- (1) 72 (2) 84  
(3) 96 (4) 108  
(5) None of these

**(Indian Overseas Bank PO Exam. 05.04.2009)**

**117.** The average weight of a group of 53 girls was calculated as 58 kg. It was later discovered that the weight of one of the girls was read as 65 kg., whereas her actual weight was 45 kg. What is the actual average weight of the group of 53 girls? (rounded off to two digits after decimal)

- (1) 58.62 kg. (2) 58.37 kg.  
(3) 57.37 kg. (4) 57.62 kg.  
(5) None of these

**(Indian Overseas Bank PO Exam. 05.04.2009)**

**118.** The average marks in Science subject of a class of 20 students is 68. If the marks of two students were misread as 48 and 65 of the actual

marks 72 and 61 respectively, then what would be the correct average ?

- (1) 68.5                      (2) 69  
(3) 69.5                      (4) 70  
(5) 66

**(Corporation Bank PO  
Exam. 22.11.2009)**

**119.** The average age of the family of five members is 24. If the present age of youngest member is 8 years, then what was the average age of the family at the time of the birth of the youngest member ?

- (1) 20 years                      (2) 16 years  
(3) 12 years                      (4) 18 years  
(5) 21 years

**(Corporation Bank PO  
Exam. 22.11.2009)**

**120.** The average of 5 numbers is 65. The average of the first two numbers is 81 and the average of the last two numbers is 38. What is the third number ?

- (1) 63                              (2) 87  
(3) 99                      (4) Cannot be determined  
(5) None of these

**(Indian Bank Rural Marketing  
Officer Exam. 03.01.2010)**

**121.** The total marks obtained by a student in Physics, Chemistry and Mathematics together is 120 more than the marks obtained by him in Chemistry. What are the average marks obtained by him in Physics and Mathematics together ?

- (1) 60                              (2) 120  
(3) 40                      (4) Cannot be determined  
(5) None of these

**(Allahabad Bank PO  
Exam. 21.02.2010)**

**122.** The average age of 80 boys in a class is 15 years. The average age of a group of 15 boys in the class is 16 years and the average age of another 25 boys in the class is 14 years. What is the average age of the remaining boys in the class ?

- (1) 15.25 years                      (2) 14 years  
(3) 14.75 years

- (4) Cannot be determined  
(5) None of these

**(Corporation Bank PO  
Exam. 09.05.2010)**

**123.** The average age of seven boys sitting in a row facing North is 26 years. If the average age of first three boys is 19 years and the average age of last three boys is 32 years, what is the age of the boy who is sitting in middle of the row ?

- (1) 28 years                      (2) 29 years  
(3) 24 years                      (4) 31 years  
(5) None of these

**(Punjab & Sind Bank PO  
Exam. 16.05.2010)**

**124.** Ram's present age is three times his son's present age and two-fifth of his father's present age. The average of the present age of all of them is 46 years. What is the difference between the Ram's son's present age and Ram's father's present age ?

- (1) 68 years                      (2) 88 years  
(3) 58 years  
(4) Cannot be determined  
(5) None of these

**(Bank Of Baroda PO  
Exam. 30.05.2010)**

**125.** The average of five numbers is 56. If the average of first four numbers is 54, what is the value of the fifth number ?

- (1) 68                              (2) 72  
(3) 56                              (4) 64  
(5) None of these

**(Bank Of India PO  
Exam. 31.10.2010)**

**126.** The average weight of 45 students in a class was calculated as 36 kg. It was later found that the weight of two students in the class was wrongly calculated. The actual weight of one of the boys in the class was 32 kg., but it was calculated as 34 kg. and the weight of another boy in the class was 45 kg.; whereas it was calculated as 40 kg. What is the actual average weight of the 45



students in the class? (Rounded off to two-digits after decimal)

- (1) 36.07 kg.                      (2) 36.16 kg.  
 (3) 35.84 kg.  
 (4) Cannot be determined  
 (5) None of these

**(PNB Management Trainee  
Exam. 28.11.2010)**

**127.** Seema's present age is four times her son's present age and four-seventh of her father's present age. The average of the present age of all three of them is 32 years. What is the difference between the Seema's son's present age and Seema's father's present age ?

- (1) 44 years                      (2) 48 years  
 (3) 46 years  
 (4) Cannot be determined  
 (5) None of these

**(Bank Of Maharashtra  
Exam. 19.12.2010)**

**128.** The sum of eight consecutive even numbers of set-A is 376. What is the sum of different set of five consecutive numbers whose lowest number is 15 more than the mean of set-A ?

- (1) 296                              (2) 320  
 (3) 324                              (4) 284  
 (5) None of these

**(Union Bank Of India  
PO Exam. 09.01.2001)**

**129.** Average score of Rahul, Manish and Suresh is 63. Rahul's score is 15 less than Ajay and 10 more than Manish. If Ajay scored 30 marks more than the average score of Rahul, Manish and Suresh, what is the sum of Manish's and Suresh's scores ?

- (1) 120                              (2) 111  
 (3) 117  
 (4) Cannot be determined  
 (5) None of these

**(Corporation Bank PO  
Exam. 16.01.2011)**

**130.** The sum of 8 consecutive odd numbers is 656. Also average of four consecutive even numbers is 87.

What is the sum of the smallest odd number and second largest even number?

- (1) 165                              (2) 175  
 (3) 163  
 (4) Cannot be determined  
 (5) None of these

**(Bank Of Baroda PO  
Exam. 13.03.2011)**

**131.** The average marks in English subject of a class of 24 students is 56. If the marks of three students were misread as 44, 45 and 61 of the actual marks 48, 59 and 67 respectively, then what would be the correct average ?

- (1) 56                              (2) 55  
 (3) 57.5                              (4) 58.5  
 (5) None of these

**(IBPS Bank PO/MT CWE  
Exam. 18.09.2011)**

**132.** The average age of some males and 15 females is 18 years. The sum of the ages of 15 females is 240 years and average age of males is 20 years. Find the number of males.

- (1) 8                              (2) 7  
 (3) 10                              (4) 15  
 (5) None of these

**133.** The sum of the present ages of P and Q is 25 years more than the age of R. The present age of Q is 5 years more than that of R. Find the present age of P.

- (1) 20 years                      (2) 25 years  
 (3) 21 years                      (4) 22 years  
 (5) None of these

**(IBPS RRBs Officer Scale-I  
CWE, 06.09.2014)**

**134.** The average of four consecutive even numbers P, Q, R and S respectively (in increasing order) is 51. What is the product of P and R ?

- (1) 2592                              (2) 2400  
 (3) 2600                              (4) 2808  
 (5) None of these

**(IBPS RRBs Office Assistant CWE  
Exam. 09.09.2012)**

**135.** The average height of 27 persons was recorded as 162 cm. If the height of Shreya was deleted from the observation, the average height reduced by 1 cm. What was Shreya's height?

- (1) 184 cm. (2) 226 cm.  
 (3) 179 cm. (4) 186 cm.  
 (5) None of these

**(IBPS RRBs Office Assistant CWE Exam. 09.09.2012)**

**136.** The average of the 9 consecutive positive integers is 63. The product of the largest and smallest integer is

- (1) 3935 (2) 3953  
 (3) 3853 (4) 3835  
 (5) 3635

**(Indian Overseas Bank PO Online Exam. 01.09.2013)**

**137.** The present age of Romila is one fourth of that of her father. After 6 years the father's age will be twice the age of Kapil. If Kapil celebrated fifth birth day 8 years ago, What is Romila's present age ?

- (1) 7 years (2) 7.5 years  
 (3) 8 years (4) 8.5 years  
 (5) None of these

**(IBPS Bank PO/MT CWE-III 26.10.2013)**

**138.** The average height of 16 students is 142 cm. If the height of the teacher is included, the average height increases by 1 cm. The height of the teacher is

- (1) 156 cm (2) 159 cm  
 (3) 158 cm (4) 157 cm  
 (5) 159.5 cm

**(Corporation Bank Specialist Officer (Marketing) Exam. 22.02.2014)**

**139.** There are three positive numbers, of average of all the three numbers is 8 less than the value of the highest number. Average of the lowest and the second lowest number is 8. Which is the highest number ?

- (1) 11 (2) 14  
 (3) 10 (4) 9

(5) 13

**(IBPS RRBs Officer Scale-I & II CWE 12.09.2015)**

**140.** X's age 3 years ago was three times the present age of Y. At present, Z's age is twice the age of Y. Also Z is 12 years younger than X. What is the present age of Z ?

- (1) 15 years (2) 24 years  
 (3) 12 years (4) 6 years  
 (5) 18 years

**(IBPS RRBs Officer Scale-I & II CWE 13.09.2015)**

**141.** Average score of a class of 50 students, in an exam is 34. Average score of the students who have passed is 52 and the average score of students who have failed is 16. How many students have failed in the exam ?

- (1) 25 (2) 20  
 (3) 15 (4) 18  
 (5) 30

**(IBPS RRBs Officer Scale-I & II CWE 13.09.2015)**

**142.** The average speed of a car is  $\frac{1}{4}$ th of that of a bus. The bus covers 750 km. in 10 hours. How much distance (in km) will the car cover in 7 hours ?

- (1) 375 (2) 285  
 (3) 365 (4) 295  
 (5) None of these

**(SBI Specialist (IT) Officer Exam. 19.04.2014)**

**143.** The average of the age of Sumit, Krishna and Rishabh is 43 years and the average of the age of Sumit, Rishabh and Rohit is 49 years. If Rohit is 54 years old, what is Krishna's age?

- (1) 45 years (2) 24 years  
 (3) 36 years  
 (4) Cannot be determined  
 (5) None of these

**(SBI PO Preliminary (Tier-I) Exam. 27.07.2008)**

**144.** Of the three numbers, the average of the first and the second is greater

than the average of the second and the third by 15. What is the difference between the first and the third of the three numbers?

- (1) 15 (2) 45  
(3) 60 (4) Data inadequate  
(5) None of these

**(SBI Banks PO Exam. 20.08.2000)**

**145.** In Arun's opinion his weight is greater than 65 kg but less than 72 kg. His brother does not agree with Arun and he thinks that Arun's weight is greater than 60 kg but less than 70 kg. His mother's view is that his weight cannot be greater than 68 kg. If all of them are correct in their estimation, what is the average of different probable weights of Arun?

- (1) 69 kg (2) 67 kg  
(3) 68 kg (4) Data inadequate  
(5) None of these

**(SBI Banks PO Exam. 20.08.2000)**

**146.** Average weight of three boys P, T and R is kg while the average weight of three boys, T, F and G is 53 kg. What is the average weight of P, T, R, F and H ?

- (1) 53.8 kg (2) 52.4 kg  
(3) 53.2 kg (4) Data inadequate  
(5) None of these

**(SBI Associate Banks PO Exam. 21.07.2002 &**

**LIC Assistant Administrative Officer (AAO) Exam. 2006)**

**147.** The difference between the present age of Arun and Deepak is 14 years. Seven years ago the ratio of their ages was 5:7 respectively. What is Deepak's present age ?

- (1) 49 years (2) 42 years  
(3) 63 years (4) 35 years  
(5) None of these

**(SBI PO Preliminary (Tier-I) Exam. 27.04.2008)**

**148.** The average age of 80 girls was 20 years, the average age of 20 of them was 22 years and that of another 20

was 24 years. Find the average age of the remaining girls.

- (1) 17 years (2) 19 years  
(3) 21 years (4) 15 years  
(5) None of these

**(SBI PO Preliminary (Tier-I) Exam. 27.07.2008)**

**149.** In a Zumba class, the average age of all the members was 43.5 years, 10 members left the class and 6 new members joined. If the average age increased by 2 years and the total age decreased by 110, what was the number of members in the class initially?

- (1) 34 (2) 36  
(3) 32 (4) 40  
(5) 30

**(NABARD Officer Grade 'A' Online Exam. 03.08.2014)**

**150.** The number of heat wave days in the Indian sub continent in 1995 was 29 and deaths due to heat wave were 406. What was the average of deaths per heat wave day in 1995?

- (1) 12 (2) 13  
(3) 14 (4) 15

**(United India Insurance Co. AAO Exam. 21.04.2002)**

**151.** The age of Jaya 10 years ago is equal to Simaran's present age. The sum of Jaya's age 8 years hence from today and Simaran's age 12 years ago is 90 years. What was the age of Komal 13 years ago from now if Komal is 9 years younger than Simaran ?

- (1) 42 years (2) 33 years  
(3) 20 years (4) 22 years  
(5) None of these

**152.** There are 14 members in a yoga training centre. Four members of it leave and 6 new members join the centre. As a result, the average age of the members of the centre decreases by 5 years and the sum of all

members also decreases by 20 years. What is the new average age of the members ?

- (1) 28 years                      (2) 27 years  
(3) 25 years                      (4) 29 years  
(5) None of these

**(NIACL Administrative Officer (AO) Exam. 11.01.2015)**

**153.** The mean temperature of Monday to Wednesday was  $37^{\circ}\text{C}$  and of Tuesday to Thursday was  $34^{\circ}\text{C}$ . If the temperature on Thursday was  $\frac{4}{5}$ th that of Monday, then what was the temperature on Thursday ?

- (1)  $36.5^{\circ}\text{C}$                       (2)  $36^{\circ}\text{C}$   
(3)  $35.5^{\circ}\text{C}$                       (4)  $34^{\circ}\text{C}$

**(United India Insurance Co. (AAO) Exam. 11.03.2007)**

**154.** Three years ago the average age of A and B was 18 years. While C joining them now, the average becomes 22 years. How old (in years) is C now ?

- (1) 24                                      (2) 27  
(3) 28                                      (4) 30

**(United India Insurance Co. (AAO) Exam. 11.03.2007)**

**155.** A team of 8 persons joins in a shooting competition. The best marksman scored 85 points. If he had scored 92 points, the average score for the team would have been 84. The number of points, the team scored was :

- (1) 645                                      (2) 665  
(3) 588                                      (4) 672

**(LIC Assistant Administrative Officer (AAO) Exam. 07.06.2009)**

**156.** The mean temperature of Monday and Thursday was  $36^{\circ}\text{C}$ . If the temperature on Thursday was  $\frac{1}{3}$ th of that of Monday, then what was the temperature on Thursday?

- (1)  $36.5^{\circ}\text{C}$                       (2)  $32^{\circ}\text{C}$   
(3)  $35.5^{\circ}\text{C}$                       (4)  $34^{\circ}\text{C}$

**(NICL (GIC) Administrative Officer Exam. 15.12.2013)**

**157.** The sum of five numbers is 555. The average of first two numbers is

75 and the third number is 115. What is the average of last two-numbers?

- (1) 145                                      (2) 150  
(3) 265                                      (4) 290

**(NICL (GIC) Administrative Officer Exam. 15.12.2013)**

**158.** The sum of seven consecutive even numbers of a set is 532. What is the average of first four consecutive even numbers of the same set ?

- (1) 76 years                              (2) 75 years  
(3) 74 years                              (4) 73 years  
(5) None of these

**(United India Insurance AO Exam. 27.03.2011)**

**159.** Four numbers are written in a row. The average of first two numbers is 7, the average of the middle two terms is 2.3 and the average of the last two numbers is 8.4. The average of first number and the last number is

- (1) 5.9                                      (2) 10.7  
(3) 13.1  
(4) cannot be determined

**(New India Insurance AAO Exam. 22.05.2011)**

**160.** Average of first five multiples of 5 is :

- (1) 15                                      (2) 15.1  
(3) 15.5                                      (4) 15.3

**(NICL (GIC) AO (Finance) Exam. 08.09.2013 (Paper-I))**

**161.** The average of marks obtained by 120 students was 35. If the average of passed candidates was 39 and that of failed candidates is 15, the number of candidates who passed the examination is :

- (1) 100                                      (2) 110  
(3) 120                                      (4) 80

**(General Insurance Corporation AAO Exam. 11.12.2011)**

**162.** In a group of 5 friends, the sum of age (in years) of each group of 4 of them are 124, 128, 130, 136 and 142. The age (in years) of the youngest of them is

- (1) 18 (2) 21  
(3) 23 (4) 27

**(United India Insurance AAO  
Exam. 03.06.2012)**

**163.** The mean of 15 different natural numbers is 13. The maximum value of the second largest of these numbers is

- (1) 53 (2) 52  
(3) 51 (4) 50

**(United India Insurance AAO  
Exam. 03.06.2012)**

**164.** What will be the average of the following set of numbers ?

678, 193, 285, 494, 342, 762

- (1) 395 (2) 359  
(3) 495 (4) 459  
(5) None of these

**(LIC Apprentice  
Development Officer (ADO)  
Online Exam. 03.02.2013)**

**165.** The average weight of M, N and O is equal to 65 kg. The average weight of M and N is equal to 69.5 kg. The average weight of N and O is 66.5 kg. What is the weight of N ?

- (1) 74 kg (2) 75 kg  
(3) 77 kg (4) 80 kg  
(5) None of these

**(LIC Assistant Administrative Officer  
(AAO) Exam. 12.05.2013)**

**166.** The average of 8 numbers is A and the average of four of these is B. If the average of remaining four is C, then

- (1)  $2A = B + C$   
(2)  $A = B + 2C$   
(3)  $A = 2B + C$   
(4)  $A = 2A + 2B$

**(NICL (GIC) AO (Finance)  
Exam. 08.09.2013 (Paper-I)**

**167.** The average of the two-digit numbers, which remain the same when the digits interchange their positions is :

- (1) 55 (2) 55.5  
(3) 56 (4) 56.5

**(NICL (GIC) AO (Finance)**

**Exam. 08.09.2013 (Paper-I)**

**168.** The average score of a class of boys and girls in an examination is A. The ratio of boys and girls in the class is 3 : 1. If the average score of the boys is  $(A + 1)$ , the average score of the girls is :

- (1)  $(A - 1)$  (2)  $(A - 3)$   
(3)  $(A + 1)$  (4)  $(A + 3)$

**(NICL (GIC) AO (Finance)  
Exam. 15.12.2013)**

**169.** 8 years ago, Jyoti's age was equal to the Swati's present age. If the sum of Jyoti's age 10 years from now and Swati's age 6 years ago is 88 years. What was Kusum's age 14 years ago if Kusum is 8 years younger to Swati ? (in years)

- (1) 22 (2) 14  
(3) 25 (4) 24  
(5) 16

**170.** In a yoga class there were 12 members . Two members left the class and 4 new members joined. If the average age decreased by 4 years and the total age decreased by 2 years, what is the new average age of the class? (in years)

- (1) 22 (2) 27  
(3) 23 (4) 28  
(5) 18

**(NIACL Administrative Officer  
(AO) Exam. 10.01.2015)**

**171.** There are 5 consecutive odd numbers. If the difference between square of the average of first two odd numbers and the square of the average of last two odd numbers is 588, what is the smallest odd number ?

- (1) 45 (2) 47  
(3) 41 (4) 49  
(5) 43

**(LIC Assistant Administrative  
Officer(AAO) Online Exam.  
05.03.2016)**

**172.** A batsman played three matches in a tournament. The respective ratio between the scores of 1st and

2nd matches was 5 : 4 and that between the scores of 2nd and 3rd matches was 2 : 1. The difference between the 1st and 3rd matches was 48 runs. What was the batsman's average score in all the three matches ?

- (1) 45 (2) 58  
(3) 70 (4) 58.66  
(5) NONE

**(LIC Assistant Administrative Officer(AAO) Online Exam. 05.03.2016)**

**173.** There are 5 consecutive odd numbers. If the difference between the square of the average of the first two odd numbers and square of the average of the last two odd numbers is 492, what is the smallest odd number?

- (1) 37 (2) 42  
(3) 41 (4) 35  
(5) 39

**(LIC Assistant Administrative Officer(AAO) Online Exam. 06.03.2016)**

**5. PROBLEM ON AGES**

1. The ratio of the father's age to the son's age is 4 : 1. The product of their ages is 196. The ratio of their ages after 5 years will be—  
(A) 3 : 1 (B) 10 : 3  
(C) 11 : 4 (D) 14 : 5
2. 10 years ago, Chandravati's mother was 4 times older than her daughter. After 10 years, the mother will be twice older than the daughter. The present age of Chandravati is—  
(A) 5 years (B) 10 years  
(C) 20 years (D) 30 years
3. After five years the age of a father will be thrice the age of his son whereas five years ago, he was seven times as old as his son was. What is father's present age ?  
(A) 35 years (B) 40 years  
(C) 45 years (D) 50 years
4. The age of Arvind's father is 4 times of his age. If 5 years ago, father's age was 7 times of the age of his son at that time. What is Arvind's father's present age ?  
(A) 35 years (B) 40 years  
(C) 70 years (D) 84 years
5. Pushpa is twice as old as Rita was two years ago. If the difference between their ages be 2 years, how old is Pushpa today ?  
(A) 6 years (B) 8 years  
(C) 10 years (D) 12 years
6. The difference between the ages of two persons is 10 years. 15 years ago the elder one was twice as old as the younger one. The present age of the elder person is—  
(A) 25 years (B) 35 years  
(C) 45 years (D) 55 years
7. Five years ago Viney's age was one-third of the age of Vikas and now Viney's age is 17 years. What is the present age of Vikas ?  
(A) 9 years (B) 36 years  
(C) 41 years (D) 51 years
8. The age of a man is 4 times that of his son. Five years ago, the man was nine times as old as his son was at that time. The present age of the man is—  
(A) 24 years (B) 32 years  
(C) 40 years (D) 44 years
9. The sum of the ages of a father and son is 45 years. Five years ago the product of their ages was 4 times the father's age at that time. The present ages of the father and son respectively are—  
(A) 25 years, 10 years  
(B) 36 years, 9 years  
(C) 39 years, 6 years  
(D) None of these
10. Rajan's age is 3 times that of Ashok. After 12 years, Rajan's age will be double the age of Ashok. Rajan's present age is—  
(A) 27 years (B) 32 years  
(C) 36 years (D) 40 years
11. After 10 years, A will be twice as old as B was 10 years ago. If A is now 9 years older than B, the present age of B is—  
(A) 19 years (B) 29 years  
(C) 39 years (D) 49 years
12. Mr. Sohanlal is 4 times as old as his son. Four years hence the sum of their ages will be 43 years. The present age of son is—  
(A) 5 years (B) 7 years  
(C) 8 years (D) 10 years
13. The sum of the ages of a son and father is 56 years. After four years,

the age of the father will be three times that of the son. Their present ages respectively are—

- (A) 12 years, 44 years
- (B) 16 years, 42 years
- (C) 16 years, 48 years
- (D) 18 years, 36 years

**14.** The sum of the ages of a mother and a daughter is 50 years. Also, 5 years ago, the mother's age was 7 times of the age of her daughter. The present ages of the mother and the daughter respectively are—

- (A) 35 years, 15 years
- (B) 38 years, 12 years
- (C) 40 years, 10 years
- (D) 42 years, 8 years

**15.** Ten years ago A was half of B in age. If the ratio of their present ages is 3 : 4. What will be the total of their present ages ?

- (A) 8 years                      (B) 20 years
- (C) 35 years                      (D) 45 years

**16.** The ratio of Vimal's age and Aruna's age is 3 : 5 and sum of their ages is 80 years. The ratio of their ages after 10 years will be—

- (A) 2 : 3                              (B) 1 : 2
- (C) 3 : 2                              (D) 3 : 5

**17.** Jayesh is as much younger to Anil as he is older to Prashant. If the sum of the ages of Anil and Prashant is 48 years. What is the age of Jayesh ?

- (A) 20 years                      (B) 24 years
- (C) 30 years
- (D) Cannot be determined

**18.** Three years ago the average age of A and B was 18 years. With C joining them, now the average becomes 22 years. How old is C now ?

- (A) 24 years                      (B) 27 years
- (C) 28 years                      (D) 30 years

**19.** One year ago the ratio between Samir and Ashok's age was 4 : 3. One year hence the ratio of their age

will be 5 : 4. What is the sum of their present ages in years ?

- (A) 12 years                      (B) 15 years
- (C) 16 years
- (D) Cannot be determined

**20.** The ages of A and B are in the ratio 2 : 5. After 8 years their ages will be in the ratio 1 : 2. The difference of their ages is—

- (A) 20 years                      (B) 24 years
- (C) 26 years                      (D) 29 years

**21.** The ratio between the ages of A and B at present is 2 : 3. Five years hence the ratio of their ages will be 3 : 4. What is the present age of A ?

- (A) 10 years                      (B) 15 years
- (C) 25 years                      (D) Data inadequate

**22.** The ratio of the ages of father and son at present is 6 : 1. After 5 years the ratio will become 7 : 2. The present age of the son is—

- (A) 5 years                              (B) 6 years
- (C) 9 years                              (D) 10 years

**23.** Ratio of Ashok's age to Pradeep's age is equal to 4 : 3. Ashok will be 26 years old after 6 years. How old is Pradeep now ?

- (A) 12 years                      (B) 15 years
- (C) 19 1/2 years                      (D) 21 years

**24.** One year ago a father was four times as old as his son. After 6 years his age exceeds than twice of his son's age by 9 years. Ratio of their present ages is—

- (A) 13 : 4                              (B) 12 : 5
- (C) 11 : 3                              (D) 9 : 2

**25.** The age of a father 10 years ago was thrice the age of his son. Ten years hence, the father's age will be twice that of his son. The ratio of their present ages is—

- (A) 8 : 5                              (B) 7 : 3
- (C) 5 : 2                              (D) 9 : 5



- 26.** Kamla got married 6 years ago. Today her age is  $1\frac{1}{4}$  times her age at the time of marriage. Her son's age is  $(1/10)$  times of her age. Her son's age is—  
(A) 2 years (B) 3 years  
(C) 4 years (D) 5 years
- 27.** The ratio of Laxmi's age to the age of her mother is 3 : 11. The difference of their ages is 24 years. The ratio of their ages after 3 years will be—  
(A) 1 : 3 (B) 2 : 3  
(C) 3 : 5 (D) None of these
- 28.** Sachin was twice as old as Ajay 10 years back. How old is Ajay today if Sachin will be 40 years old 10 years hence ?  
(A) 20 years (B) 10 years  
(C) 30 years (D) 15 years
- 29.** The ratio of Mona's age to the age of her mother is 5 : 15. The difference of their ages is 24 years. The ratio of their ages after 3 years will be—  
(A) 1 : 3 (B) 2 : 3  
(C) 3 : 7 (D) None of these
- 30.** Deepak is 4 times as old as his son. Four years hence the sum of their ages will be 43 years. How old is Deepak's son now ?  
(A) 5 years (B) 7 years  
(C) 8 years (D) 10 years
- 31.** The ages of A, B and C together total 185 years. B is twice as old as A and C is 17 years older than A. Then the respective ages of A, B and C are—  
(A) 40, 86 and 59 years  
(B) 42, 84 and 59 years  
(C) 40, 80 and 65 years  
(D) None of these
- 32.** A is 20 years older than B. He is also 6 times as old as B. Then the respective age of A and B are ..... and ..... years.  
(A) 24, 4 (B) 42, 7  
(C) 30, 5 (D) None of these
- 33.** Shyam is 3 times as old as his son. After 10 years the sum of their ages will be 76 years. The respective ages of the father and the son are ..... and ..... years.  
(A) 42, 14 (B) 39, 13  
(C) 45, 15 (D) None of these
- 34.** If 6 years are subtracted from the present age of Randheer and the remainder is divided by 18 then the present age of his grandson Anup is obtained. If Anup is 2 years younger to Mahesh whose age is 5 years, then what's the age of Randheer ?  
(A) 96 years (B) 84 years  
(C) 48 years (D) 60 years
- 35.** Ratio of Sujeet's age to Sameer's age is 4 : 3. Sujeet will be 26 years old after 6 years. Then the present age of Sameer is—  
(A) 21 years (B) 15 years  
(C) 24 years (D) 18 years
- 36.** The ratio of the father's and son's age is 7 : 4. The product of their ages is 1008. The ratio of their ages after 6 years hence will be—  
(A) 5 : 3 (B) 8 : 5  
(C) 7 : 4 (D) 5 : 8
- 37.** The sum of the ages of the father and son is 45 years. Five years ago, the product of their ages was four times the father's age at that time, then the present ages of the father and son respectively are ..... and ..... years.  
(A) 39, 6 (B) 35, 10  
(C) 36, 9 (D) 40, 10
- 38.** The total ages of A, B and C at present is 90 years. Ten years ago the ratio of their ages was 1 : 2 : 3. Then the present age of B is .....  
(A) 30 years (B) 20 years  
(C) 40 years (D) None of these

- 39.** The respective ages of a father and his son are 41 and 16 years. In how many years will the father be twice as old as his son ?  
(A) 19 years (B) 9 years  
(C) 10 years (D) 15 years
- 40.** A father's age is four times as much as the sum of the ages of his three children but 6 years hence his age will be only double the sum of their ages. Then the age of the father is—  
(A) 30 years (B) 40 years  
(C) 60 years (D) 45 years
- 41.** A father's age is three times the sum of the ages of his two children but 20 years hence his age will be equal to the sum of their ages. Then the father's age is—  
(A) 30 years (B) 40 years  
(C) 35 years (D) 45 years
- 42.** If C's age is twice the average age of A, B and C. A's age is one half the average of A, B and C. If B is 5 years old, the average age of A, B and C is—  
(A) 10 years (B) 15 years  
(C) 12 years (D) 9 years
- 43.** A is 3 years younger to B. C is two years older than A. Then B's relation to C is—  
(A) Two years older  
(B) One year younger  
(C) One year older  
(D) Two years younger
- 44.** Two years ago, a mother was four times as old as her daughter. 8 years hence, mother's age will exceed her daughter's age by 12 years. The ratio of the present ages of mother and daughter is—  
(A) 3 : 1 (B) 4 : 1  
(C) 3 : 2 (D) 5 : 1
- 45.** Five years ago, the total of the ages of father and son was 60 years. The ratio of their present ages is 4 : 1. Then the present age of the father is—  
(A) 48 years (B) 51 years  
(C) 56 years (D) 61 years
- 46.** In ten years, A will be twice as old as B was 10 years ago. If A is now 9 years older than B. Find the present age of B.  
(A) 39 years (B) 40 years  
(C) 36 years (D) 49 years
- 47.** A is twice as old as B was two years ago. If the difference in their ages be 2 years, find A's age.  
(A) 14 years (B) 18 years  
(C) 8 years (D) 12 years
- 48.** A is as much younger than B as he is older than C. If the sum of B's and C's age is 40 years. Find the age of A.  
(A) 20 years (B) 25 years  
(C) 30 years (D) 27 years
- 49.** A says to B "I am twice as old as you were when I was as old as you are." The sum of their ages is 63 years. Find the difference of their ages.  
(A) 27 years (B) 12 years  
(C) 9 years (D) 6 years
- 50.** 15 years hence, A will be twice as old as B but five years ago A was 4 times as old as B. Find the difference of their present ages.  
(A) 15 years (B) 45 years  
(C) 30 years (D) 25 years
- 51.** 20 years ago my age was  $\frac{1}{3}$  of what it is now. What is my present age ?  
(A) 30 years (B) 25 years  
(C) 35 years (D) 40 years
- 52.** The ratio of the present ages of a son and his father is 1 : 5 and that of his mother and father is 4 : 5. After 2 years the ratio of the age of the son

to that of his mother becomes 3 : 10.  
What is the present age of the father ?

- (A) 30 years            (B) 28 years  
(C) 37 years            (D) None of these

**53.** Present age of Rahul is 8 years less than Ritu's present age. If 3 years ago Ritu's age was  $x$ , which of the following represents Rahul's present age ?

- (A)  $x + 3$             (B)  $x - 5$   
(C)  $x - 3 + 8$         (D)  $x + 3 + 8$

**54.** The product of the ages of Harish and Seema is 240. If twice the age of Seema is more than Harish's age by 4 years. What is Seema's age in years ?

- (A) 12 years            (B) 20 years  
(C) 10 years            (D) 14 years

**55.** If the ages of P and R are added to twice the age of Q the total becomes 59. If the ages of Q and R are added to thrice the age of P the total becomes 68. And if the age of P is added to thrice the age of Q and thrice the age of R, the total becomes 108. What is the age of P ?

- (A) 15 years            (B) 19 years  
(C) 17 years            (D) 12 years

**56.** The ratio in the present ages of Ramesh and Jayesh is 3 : 2. Four years ago Ramesh's age was more than Jayesh's age by 6 years. What is the present age of Jayesh ?

- (A) 18 years            (B) 12 years  
(C) 6 years            (D) Data is inadequate

**57.** The age of Sushil 6 years ago was three times the age of Snehal. 6 years hence, the age of Sushil would be  $\frac{5}{3}$  times that of Snehal. What is the present age of Snehal ?

- (A) 14 years            (B) 22 years  
(C) 18 years            (D) None of these

**58.** The age of the father 4 years ago was 5 times the age of his son. If the

sum of their present ages is 44 years.  
What is the present age of his son ?

- (A) 6 years            (B) 10 years  
(C) 4 years            (D) 8 years

**59.** The ratio in the ages of A and B, 1 year ago was 3 : 4. While it will be 5 : 6 after 1 year. What is the present age of B ?

- (A) 8 years            (B) 4 years  
(C) 6 years            (D) None of these

**60.** After 6 years Pradhan's age will be  $\frac{3}{7}$  times the age of his father. 10 years ago the ratio in the age of Pradhan and his father was 1 : 5. What is the present age of Pradhan's father ?

- (A) 40 years            (B) 50 years  
(C) 56 years            (D) Data is inadequate

**61.** The sum of the ages of Yogesh, Prakash and Sameer is 93 years. 10 years ago the ratio of their ages was 2 : 3 : 4. What is the present age of Sameer ?

- (A) 32 year            (B) 24 years  
(C) 34 years            (D) None of these

**62.** The total of the present age of P, Q and R together is 88 years. If the difference between the ages of P and R is 12 years. What is Q's age at present ?

- (A) 28 years            (B) 22 years  
(C) 24 years            (D) Data is inadequate

**63.** A man is five times as old as his son. Four years hence the sum of their ages will be 56 years. How old is the son at present ?

- (A) 12 years            (B) 5 years  
(C) 6 years            (D) 8 years

**64.** If a son is younger than his father by 25 years and the father was 45 years old, 4 years ago. What will be the total age of the father and son after 5 years ?

- (A) 82 years            (B) 88 years  
(C) 83 years            (D) 78 years

- 65.** The ratio between present age of Kunal and Ganesh is 3 : 5. If 4 years hence Kunal will be younger than Ganesh by 12 years. What is the present age of Kunal ?  
(A) 17 years (B) 19 years  
(C) 22 years (D) None of these
- 66.** A person's present age is two-ninth of the age of his mother. After 10 years, he will be four-eleventh of the age of his mother. How old is the mother after 15 years?  
(A) 48yrs (B) 60yrs  
(C) 55yrs (D) 53yrs  
(E) None
- 67.** Ratio of the ages of A and B is 5 : x. A is 18 years younger to C. After nine years C will be 47 years old. If the difference between the ages of A and B is same as the age of C, what is the value of x?  
(A) 13 (B) 12  
(C) 14.5 (D) 13.25  
(E) None
- 68.** 16 years ago, my Uncle was 8 times older than me. After 8 years from today, my uncle will be thrice as old as I will be at that time. Eight years ago, what was the ratio of my age and my uncle's age?  
(A) 11:53 (B) 13:45  
(C) 8:29 (D) 5:32  
(E) None
- 69.** The sum of present ages of A and B is 11 times the difference of their ages. 5 years hence, their total ages will be 13 times the difference of their ages. What is the present age of elder one?  
(A) 35yrs (B) 20yrs  
(C) 25yrs (D) 30yrs  
(E) None
- 70.** The average age of a husband-wife and their son was 42 years. The son got married and exactly after 1 year a child was born to them. When the child became 5 years old, the average age of the family became 36 years. What was the age of bride at the time of marriage?  
(A) 30yrs (B) 27yrs  
(C) 25yrs (D) 22yrs  
(E) None
- 71.** A says, —If you reverse my own age, the figures represent my Brother's age. He is, of course, senior to me and the difference between our ages is one-eleventh of their sum. Then A's brother's age is ?  
(A) 45 (B) 54  
(C) 25 (D) 52  
(E) None
- 72.** L is as much younger than M as he is older than N. If the sum of the ages of M and N is 60 years, what is definitely the difference between M and L's age?  
(A) 3yrs (B) 2yrs  
(C) 5yrs (D) Can't be determined  
(E) None
- 73.** If three times of the son's age in years is included to the mother's age, the total is 75 and if two times of the mother's age is included to the son's age, the total is 80. So the son's age is?  
(A) 15yrs (B) 18yrs  
(C) 14yrs (D) 22yrs  
(E) None
- 74.** The ages of P, Q and R together are 57 years. Sis thrice as old as P and R is 12 years older than P. Then, the difference between ages Q and R is?  
(A) 11yrs (B) 6yrs  
(C) 8yrs (D) 4yrs  
(E) None
- 75.** If 10 years are subtracted from the present age of Sharmi and the remainder is divided by 6, then the present age of his grandson Epsi is

obtained. If Epsi is 2 years younger to Nove whose age is 7 years, then what is Sharmi's present age?

- (A) 40yrs                      B) 35yrs  
C) 52yrs                      D) 55yrs  
E) None

**76.** Father is aged three times more than his son Arun. After 8 years, he would be two and a half times of Arun's age. After further 8 years, how many times would he be of Arun's age?

- (A)  $2\frac{1}{2}$                       B) 2  
C) 3                              D)  $3\frac{1}{2}$   
E) None

**77.** In a family, a couple has a son and daughter. The age of the father is four times that of his daughter and the age of the son is half of his mother. The wife is ten years younger to her husband and the brother is six years older than his sister. What is the age of the mother?

- (A) 34                              B) 40  
C) 38                              D) 42  
E) None

**78.** Thomas's present age is three times his son's present age and half of his father's present age. The average of the present ages of all of them is  $33\frac{1}{3}$  years. What is the difference between the Thomas's son's present age and Thomas's father's present age?

- (A) 45                              B) 55  
C) 50                              D) 40  
E) None

**79.** My brother is 3 years elder to me. My father was 28 years of age when my sister was born while my mother was 26 years of age when I was born. If my sister was 4 years of age when my brother was born, then what was the age of my father when my brother was born?

- (A) 30                              B) 35  
C) 40                              D) 32

E) None

**80.** P is as much younger than Q and he is older than R. If the sum of the ages of Q and R is 60 years, what is definitely the difference between Q and P's age?

- (A) 4                              B) 5  
C) 2                              D) Can't be determined  
E) None

**81.** If 10 years are subtracted from the present age of Shyam and the remainder is divided by 7, then the present age of his grandson Santhosh is obtained. If Santhosh is 2 years younger to Madan whose age is 7 years, then what is Shyam's present age ?

- (A) 45                              B) 48  
C) 36                              D) 35  
E) None

**82.** A's age is 120% of what it was 15 years ago, But 75 % of what it will be after 15 years. What is his present age?

- A) 50                              B) 45  
C) 65                              D) 56  
E) None

**83.** The ratio of the ages of M and N is 6 : 5. The total of their ages is 7.7 decades. The proportion of their ages after 1.5 decades will be [1 Decade = 10 years]

- A) 43:55                              B) 50:57  
C) 44:47                              D) 57:50  
E) None

**84.** The average age of a group of 10 students is 20 years. When 5 more students join the group, the average age increase by 2 year. The average age of the new students is?

- A) 24                              B) 26  
C) 25                              D) 28  
E) None

**85.** The average age of a couple was 26 years at the time of marriage.

After 11 years of marriage, the average age of the family with 3 children become 19 years. The average age of the children is

- A) 8                      B) 6  
C) 10                     D) 7  
E) None

**86.** If 10:13 is the ratio of present age of A and B respectively and 8:15 is the ratio between A's age 10 years ago and B's age 10 years hence. Then what will be the ratio of A's age 10 years hence and B's age 10 years ago ?

- A) 12:11                 B) 12:15  
C) 8:11                 D) 6:8  
E) None

**87.** Shyam's present age is  $\frac{3}{10}$  of his father's present age. Shyam's brother is 4 years older than him. The ratio between the present age of Shyam's father and Shyam's brother is 5:2. What is Shyam's present age?

- A) 6 years                B) 12 years  
C) 15 years              D) 16 years  
E) None

**88.** In a family, a couple has a son and daughter. The age of the father is five times that of his daughter and the age of the son is half of his mother. The wife is ten years younger to her husband and the brother is ten years older than his sister. What is the age of the mother?

- A) 40 years              B) 45 years  
C) 50 years              D) 65 years  
E) None

**89.** If the ages of A and C are added to twice the age of B, the total becomes 59. If the ages of B and C are added to thrice the age of A, the total becomes 68 and if the age of A is added to thrice the age of B and thrice the age of C, the total becomes 108. What is the age of A?

- A) 18 years              B) 15 years

- C) 12 years              D) 20 years  
E) None

**90.** The respective ratio between the present age of A and B is 5 : x. A is 2 years younger than C. C's age after 8 years will be 30 years. The difference between A's and B's age is same as the present age of C. What is the value of x?

- A) 8                      B) 10  
C) 12                    D) 6  
E) None

**91.** Meena married 10 years ago. Today her age is  $\frac{7}{5}$  times her age at the time of her marriage. Her daughter age is  $\frac{1}{5}$  of her age. What is the ratio of Meena's age to her daughter age after 5 years?

- A) 10:3                    B) 10:13  
C) 8:11                   D) 5:9  
E) None

**92.** Father is aged three times more than his son kavin. After 8 years, he would be two and a half times of kavin's age. After further 8 years, how many times would he be of kavin's age?

- A) 4                      B) 5  
C) 2                      D) 3  
E) None

**93.** Mr. X has three sons namely P, Q and R. P is the eldest son of Mr. X while R is the youngest one. The present ages of all three of them are square numbers. The sum of their ages after 5 years is 44. What is the age of P after three years?

- A) 15 years              B) 13 years  
C) 19 years              D) 17 years  
E) None

**94.** Three years ago the average age of Ramesh's family having 5 members was 17 years. Ramesh becomes father but the average age of his family is same today. What is the present age of baby?

- A) 1 year                      B) 2 years  
C) 3 years                      D) 4 years  
E) None

**95.** The ratio between the present ages of A and B is 6:7. If B is 4 years old than A, what will be the ratio of the ages of A and after 4 years.

- A) 7:8                          B) 7:9  
C) 8:9                          D) 6:5  
E) None

**96.** Four years ago the ratio of ages of A & B was 3 : 5 and five year hence the ratio will become 6:8. Find the present age of A?

- A) 15yrs                      B) 13yrs  
C) 16yrs                      D) 17yrs  
E) 18yrs

**97.** Six year ago the ratio of ages of A & B was 1:3 and after six year the ratio becomes 2:3. Find the sum of present ages of A & B.

- A) 24                          B) 26  
C) 28                          D) 30

**98.** The present ratio of ages of A & B is 11:12 and the ratio of ages of A's 2yr back and B's 6yr after is 2:3. Find age of A 6yr after?

- A) 28yr                      B) 30yr  
C) 26yr                      D) 36yr

**99.** The average of 20 students class is 21. If the age of teacher is included then average increase by 2yr. Find age of teacher?

- A) 60yr                      B) 63yr  
C) 66yr                      D) 61yr

**100.** Sita's present age is  $1\frac{2}{5}$  times of her age at the time of marriage. She married 10yr ago. Now she has a son whose age is 1 more than  $\frac{1}{5}$ th of her age at the time of marriage. Find the age of son?

- A) 3yr                          B) 4yr  
C) 5yr                          D) 6yr

## 6. PERCENTAGE

1. Which is largest in  $16\frac{2}{3}\%$ ,  $\frac{2}{15}$  and 0.18 ?  
 (1)  $16\frac{2}{3}\%$  (2)  $\frac{2}{15}$   
 (3) 0.18  
 (4) Cannot be determine  
 (5) None of these
2. 65 % of a number is 21 less than  $\frac{4}{5}$ th of that number find the number ?  
 (1) 110 (2) 140  
 (3) 90 (4) 130  
 (5) None of these
3. If the price of Sugar falls by 10 % by how much % must a house holder increase its consumption, so as not to decrease its expenditure on sugar ?  
 (1)  $11\frac{1}{9}\%$  (2)  $14\frac{1}{9}\%$   
 (3)  $9\frac{1}{9}\%$  (4)  $11\frac{1}{12}\%$   
 (5) None of these
4. If the price of tea is increased by 20 %, by how much % must the consumption of tea be diminished so as not to increase the expenditure ?  
 (1)  $16\frac{1}{3}\%$  (2)  $16\frac{2}{3}\%$   
 (3)  $15\frac{1}{3}\%$  (4)  $15\frac{2}{3}\%$   
 (5) None of these
5. 80 % of 50 % of 250 % of 34 = ?  
 (1) 38 (2) 40  
 (3) 42.5 (4) 43  
 (5) None of these
6.  $x\%$  of  $x$  is the same as 10 % of  
 (1)  $\frac{x}{10}$  (2)  $\frac{x^2}{10}$   
 (3)  $\frac{x^3}{10}$  (4)  $\frac{x}{100}$   
 (5) None of these
7. Two numbers are less than a third number by 30 % & 37 % respectively. How much % is the second no. less than the first ?  
 (1) 10 % (2) 20 %  
 (3) 30 % (4) 15 %  
 (5) None of these
8. 3 Litres of water is added to 15 Liters of a mixture of a 20 % solution of alcohol in water. The strength of alcohol is now.  
 (1)  $12\frac{1}{2}\%$  (2)  $16\frac{2}{3}\%$   
 (3) 24 % (4) 16 %  
 (5) None of these
9. The total number of boys in a school is 15 % more than the total number of girls in the school. What is the ratio of number of boys to the no. of girls in the school ?  
 (1) 13 : 7 (2) 7 : 13  
 (3) 23 : 20 (4) 20 : 23  
 (5) None of these
10. 18 % of which number is 12 % of 75 ?  
 (1) 50 (2) 100  
 (3) 2 (4)  $\frac{3}{2}$   
 (5) None of these
11. If 36 % of 36 = 54 % of  $x$  find the value of  $x$   
 (1) 24 (2) 36  
 (3) 54 (4) 40  
 (5) None of these
12. If 30 % of a number is 90 the number is  
 (1) 3 (2) 30  
 (3) 270 (4) 300  
 (5) None of these
13. If 120 is 20 % of a number, then 120 % of that number will be ?  
 (1) 20 (2) 120  
 (3) 480 (4) 720  
 (5) None of these



- 14.** A Spends 90 % of his salary and B spends 85 % of his salary. But the saving of both are equal. Find the income of B, if the sum of their income is Rs. 5000.  
 (1) Rs. 2000 (2) Rs. 2500  
 (3) Rs. 3000 (4) Rs. 3500  
 (5) None of these
- 15.** If 70 % of the students in a college are boys and the number of girls be 504. The number of boys is  
 (1) 1076 (2) 1176  
 (3) 1208 (4) 3024  
 (5) None of these
- 16.** If P % of P is 36 then P is equal to  
 (1) 3600 (2) 600  
 (3) 60 (4) 15  
 (5) None of these
- 17.** If population of women in village is 80 % of population of men, what is the population of men as a percentage of population of women ?  
 (1) 80 % (2) 100 %  
 (3) 112.5 % (4) 125 %  
 (5) None of these
- 18.** One-fifth of a number is 18. What will be 30 % of the same number ?  
 (1) 5.4 (2) 24  
 (3) 60 (4) 30  
 (5) None of these
- 19.** What rate percent is 1 minute 12 seconds to an hour ?  
 (1) 1 % (2) 2 %  
 (3) 3 % (4) 4 %  
 (5) None of these
- 20.** A fruit Seller sells 30 % apples and still has 630 apples in the stock. How many apples has he bought ?  
 (1) 189 (2) 700  
 (3) 900 (4) 2100  
 (5) None of these
- 21.** After spending 88% of her income, Rani had Rs. 2160.00 left. What is her income ?  
 (1) Rs. 18000 (2) Rs.19000  
 (3) Rs. 2000 (4) Rs. 22000  
 (5) None of these
- 22.** In an examination 900 candidates were boys and 1100 were girls. If 32 % of boys and 38% of girls passed the examination, the total percentage (of boys and girls together) of candidates that failed will be;  
 (1) 35.3% (2) 62.0%  
 (3) 64.7% (4) 68%  
 (5) None of these
- 23.** 1.14 expressed as a percent of 1.9 is,  
 (1) 6 % (2) 10 %  
 (3) 60 % (4) 90 %  
 (5) None of these
- 24.** If 60 % of A =  $\frac{3}{4}$  of B then A : B is  
 (1) 9 : 20 (2) 20 : 9  
 (3) 4 : 5 (4) 5 : 4  
 (5) None of these
- 25.** A number is increased by 10 % and then decreased by 10 % . Finally the number.  
 (1) does not change  
 (2) decrease by 1%  
 (3) Increase by 1%  
 (4) Increases by 0.01 %  
 (5) None of these
- 26.** If 10 % is dedcuted from a bill, Rs. 585.00 remains to be paid. How much is the bill  
 (1) Rs. 650 (2) Rs. 675  
 (3) Rs. 700 (4) Rs. 725  
 (5) None of these
- 27.** The price of an article is decreased by 10%. To restore it to its former value, the new price must be increased by,  
 (1) 10 % (2) 11 %  
 (3)  $9\frac{1}{11}$  % (4)  $11\frac{1}{9}$  %  
 (5) None of these
- 28.** If 60% of A's income is equal to 75% of B's income, then B's income is

equal to  $x\%$  of A's income. The value of  $x$  is,

- (1) 70 (2) 60  
(3) 80 (4) 90  
(5) None of these
- 29.** A person gave 20% of his income to his elder son, 30% of remaining to the younger son, 10% of the balance he donated to a trust. He is left with Rs. 10080. His income was,  
(1) Rs. 50000 (2) Rs. 40000  
(3) Rs. 30000 (4) Rs. 20000  
(5) None of these
- 30.** Two successive price increase of 10% and 10% of an article are equivalent to a single price increase of  
(1) 19% (2) 20%  
(3) 21% (4) 22%  
(5) None of these
- 31.** A reduction of 25% in the price of rice will enable a trader to buy 50 kg more for Rs. 450. What was the price per kg before reduction  
(1) Rs. 3.00 (2) Rs. 3.50  
(3) Rs. 2.90 (4) Rs. 450  
(5) None of these
- 32.** The present population of a city is 1,80,000. If it increase at the rate of 10% per annum, its population after 2 years will be  
(1) 20,7800 (2) 22,7800  
(3) 7800 (4) 23,7800  
(5) None of these
- 33.** The price of an article was first increased by 10% and the again by 20% if the last increased price be Rs. 33, the original price was  
(1) Rs. 30 (2) Rs. 27.50  
(3) Rs. 26.50 (4) Rs. 25  
(5) None of these
- 34.** Ankit has to secure 40% marks to pass. He gets 40 marks and fails by 40 marks. The maximum marks is  
(1) 300 (2) 250  
(3) 200 (4) All of the above  
(5) None of these
- 35.** During period, January-March 2011. A family spent Rs. 25000 on food. 2012 in the same period the same family spent Rs. 37500 on food. What was the percentage increase in the money spent on food?  
(1) 25% (2) 50%  
(3) 75% (4) 80%  
(5) None of these
- 36.** Price of Sugar increased by 25%. The percentage of consumption to be decreased so that these would be no increase in the expenditure is  
(1) 18% (2) 20%  
(3) 22% (4) 24%  
(5) None of these
- 37.** If A's income is 25% less than B's income, by how much percent is B's income more than that of A?  
(1) 25% (2) 30%  
(3)  $33\frac{1}{3}\%$  (4)  $66\frac{2}{3}\%$   
(5) None of these
- 38.** 0.15% of  $33\frac{1}{3}\%$  of Rs. 10000 is  
(1) Rs. 5 (2) Rs. 150  
(3) Rs. 0.05 (4) Rs. 105  
(5) None of these
- 39.** If a number  $x$  is 10% less than another number  $y$  and  $y$  is 10% more than 125 then  $x$  is equal to  
(1) 150 (2) 143  
(3) 140.55 (4) 123.75  
(5) None of these
- 40.** 40 L of mixture of milk and water content 10% of water. The water to be added to make the water content 20% in the new mixture is  
(1) 6 L (2) 6.5 L  
(3) 3.5 L (4) 5 L  
(5) None of these

- 41.** After spending 88% of her income, Rani had Rs. 2160.00 left. What is her income ?  
(1) Rs. 18000 (2) Rs. 19000  
(3) Rs. 2000 (4) Rs. 22000  
(5) None of these
- 42.** In an examination 900 candidates were boys and 1100 were girls. If 32 % of boys and 38% of girls passed the examination, the total percentage (of boys and girls together) of candidates that failed will be;  
(1) 35.3% (2) 62.0%  
(3) 64.7% (4) 68%  
(5) None of these
- 43.** 1.14 expressed as a percent of 1.9 is,  
(1) 6 % (2) 10 %  
(3) 60 % (4) 90 %  
(5) None of these
- 44.** If 60 % of  $A = \frac{3}{4}$  of B then A : B is  
(1) 9 : 20 (2) 20 : 9  
(3) 4 : 5 (4) 5 : 4  
(5) None of these
- 45.** A number is increased by 10 % and then decreased by 10 % . Finally the number.  
(1) does not change  
(2) decrease by 1%  
(3) Increase by 1%  
(4) Increases by 0.01 %  
(5) None of these
- 46.** If 10 % is deducted from a bill, Rs. 585.00 remains to be paid. How much is the bill  
(1) Rs. 650 (2) Rs. 675  
(3) Rs. 700 (4) Rs. 725  
(5) None of these
- 47.** The price of an article is decreased by 10%. To restore it to its former value, the new price must be increased by,  
(1) 10 % (2) 11 %  
(3)  $9\frac{1}{11}$  % (4)  $11\frac{1}{9}$  %  
(5) None of these
- 48.** If 60% of A's income is equal to 75% of B's income, then B's income is equal to  $x\%$  of A's income. The value of  $x$  is,  
(1) 70 (2) 60  
(3) 80 (4) 90  
(5) None of these
- 49.** A person gave 20% of his income to his elder son, 30% of remaining to the younger son, 10% of the balance he donated to a trust. He is left with Rs. 10080. His income was,  
(1) Rs. 50000 (2) Rs. 40000  
(3) Rs. 30000 (4) Rs. 20000  
(5) None of these
- 50.** Two successive price increase of 10 % and 10 % . of an article are equivalent to a single price increase of  
(1) 19 % (2) 20 %  
(3) 21 % (4) 22 %  
(5) None of these
- 51.** A reduction of 25 % in the price of rice will enable a trader to buy 50 kg more for Rs. 450. What was the price per kg before reduction  
(1) Rs. 3.00 (2) Rs. 3.50  
(3) Rs. 2.90 (4) Rs. 450  
(5) None of these
- 52.** The present population of a city is 1,80,000. If it increase at the rate of 10 % per annum, its population after 2 years will be  
(1) 20,7800 (2) 22,7800  
(3) 7800 (4) 23,7800  
(5) None of these
- 53.** The price of an article was first increased by 10 % and the again by 20 % if the last increased price be Rs. 33, the original price was  
(1) Rs. 30 (2) Rs. 27.50  
(3) Rs. 26.50 (4) Rs. 25  
(5) None of these

54. Ankit has to secure 40 % marks to pass. He gets 40 marks and fails by 40 marks. The maximum marks is  
 (1) 300 (2) 250  
 (3) 200 (4) All of the above  
 (5) None of these
55. During period, January-March 2011. A family spent Rs. 25000 on food. 2012 in the same period the same family spent Rs. 37500 on food. What was the percentage increase in the money spent on food ?  
 (1) 25 % (2) 50 %  
 (3) 75 % (4) 80 %  
 (5) None of these
56. Price of Sugar increased by 25 % . The percentage of consumption to be decreased so that there would be no increase in the expenditure is  
 (1) 18 % (2) 20 %  
 (3) 22 % (4) 24 %  
 (5) None of these
57. If A's income is 25 % less than B's income, by how much percent is B's income more than that of A ?  
 (1) 25 % (2) 30 %  
 (3)  $33\frac{1}{3}$  % (4)  $66\frac{2}{3}$  %  
 (5) None of these
58. 0.15 % of  $33\frac{1}{3}$  % of Rs. 10000 is  
 (1) Rs. 5 (2) Rs. 150  
 (3) Rs. 0.05 (4) Rs. 105  
 (5) None of these
59. If a number  $x$  is 10 % less than another number  $y$  and  $y$  is 10 % more than 125 then  $x$  is equal to  
 (1) 150 (2) 143  
 (3) 140.55 (4) 123.75  
 (5) None of these
60. 40 L of mixture of milk and water content 10 % of water. The water to be added to make the water content 20 % in the new mixture is  
 (1) 6 L (2) 6.5 L  
 (3) 3.5 L (4) 5 L
- (5) None of these
61. Find the missing figures :  
 (i) ? % of 25 = 2.125  
 (ii) 9 % of ? = 63  
 (iii) 0.25% of ? = 0.04  
 1] 7.5, 70, 16 2] 8.5, 70, 16  
 3] 6.5, 70, 16 4] 5.5, 70, 16  
 5] None of these
62. Evaluate :  
 (i) 28 % of 450 + 45 % of 280  
 (ii)  $16\frac{2}{3}$  % of 600 gm -  $33\frac{1}{3}$  % of 180 gm  
 1] 251, 20 gm 2] 252, 30 gm  
 3] 253, 50 gm 4] 252, 40 gm  
 5] None of these
63. 2 is what percent of 50 ?  
 1] 4 % 2] 5 %  
 3] 6 % 4] 7 %  
 5] None of these
64.  $\frac{1}{2}$  is what percent of  $\frac{1}{3}$  ?  
 1] 120 % 2] 130 %  
 3] 140 % 4] 150 %  
 5] None of these
65. What percent of 7 is 84 ?  
 1] 1200 % 2] 1300 %  
 3] 1400 % 4] 1500 %  
 5] None of these
66. What percent of 6.5 litres is 130 ml ?  
 1] 1 % 2] 2 %  
 3] 3 % 4] 4 %  
 5] None of these
67. 5 % of (25 % of Rs. 1600) is  
 1] Rs. 5 2] Rs. 17.50  
 3] Rs. 20 4] Rs. 25  
 5] None of these
68. A student has to obtain 33 % of the total marks to pass. He got 125 marks and failed by 40 marks. The maximum marks are :  
 1] 300 2] 500  
 3] 800 4] 1000  
 5] None of these

- 69.** A student secures 90%, 60% and 54% marks in test papers with 100, 150 and 200 respectively as maximum marks. The percentage of his aggregate is :
- 1] 64                                      2] 68  
3] 70                                      4] 74  
5] None of these
- 70.** x% of y is y% of :
- 1] x    2] 100x  
3]  $\frac{x}{100}$                                       4]  $\frac{y}{100}$   
5] None of these
- 71.** A number is increased by 20% and then again by 20%. By what percent should the increased number be reduced so as to get back the original number ?
- 1]  $19\frac{11}{31}\%$                                       2]  $30\frac{5}{9}\%$   
3] 40%                                      4] 44%  
5] None of these
- 72.** What percentage decrease in salaries would exactly cancel out the 20 percent increase ?
- 1]  $16\frac{2}{3}$                                       2] 18  
3] 20                                      4]  $33\frac{1}{3}$   
5] None of these
- 73.** In a fraction, of numerator is increased by 40% and denominator is increased by 80%, then what fraction of the original is the new fraction ?
- 1]  $\frac{1}{2}$                                       2]  $\frac{7}{9}$   
3]  $\frac{7}{18}$                                       4] Data inadequate  
5] None of these
- 74.** A district has 64000 inhabitants. If the population increases at the rate of  $2\frac{1}{2}\%$  per annum, then the number of inhabitants at the end of 3 years will be
- 1] 68911                                      2] 68921  
3] 69200                                      4] 70000  
5] None of these
- 75.** A's salary is 50% more than B's. How much percent is B's salary less than A's ?
- 1] 33%                                      2]  $33\frac{1}{4}\%$   
3]  $33\frac{1}{3}\%$                                       4]  $33\frac{1}{2}\%$   
5] None of these
- 76.** A's income is 25% more than B's income. B's income in terms of A's income is :
- 1] 75%                                      2] 80%  
3] 90%                                      4] 96%  
5] None of these
- 77.** The value of a machine depreciates at the rate of 10% every years. It was purchased 3 years ago. If its present value is Rs. 8748, its purchase price was :
- 1] Rs. 10,000                                      2] Rs. 11,372  
3] Rs. 12,000                                      4] Rs. 12, 500  
5] None of these
- 78.** 45% of 750 – 25% of 480 = ?
- A] 216                                      B] 217.50  
C] 236.50                                      D] 245
- 79.** 60% of 264 is the same as :
- A] 10% of 44      B] 15% of 105  
C] 30% of 132      D] None of these
- 80.** The ratio 5 : 4 expressed as a percents equals :
- A] 12.5%                                      B] 40%  
C] 80%                                      D] 125%
- 81.** 88% of 370 + 24% of 210 - ? = 118
- A] 256                                      B] 258  
C] 268                                      D] 358
- 82.** What percent of 7.2 kg is 18 gms ?
- A] .025%                                      B] .25%  
C] 2.5%                                      D] 25%
- 83.** 0.01 is what percent of 0.1 ?
- A]  $\frac{1}{100}$                                       B]  $\frac{1}{10}$   
C] 10                                      D] 100
- 84.** 30% of 28% of 480 is the same as
- A] 15% of 56% of 240  
B] 60% of 28% of 240

- C] 60% of 56% of 240  
D] None of these
- 85.** 65% of ? = 20% of 422.50  
A] 84.5                                      B] 130  
C] 139.425                                  D] 200
- 86.** In the new budget, the price of kerosene oil rose by 25%. By how much percent must a person reduce his consumption so that his expenditure on it does not increase ?  
A] 15%                                      B] 20%  
C] 25%                                      D] 30%
- 87.** The salary of a person was reduced by 10%. By what percent should his reduced salary be raised so as to bring it at par with his original salary ?  
A]  $11\frac{1}{9}\%$                                       B]  $10\frac{1}{9}\%$   
C]  $9\frac{1}{10}\%$                                       D]  $9\frac{1}{11}\%$
- 88.** If A's salary is 20% less than B's salary, by how much percent is B's salary more than A's ?  
A] 20%                                      B] 25%  
C] 22%                                      D] 27%
- 89.** The price of a commodity is increased by 20% & again increased by 25%. Find the average effect on this original price.  
A] 50% Increase                          B] 50% Decrease  
C] 25% Increase                          D] 25% Decrease
- 90.** The price of a commodity is increased by 10%, 20% & 40%, then find the overall effect on the original price.  
A] 84.4% Increase  
B] 85% Increase  
C] 70% Increase  
D] 75% Increase
- 91.** The price of a commodity is decreased by 10% & again decreased by 10%. Find the overall effect on the original price.  
A] 20% Decrease
- B] 25% Decrease  
C] 19% Decrease  
D] 18% Decrease
- 92.** The price of a commodity is increased by 20% & then decreased by 10%. Find the overall effect on the original price.  
A] 10% Increase  
B] 8% Decrease  
C] 12% Increase  
D] 10% Decrease
- 93.** The population of a town is 1,76,400. If it increases at the rate of 5% per annum, what will be its population 2 years hence ? What was it 2 years ago ?  
A] 194481, 159201  
B] 202181, 159201  
C] 184930, 164231  
D] 214481, 169201
- 94.** The population of a town 2 years ago was 62,500. Due to migration to big cities, it decreases every year at the rate of 4%. The present population of the town is :  
A] 56,700                                      B] 57,600  
C] 58,800                                      D] 60,000
- 95.** The population of a town was 1,60,000 three years ago. If it increased by 3%, 2.5% and 5% respectively in the last three years, then the present population is :  
A] 1,77,000                                      B] 1,77,366  
C] 1,77,461                                      D] 1,77,596
- 96.** The population of a town increases by 5% annually. If its population in 2001 was 1,38,915. What was it in 1998 ?  
A] 1,00,000                                      B] 1,08,000  
C] 1,10,000                                      D] 1,20,000
- 97.** The value of a machine depreciates at the rate of 10% every year. It was purchased 3 years ago. If its present value is Rs. 8748, its purchase price was :

- A] Rs. 10,000                      B] Rs. 11,372  
C] Rs. 12,000                      D] Rs. 12,500

**98.** In an examination, 34% of the students failed in Mathematics and 42% failed in English. If 20% of the students failed in both the subjects, then the percentage of students who passed in both the subjects was :

- A] 44                                      B] 50  
C] 54                                      D] 56

**99.** Aman gave 40% of the amount he had to Rohan. Rohan in turn gave one-fourth of what he received from Aman to Sahil. After paying Rs. 200 to the taxi driver out of the amount he got from Rohan, Sahil now has Rs. 600 left with him. How much amount did Aman have ?

- A] Rs. 4000                              B] Rs. 8000  
C] Rs. 12000                              D] Data inadequate

**100.** In a city, 35% of the population is composed of migrants, 20% of whom are from rural areas. Of the local population, 48% is female while this figure for rural and urban migrants is 30% and 40% respectively. If the total population of the city is 728400, what is its female population ?

- A] 324138                              B] 349680  
C] 509940                              D] None of these

**101.** A number is decreased by 10% and then increased by 10%. The number so obtained as 10 less than the original number. What was the original number ?

- 1] 1000                                      2] 1050  
3] 1500                                      4] 2000  
5] None of these

**102.** Mr. X, a businessman had the income in the year 2000, such that he earned a profit of 20% on his investment in the business. In the year 2001, his investment was less by Rs. 5000 but still had the same income

(Income = Investment + Profit) as that in 2000. Thus, the present profit earned in 2001 increased by 6%. What was his investment in 2000 ?

- 1] Rs. 1,02,000                      2] Rs. 1,05,000  
3] Rs. 1,50,500                      4] Data inadequate  
5] None of these

**103.** Vipul decided to donate 5% of his salary. On the day of donation he changed his mind and donated 1687.50 which was 75% of what he had decided earlier. How much is Vipul's salary?

- (1) 37,500                              (2) 45,000  
(3) 33,750  
(4) Cannot be determined  
(5) None of these

**(Corporation Bank PO  
Exam. 29.07.2006)**

**104.** Two numbers are less than the third number by 50% and 54% respectively. By how much per cent is the second number less than the first number ?

- (1) 13%                                      (2) 10%  
(3) 12%  
(4) Cannot be determined  
(5) None of these

**(Bank Of Maharashtra  
PO Exam. 25.05.2008)**

**105.** In an election between two candidates, one got 52% of total valid votes. 25% of the total votes were invalid. The total number of votes were 8400. How many valid votes did the other person get?

- (1) 3276                                      (2) 3196  
(3) 3024  
(4) Cannot be determined  
(5) None of these

**(Bank Of Maharashtra  
PO Exam. 25.05.2008)**

**106.** One fourth of two-fifth of 30% of a number  $x$  is equal to 15. Find 20% of the same number.

- (1) 100                                      (2) 120  
(3) 105                                      (4) 80

(5) None of these

**(IBPS RRBs Officer Scale-I  
CWE, 06.09.2014)**

**107.** Vishakha spent 68,357 on the renovation for her home, 25,675 on buying music system and the remaining 28% of the total amount she had as cash with her. What was the total amount?

- (1) 94,032                      (2) 36,568  
(3) 1,30,600  
(4) Cannot be determined  
(5) None of these

**(Andhra Bank PO  
Exam. 14.09.2008)**

**108.** Vaishali spent 31,897 on the air conditioner for her home, 38,789 on buying plasma television and the remaining 23% of the total amount she had as cash with her. What was the total amount?

- (1) 74,625                      (2) 86,750  
(3) 91,800  
(4) Cannot be determined  
(5) None of these

**(Bank Of Baroda Specialist  
Officer Exam. 05.10.2008)**

**109.** In a class of 35 students and 6 teachers, each student got sweets that are 20% of the total number of students and each teacher got sweets that are 40% of the total number of students. How many sweets were there?

- (1) 245                          (2) 161  
(3) 406                          (4) 84  
(5) None of these

**(Oriental Bank of Commerce  
PO Exam. 21.12.2008 &  
United India Insurance AO  
Exam, 26.05.2013)**

**110.** Prithvi spent 89,745 on his college fees, 51,291 on Personality Development Classes and the remaining 27% of the total amount he had as cash with him. What was the total amount?

- (1) 1,85,400                      (2) 1,89,600  
(3) 1,91,800                      (4) 1,93,200

(5) None of these

**(Oriental Bank of Commerce  
PO Exam. 21.12.2008 &  
United India Insurance AO  
Exam, 26.05.2013)**

**111.** In a class of 65 students and 4 teachers, each student got sweets that are 20% of the total number of students and each teacher got sweets that are 40% of the total number of students. How many sweets were there?

- (1) 845                              (2) 897  
(3) 949                              (4) 104  
(5) None of these

**(Canara Bank PO  
Exam. 15.03.2009)**

**112.** Bovina spent 44,668 on her air tickets, 56,732 on buying gifts for the family members and the remaining 22% of the total amount she had as cash with her. What was the total amount?

- (1) 28,600                          (2) 1,30,000  
(3) 1,01,400                      (4) 33,800  
(5) None of these

**(Canara Bank PO  
Exam. 15.03.2009)**

**113.** Rubina decided to donate 16% of her monthly salary to an NGO. On the day of donation she changed her mind and donated 6,567 which was 75% of what she had decided earlier. How much is Rubina's monthly salary?

- (1) 8,756                              (2) 54,725  
(3) 6,56,700                      (4) 45,696  
(5) None of these

**(Canara Bank PO  
Exam. 15.03.2009)**

**114.** A sum of 2,236 is divided among A, B and C such that A receives 25% more than C and C receives 25% less than B. What is A's share in the amount?

- (1) 460                                  (2) 890  
(3) 780                                  (4) 1280  
(5) None of these



**(Indian Overseas Bank  
PO Exam. 05.04.2009)**

- 115.** Mr. Giridhar spends 50% of his monthly income on household items and out of the remaining he spends 50% on transport, 25% on entertainment, 10% on sports and remaining amount of 900 is saved. What is Mr. Giridhar's monthly income ?
- (1) 6,000  
(2) 12,000  
(3) 9,000  
(4) Cannot be determined  
(5) None of these

**(United Bank of India  
PO Exam. 21.06.2009)**

- 116.** Income of A is 150% of the income of B and income of C is 120% of the income of A. If the total income of A, B and C together is 86,000, what is C's income ?
- (1) 30,000                      (2) 32,000  
(3) 20,000                      (4) 36,000  
(5) None of these

**(Andhra Bank PO  
Exam. 05.07.2009)**

- 117.** Population of a country increases every year by 10%. If the population in January 2006 was 15.8 lakhs, what was the population in January 2008?
- (1) 19,11,800 (2) 18,96,000  
(3) 19,11,600 (4) 18,94,000  
(5) None of these

**(PNB Specialist Officer's  
Exam. 16.08.2009)**

- 118.** Mr. X spends 20% of his monthly income on household expenditure. Out of the remaining 25% he spends on children's education, 15% on transport, 15% on medicine and 10% on entertainment. He is left with 9,800 after incurring all these expenditures. What is his monthly income?
- (1) 35,000                      (2) 28,000  
(3) 65,333                      (4) 48,400  
(5) None of these

**(PNB Specialist Officer's  
Exam. 16.08.2009)**

- 119.** Aman's expense is 30% more than Vimal's expense and Vimal's expense is 10% less than Raman's expense. If the sum of their expense is 6447, then what would be the Aman's expense ?
- (1) 2,200                      (2) 2,457  
(3) 1,890                      (4) 2,100  
(5) None of these

**(Corporation Bank PO  
Exam. 22.11.2009)**

- 120.** A candidate appearing for an examination has to secure 35% marks to pass. But he secured only 40 marks and failed by 30 marks. What would be the maximum marks of test ?
- (1) 280                              (2) 180  
(3) 200                              (4) 150  
(5) 210

**(Corporation Bank PO  
Exam. 22.11.2009)**

- 121.** Twenty per cent of Anuj's annual salary is equal to seventy five per cent of Raj's annual salary. Raj's monthly salary is 60% of Ravi's monthly salary. If Ravi's annual salary is 1.44 lacs, what is Anuj's monthly salary ?
- (1) 2,70,000                      (2) 27,000  
(3) 3,24,000                      (4) 5,400  
(5) None of these

**(Bank Of Baroda PO  
Exam. 30.05.2010)**

- 122.** In a test, minimum passing percentage for girls and boys is 35% and 40% respectively. A boy scored 483 marks and failed by 117 marks. What are the minimum passing marks for girls ?
- (1) 425                              (2) 520  
(3) 500                              (4) 625  
(5) None of these

**(Central Bank Of India PO  
Exam. 25.07.2010)**

- 123.** Twelve percent of Kaushal's monthly salary is equal to sixteen

percent of Nandini's monthly salary. Suresh's monthly salary is half that of Nandini's monthly salary. If Suresh's annual salary is 1.08 lacs, what is Kaushal's monthly salary ?

- (1) 20,000 (2) 18,000  
(3) 26,000 (4) 24,000  
(5) None of these

**(Central Bank Of India PO  
Exam. 25.07.2010)**

**124.** In an exam Ritiz scored 52 per cent marks, Sunil scored 64 per cent marks and Ravi scored 74 percent of marks. The maximum marks of the exam are 750. What are the average marks scored by all the three boys together ?

- (1) 475 (2) 485  
(3) 450 (4) 490  
(5) None of these

**(Syndicate Bank PO  
Exam. 29.08.2010)**

**125.** Two candidates fought an election. One of them got 64% of the total votes polled and won with 992 votes. What was the total number of votes polled?

- (1) 1500 (2) 1580  
(3) 1550  
(4) Cannot be determined  
(5) None of these

**(PNB Management Trainee  
Exam. 28.11.2010)**

**126.** In a test, minimum passing percentage for girls and boys is 30% and 45% respectively. A boy scored 280 marks and failed by 80 marks. How many more marks did a girl require to pass in the test if she scored 108 marks ?

- (1) 132 (2) 140  
(3) 160 (4) 112  
(5) None of these

**(Bank Of Maharashtra  
Exam. 19.12.2010 &  
IBPS Bank PO/MT CWE  
Exam, 18.09.2011)**

**127.** Puneet scored 175 marks in a test and failed by 35 marks. If the

passing percentage of the test is 35 per cent, what are the maximum marks of the test ?

- (1) 650 (2) 700  
(3) 750 (4) 600  
(5) None of these

**(Union Bank Of India PO  
Exam. 09.01.2001)**

**128.** In a school there are 2000 students out of whom 36 per cent are girls. Each boy's monthly fee is 480 and each girl's monthly fee is 25 per cent less than a boy. What is the total of the monthly fees of girls and boys together ?

- (1) 8,73,400 (2) 8,67,300  
(3) 8,76,300 (4) 8,73,600  
(5) None of these

**(Union Bank Of India PO  
Exam. 09.01.2001)**

**129.** A sum of 731 is divided among A, B and C, such that 'A' receives 25% more than 'B' and 'B' receives 25% less than 'C'. What is C's share in the amount ?

- (1) 172 (2) 200  
(3) 262 (4) 258  
(5) None of these

**(Punjab & Sind Bank PO  
Exam. 23.01.2011)**

**130.** In an examination Raman scored 25 marks less than Rohit. Rohit scored 45 more marks than Sonia. Rohan scored 75 marks which is 10 more than Sonia. Ravi's score is 50 less than maximum marks of the test. What **approximate** percentage of marks did Ravi score in the examination if he gets 34 marks more than Raman ?

- (1) 90 % (2) 70 %  
(3) 80 % (4) 60 %  
(5) 85 %

**(UCO Bank PO Exam. 30.01.2011)**

**131.** Raman scored 456 marks in an exam and Sita got 54 percent marks in the same exam which is 24 marks less than Raman. If the minimum passing marks in the exam is 34

percent, then how much more marks did Raman score than the minimum passing marks?

- (1)184 (2)196  
(3)190 (4)180  
(5)None of these

**(Bank Of Baroda PO  
Exam.13.03.2011)**

**132.** In a school there are 250 students out of whom 12 percent are girls. Each girl's monthly fee is 450 and each boy's monthly fee is 24 percent more than a girl. What is the total monthly fee of girls and boys together?

- (1) 1,36,620 (2) 1,36,260  
(3) 1,32,660 (4) 1,32,460  
(5) None of these

**(Indian Overseas Bank PO  
Exam. 22.05.2011)**

**133.** An HR Company employs 4800 people, out of which 45 percent are males and 60 percent of the males are either 25 years or older. How many males are employed in HR Company who are younger than 25 years ?

- (1) 2480 (2) 2320  
(3) 1278 (4) 864  
(5) None of these

**(IBPS Bank PO/MT CWE  
Exam. 18.09.2011)**

**134.** A salesman offers a commission of  $x\%$  on the first sale of worth Rs. 3000 and  $y\%$  on the part of sale exceeding it. He gives Rs. 1100 as commission on a sale of Rs. 7000 and Rs. 1660 as commission on a sale of Rs. 11000. Find the value of  $x$  and  $y$  respectively.

- (1) 18% and 14%  
(2) 18% and 12%  
(3) 14% and 16%  
(4) 16% and 14%  
(5) None of these

**(SIDBI Bank Officer Exam.  
09.09.2014)**

**135.** Six-eleventh of a number is equal to twenty two percent of second

number. Second number is equal to the one-fourth of third number. The value of the third number is 2400, What is the 45% of first number?

- (1) 107.6 (2) 131.1  
(3) 115.4 (4) 143.8  
(5) None of these

**(IBPS Bank PO/MT CWE  
Exam. 18.09.2011)**

**136.** In an Entrance Examination Seema scored 56 percent marks, Nitya scored 92 percent marks and Meena scored 634 marks. The maximum marks of the examination are 875. What are the average marks scored by all the three girls together?

- (1) 1939 (2) 817  
(3) 680 (4) 643  
(5) None of these

**(IBPS Bank PO/MT CWE  
Exam. 18.09.2011)**

**137.** Five-ninth of a number is equal to twenty five percent of second number. Second number is equal to one-fourth of third number. The value of third number is 2960. What is 30 percent of first number?

- (1) 88.8 (2) 99.9  
(3) 66.6  
(4) Cannot be determined  
(5) None of these

**(Indian Overseas Bank PO  
Exam. 22.05.2011)**

**138.** Dinesh's monthly income is four times Suresh's monthly income. Suresh's monthly income is twenty percent more than Jyoti's monthly income. Jyoti's monthly income is 22,000. What is Dinesh's monthly income ?

- (1) 1,06,500 (2) 1,05,600  
(3) 1,04,500 (4) 1,05,400  
(5) None of these

**(Indian Overseas Bank  
PO Exam. 22.05.2011)**

**139.** Ruby's monthly income is three times Gayatri's monthly income, Gayatri's monthly income is fifteen percent more than Priya's monthly income, Priya's monthly income is

32,000. What is Ruby's **Annual** income ?

- (1) 1,20,300 (2) 13,24,800  
(3) 38,800 (4) 54,600  
(5) None of these

**(IBPS Bank PO/MT CWE  
Exam. 18.09.2011)**

**140.** Pradeep invested 20% more than Mohit. Mohit invested 10% less than Raghu. If the total sum of their investment is 17,880, how much amount did Raghu invest ?

- (1) 6,000 (2) 8,000  
(3) 7,000 (4) 5,000  
(5) None of these

**(Corporation Bank PO  
Exam. 16.01.2011)**

**141.** In an examination, 70% of students passed in English and 65% passed in Maths. If 27% of students failed in both subjects and 248 students passed in both subjects, how many students did appear in the examination ?

- (1) 400 (2) 375  
(3) 425 (4) 450  
(5) None of these

**(IDBI Officer Grade  
Exam. 22.08.2014)**

**142.** Akash scored 73 marks in subject A. He scored 56% marks in subject B and  $x$  marks in subject C. Maximum marks in each subject were 150. The overall percentage marks obtained by Akash in all the three subjects together were 54%. How many marks did he score in subject C?

- (1) 84 (2) 86  
(3) 79 (4) 73  
(5) None of these

**(IBPS Bank PO/MT CWE 17.06.2012)**

**143.** If the price of rice be increased by 38% then by how much per cent should its consumption be reduced so that expenditure does not increase ?

- (1) 27.5 (2) 30  
(3) 32 (4) 36  
(5) None of these

**144.** The difference between the population of a city two consecutive years ago from today is 5000. If there is 10% increase in population per year from the previous year, what is the present population of the city ?

- (1) 66000 (2) 66550  
(3) 56660 (4) 67500  
(5) None of these

**(Bank of Baroda PO  
Exam. 14.08.2014)**

**145.** In an examination, 30% of total students failed in Hindi, 45% failed in English and 20% failed in both subjects. Find the percentage of those who passed in both the subjects.

- (1) 35.7% (2) 35%  
(3) 40% (4) 45%  
(5) 44%

**(IBPS Bank PO/MT  
CWE-III 26.10.2013)**

**146.** In order to pass in an examination, a student is required to get 342 marks out of the aggregate marks. Neha got 266 marks and was declared fail by 8 per cent. What is the minimum passing percentage of the examination ?

- (1) 28% (2) 36%  
(3) 33% (4) 26%  
(5) None of these

**(IBPS RRBs Office Assistant  
CWE 09.09.2012)**

**147.** In a company 'XYZ', the respective ratio between the total number of under-graduate employees and the total number of graduate employees is 13 : 23. The Company has only two branches, one in Mumbai and other in Delhi. If the total number of under-graduate employees in Mumbai branch is 351, which is 30% of the total undergraduate employees in the company, what is the total number of graduate employees in the company ?

- (1) 2185 (2) 1955

- (3)2070 (4)2691  
(5)None of these

**(BOB Junior Management  
Grade/Scale-I Exam.  
18.04.2015)**

**148.** A vessel contains a mixture of milk and water in the respective ratio of 14 : 3. 25.5 litres of the mixture is taken out from the vessel and 2.5 litres of pure water and 5 litres of pure milk is added to the mixture. If the resultant mixture contains 20% water, what was the initial quantity of mixture in the vessel before the replacement ? (in litres)

- (1)51 (2)102  
(3)68 (4)85  
(5)34

**(IBPS RRBs Officer Scale-I & II  
CWE 12.09.2015)**

**149.** Monthly salaries of Pia and Som are in the respective ratio of 5 : 4. Pia, from her monthly salary, gives th to her mother. 15% towards her sister's tuition fees, 18% towards a loan and she shops with the remaining amount which was Rs. 2,100. What is the monthly salary of Som ?

- (1) Rs.25,000 (2)Rs.30.000  
(3) Rs.15,000 (4) Rs.20,000  
(5) Rs.24,000

**(IBPS RRBs Officer Scale-I & II  
CWE 12.09.2015)**

**150.** A gave 40% of his monthly salary to Mr. B. Mr. B spent 20% of this amount on taxi fare. He spent the remaining amount in the respective ratio of 3 : 5 on tuition fees and library membership. If he spent Rs. 1720 for membership, what is A's monthly salary ?

- (1) Rs. 8500 (2)Rs. 8600  
(3)Rs. 7600 (4)Rs. 7500  
(5)None of these

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015  
Ist Sitting)**

**151.** 'A' gave 25% of an amount to 'B'. from the money B got, he spent 30% on a dinner. Out of the remaining amount, the respective ratio between the amount B kept as savings and the amount he spent on buying a book is 5 : 2. If B bought the book for Rs. 460, how much money did A have in the beginning ?

- (1)Rs. 12600 (2)Rs. 9200  
(3)Rs. 12000 (4)Rs. 9000  
(5)Rs. 8000

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015)**

**152.** If the present population of a state is 27500 and after 2 years it increases to 40,931, then what is the rate of increase per year ?

- (1)25% (2)10%  
(3)17% (4)13%  
(5)22%

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**153.** In a class of 80 students and 5 teachers, each student got sweets that are 15% of the total number of students and each teacher got sweets, that are 25% of the total number of students. How many sweets were there?

- (1)1050 (2) 1060  
(3)Other than those given as options  
(4)1040 (5) 1030

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**154.** Bhavana decided to donate 12% of her monthly salary to an orphanage. On the day of donation she changed her mind and donated Rs. 2,400 which was 125% of what she had decided earlier. How much is Bhavana's salary?

- (1)Cannot be determined  
(2)Other than those given as options  
(3)Rs. 14,750  
(4)Rs. 18,500  
(5)Rs. 16,000

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**155.** Gaurav spent Rs. 38460 on the renovation of his home, Rs. 24468 on buying home theatre and the remaining 28% of the total amount he had as cash with him. What was the total amount?

- (1) Cannot be determined  
 (2) Rs. 76,500  
 (3) Other than those given as options  
 (4) Rs. 92,600  
 (5) Rs. 87,400

**(IBPS Bank PO/MT CWE-V  
 Main Exam. 31.10.2015)**

**156.** The respective ratio between the monthly salaries of Rene and Som is 5 : 3. Out of her monthly salary Rene gives th as rent, th to her mother, 30% as her education loan and keeps 25% aside for miscellaneous expenditure. Remaining Rs. 5000 she keeps as savings. What is Som's monthly salary ?

- (1) Rs. 21000                      (2) Rs. 24000  
 (3) Rs. 27000                      (4) Rs. 36000  
 (5) Rs. 18000

**(IBPS RRBs Officer Scale-I & II  
 CWE 13.09.2015)**

**157.** The respective ratio between total number of students studying in College A and College B is 5 : 8. In College B, out of the total number of students, th are boys, out of which 60% study Commerce and the remaining 800 boys study in other streams. What is the total number of students in College A?

- (1) 1500                              (2) 2500  
 (3) 1200                              (4) 4000  
 (5) 2000

**(IBPS Bank PO/MT CWE-V  
 (Pre.) 04.10.2015)**

**158.** In the year 2013, the population of a village A was 30% more than the population of village B. The population of village A in 2014 increased by 20% as compared to the previous year. If the population of village A in 2014 was 7176, what was the population of village B in 2013 ?

- (1) 4000                              (2) 5000  
 (3) 4800                              (4) 4600  
 (5) 5200

**(IBPS Specialist Officer (IT)  
 CWE 14.02.2016)**

**159.** Tom gave 20% of a certain amount of money to Ali. From the money Ali received, he spent 25% on school fees and 35% on buying school uniform. After the mentioned expenses, Ali had Rs. 2800 remaining with him. How much money did Tom have intially ?

- (1) Rs. 21,000                      (2) Rs. 35,000  
 (3) Rs. 30,000                      (4) Rs. 27,000  
 (5) Rs. 28,000

**(IBPS Specialist Officer (IT)  
 CWE 14.02.2016)**

**160.** In a competitive examination in State 'A', 6% candidates got selected from the total appeared candidates. State 'B' had an equal number of candidates appeared and 7% candidates got selected with 80 more candidates got selected than state 'A'. What was the number of candidates appeared from each state?

- (1) 8000                              (2) 8400  
 (3) 7600                              (4) Data inadequate  
 (5) None of these

**(SBI Associate Banks PO  
 Exam. 16.07.2000)**

**161.** Sumitra has an average of 56% on her first 7 examinations. How much she should make on her eighth examination to obtain an average of 60% on 8 examina-tions?

- (1) 88%                              (2) 78%  
 (3) 98%  
 (4) Cannot be determined  
 (5) None of these

**(SBI Banks PO Exam. 20.08.2000)**

**162.** In a recent survey 40% houses contained two or more people. Of those houses containing only one person 25% were having only a male. What is the per centage

of all houses, which contain exactly one female and no males?

- (1) 75% (2) 40%  
 (3) 15%  
 (4) Cannot be determined  
 (5) None of these

**(SBI Banks PO Exam. 20.08.2000)**

**163.** The strength of a school increases and decreases every alternate year. It starts with increase by 10% and thereafter the percentage of increase/decrease is the same. Which of the following is **definitely true** about the strength of the school in 2000 as compared to that in 1996 ?

- (1) Increase approximately by 2%  
 (2) Decrease approximately by 2%  
 (3) Increase approximately by 20%  
 (4) Decrease approximately by 20%  
 (5) None of these

**(SBI Banks PO Exam. 11.02.2001)**

**164.** 405 sweets were distributed equally among children in such a way that the number of sweets received by each child is 20% of the total no. of children. How many sweets did each child receive ?

- (1) 15 (2) 45  
 (3) 9 (4) 18  
 (5) None of these

**(SBI Associate Banks PO Exam. 21.07.2002 &**

**LIC Assistant Administration Officer (AAO) Exam, 2006)**

**165.** The salary of an employee increases consistently by 50% every year. If his salary today is 10,000, what will be the salary after another 4 years ?

- (1) 62,500 (2) 26,500  
 (3) 50,625 (4) 33,750  
 (5) None of these

**(SBI PO Exam. 09.01.2005)**

**166.** Mr. Yadav spends 80% of his monthly salary on consumable items and 50% of the remaining on clothes and transport. He saves the remaining amount. If his savings at

the end of the year are 5370, how much amount per month he would have spent on clothes and transport?

- (1) 4,037  
 (2) 8,076  
 (3) 9,691.20  
 (4) 4,845.60  
 (5) None of these

**(SBI PO Exam. 26.11.2006)**

**167.** Mr. Shamin's salary increases every year by 10% in June. If there is no other increase or reduction in the salary and his salary in June 2011 was 22,385, what was his salary in June 2009 ?

- (1) 18,650 (2) 18,000  
 (3) 19,250 (4) 18,500  
 (5) None of these

**(SBI Associate Banks PO Exam. 07.08.2011)**

**168.** Mr. Sarang invests 6% of his monthly salary i.e. 2,100 on insurance policies. Also he invests 8% of his monthly salary on family mediclaim policies and another 9% of his salary on NSCs. What is the total annual amount invested by Mr. Sarang ?

- (1) 11,400 (2) 96,600  
 (3) 8,050 (4) 9,500  
 (5) None of these

**(SBI PO Preliminary (Tier-I) Exam. 27.04.2008)**

**169.** An article was bought for Rs. 12850 and its price was marked at 30% above the cost price. It was sold at a discount of 10% on the marked price. What was the profit per cent on the cost price ?

- (1) 16% (2) 17%  
 (3) 15% (4) 18%  
 (5) None of these

**(SBI Specialist (IT) Officer Exam. 19.04.2014)**

**170.** Ms. Pooja Pushpan invests 13% of her monthly salary, i.e. 8554 in Mediclaim Policies. Later she invests 23% of her monthly salary on Child Education Policies. Also she invests another 8% of her monthly salary on

Mutual Funds. What is the total annual amount invested by Ms. Pooja Pushpan ?

- (1) 28952 (2) 43428  
(3) 347424 (4) 173712  
(5) None of these

**(SBI PO Preliminary (Tier-I)  
Exam. 27.07.2008)**

**171.** In a class of 240 students, each student got sweets that are 15% of the total number of students. How many sweets were there ?

- (1) 3000 (2) 3125  
(3) 8640  
(4) Cannot be determined  
(5) None of these

**(SBI PO Preliminary (Tier-I)  
Exam. 27.07.2008)**

**172.** Sonika spent 45,760 on the interior decoration for her home, 27896 on buying air conditioner and the remaining 28% of the total amount she had as cash with her. What was the total amount ?

- (1) 98540 (2) 102300  
(3) 134560  
(4) Cannot be determined  
(5) None of these

**(SBI PO Preliminary (Tier-I)  
Exam. 27.07.2008)**

**173.** Product of one-third of a number and 150% of another number is what percent of the product of original number ?

- (1) 80% (2) 50%  
(3) 75% (4) 120%  
(5) None of these

**(SBI Associate Banks PO  
Exam. 07.08.2011)**

**174.** In a vessel there is 40 litres mixture of milk and water. There is 15% water in the mixture. The milkman sells 10 litres of mixture to a customer and thereafter adds 12.5 litres of water to the remaining mixture. What is the respective ratio of milk and water in the new mixture ?

- (1) 2 : 3 (2) 3 : 2

- (3) 3 : 4 (4) 4 : 3  
(5) None of these

**(SBI PO Phase-I (Preliminary)  
Online Exam. 20.06.2015)**

**175.** In a 140 litres of mixture of milk and water, percentage of water is only 30%. The milkman gave 20 litres of this mixture to a customer. Then he added equal quantities of pure milk and water to the remaining mixture. As a result the respective ratio of milk and water in the mixture became 2 : 1. What was the quantity of milk added ? (in litres)

- (1) 12 (2) 16  
(3) 18 (4) 8  
(5) 10

**(SBI PO Phase-I (Preliminary)  
Online Exam. 21.06.2015)**

**176.** In a 90 litres mixture of milk and water, percentage of water is only 30%. The milkman gave 18 litres of this mixture to a customer and then added 18 litres of water to the remaining mixture. What is the percentage of milk in the final mixture ?

- (1) 64 (2) 48  
(3) 52 (4) 68  
(5) 56

**(SBI PO Phase-I (Preliminary)  
Online Exam. 27.06.2015)**

**177.** Abhay gave 30% of his money to Vijay. Vijay gave  $\frac{1}{3}$  of what he received to his mother. Vijay's mother gave  $\frac{1}{4}$  of the money she received from Vijay, to the grocer. Vijay's mother is now left with Rs. 600. How much money did Abhay have initially ?

- (1) Rs. 6,200 (2) Rs. 8,000  
(3) Rs. 6,000 (4) Rs. 8,200  
(5) Rs. 10,200

**(SBI PO Phase-I (Preliminary)  
Online Exam. 27.06.2015)**

**178.** If tax on a commodity is reduced by 10%, total revenue remains



unchanged. What is the percentage increase in its consumption?

- (1)  $11\frac{1}{9}\%$  (2) 20%  
 (3) 10% (4) 15%  
 (5) None of these

**(RBI Officer Grade 'B'**

**Online Exam. 25.08.2013**

**179.** Ms. Sujata invests 7% i.e. 2170 of her monthly salary in mutual funds. Later she invests 18% of her monthly salary in recurring deposits. Also, she invests 6% of her salary on NSC's. What is the total annual amount invested by Ms. Sujata ?

- (1) 1,25,320  
 (2) 1,13,520  
 (3) 1,35,120  
 (4) 1,15,320  
 (5) None of these

**(RBI Grade-B Officer  
Exam. 2007)**

**180.** Sujata scored 2240 marks in an examination that is 128 marks more than the minimum passing percentage of 64%. What is the percentage of marks obtained by Meena if she scores 907 marks less than Sujata?

- (1) 35% (2) 40%  
 (3) 45% (4) 36%  
 (5) 48%

**(RBI Officer Grade 'B'**

**Online Exam. 25.08.2013**

**181.** From a vessel containing 'X' litres of milk, 20% of milk was taken out and replaced with equal amount of water. Again, 20% of the mixture of milk and water was taken out and replaced with equal amount of water. This process was continued similarly for the third time and the quantity of milk left in the vessel after the third replacement was 71.68 litres. What was the initial quantity of milk (in litres) in the vessel (value of x) ?

- (1) 120 (2) 125  
 (3) 160 (4) 150  
 (5) 140

**(NABARD Officer Grade 'A'  
Online Exam. 03.08.2014)**

**182.** In a village, 70% registered voters cast their votes in the election. Only two candidates (A and B) contested the election. A won the election by 400 votes. Had A received 12.5% less votes, the result would have been tie. How many registered voters are there in the village?

- (1) 4200 (2) 4500  
 (3) 4000 (4) 4250  
 (5) 3500

**(RBI Officer Grade 'B' Phase-I  
Exam. 21.11.2015)**

**183.** In a village 60% votes were cast in an election. A and B were the contestants. A won by 600 votes. If B had got 40% more votes, there would have been a tie between them. Find the number of recognised voters in the village.

- (1) 4500 (2) 2800  
 (3) 3500 (4) 3600  
 (5) 3900

**(RBI Officer Grade 'B' Phase-I  
Online Exam. 22.11.2015)**

**184.** The number of Gypsy-cars sold in 1998 was 16,500 and that sold in 1997 was 16,580. How much was the percentage decrease in the sales of the Gypsy-cars from 1997 to 1998?

- (1) More than 1 per cent  
 (2) less than 1 per cent  
 (3) Zero per cent  
 (4) Cannot be determined

**(United India Insurance Co.  
AAO Exam. 21.04.2002)**

**185.** In an examination the percentage of students qualified to the number of students appeared from school 'A' is 70%. In school 'B' the number of students appeared is 20% more than the students appeared from school 'A' and the number of students qualified from school 'B' is 50% more than the students qualified from school 'A'. What is the percentage of students qualified to the number of students appeared from school 'B'?

- (1) 30% (2) 70%  
 (3) 87.5% (4) 78.5%  
 (5) None of these

**(LIC Assistant Administrative Officer (AAO) Exam. 24.04.2005)**

**186.** Fresh grapes contain 80% water while dry grapes contain 10% water. If the weight of dry grapes is 250 kg, what was its total weight when it was fresh?

- (1) 1000 kg (2) 1100 kg  
 (3) 1125 kg (4) 1225 kg

**(NICL (GIC) AO (Finance) Exam. 15.12.2013)**

**187.** A money lender finds that due to fall in the rate of interest from 8% to %, his yearly income diminishes by 61.50. His capital (in Rupees) is :

- (1) 26000 (2) 24600  
 (3) 23800 (4) 22400

**(LIC Assistant Administrative Officer (AAO) Exam. 07.06.2009)**

**188.** p is six times as large as q. The per cent that q is less than p is

- (1)% (2)%  
 (3) 90% (4) 60%

**(LIC Assistant Administrative Officer (AAO) Exam. 07.06.2009)**

**189.** A papaya tree was planted 2 years ago. It increases at the rate of 20% every year. If at present, the height of the tree is 540 cm, what was it when the tree was planted?

- (1) 324 cm (2) 400 cm  
 (3) 375 cm (4) 432 cm

**(NICL (GIC) Administrative Officer Exam. 15.12.2013)**

**190.** Sunil scored 54 percent marks in a test. Ravi scored 450 marks in same test which is 300 less than Sonu. Sunil's score is 60 more marks than Sonu. If Ram scored 900 marks in the test. What is Ram's percentage ?

- (1) 80% (2) 65%  
 (3) 75% (4) 60%  
 (5) None of these

**(United India Insurance AO Exam. 27.03.2011)**

**191.** In a school there are 800 students out of whom 45 percent are girls. Monthly fee of each boy is 600 and monthly fee of each girl is 30 percent less than each boy. What is the total monthly fee of girls and boys together ?

- (1) 4,25,400 (2) 4,14,600  
 (3) 4,19,600 (4) 4,23,400  
 (5) None of these

**(United India Insurance AO Exam. 27.03.2011)**

**192.** Suppose  $x$  and  $y$  are inversely proportional and positive. If  $x$  increases by 10%, then  $y$  decreases by

- (1) 10% (2)  $10\frac{1}{9}\%$   
 (3)  $9\frac{1}{11}\%$  (4) NONE

**(New India Insurance AAO Exam. 22.05.2011)**

**193.** ( $x$  % of  $y + y$  % of  $x$ ) is :

- (1)  $x$  % of  $y$  (2)  $y$  % of  $x$   
 (3) 2% of  $xy$  (4)  $xy$  % of 3

**(General Insurance Corporation AAO Exam. 11.12.2011)**

**194.** In a market research project, 20% opted for Nirma detergent whereas 60% opted for Surf Blue detergent. The rest were unsure. If the difference between those who opted for Surf Blue and those who were uncertain is 720, How many respondents were covered in the survey ?

- (1) 1800 (2) 1440  
 (3) 3600 (4) Data Inadequate

**(General Insurance Corporation AAO Exam. 11.12.2011)**

**195.** Fresh cherries contain 99% water. Suppose you have 1 kg of fresh cherries. After a few hours in the sun, some water evaporates and the percentage of water in the cherries becomes 98%. The new weight (in g) of cherries is

- (1) 750 (2) 700  
 (3) 600 (4) 500

**(Oriental Insurance Company  
AAO Exam. 08.04.2012)**

**196.** Fresh grapes contain 80% water by weight, whereas dried grapes contain 15% water by weight. How many kg of dried grapes can be obtained from 3.4 kg of fresh grapes ?

- (1) 0.51 kg                      (2) 0.6 kg  
(3) 0.68 kg                      (4) 0.8 kg

**(United India Insurance AAO  
Exam. 03.06.2012)**

**197.**  $p$  and  $q$  are inversely proportional to each other and are positive. If  $p$  increases by 100%, then  $q$  increases by

- (1) 50%                              (2) 100%  
(3) 150%                            (4) 200%

**(United India Insurance AAO  
Exam. 03.06.2012)**

**198.** An interview panel found that a candidate has given a wrong detail about his height. While filling up his form he filled up 20% more than his actual height. His actual height is 5 feet 2 inches. By what approximate percent should he reduce his height to get actual height?

- (1) 15%                              (2) 14%  
(3) 18%                              (4) 17%  
(5) None of these

**(LIC Assistant Administrative Officer  
(AAO) Exam. 12.05.2013)**

**199.** If 30% of  $(x - y) = 20%$  of  $(x + y)$ , then what percent of  $x$  is  $y$  ?

- (1) 25%                              (2) 20%  
(3) 30%                              (4) 24%

**(NICL (GIC) AO (Finance)**

**Exam. 08.09.2013 (Paper-I)**

**200.** If 90% of  $A = 30%$  of  $B$  and  $B = x%$  of  $A$ , then the value of  $x$  is

- (1) 800                              (2) 300  
(3) 700                              (4) 400

**(NICL (GIC) AO (Finance)**

**Exam. 08.09.2013 (Paper-I)**

**201.** Anurag's annual income is Rs. 6,36,000. He spends 22% of his monthly income on paying bills, 18% on household items, 12% on paying his children's fees and 4% he donates to a charity. If two-fifth of

the remaining amount he invests in mutual funds, what is the amount left with him every month ?

- (1) Rs. 17,850                      (2) Rs. 12,162  
(3) Rs. 9,328                      (4) Rs. 13,992  
(5) Rs. 14,650

**(NIACL Administrative Officer  
(AO) Exam. 10.01.2015)**

**202.** In an election only two candidates contested. 30% of the registered votes did not cast their votes and 180 votes were declared invalid. The winner got 684 votes more than his opponent. The number of valid votes received by the winner is 42% of the number of registered voters. How many registered voters cast their votes?

- (1) 2660                              (2) 2260  
(3) 2160                              (4) 2800  
(5) 2520

**(OICL Specialist Officer (Finance)  
Exam. 03.05.2015)**

**203.** In a 120 litre mixture of milk and water, water is only 25%. The milkman sold 20 litres of this mixture and then he added 16.2 litres of pure milk and 3.8 litres of pure water in the remaining mixture. What is the percentage of water in the final mixture?

- (1) 22                                  (2) 21  
(3) 24                                  (4) 25  
(5) 20

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 22.03.2015)**

**204.** In a 120 litre mixture of milk and water, water is only 25%. The milkman sold 20 litres of this mixture and then he added 16.2 litres of pure milk and 3.8 litres of pure water in the remaining mixture. What is the percentage of water in the final mixture?

- (1) 22                                  (2) 21  
(3) 24                                  (4) 25  
(5) 20

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 22.03.2015)**

## 7. RATIO PROPORTION

1. Find the value of  $\frac{x+a}{x-a} + \frac{x+b}{x-b}$  if  $x = \frac{2ab}{a+b}$   
 (a) - 2 (b) 2  
 (c) 1 (d) - 1
2. A certain sum of money was divided among A, B and C in a certain way. C got half as much as A and B together got. A got one third of what B and C together got. What is the ratio of A's share to that of C's share?  
 (a) 1 : 4 (b) 3 : 4  
 (c) 4 : 1 (d) 3 : 5
3. Two numbers are in the ratio of 3 : 4. If 5 is subtracted from each, the resulting numbers are in the ratio 2 : 3. Find the numbers  
 (a) 12, 16 (b) 24, 32  
 (c) 60, 80 (d) 15, 20
4. The wages of labourers in a factory increased in the ratio 22 : 25 and there was a reduction in their number in the ratio 15 : 11. Find the original wage bill if the present bill is Rs. 5000.  
 (a) Rs. 2500 (b) Rs. 3000  
 (c) Rs. 5000 (d) Rs. 6000
5. Which of the following numbers should be added to 11, 15, 17 and 23 so that they are in proportion?  
 (a) 2 (b) 3  
 (c) 5 (d) 1
6. Find the fourth proportional to  $12 \times 3$ ,  $9a \times 2$ ,  $8a \times 3$ .  
 (a)  $4a^3$  (b)  $6a^4$   
 (c)  $5a$  (d)  $7a^5$
7. Vijay decides to leave 100 acres of his land to his three daughters Vijaya, Sunanda and Anusuya in the proportion of one-third, one-fourth and one-fifth respectively. But Vijaya suddenly expires. Now how should
- Vijay divide the land between Sunanda and Anusuya?  
 (a)  $\frac{500}{9}, \frac{400}{9}$  (b)  $\frac{450}{8}, \frac{350}{8}$   
 (c)  $\frac{420}{7}, \frac{280}{7}$  (d)  $\frac{320}{7}, \frac{380}{7}$
8. Find  $a : b : c$ , if  $6a = 9b = 10c$ .  
 (a) 12 : 10 : 8 (b) 15 : 4 : 3  
 (c) 15 : 18 : 9 (d) 15 : 10 : 9
9. What is the least integer which when added to both terms of the ratio 5 : 9 will make a ratio greater than 7 : 10?  
 (a) 6 (b) 8  
 (c) 5 (d) 7
10. If  $a : b = 2 : 3$ ,  $b : c = 3 : 4$ ,  $c : d = 4 : 5$ , find  $a : b : c : d$ .  
 (a) 5 : 4 : 3 : 2 (b) 30 : 20 : 15 : 12  
 (c) 2 : 3 : 4 : 6 (d) 2 : 3 : 4 : 5
11. Rs. 1220 is divided, among A, B, C and D, such that B's share is  $\frac{5}{9}$  th of A's; C's share is  $\frac{7}{10}$  th of B's and D has  $\frac{1}{3}$  as much as B and C together. Find A's share.  
 (a) Rs. 540 (b) Rs. 802  
 (c) Rs. 100 (d) Rs. 650
12. In an examination, there are five subjects and each has the same maximum. A boy's marks are in the ratio 3 : 4 : 5 : 6 : 7 and his aggregate is  $\frac{3}{5}$  th of the full marks. In how many subjects did he get more than 50% marks?  
 (a) 1 (b) 2  
 (c) 3 (d) 4
13. Three friends started a business of renting out air conditioners by investing Rs. 20000, Rs. 24000 and Rs. 16000, respectively. C gets 20% of total profit for repair and maintenance of the air conditioner. If in a particular year, C gets Rs. 487.50 less than the total earnings of

the other two, then the total profit for the year is :

- (a) Rs. 2812.50                      (b) Rs. 3625.50  
(c) Rs. 4515.00                      (d) None of these

- 14.** The ratio of the prices of two houses A and B was 4 : 5 Last year. This year, the price of A is increased by 25% and that of B by Rs. 50000. If their prices are now in the ratio 9 : 10, the price of A last year was :

- (a) Rs. 3,60,000                      (b) Rs. 4,50,000  
(c) Rs. 4,80,000                      (d) Rs. 5,00,000

- 15.** The dimensions of a rectangular room when increased by 4 metres are in the ratio of 4 : 3 and when decreased by 4 metres, are in the ratio of 2 : 1. The dimensions of the room are

- (a) 6 m and 4 m                      (b) 12m and 8 m  
(c) 16m and 12m                      (d) 24m and 16m

- 16.** The sum of three numbers is 98. If the ratio of the first to The second is 2 : 3 and that of the second to the third is 5 : 8, then the second number is:

- (a) 20                                      (b) 30  
(c) 38                                      (d) 48

- 17.** Two numbers are such as that square of one is 224 less than 8 times the square of the other. If the numbers are in the ratio of 3 : 4, they are

- (a) 12, 16                                      (b) 6, 8  
(c) 9, 12                                      (d) None of these

- 18.** Tea worth Rs. 126 per kg and Rs. 135 per kg are mixed with a third variety in the ratio 1 : 1 : 2. If the mixture is worth Rs. 153 per kg, then the price of the third variety per kg is

- (a) Rs. 169.50                      (b) Rs. 170  
(c) Rs. 175.50                      (d) Rs. 180

- 19.** In a mixture of 45 litres, the ratio of milk and water is 3 : 2. How much water must be added to make the ratio 9 : 11?

- (a) 10 litres                                      (b) 15 litres  
(c) 17 litres                                      (d) 20 litres

- 20.** The ratio of the rate of flow of water in pipes varies Inversely as the square of the radii of the pipes. What is the ratio of the rates of flow in two pipes of diameters 2 cm and 4 cm, respectively?

- (a) 1 : 2                                      (b) 2 : 1  
(c) 1 : 8                                      (d) 4 : 1

- 21.** Given that 24 carat gold is pure gold. 18 carat gold is  $\frac{3}{4}$  pure gold and 20 carat gold is  $\frac{5}{6}$  pure gold. The ratio of the pure gold in 18 carat gold to the pure gold in 20 carat gold is :

- (a) 3 : 8                                      (b) 9 : 10  
(c) 15 : 24                                      (d) 8 : 5

- 22.** If  $\frac{y}{x-z} = \frac{y+x}{z} = \frac{x}{y}$ , then find  $x : y : z$ .

- (a) 1 : 2 : 3                                      (b) 3 : 2 : 1  
(c) 4 : 2 : 3                                      (d) 2 : 4 : 7

- 23.** Salaries of A, B and C were in the ratio 3 : 5 : 7, respectively. If their salaries were increased by 50%, 60% and 50% respectively, what will be the new ratio of the their respective new salaries?

- (a) 4 : 5 : 7                                      (b) 3 : 6 : 7  
(c) 4 : 15 : 18                                      (d) 9 : 16 : 21

- 24.** The average score of boys in an examination of a school is 71 and that of the girls is 73. The average score of the Whole school in that examination is 71.8. Find the ratio of the number of boys to the number of girls that appeared in the examination.

- (a) 4 : 5                                      (b) 3 : 2  
(c) 3 : 5                                      (d) 5 : 2

- 25.** Two casks of 48 L and 42 L are filled with mixtures of Wine and water, the proportions in the two casks being respectively 13 : 7 and 18 : 17. If the contents of the two casks be mixed and 20 L of water is added to the whole, what will be the proportion

- of wine to water in the resultant solution?  
 (a) 21 : 31 (b) 12 : 13  
 (c) 13 : 12 (d) None of these
- 26.** What amounts (in litres) of 90% and 97% pure acid Solutions are mixed to obtain 21 L of 95% pure acid solution?  
 (a) 6 and 15 L (b) 14 and 15 L  
 (c) 12 and 15 L (d) 13 and 12 L
- 27.** Arvind began a business with Rs. 550 and was joined afterwards by Brij with Rs. 330. When did Brij join, if the profits at the end of the year were divided in the ratio 10 : 3?  
 (a) After 4 months  
 (b) After 6 months  
 (c) After 4.5 months  
 (d) None of these
- 28.** A, B and C are partners. A receives  $\frac{9}{10}$  of the profit and B and C share the remaining profit equally. A's income is increased by Rs. 270 when the profit rises from 12 to 15%. Find the capital invested by B and C each  
 (a) Rs. 5000 (b) Rs. 1000  
 (c) Rs. 500 (d) Rs. 1500
- 29.** A fort had provision of food for 150 men for 45 days. After 10 days, 25 men left the fort. The number of days for which the remaining food will last, is  
 (a)  $29\frac{1}{5}$  (b)  $37\frac{1}{4}$   
 (c) 42 (d) 54
- 30.** In a mixture of 45 L, the ratio of milk and water is 2 : 1. If this ratio is to be 3 : 2, the quantity of water to be further added is  
 (a) 3 L (b) 5 L  
 (c) 8 L (d) None of these
- 31.** If 40% of a number is equal to two-third of another number, what is the ratio of first number to the second number?  
 (a) 2 : 5 (b) 3 : 7  
 (c) 5 : 3 (d) 7 : 3
- 32.** If the cost of printing a book of 320 leaves with 21 lines On each page and on an average 11 words in each line is Rs. 19, find the cost of printing a book with 297 leaves, 28 lines on each page and 10 words in each line.  
 (a) Rs.  $22\frac{3}{8}$  (b) Rs.  $20\frac{3}{8}$   
 (c) Rs.  $21\frac{3}{8}$  (d) Rs.  $21\frac{3}{4}$
- 33.** A and B entered into a partnership with investments of Rs. 15000 and Rs. 40000 respectively. After 3 months A left from the business, at the same time C joins with Rs. 30000. At the end of 9 months, they got Rs. 7800 as profit. Find the share of B.  
 (a) Rs. 4800 (b) Rs. 600  
 (c) Rs. 2400 (d) Rs. 1200
- 34.** The third proportional to  $(x^2 - y^2)$  and  $(x - y)$  is :  
 (a)  $(x + y)$  (b)  $(x - y)$   
 (c)  $\frac{x+y}{x-y}$  (d)  $\frac{x-y}{x+y}$
- 35.** The sides of a triangle are in the ratio  $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$  and its perimeter is 104 cm. The length of the longest side is  
 (a) 52 cm (b) 48 cm  
 (c) 32 cm (d) 26 cm
- 36.** Three friends A, B and C started a business by investing a sum of money in the ratio of 5 : 7 : 6. After 6 months C withdraws half of his capital. If the sum invested by 'A' is Rs. 40,000, out of a total annual profit of Rs. 33,000, C's share will be  
 (a) Rs. 9,000 (b) Rs. 12,000  
 (c) Rs. 11,000 (d) Rs. 10,000
- 37.** The numbers of students speaking English and Hindi are In the ratio of 4:5. If the number of students speaking English increased by 35% and that speaking Hindi increased by

20%, what would be the new respective ratio?

- (a) 19 : 20                      (b) 7 : 8  
(c) 8 : 9                         (d) 9 : 10

**38.** The ratio of males and females in a city is 7 : 8 and the percentage of children among males and females is 25% and 20% respectively. If the number of adult females in the city is 156800 what is the total population?

- (a) 245000                      (b) 367500  
(c) 196000                      (d) 171500

**39.** A, B and C started a business with a total investment of Rs. 72000. A invests Rs. 6000 more than B and B invests Rs. 3000 less than C. If the total profit at the end of a year is Rs. 8640, find A's share.

- (a) Rs. 3240                      (b) Rs. 2520  
(c) Rs. 2880                      (d) Rs. 3360

**40.** A and B start a business with investments of Rs. 5000 and Rs. 4500 respectively. After 4 months, A takes out half of his capital. After two more months, B takes out one-third of his capital while C joins them with a capital of Rs. 7000. At the end of a year, they earn a profit of Rs. 5080. Find the share of each member in the profit.

- (a) A-Rs.1400, B-Rs.1900, C-Rs.1780  
(b) A-Rs.1600, B-Rs.1800, C-Rs. 1680  
(c) A-Rs.1800, B-Rs.1500, C-Rs. 1780  
(d) A-Rs.1680, B-Rs.1600, C-Rs. 1800

**41.** A, B and C enter into a partnership. They invest Rs. 40,000, Rs. 80,000 and Rs. 1,20,000 respectively. At the end of the first year, B withdraws Rs. 40,000, while at the end of the second year, C withdraws Rs. 80,000. In what ratio will the profit be shared at the end of 3 years?

- (a) 2 : 3 : 5                      (b) 3 : 4 : 7  
(c) 4 : 5 : 9                      (d) None of these

**42.** Incomes of two companies A and B are in the ratio of 5 : 8. Had the

income of company A been more by Rs. 25 lakh, the ratio of their incomes would have been 5 : 4. What is the income of company B?

- (a) Rs. 80 lakh                      (b) Rs. 50 lakh  
(c) Rs. 40 lakh                      (d) Rs. 60 lakh

**43.** Abhishek started a business investing Rs. 50,000. After one year he invested another Rs. 30,000 and Sudin also joined him with a capital of Rs. 70,000. If the profit earned in three years from the starting of business was Rs. 87,500, then find the share of Sudin in the profit.

- (a) Rs. 37,500                      (b) Rs. 35,000  
(c) Rs. 38,281                      (d) Rs. 52,500

**44.** In 1 kg mixture of sand and iron, 20% is iron. How much sand should be added so that the proportion of iron becomes 10%?

- (a) 1 kg                              (b) 200 gms  
(c) 800 gms                      (d) 1.8 kg

**45.** A started a business with Rs. 21,000 and is joined afterwards by B with Rs. 36,000. After how many months did B join if the profits at the end of the year are divided equally?

- (a) 3                                  (b) 4  
(c) 5                                  (d) 6

**46.** Mr. AM, the magnanimous cashier at XYZ Ltd., while distributing salary, adds whatever money is needed to make the sum a multiple of 50. He adds Rs. 10 and Rs. 40 to A's and B's salary respectively and then he realises that the salaries of A, B and C are now in the ratio 4 : 5 : 7. The salary of C could be

- (a) Rs. 2300                      (b) Rs. 2150  
(c) Rs. 1800                      (d) Rs. 2100

**47.** When 30 percent of a number is added to another number the second number increases to its 140 per cent. What is the ratio between the first and the second number?

- (a) 3 : 4                              (b) 4 : 3

- (c) 3 : 2                      (d) None of these
- 48.** The ratio of number of ladies to gents at a party was 1 : 2, but when 2 ladies and 2 gents left, the ratio became 1 : 3. How many people were originally present at the party?  
 (a) 6                                      (b) 9  
 (c) 12                                      (d) 10
- 49.** A bag contains an equal number of one rupee, 50 paise and 25 paise coins respectively. If the total value is Rs. 35, how many coins of each type are there?  
 (a) 20 coins                              (b) 30 coins  
 (c) 28 coins                              (d) 25 coins
- 50.** A and B invest Rs. 3,000 and Rs. 4,000 in a business. A receives Rs. 10 per month out of the profit as a remuneration for running the business and the rest of profit is divided in proportion to the investments. If in a year 'A' totally receives Rs. 390, what does B receive?  
 (a) Rs. 375                              (b) Rs. 360  
 (c) Rs. 350                              (d) Rs. 260
- 51.** If  $f(x) = \frac{x+1}{x-1}$  then the ratio of  $x$  to  $f(y)$  where  $y = f(x)$  is  
 (a)  $x : y$                               (b)  $x^2 : y^2$   
 (c) 1 : 1                                      (d)  $y : x$
- 52.** Three quantities A, B, C are such that  $AB = KC$ , where K is a constant. When A is kept constant, B varies directly as C; When B is kept constant, A varies directly as C and when C is kept constant, A varies inversely as B. Initially, A was at 5 and  $A : B : C$  was 1 : 3 : 5. Find the Value of A when B equals 9 at constant C.  
 (a) 8                                      (b) 8.33  
 (c) 9                                      (d) 9.5
- 53.** In Ramnagar Colony, the ratio of school going children to non-school going children is 5 : 4. If in the next year, The number of non-school going children is increased by 20%, making it 35,400, what is the new ratio of school going children to non-school going children?  
 (a) 4 : 5                                      (b) 3 : 2  
 (c) 25 : 24                                      (d) None of these
- 54.** In a journey of 45 km performed by tonga, rickshaw and cycle in that order, the distance covered by the three ways in that order are in the ratio of 8 : 1 : 3 and charges per kilometre in that order are in the ratio of 8 : 1 : 4. If the tonga charges being 24 paise per kilometre, the total cost of the journey is  
 (a) Rs. 9.24                                      (b) Rs. 10  
 (c) Rs. 12                                      (d) None of these
- 55.** If Rs. 1066 is divided among A, B, C and D such that  $A : B = 3 : 4$ ,  $B : C = 5 : 6$  and  $C : D = 7 : 5$ , who will get The maximum?  
 (a) B                                      (b) A  
 (c) C                                      (d) D
- 56.** A man completes  $\frac{5}{8}$  of a job in 10 days. At this rate, how many more days will it take him to finish the job?  
 (a) 5                                      (b) 6  
 (c) 7                                      (d)  $7\frac{1}{2}$
- 57.** Rs. 1104 is divided between 3 men, 4 women and 6 boys, so that the share of a man, a woman and a boy are in the proportion of 3 : 2 : 1. How much does each boy get?  
 (a) Rs. 48                                      (b) Rs. 64  
 (c) Rs. 96                                      (d) Cannot be determined
- 58.** Seats of Physics, Chemistry and Mathematics in a school are in the ratio 4 : 5 : 6. There is a proposal to increase these seats by 75 in each department. What were the total number of seats in the school finally?  
 (a) 600                                      (b) 750



- (c) 900                      (d) None of these
- 59.** 60 kg of an alloy *A* is mixed with 100 kg of alloy *B*. If alloy *A* has lead and tin in the ratio 3 : 2 and alloy *B* has tin and copper in the ratio 1 : 4, then the amount of tin in the new alloy is  
 (a) 36 kg                      (b) 44 kg  
 (c) 53 kg                      (d) 80 kg
- 60.** *A*, *B* and *C* started a business. *A* invests  $\frac{1}{2}$  capital for  $\frac{1}{4}$  time, *B* invests  $\frac{1}{8}$  capital for  $\frac{1}{2}$  time and *C* invests the remaining capital for whole time. Find the share of *B* in the total profit of Rs. 9900.  
 (a) Rs. 2200                      (b) Rs. 1100  
 (c) Rs. 6600                      (d) Rs. 4400
- 61.** Two jars having a capacity of 3 and 5 litres respectively are filled with mixtures of milk and water. In the smaller jar 25% of the mixture is milk and in the larger 25% of the mixture is water. The jars are emptied into a 10 litre cask whose remaining capacity is filled up with water. Find the percentage of milk in the cask.  
 (a) 55%                      (b) 50%  
 (c) 45%                      (d) None of these
- 62.** The ratio of the number of students appearing for examination in the year 1998 in the states *A*, *B* and *C* was 3 : 5 : 6. Next year if the number of students in these States increases by 20%, 10% and 20% respectively, the ratio in states *A* and *C* would be 1 : 2. What was the number of students who appeared for the examination in the state *A* in 1998?  
 (a) 7200                      (b) 6000  
 (c) 7500                      (d) None of these
- 63.** A mixture of cement, sand and gravel in the ratio of 1 : 2 : 4 by volume is required. A person wishes to measure out quantities by weight. He finds that the weight of one cubic foot of cement is 94 kg, of sand 100 kg and gravel 110 kg. What should be the ratio of cement, sand and Gravel by weight in order to give a proper mixture?  
 (a) 47 : 100 : 220  
 (b) 94 : 100 : 220  
 (c) 47 : 200 : 440  
 (d) None of these
- 64.** *A*, *B*, *C* subscribe Rs. 50,000 for a business. *A* subscribes Rs. 4000 more than *B* and Rs. 5000 more than *C*. Out of a total profit of Rs. 35,000, *A* receives :  
 (a) Rs. 8,400                      (b) Rs. 11,900  
 (c) Rs. 13,600                      (d) Rs. 14,700
- 65.** *A*, *B* and *C* jointly thought of engaging themselves in a business venture. It was agreed that *A* would invest Rs. 6500 for 6 months, *B*, Rs. 8400 for 5 months and *C*, Rs. 10,000 for 3 months. *A* wants to be the working Member for which he was to receive 5% of the profits. The profit earned was Rs. 7400. Calculate the share of *B* in the profit.  
 (a) Rs. 1900                      (b) Rs. 2660  
 (c) Rs. 2800                      (d) Rs. 2840
- 66.** There is a ratio of 5 : 4 between two numbers. If 40 percent of the first number is 12 then what would be the 50 percent of the second number?  
 (a) 12                      (b) 24  
 (c) 18                      (d) None of the above
- 67.** In a partnership, *A* invests  $\frac{1}{6}$  of the capital for  $\frac{1}{6}$  of the time, *B* invests  $\frac{1}{3}$  of the capital for  $\frac{1}{3}$  of the time and *C*, the rest of the capital for whole time. Find *A*'s share of the total profit of Rs. 2,300.  
 (a) Rs. 100                      (b) Rs. 200  
 (c) Rs. 300                      (d) Rs. 400
- 68.** *A* and *B* rent a pasture for 10 months; *A* puts in 80 cows For 7 months. How many can *B* put in for the remaining 3 months, if he pays half as much again as *A*?

- (a) 120 (b) 180  
(c) 200 (d) 280
- 69.** The resistance of a wire is proportional to its length and inversely proportional to the square of its radius. Two wires of the same material have the same resistance and their radii are in the ratio 9 : 8. If the length of the first wire is 162 cms., find the length of the other.  
(a) 64 cm. (b) 120 cm.  
(c) 128 cm. (d) 132 cm.
- 70.** Two metals X and Y are to be used for making two Different alloys. If the ratio by weight of X : Y in the first alloy is 6 : 5 and that in the second is 7 : 13, how many kg of X metal must be melted along with 11 kg of the first alloy and 20 kg of the second so as to produce a new alloy containing 40% of metal Y?  
(a) 11 (b) 12  
(c) 13 (d) 14
- 71.** A diamond falls and breaks into three pieces whose weights are in the ratio 1 : 3 : 6. The value of the diamond is proportional to the square of its weight. If the original value is Rs. 30,000, What is the loss in the value due to the breakage?  
(a) Rs. 13, 800 (b) Rs. 16,200  
(c) Rs. 18, 600 (d) Rs. 19, 400
- 72.** When a bus started from the first stop, the number of Male passengers to the number of female passengers was 3 : 1. At the stop 16 passengers get down and 6 more Female passengers get into. Now the ratio of the male to Female passengers becomes 2 : 1. What was the total number of passengers in the bus when it started from the first stop?  
(a) 64 (b) 48  
(c) 54 (d) 72
- 73.** In three vessels, the ratio of water and milk is 6 : 7, 5 : 9 And 8 : 7, respectively. If the mixtures of the three vessels are mixed together, then what will be the ratio of water and milk?  
(a) 2431 : 3781 (b) 3691 : 4499  
(c) 4381 : 5469 (d) None of these
- 74.** In two alloys, the ratio of iron and copper is 4 : 3 and 6 : 1, respectively. If 14 kg of the first alloy and 42 kg of The second alloy is mixed together to form a new alloy, Then what will be the ratio of iron to copper in the new alloy?  
(a) 11 : 3 (b) 11 : 8  
(c) 8 : 1 (d) None of these
- 75.** Mixture of milk and water has been kept in two separate containers. Ratio of milk to water in one of the containers is 5 : 1 and that in the other container is 7 : 2. In what ratio should the mixtures of these two containers be added together so that the quantity of milk in the new mixture may become 80%?  
(a) 3 : 2 (b) 2 : 3  
(c) 4 : 5 (d) None of these
- 76.** Three containers of capacity 20 L, 5 L and 9 L contain Mixture of milk and water with milk concentrations 90%, 80% and 70% respectively. The contents of three containers are emptied into a large vessel. What is the approximate ratio of milk to water in the resultant mixture?  
(a) 3 : 1 (b) 4 : 1  
(c) 5 : 1 (d) 2 : 1
- 77.** Ratio of the earnings (in Rs.) of A and B is 4 : 7. If the Earnings of A increase by 50% and those of B decrease by 25%, the new ratio of their earnings becomes 8 : 7. How much is A earning?  
(a) Rs. 28000 (b) Rs. 21000  
(c) Rs. 26000 (d) Data inadequate

- 78.** In the famous Bhojpur island, there are four men for Every three women and five children for every three men. How many children are there in the island if it has 531 women?  
 (a) 454 (b) 1180  
 (c) 1070 (d) 389
- 79.** If  $a/b = 1/3$ ,  $b/c = 2$ ,  $c/d = 1/2$ ,  $d/e = 3$  and  $e/f = 1/4$ , then What is the value of  $abc/def$ ?  
 (a)  $3/8$  (b)  $27/8$   
 (c)  $3/4$  (d)  $27/4$
- 80.** The number of employees in a nationalised bank in a Small town is 10, out of which 4 are female and the rest are males. A committee of 5 is to be formed. If  $m$  be the number of ways to form such a committee in which there is atleast one female employee and  $n$  be the no. of ways to form such a committee which includes at least two male employees, then find the ratio  $m : n$ .  
 (a)  $3 : 2$  (b)  $5 : 2$   
 (c)  $1 : 1$  (d)  $8 : 9$
- 81.** Mr. Mehta and Mr. Yadav are neighbours in the 'Populated Colony'. The ratio of the number of sons and Daughters Mr. Yadav has is equal to the duplicate of the sub triplicate ratio of the number of sons and daughters Mr. Mehta has. The daughters in any of the houses are more in number than the sons. If both the neighbours have an equal number of daughters, what is the minimum strength of the total children in both the houses?  
 (a) 18 (b) 19  
 (c) 14 (d) 12
- 82.** In a conference hall there are people in blue and yellow dresses. The ratio of the number of women in blue to the number of men in yellow is  $3 : 2$  and the ratio of the number of men in blue to the number of women in yellow is  $3 : 5$ . If the ratio of the number of people in blue to the number of people in yellow is  $21 : 23$ , then what is the ratio of the number of men to the number of women in the conference hall?  
 (a)  $19 : 21$  (b)  $21 : 29$   
 (c)  $17 : 27$   
 (d) Cannot be determined
- 83.** If the ratio of boys to girls in a class is  $B$  and the ratio of girls to boys is  $G$ , then  $3(B + G)$  is :  
 (a) equal to 3 (b) less than 3  
 (c) more than 3 (d) less than  $\frac{1}{3}$
- 84.** Two vessels contain mixtures of milk and water in the Ratio of  $8 : 1$  and  $1 : 5$  respectively. The contents of both of these are mixed in a specific ratio into a third vessel. How much mixture must be drawn from the second vessel to fill the third vessel (capacity 26 gallons) completely in order that the resulting mixture may be half milk and half water?  
 (a) 12 gallons (b) 14 gallons  
 (c) 10 gallons (d) 13 gallons
- 85.** Two equal glasses are respectively  $\frac{2}{3}$  and  $\frac{1}{4}$  full of milk. They are then filled up with water and the contents are mixed in a tumbler. The ratio of milk and water in the tumbler is  
 (a)  $5 : 6$  (b)  $11 : 13$   
 (c)  $13 : 11$   
 (d) Cannot be determined
- 86.** The sum of the cubes of three numbers is 584 and the ratio of the first to second as also of second to the third is  $1 : 2$ . What is the third number?  
 (a) 20 (b) 12  
 (c) 8 (d) None of these
- 87.** If  $(a + b) : (b + c) : (c + a) = 6 : 7 : 8$  and  $(a + b + c) = 14$ , then the value of  $c$  is  
 (a) 6 (b) 7  
 (c) 8 (d) 14

- 88.** A sum of Rs.1300 is divided amongst  $P$ ,  $Q$ ,  $R$  and  $S$  such that  $\frac{P's\ share}{Q's\ share} = \frac{Q's\ share}{R's\ share} = \frac{R's\ share}{S's\ share} = \frac{2}{3}$ . Then,  $P$ 's share is  
 (a) Rs. 140 (b) Rs. 160  
 (c) Rs. 240 (d) Rs. 320
- 89.** Two alloys of iron have different percentage of iron in them. The first one weighs 6 kg and second one weighs 12 kg. One piece each of equal weight was cut off from both the alloys and the first piece was alloyed with the second alloy and the second piece alloyed with the first one. As a result, the percentage of iron became the same in the resulting two new alloys. What was the weight of each cut-off piece?  
 (a) 4 kg (b) 2 kg  
 (c) 3 kg (d) 5 kg
- 90.** The ratio of the present ages of a son and his father is 1 : 5 and that of his mother and father is 4 : 5. After 2 years the ratio of the age of the son to that of his mother becomes 3 : 10. What is the present age of the father?  
 (a) 30 years (b) 28 years  
 (c) 37 years (d) 35 years
- 91.** The number of employees in Obelix Menhir Co. is a Prime number and is less than 300. The ratio of the number of employees who are graduates and above, to that of employees who are not, can possibly be  
 (a) 101 : 88 (b) 87 : 100  
 (c) 110 : 111 (d) 97 : 84
- 92.** Three dogs are running in a park in such a way that when dog  $A$  takes 5 steps, dog  $B$  takes 6 steps and dog  $C$  takes 7 steps. But 6 steps of dog  $A$  are equal to 7 steps of dog  $B$  and 8 steps of dog  $C$ . What is the ratio of their speeds?  
 (a) 140 : 144 : 147 (b) 40 : 44 : 47  
 (c) 15 : 21 : 28 (d) 252 : 245 : 240
- 93.** Salaries of  $A$ ,  $B$  and  $C$  were in the ratio of 3 : 5 : 7 respectively. If their salaries were increased by 50%, 60% and 50% respectively, what will be the new ratio of their respective salaries?  
 (a) 3 : 6 : 7 (b) 4 : 5 : 7  
 (c) 4 : 5 : 8 (d) Data inadequate  
 (e) None of these
- 94.** If 40% of a number is equal to two-thirds of another number, what is the ratio of the first number to the second?  
 (a) 7 : 3 (b) 3 : 7  
 (c) 2 : 5 (d) 5 : 3  
 (e) None of these
- 95.** Radha started a business, investing Rs.75,000. After 3 months, Sunidhi joined her with an amount of Rs.1,25,000 and after another six months Neha joined them with an amount of Rs.1,50,000. Profit earned at the end of three years from when Radha started the business should be distributed in what ratio among Radha, Sunidhi and Neha respectively?  
 (a) 36 : 55 : 54 (b) 18 : 28 : 27  
 (c) 35 : 54 : 55  
 (d) Cannot be determined  
 (e) None of these
- 96.** What should come in place of the question mark(?) in the following equation?  

$$\frac{28}{?} = \frac{?}{112}$$
  
 (a) 70 (b) 56  
 (c) 48 (d) 64  
 (e) None of these
- 97.** An empty fuel tank to a car was filled with  $A$  type of petrol. When the tank was half empty, it was filled with  $B$  type of petrol. Again when the tank was half empty, it was filled with  $A$  type of petrol. When the tank was half empty again, it was filled with  $B$  type of petrol. At this time, what was

the percentage of A type of petrol in the tank?

- (a) 50% (b) 40%  
(c) 33.5% (d) 37.5%  
(e) None of these

98. The ratio of A's and B's salary is 9 : 4. If A's salary is increased by 15%, then his total salary becomes Rs.5175. What is the salary of B?

- (a) Rs.2,000 (b) Rs.4,000  
(c) Rs.4,500 (d) Rs.2,500  
(e) None of these

99. Three friends A, B and C started a business by investing a sum of money in the ratio of 5 : 7 : 6. After 6 months C withdraws half of his capital. If the sum invested by 'A' is Rs.40,000, out of a total annual profit of Rs.33,000, C's share will be

- (a) Rs.9,000 (b) Rs.12,000  
(c) Rs.11,000 (d) Rs.10,000  
(e) None of these

100. Seats for Maths, Physics and Biology are in the ratio of 5 : 7 : 8 respectively. There is a proposal to increase these seats by 40%, 50% and 75% respectively. What will be the respective ratio of increased seats?

- (a) 2 : 3 : 4 (b) 6 : 7 : 8  
(c) 6 : 8 : 9  
(d) Cannot be determined  
(e) None of these

101. Mr Sharad started a business investing Rs.50000. Four months later Mr Praveen joined the business by investing Rs.90000. If the profit in the business at the end of the year was Rs.22000 how much amount would Mr Praveen have received as the profit?

- (a) Rs.16000 (b) Rs.14000  
(c) Rs.12000 (d) Rs.11000  
(e) None of these

102. The ratio of Gomati's and Rashmi's ages is 3 : 5 respectively.

After ten years this ratio will become 2 : 3. What is Rashmi's age in years?

- (a) 50 (b) 40  
(c) 60 (d) Cannot be determined  
(e) None of these

103. Salaries of Rajesh and Sunil are in the ratio of 2 : 3. If the salary of each one is increased by Rs.4000 the new ratio becomes 40 : 57. What is Sunil's present salary?

- (a) Rs.17000 (b) Rs.20000  
(c) Rs.25500  
(d) Cannot be determined  
(e) None of these

104. The numbers of students speaking English and Hindi are in the ratio of 4:5. If the number of students speaking English increased by 35% and that speaking Hindi increased by 20%, what would be the new respective ratio?

- (a) 19 : 20 (b) 7 : 8  
(c) 8 : 9 (d) Cannot be determined  
(e) None of these

105. Abhijit started a business investing Rs.70000. Anuja joined him after six months with an amount of Rs.105000 and Sunil joined them with Rs.1.4 lakhs after another six months. The amount of profit earned should be distributed in what ratio among Abhijit, Anuja and Sunil respectively, three years after Abhijit started the business?

- (a) 42 : 45 : 56 (b) 7 : 6 : 10  
(c) 12 : 15 : 16  
(d) Cannot be determined  
(e) None of these

106. The ratio of males and females in a city is 7 : 8 and the percentage of children among males and females is 25% and 20% respectively. If the number of adult females in the city is 156800 what is the total population?

- (a) 245000 (b) 367500  
(c) 196000 (d) 171500  
(e) None of these

- 107.** Hariprasad and Madhusudan started a business, investing sums in the ratio of 2 : 3. If Hariprasad had invested an additional amount of Rs.10,000 the ratio of Hariprasad's investment to Madhusudan's investment would have been 3 : 2. What was the amount invested by Hariprasad?  
(a) Rs.8000 (b) Rs.12000  
(c) Rs.9000 (d) Data inadequate  
(e) None of these
- 108.** The ratio of the present ages of a son and his father is 1 : 5 and that of his mother and father is 4 : 5. After 2 years the ratio of the age of the son to that of his mother becomes 3 : 10. What is the present age of the father?  
(a) 30 years (b) 28 years  
(c) 37 years (d) Data inadequate  
(e) None of these
- 109.** The ratio of the number of students appearing for examination in the year 1998 in the states A, B and C was 3 : 5 : 6. Next year if the number of students in these states increases by 20%, 10% and 20% respectively, the ratio in states A and C would be 1 : 2. What was the number of students who appeared for the examination in the state A in 1998?  
(a) 7200 (b) 6000  
(c) 7500 (d) Data inadequate  
(e) None of these
- 110.** A man spends Rs.1810 for buying bedsheets at Rs.200 each and pillows at Rs.70 each. What will be the ratio of bedsheets to pillows when maximum number of bedsheets are bought?  
(a) 3:8 (b) 8:3  
(c) 9:1 (d) 1:9  
(e) None of these
- 111.** Mr Shivkumar started a business, investing Rs.25000 in 1996. In 1997 he invested an additional amount of Rs.10000 and Mr Rakesh joined him with an amount of Rs.35000. In 1998, Mr Shivkumar invested another additional amount of Rs.10000 and Mr Suresh joined them with an amount of Rs.35000. What will be Rakesh's share in the profit of Rs.150000 earned at the end of three years from the start of the business in 1996?  
(a) Rs.70000 (b) Rs.50000  
(c) Rs.45000 (d) Rs.75000  
(e) None of these
- 112.** Incomes of two companies A and B are in the ratio of 5 : 8. Had the income of company A been more by Rs.25 lakh, the ratio of their incomes would have been 5 : 4. What is the income of company B?  
(a) Rs.80 lakh (b) Rs.50 lakh  
(c) Rs.40 lakh (d) Rs.60 lakh  
(e) None of these
- 113.** The ratio of number of students studying Arts, Commerce and Science in a College is 3 : 5 : 8. What is the new ratio of the number of students studying Arts, Commerce and Science respectively if there is an increase of 20%, 40% and 25% in the number of students studying Arts, Commerce and Science?  
(a) 18:35:50 (b) 3:10:10  
(c) 4:8:5 (d) 32:35:25  
(e) None of these
- 114.** Abhishek started a business investing Rs.50,000. After one year he invested another Rs.30,000 and Sudin also joined him with a capital of Rs.70,000. If the profit earned in three years from the starting of business was Rs.87,500, then find the share of Sudin in the profit.  
(a) Rs.37,500 (b) Rs.32,500  
(c) Rs.38,281 (d) Rs.52,500  
(e) None of these

- 115.** Weights of two friends Ram and Shyam are in the ratio of 4 : 5. Ram's weight increases by 10% and the total weight of Ram and Shyam together becomes 82.8 kg, with an increase of 15%. By what per cent did the weight of Shyam increase?  
(a) 12.5% (b) 17.5%  
(c) 19% (d) 21%  
(e) None of these
- 116.** When 50% of one number is added to a second number, the second number increases to its four-thirds. What is the ratio between the first number and the second number?  
(a) 3 : 2 (b) 3 : 4  
(c) 2 : 3 (d) Data inadequate  
(e) None of these
- 117.** The ratio of present ages of Nisha and Shilpa is 7:8 respectively. Four years hence this ratio becomes 9:10 respectively. What is Nisha's present age in years?  
(a) 18 (b) 14  
(c) 17 (d) Data inadequate  
(e) None of these
- 118.** When a number is added to another number the total becomes  $1\frac{33}{3}$  per cent of the second number. What is the ratio between the first and the second number?  
(a) 3 : 7 (b) 7 : 4  
(c) 7 : 3 (d) Data inadequate  
(e) None of these
- 119.** The ratio between the present ages of P and Q is 5 : 8. After four years, the ratio between their ages will be 2 : 3. What is Q's age at present?  
(a) 36 years (b) 20 years  
(c) 24 years (d) Data inadequate  
(e) None of these
- 120.** Jaydeep purchased 25 kg of rice at the rate of Rs.16.50 per kg and 35 kg of rice at the rate of Rs.24.50 per kg. He mixed the two and sold the mixture. Approximately, at what price per kg did he sell the mixture to make 25 per cent profit?  
(a) Rs.26.50 (b) Rs.27.50  
(c) Rs.28.50 (d) Rs.30.00  
(e) Rs.29.00
- 121.** In 1 kg mixture of sand and iron, 20% is iron. How much sand should be added so that the proportion of iron becomes 10%?  
(a) 1 kg (b) 200 gms  
(c) 800 gms (d) 1.8 kg  
(e) None of these
- 122.** The ratio of P's and Q's ages is 5 : 7. If the difference between the present age of Q and the age of P six years hence is 2 then what is the total of present ages of P and Q?  
(a) 52 years (b) 48 years  
(c) 56 years (d) Data inadequate  
(e) None of these
- 123.** There is a ratio of 5 : 4 between two numbers. If forty per cent of the first number is 12 then what would be the 50 per cent of the second number?  
(a) 12 (b) 24  
(c) 18 (d) Data inadequate  
(e) None of the above
- 124.** An amount of money is to be distributed among P, Q and R in the ratio of 5 : 8 : 12 respectively. If the total share of Q and R is four times that of P, what is definitely P's share?  
(a) Rs.3,000 (b) Rs.5,000  
(c) Rs.8,000 (d) Data inadequate  
(e) None of these
- 125.** When 30 per cent of a number is added to another number the second number increases to its 140 per cent. What is the ratio between the first and the second number?  
(a) 3 : 4 (b) 4 : 3  
(c) 3 : 2 (d) Data inadequate

- (e) None of these
- 126.** If 25% of a number is subtracted from a second number the second number reduces to its five-sixths. What is the ratio between the first number and the second number?  
 (a) 2 : 3 (b) 3 : 2  
 (c) 1 : 3 (d) Data inadequate  
 (e) None of these
- 127.** Two friends P & Q started a business investing amounts in the ratio of 5 : 6. R joined them after six months investing an amount equal to that of Q's amount. At the end of the year 20% profit was earned which was equal to Rs.98,000. What was the amount invested by R?  
 (a) Rs.2,10,000 (b) Rs.1,05,000  
 (c) Rs.1,75,000 (d) Data inadequate  
 (e) None of these
- 128.** One year ago the ratio of Yamini's and Gamini's ages was 6 : 7 respectively. Four years hence this ratio would become 7 : 8. How old is Gamini?  
 (a) 35 years (b) 30 years  
 (c) 31 years (d) Cannot be determined  
 (e) None of these
- 129.** Ratio of present age of P and Q is 7 : 3. After four years their ages are in the ratio of 2 : 1. What is the present age of P ?  
 (a) 24 years (b) 28 years  
 (c) 32 years (d) Data inadequate  
 (e) None of these
- 130.** If 40 per cent of a number is added to an other number then it becomes 125 per cent of itself. What will be the ratio of first and second numbers?  
 (a) 8 : 5 (b) 5 : 7  
 (c) 5 : 8 (d) Data inadequate  
 (e) None of these
- 131.** An amount of money is to be divided among P, Q and R in the ratio of 4 : 9 : 16. If R gets 4 times more than P, what is Q's share in it?  
 (a) Rs.1,800 (b) Rs.2,700  
 (c) Rs.3,600  
 (d) Data inadequate  
 (e) None of these
- 132.** Jagtap purchases 30 kg of wheat at the rate of Rs.11.50 per kg and 20 kg of wheat at the rate of Rs.14.25 per kg. He mixed the two and sold the mixture. Approximately at what price per kg should he sell the mixture to make 30 per cent profit?  
 (a) Rs.16.30 (b) Rs.18.20  
 (c) Rs.15.60 (d) Rs.14.80  
 (e) Rs.15.40
- 133.** Mr. Gangadhar, Mr. Ramesh and Mr. Shridhar together earned Rs.19800. The ratio of earnings between Mr. Gangadhar and Mr. Ramesh is 2 : 1 while that between Mr. Ramesh and Mr. Shridhar is 3 : 2. How much did Mr. Ramesh earn?  
 (a) Rs.3600 (b) Rs.5400  
 (c) Rs.1800 (d) Rs.6300  
 (e) None of these
- 134.** Mr. Kutty has only hens and sheep. If the total number of their heads is 38 and the total number of legs is 100 then what is the ratio between the numbers of hens and sheep?  
 (a) 2 : 1 (b) 1 : 2  
 (c) 6 : 13 (d) 13 : 6  
 (e) None of these
- 135.** If  $A : B : C = 2 : 3 : 4$ , then  $\frac{A}{B} : \frac{B}{C} : \frac{C}{A}$  is equal to  
 (a) 4 : 9 : 16 (b) 8 : 9 : 12  
 (c) 8 : 9 : 16 (d) 8 : 9 : 24
- 136.** proportion of 5 : 2 : 4 : 3. If C gets Rs.1000 more than D, what is B's share?  
 (a) Rs.500 (b) Rs.1500



- (c) Rs.2000                      (d) Rs.1400  
(e) None of these
- 137.** The sum of three numbers is 98. If the ratio of the first to the second is 2 : 3 and that of the second to the third is 5 : 8, then the second number is :  
(a) 20                                      (b) 30  
(c) 38                                      (d) 48  
(e) None of these
- 138.** The ratio of number of ladies to gents at a party was 1 : 2, but when 2 ladies and 2 gents left, the ratio became 1 : 3. How many people were originally present at the party?  
(a) 6                                      (b) 9  
(c) 12                                      (d) 10  
(e) None of these
- 139.** A man divides his property so that his son's share to his wife's and the wife's share to his daughter are both in the ratio 3 : 1. If the daughter gets Rs.10,000 less than the son, find the total worth of the property.  
(a) Rs.16,200      (b) Rs.16,250  
(c) Rs.16,500      (d) Rs.15,300  
(e) None of these
- 140.** A bag contains an equal number of one rupee, 50 paise and 25 paise coins respectively. If the total value is Rs.35, how many coins of each type are there?  
(a) 20 coins                      (b) 30 coins  
(c) 28 coins                      (d) 25 coins  
(e) None of these
- 141.** The salaries of A, B, C are in the ratio 2 : 3 : 5. If the increments of 15%, 10% and 20% are allowed respectively in their salaries, then what will be the new ratio of their salaries?  
(a) 3 : 3 : 10                      (b) 10 : 11 : 20  
(c) 23 : 33 : 60  
(d) Cannot be determined  
(e) None of these
- 142.** In an express train, the passengers travelling in A.C. sleeper class, First class and Sleeper class are in the ratio 1:2:7, and rate for each class is in the ratio 5 : 4 : 2. If the total income from this train is Rs.54, 000, find the income of Indian Railways from A.C. sleeper class.  
(a) Rs.12,000                      (b) Rs.20,000  
(c) Rs.22,000                      (d) Rs.10,000  
(e) None of these
- 143.** What is the ratio whose terms differ by 40 and the measure of which is  $\frac{2}{7}$  ?  
(a) 16 : 56                      (b) 14 : 56  
(c) 15 : 56                      (d) 16 : 72  
(e) None of these
- 144.** The average age of three boys is 25 years and their ages are in the proportion 3: 5 : 7. The age of the youngest boy is:  
(a) 21 years                      (b) 18 years  
(c) 15 years                      (d) 9 years  
(e) None of these
- 145.** A photograph measuring  $21\frac{1}{2}'' \times 17\frac{7}{8}''$  is to be enlarged so that the length will be 4". How many inches will the enlarged breadth be?  
(a)  $1\frac{1}{2}$                       (b)  $2\frac{1}{8}$   
(c) 3                      (d)  $3\frac{3}{8}$   
(e) None of these
- 146.** In a partnership, A invests  $\frac{1}{6}$  of the capital for  $\frac{1}{6}$  of the time, B invests  $\frac{1}{3}$  of the capital for  $\frac{1}{3}$  of the time and C, the rest of the capital for whole time. Find A's share of the total profit of Rs.2,300.  
(a) Rs.100                      (b) Rs.200  
(c) Rs.300                      (d) Rs.400  
(e) None of these
- 147.** A, B and C start a business each investing Rs.20,000. After 5 months A withdrew Rs.5000, B withdrew Rs.4000 and C invests Rs.6000 more. At the end of the year, a total profit of

Rs.69,900 was recorded. Find the share of B.

- (a) Rs.20,000                      (b) Rs.21,200  
(c) Rs.28,200                      (d) Rs.20,500  
(e) None of these

**148.** A is a working partner and B is a sleeping partner in a business. A puts in Rs.50,000 and B Rs.60,000. A gets 12.5% of the profit for managing the business, and the rest is divided in proportion to their capitals. Find the share of A in profit of Rs.8800.

- (a) Rs.3500                      (b) Rs.4600  
(c) Rs.5400                      (d) Rs.4800  
(e) None of these

**149.** A began business with Rs.12500 and is joined afterwards by B with Rs.37500. When did B join, if the profits at the end of the year are divided equally?

- (a) 8 months                      (b) 9 months  
(c) 10 months                      (d) 7 months  
(e) None of these

**150.** A began business with Rs.45,000 and was later joined by B with Rs.54,000. When did B join if the profit at the end of the year were divided in the ratio 2 : 1?

- (a) 5 months after  
(b) 10 months after  
(c) 7 months after  
(d) 12 months after  
(e) None of these

**151.** A and B enter into partnership with capitals in the ratio 3 : 4. At the end of 10 months A withdraws, and the profits now are divided in the ratio of 5 : 6. Find how long B remained in the business?

- (a) 9 months                      (b) 8 months  
(c) 6 months                      (d) 7 months  
(e) None of these

**152.** A and B invest Rs.3,000 and Rs.4,000 in a business. A receives Rs.10 per month out of the

profit as a remuneration for running the business and the rest of profit is divided in proportion to the investments. If in a year 'A' totally receives Rs.390, what does B receive?

- (a) Rs.375                      (b) Rs.360  
(c) Rs.350                      (d) Rs.260  
(e) None of these

**153.** A started a business with Rs.4500 and another person B joined after some period with Rs.3000. Determine this period after B joined the business if the profit at the end of the year is divided in the ratio 2 : 1

- (a) After 3 months  
(b) After 4 months  
(c) After 6 months  
(d) After 2 ½ months  
(e) None of these

**154.** A and B entered into a partnership with capitals in the ratio of 4 : 5. After 3 months, A withdrew ¼ of his capital and B withdrew 1/5 of his capital. The gain at the end of 10 months was Rs.760. Find the profit of B.

- (a) Rs.450                      (b) Rs.430  
(c) Rs.410                      (d) Rs.340  
(e) None of these

**155.** A and B rent a pasture for 10 months; A puts in 80 cows for 7 months. How many can B put in for the remaining 3 months, if he pays half as much again as A?

- (a) 120                      (b) 180  
(c) 200                      (d) 280  
(e) None of these

**156.** The total number of students in a school is 819. If the number of girls in the school is 364, then what is the respective ratio of the total number of boys to the total number of girls in the school?

- (a) 26 : 25                      (b) 21 : 17  
(c) 18 : 13                      (d) 5 : 4  
(e) None of these

- 157.** If a dividend of Rs.57,834 is to be divided among Meena, Urmila and Vaishali in the proportion of 3:2:1, find Urmila's share.  
(a) Rs.19,281 (b) Rs.17,350  
(c) Rs.23,133 (d) Rs.19,278  
(e) None of these
- 158.** The ratio of the present ages of Sushma and Karishma is 6:7 respectively. The ratio of their ages 8 years hence would be 8:9 respectively. What would be the respective ratio of their ages after 12 years?  
(a) 17 : 19 (b) 15 : 17  
(c) 9 : 10 (d) 10 : 11  
(e) None of these
- 159.** The total number of boys in a school are 16% more than the total number of girls in the school. What is the ratio of the total number of boys to the total number of girls in the school?  
(a) 25:21 (b) 29:35  
(c) 25:29  
(d) Cannot be determined  
(e) None of these
- 160.** A sum of money is to be divided equally amongst P, Q and R in the respective ratio of 5:6:7 and another sum of money is to be divided between S and T equally. If S got Rs.2,100 less than P, how much amount did Q receive?  
(a) Rs 2,500 (b) Rs.2,000  
(c) Rs.1,500  
(d) Cannot be determined  
(e) None of these
- 161.** Ratio of the earning of A and B is 4:7 respectively. If the earnings of A increase by 50% and the earnings of B decrease by 25% the new ratio of their earnings becomes 8:7 respectively. What are A's earnings?  
(a) Rs.26,000 (b) Rs.28,000  
(c) Rs.21,000  
(d) Data inadequate  
(e) None of these
- 162.** Pinku, Rinku and Tinku divide an amount of Rs.4,200 amongst themselves in the ratio of 7:8:6 respectively. If an amount of Rs.200 is added to each of their shares, what will be the new respective ratio of their shares of amount?  
(a) 8 : 9 : 6 (b) 7 : 9 : 5  
(c) 7 : 8 : 6 (d) 8 : 9 : 7  
(e) None of these
- 163.** Rinku and Pooja started a business initially with Rs.5,100 and Rs.6,600 respectively. If the total profit is Rs.2,730 what is Rinku's share in the profit?  
(a) Rs.1,530 (b) Rs.1,540  
(c) Rs.1,200 (d) Rs.1,180  
(e) None of these
- 164.** The average age of a woman and her daughter is 42 years. The ratio of their ages is 2:1. What is the daughter's age?  
(a) 28 years (b) 48 years  
(c) 52 years (d) 32 years  
(e) None of these
- 165.** The total number of boys in a school is 15% more than the total number of girls in the school. What is the ratio of the total number of boys to the total number of girls in the school?  
(a) 17 : 23 (b) 24 : 11  
(c) 23 : 20 (d) 11 : 24  
(e) None of these
- 166.** The ratio of the present ages of Smita and Kavita is 3:8 respectively. Seven years hence the ratio of their ages will be 4:9. What is Kavita's present age?  
(a) 56 years (b) 63 years  
(c) 42 years (d) 49 years  
(e) None of these

- 167.** A and B started a business by investing Rs.35,000 and Rs.20,000 respectively. B left the business after 5 months and C joined the business with a sum of Rs.15,000. The profit earned at the end of the year is Rs.84,125. What is B's share of profit?  
(a) Rs.14133 (b) Rs.15,000  
(c) Rs.13,460  
(d) Cannot be determined  
(e) None of these
- 168.** The average age of a man and his son is 48 years. The ratio of their ages is 5 : 3 respectively. What is the son's age?  
(a) 36 years (b) 48 years  
(c) 60 years (d) 24 years  
(e) None of these
- 169.** The ages of Nishi and Vinnee are in the ratio of 6 : 5 respectively. After 9 years the ratio of their ages will be 9 : 8. What is the difference in their ages?  
(a) 9 years (b) 7 years  
(c) 5 years (d) 3 years  
(e) None of these
- 170.** The difference between the present ages of Arun and Deepak is 14 years. Seven years ago the ratio of their ages was 5 : 7 respectively. What is Deepak's present age?  
(a) 49 years (b) 42 years  
(c) 63 years (d) 35 years  
(e) None of these
- 171.** Ninad, Vikas and Manav enter into a partnership. Ninad invests some amount at the beginning. Vikas invests double the amount after 6 months and Manav invests thrice the amount invested by Ninad after 8 months. They earn a profit of Rs.45,000 at the end of the year. What is Manav's share in the profit?  
(a) Rs.25000 (b) Rs.15000  
(c) Rs.12000 (d) Rs.9000  
(e) None of these
- 172.** Ratio of Rani's and Komal's age is 3 : 5. Ratio of Komal's and Pooja's age is 2 : 3. If Rani is two-fifth Pooja's age, what is Rani's age?  
(a) 10 years (b) 15 years  
(c) 24 years  
(d) Cannot be determined  
(e) None of these
- 173.** In a mixture of milk and water the proportion of water by weight was 75%. If in the 60 gms of this mixture 15 gm. Water was added, what would be the percentage of water?  
(a) 75% (b) 88%  
(c) 90% (d) 100%  
(e) None of these
- 174.** In a college the students in Arts and Commerce faculties were in the ratio of 4 : 5 respectively. When 65 more students joined Commerce faculty the ratio became 8 : 11. How many students are there in Arts faculty?  
(a) 520 (b) 650  
(c) 715  
(d) Cannot be determined  
(e) None of these
- 175.** Sarita started a boutique investing an amount of Rs.50,000. Six months later Neeta joined her with an amount of Rs.80,000. At the end of one year they earned a profit of Rs.18,000. What is Sarita's share in the profit?  
(a) Rs.9000 (b) Rs.8000  
(c) Rs.12000 (d) Rs.10000  
(e) None of these
- 176.** The ratio between the boys and girls in a class is 6 : 5. If 8 more boys join the class and two girls leave the class then the ratio becomes 11 : 7. What is the number of boys in the class now?  
(a) 28 (b) 38  
(c) 44 (d) 36  
(e) None of these

- 177.** The ratio between the present ages of P and Q is 3 : 4. Four years hence Q will be five years older than P. What is P's present age?  
(a) 15 years (b) 20 years  
(c) 25 years  
(d) Cannot be determined  
(e) None of these
- 178.** At present Meena is eight times her daughter's age. Eight years from now, the ratio of the ages of Meena and her daughter will be 10 : 3. What is Meena's present age ?  
(a) 32 years (b) 40 years  
(c) 36 years  
(d) Cannot be determined  
(e) None of these
- 179.** Mr. Pandit owned 950 gold coins all of which he distributed amongst his three daughters Lalita, Amita and Neeta. Lalita gave 25 gold coins to her husband, Amita donated 15 gold coins and Neeta made jewelry out of 30 gold coins. The new respective ratio of the coins left with them was 20 : 73 : 83. How many gold coins did Amita receive from Mr. Pandit?  
(a) 380 (b) 415  
(c) 400 (d) 350  
(e) None of these
- 180.** The ratio of the present ages of Swati and Trupti is 4 : 5. Six years hence the ratio of their ages will be 6 : 7. What is the difference between their ages?  
(a) 2 years (b) 3 years  
(c) 4 years  
(d) Cannot be determined  
(e) None of these
- 181.** The ratio of the ages of A and B seven years ago was 3 : 4 respectively. The ratio of their ages nine years from now will be 7 : 8 respectively. What is B's age at present?  
(a) 16 years (b) 19 years  
(c) 28 years (d) 23 years
- (e) None of these
- 182.** The ratio of ducks and frogs in a pond is 37 : 39 respectively. The average number of ducks and frogs in the pond is 152. What is the number of frogs in the pond?  
(a) 148 (b) 152  
(c) 156 (d) 144  
(e) None of these
- 183.** 75% of a number is equal to three seventh of another number. What is the ratio between the first number and the second number respectively?  
(a) 4 : 7 (b) 7 : 4  
(c) 12 : 7 (d) 7 : 12  
(e) None of these
- 184.** Srikant and Vividh started a business investing amounts of Rs.1,85,000 and Rs.2,25,000 respectively, If Vividh's share in the profit earned by them is Rs.9,000, what is the total profit earned by them together?  
(a) Rs.17,400 (b) Rs.16,400  
(c) Rs.16,800 (d) Rs.17,800  
(e) None of these
- 185.** Populations of two villages X and Y are in the ratio of 5 : 7 respectively. If the population of village Y increases by 25000 and the population of village X remains unchanged then the respective ratio of their populations becomes 25 : 36. What is the population of village X ?  
(a) 625000 (b) 675000  
(c) 875000 (d) 900000  
(e) None of these
- 186.** Four-seventh of a number is equal to 40% of another number. What is the ratio between the first number and second number respectively?  
(a) 5 : 4 (b) 4 : 5  
(c) 10 : 7 (d) 7 : 10  
(e) None of these

- 187.** Beena and Meena started a boutique investing amount of Rs.35000 and Rs.56000 respectively. If Beena's share in the profit earned by them is Rs.45000, what is the total profit earned?  
 (a) Rs.81000 (b) Rs.127000  
 (c) Rs.72000 (d) Rs.117000  
 (e) None of these
- 188.** 52% students from a college participated in a survey. What is the respective ratio between the number of students who did not participate in the survey to the number of students who participated?  
 (a) 11 : 13 (b) 12 : 13  
 (c) 12 : 17  
 (d) Cannot be determined  
 (e) None of these
- 189.** The ratio of roses and lilies in a garden is 3 : 2 respectively. The average number of roses and lilies is 180. What is the number of lilies in the garden?  
 (a) 144 (b) 182  
 (c) 216 (d) 360  
 (e) None of these
- 190.** The respective ratio between Pooja's, Prarthana's and Falguni's monthly income is 53 : 70 : 57. If Prarthana's annual income is Rs.4,20,000, what is the sum of Pooja's and Falguni's annual incomes? (In some cases monthly income and income cases annual income is used.)  
 (a) Rs.5,92,500 (b) Rs.6,83,500  
 (c) Rs.6,60,000 (d) Rs.7,79,200  
 (e) None of these
- 191.** An amount of money is to be divided between P, Q and R in the ratio of 3:7:12. If the difference between the shares of P and Q is Rs.X, and the difference between Q and R's share is Rs.3000. Find the total amount of money?  
 A.11000 B.12400  
 C.13200 D.14300  
 E.None of these
- 192.** If a certain amount X is divided among A, B, C in such a way that A gets  $\frac{2}{3}$  of what B gets and B gets  $\frac{1}{3}$  of what C gets, which of the following is true  
 A) C's Share = 1053 and X = 1666  
 B) A's Share = 238 and X = 1638  
 C) B's Share = 234 and X = 1666 D) C's Share = 1053 and X = 1638  
 E) A's Share = 351 and X = 1638
- 193.** Seats for Mathematics, Science and arts in a school are in the ratio 5:7:8. There is a proposal to increase these seats by X%, Y% and Z% respectively. And the ratio of increased seats is 2:3:4, which of the following is true?  
 A] X = 50; Z = 40  
 B] Y = 40; Z = 50  
 C] X = 40; Z = 75  
 D] X = 50; Z = 40  
 E] Y = 50; X = 75
- 194.** An amount of money is to be distributed among P, Q and R in the ratio of 7:4:5 respectively. If the total share of P and R is 4 times the share of Q, what is definitely Q's share?  
 A.2000 B.4000  
 C.6000  
 D.Data inadequate  
 E.None of these
- 195.** Two candles of same height are lighted at the same time. The first is consumed in 3 hours and second in 2 hours. Assuming that each candle burns at a constant rate, in how many hours after being lighted, the ratio between the first and second candles becomes 2:1?  
 A.2 hour B.2.5 hour  
 C.4 hour D.4.5 hour  
 E.None of these
- 196.** If A and B together have a certain amount X and if  $\frac{4}{15}$  of A's amount

is equal to  $\frac{2}{5}$  of B's amount, which of the following is true?

- A.A = 1767; X = 2675
- B.B = 1070; X = 2895
- C.A = 1767; X = 2945
- D.B = 1158; X = 2585
- E.A = 1605; X = 2945

**197.** A sum of Rs.4880 was divided among boys and girls in such a way that each boy gets Rs.44.50 and each girl get Rs. 55.25. If the total number of girls and boys is 100, find the number of girls?

- A.60
- B.50
- C.40
- D.30
- E.None of these

**198.** The income of Vinay and Prakash are in the ratio of 4:5 and their expenditure is in the ratio of 2:3. If each of them saves 5000, then find their income.

- A.11000, 8550
- B.12000, 7750
- C.15000, 8750
- D.13000, 9780
- E.None of these

**199.** If the ratio of the first to second is 2:3 and that of the second to the third is 5: 8, then which of the following is true,

- A.Sum = 98; A = 48
- B.Sum = 147; B = 30
- C.Sum = 147; C = 45
- D.Sum = 98; B = 30
- E.Sum = 98; C = 72

**200.** A bag contains 25p coins, 50p coins and 1 rupee coins whose values are in the ratio of 8:4:2.If the total values of coins is X and the total amount in rupees is Y,thenwhich of the following is true

- A.X = 840; Y = 260
- B.X = 966; Y = 345
- C.X = 840; Y = 280
- D.X = 740; Y = 260
- E.None of these

**201.** In a school the number of boys and girls are in the ratio of 4:7. If the

number of boys are increased by 25% and the number of girls are increased by 15%. What will be the new ratio of number of boys to that of girls?

- a) 100:131
- b) 100:151
- c) 100:161
- d) 100:181
- e) None of these

**202.** When 40% percent of a number is added to another number the second number increases to its 20%. What is the ratio between the first and second number?

- a) 2:1
- b) 1:2
- c) 2:3
- d) 3:4
- e) None of these

**203.** An amount of money is to be distributed among P, Q and R in the ratio of 5:4:7 respectively. If the total share of P and R is 3 times the share of Q, what is definitely Q's share?

- a) 2000
- b) 4000
- c) 6000
- d) data inadequate
- e) None of these

**204.** Two candles of same height are lighted at the same time. The first is consumed in 6 hours and second in 4 hours. Assuming that each candles burns at a constant rate, in how many hours after being lighted, the ratio between the first and second candles becomes 2:1?

- a) 1 hour
- b) 2 hour
- c) 3 hour
- d) 4 hour
- e) None of these

**205.** An employer reduces the number of his employees in the ratio of 7:4 and increases their wages in the ratio 3:5. State whether his bill of total wages increases or decreases and in what ratio.

- a) increases 20:21
- b) decreases 21:20
- c) increases 21:22
- d) decreases 22:21
- e) None of these





**217.** The sum of three numbers is 980. If the ratio between first and second number is 3:4 and that of second and third is 3:7. Find the difference between first and last number.

- a) 380                      b) 360  
c) 340                      d) 400  
e) None of these

**218.** The ratio between number of girls and boys in a school is 5: 6. If 40 percent of the boys and 20 percent of the girls are scholarship holders, what percentage of the students does not get scholarship?

- a) 68%                      b) 69%  
c) 71%                      d) 80%  
e) None of these

**219.** A bag contains 25p coins, 50p coins and 1 rupee coins whose values are in the ratio of 8:4:2. The total values of coins are 840. Then find the total amount in rupees.

- a) 220                      b) 240  
c) 260                      d) 280

e) None of these

**220.** An amount is to be divided between A, B and C in the ratio 2:3:5 respectively. If C gives 200 of his share to B the ratio among A, B and C becomes 3:5:4. What is the total sum?

- a) 5000                      b) 6000  
c) 7000                      d) 8000

e) None of these

**221.** A bag contains 25p coins, 50p coins and 1 rupee coins whose values are in the ratio of 8:4:2. The total values of coins are 840. Then find the total number of coins

- A.220                      B.240  
C.260                      D.280

E.None of these

**222.** Two vessels contains equal quantity of solution contains milk and water

in the ratio of 7:2 and 4:5 respectively. Now the solutions are mixed with each other then find the ratio of milk and water in the final solution?

- A.11:7                      B.11:6  
C.11:5                      D.11:9

E.None of these

**223.** Two alloys contain gold and silver in the ratio of 3:7 and 7:3 respectively. In what ratio these alloys must be mixed with each other so that we get a alloy of gold and silver in the ratio of 2:3?

- A.2:1                      B.3:1  
C.4:3                      D.3:5

E.None of these

**224.** The sum of three numbers is 123. If the ratio between first and second numbers is 2:5 and that of between second and third is 3:4, then find the difference between second and the third number.

- A.12                      B.14  
C.15                      D.17

E.None of these

**225.** If 40 percent of a number is subtracted from the second number then the second number is reduced to its  $\frac{3}{5}$ . Find the ratio between the first number and the second number.

- A.1:3                      B.1:2  
C.1:1                      D.2:3

E.None of these

**226.** The ratio between the number of boys and girls in a school is 4:5. If the number of boys are increased by 30 % and the number of girls increased by 40 %, then what will the new ratio of boys and girls in the school.

- A.13/35                      B.26/35  
C.26/41                      D.23/13

E.None of these

**227.** One year ago the ratio between rahul salary and rohit salary is 4:5. The

ratio between their individual salary of the last year and current year is 2:3 and 3:5 respectively. If the total current salary of rahul and rohit is 4300. Then find the current salary of rahul.

- A.1200                      B.1800  
C.1600                      D.2000  
E.None of these

**228.** A sum of 12600 is to be distributed between A, B and C. For every rupee A gets, B gets 80p and for every rupee B gets, C get 90 paise. Find the amount get by C.

- A.3200                      B.3600  
C.4200                      D.4600  
E.None of these

**229.** The sum of the squares between three numbers is 5000. The ratio between the first and the second number is 3:4 and that of second and third number is 4:5. Find the difference between first and the third number.

- A.20                              B.30  
C.40                              D.50  
E. None of these

**230.** The ratio between two numbers is 7:5. If 5 is subtracted from each of them, the new ratio becomes 3:5. Find the numbers

- A.  $7/2, 5/2$                       B.  $3/2, 7/2$   
C.  $9/2, 7/2$                       D.  $11/2, 5/2$   
E. None of these

**231.** Three cars travel same distance with speeds in the ratio 2 : 4 : 7. What is the ratio of the times taken by them to cover the distance?

- A) 12 : 6 : 7                      B) 14 : 7 : 4  
C) 10 : 5 : 9                      D) 7 : 4 : 14  
E) 14 : 10 : 7

**232.** Section A and section B of 7th class in a school contains total 285 students. Which of the following can be a ratio of the ratio of the number

of boys and number of girls in the class?

- A) 6 : 5                              B) 10 : 9  
C) 11 : 9                              D) 13 : 12  
E) Cannot be determined

**233.** 180 sweets are divided among friends A, B, C and D in which B and C are brothers also such that sweets divided between A and B are in the ratio 2 : 3, between B and C in the ratio 2 : 5 and between C and D in ratio 3 : 4. What is the number of sweets received by the brothers together?

- A) 78                              B) 84  
C) 92                              D) 102  
E) 88

**234.** Number of students in 4th and 5th class is in the ratio 6 : 11. 40% in class 4 are girls and 48% in class 5 are girls. What percentage of students in both the classes are boys?

- A) 62.5%                              B) 54.8%  
C) 52.6%                              D) 55.8%  
E) 53.5%

**235.** Consider two alloys A and B. 50 kg of alloy A is mixed with 70 kg of alloy B. A contains brass and copper in the ratio 3 : 2, and B contains them in the ratio 4 : 3 respectively. What is the ratio of copper to brass in the mixture?

- A) 8 : 5                              B) 7 : 5  
C) 5 : 11                              D) 4 : 9  
E) 5 : 7

**236.** Ratio of A and B is in the ratio 5 : 8. After 6 years, the ratio of ages of A and B will be in the ratio 17 : 26. Find the present age of B.

- A) 72                              B) 65  
C) 77                              D) 60  
E) None of these

**237.** A bag contains 25p, 50p and 1Re coins in the ratio of 2 : 4 : 5 respectively. If the total money in the

bag is Rs 75, find the number of 50p coins in the bag.

- A) 45                                      B) 50  
C) 25                                      D) 40  
E) None of these

**238.** A is directly proportional to B and also directly proportional to C. When  $B = 6$  and  $C = 2$ ,  $A = 24$ . Find the value of A when  $B = 8$  and  $C = 3$ .

- A) 42                                      B) 40  
C) 58                                      D) 48  
E) None of these

**239.** A is directly proportional to B and also inversely proportional to the square of C. When  $B = 16$  and  $C = 2$ ,  $A = 36$ . Find the value of A when  $B = 32$  and  $C = 4$ .

- A) 25                                      B) 20  
C) 18                                      D) 32  
E) None of these

**240.** A is directly proportional to the inverse of B and also inversely proportional to C. When  $B = 36$  and  $C = 9$ ,  $A = 42$ . Find the value of A when  $B = 64$  and  $C = 21$ .

- A) 24                                      B) 40  
C) 32                                      D) 48  
E) None of these

**241.** Seats for Maths, Physics and Biology are in the ratio of  $5 : 7 : 8$  respectively. There is a proposal to increase these seats by 40%, 50% and 75% respectively. What will be the respective ratio of increased seats?

- (1)  $2 : 3 : 4$                                       (2)  $6 : 7 : 8$   
(3)  $6 : 8 : 9$   
(4) Cannot be determined  
(5) None of these

**(Canara Bank PO Exam.  
09.02.2003**

**& SBI Associate Bank PO  
Exam. 07.01.2007)**

**242.** Samira, Mahira and Kiara rented a set of DVDs at a rent of 578. If they used it for 8 hours, 12 hours and 14 hours respectively,

what is Kiara's share of rent to be paid ?

- (1) 238                                      (2) 204  
(3) 192                                      (4) 215  
(5) None of these

**(Bank Of Maharashtra PO  
Exam. 25.05.2008)**

**243.** A sum of money is to be divided among four persons in the ratio of  $2 : 3 : 4 : 5$ . Out of the four, one person gets 200 more than the other and 100 less than another. What is the sum ?

- (1) 2800                                      (2) 1400  
(3) 4200  
(4) Cannot be determined  
(5) None of these

**(Indian Overseas Bank  
PO Exam. 15.06.2008)**

**244.** In a college the number of students studying Arts, Commerce and Science are in the ratio of  $3 : 5 : 8$  respectively. If the number of students studying Arts, Commerce and Science is increased by 20%, 40% and 25% respectively, what will be the new ratio of students in Arts, Commerce and Science respectively ?

- (1)  $18 : 35 : 50$                                       (2)  $3 : 10 : 10$   
(3)  $4 : 8 : 5$                                       (4)  $32 : 35 : 25$   
(5) None of these

**(Indian Overseas Bank  
PO Exam. 15.06.2008)**

**245.** 20 boys and 25 girls form a group of social workers. During their membership drive, the same number of boys and girls joined the group (e.g. if 7 boys joined, 7 girls joined). How many members does the group have now, if the ratio of boys to girls is  $7 : 8$  ?

- (1) 75                                      (2) 65  
(3) 70                                      (4) 60  
(5) None of these

**(Bank Of Baroda Specialist  
Officer Exam. 05.10.2008)**

**246.** A sum of money is divided among A, B, C and D in the ratio of  $3 : 4 : 9 : 10$  respectively. If the share of C is 2,580 more than the share of

B, then what is the total amount of money of A and D together ?

- (1) 5,676 (2) 6,192  
(3) 6,708 (4) 7,224  
(5) None of these

**(Canara Bank PO Exam. 15.03.2009)**

**247.** Production of company A is 120% of the production of company B and 80% of the production of company C. What is the ratio between the productions of companies A, B and C respectively?

- (1) 6 : 5 : 9 (2) 6 : 5 : 4  
(3) 12 : 10 : 15 (4) 10 : 12 : 15  
(5) None of these

**(PNB Specialist Officer's Exam. 16.08.2009)**

**248.** Number of students in Arts and Science faculties in an institute are in the ratio of 5 : 8 respectively. If 150 more students join Arts faculty while 80 more students join Science faculty, the respective ratio becomes 3 : 4. Originally what was the total number of students in both faculties together ?

- (1) 1200 (2) 1400  
(3) 1150 (4) Cannot be determined  
(5) None of these

**(PNB Specialist Officer's Exam. 16.08.2009)**

**249.** 75% of a number is equal to th of another number. What is the ratio between the first number and the second number respectively?

- (1) 5 : 4 (2) 6 : 5  
(3) 4 : 5 (4) 5 : 6  
(5) None of these

**(PNB Specialist Officer's Exam. 16.08.2009)**

**250.** In a test, a candidate secured 336 marks out of maximum marks 'x'. If the maximum marks 'x' were converted into 400 marks, he would have secured 192 marks. What were the maximum marks of the test ?

- (1) 700 (2) 750  
(3) 500 (4) 650  
(5) 800

**(Corporation Bank PO Exam. 22.11.2009)**

**251.** Which of the following represents  $ab = 64$  ?

- (1)  $8 : a = 8 : b$  (2)  $a : 16 = b : 4$   
(3)  $a : 8 = b : 8$  (4)  $32 : a = b : 2$   
(5) None of these

**(Indian Bank Rural Marketing Officer Exam. 03.01.2010)**

**252.** The ratio of the number of students studying in school A, B and C is 5 : 8 : 4 respectively. If the number of students studying in each of the school is increased by 20%, 25% and 30% respectively, what will be the new respective ratio of the students in school A, B and C ?

- (1) 13 : 25 : 15 (2) 20 : 25 : 13  
(3) 15 : 25 : 13  
(4) Cannot be determined  
(5) None of these

**(Indian Bank Rural Marketing Officer Exam. 03.01.2010)**

**253.** When 30% of one number is subtracted from another number, the second number reduces to its own four-fifth. What is the ratio between the first and the second numbers respectively?

- (1) 4 : 7  
(2) 3 : 2  
(3) 2 : 5  
(4) Cannot be determined  
(5) None of these

**(Allahabad Bank PO Exam. 21.02.2010)**

**254.** The largest and the second largest angles of a triangle are in the ratio of 3 : 2 respectively. The smallest angle is 20% of the sum of the largest and the second largest angles. What is the sum of the smallest and the second largest angles ?

- (1)  $80^\circ$  (2)  $60^\circ$   
(3)  $100^\circ$  (4)  $90^\circ$   
(5) None of these

**(Bank Of Baroda PO Exam. 30.05.2010)**

**255.** The ratio between the angles of a quadrilateral is 7 : 2 : 5 : 6 respectively. What is the sum of double the smallest angle and half the largest angle of the quadrilateral ?

- (1)  $162^\circ$                       (2)  $198^\circ$   
 (3)  $99^\circ$                         (4)  $135^\circ$   
 (5) None of these

**(Bank Of Baroda PO  
Exam. 30.05.2010)**

**256.** The angles of a quadrilateral are in the ratio of 2 : 4 : 7 : 5. The smallest angle of the quadrilateral is equal to the smallest angle of a triangle. One of the angles of the triangle is twice the smallest angle of the triangle. What is the second largest angle of the triangle?

- (1)  $80^\circ$                       (2)  $60^\circ$   
 (3)  $120^\circ$   
 (4) Cannot be determined  
 (5) None of these

**(Central Bank Of India  
PO Exam. 25.07.2010)**

**257.** The ratio between the angles of a quadrilateral is 3 : 4 : 6 : 7. Half the second largest angle of the quadrilateral is equal to the smaller angle of a parallelogram. What is the value of adjacent angle of the parallelogram ?

- (1)  $136^\circ$                       (2)  $126^\circ$   
 (3)  $94^\circ$                         (4)  $96^\circ$   
 (5) None of these

**(Syndicate Bank PO  
Exam. 29.08.2010)**

**258.** The ratio between the three angles of a quadrilateral is 1 : 4 : 5 respectively. The value of the fourth angle of the quadrilateral is  $60^\circ$ . What is the difference between the value of the largest and the smallest angles of the quadrilateral ?

- (1)  $120^\circ$                       (2)  $90^\circ$   
 (3)  $110^\circ$                       (4)  $100^\circ$   
 (5) None of these

**(Bank Of India PO  
Exam. 31.10.2010)**

**259.** Mr. Pandit owned 950 gold coins all of which he distributed amongst his three daughters Lalita, Amita and Neeta. Lalita gave 25 gold coins to her husband, Amita donated 15 gold coins and Neeta made jewellery out of 30 gold coins. The new respective ratio of the coins left with them was 20 : 73 : 83. How many gold coins did Amita receive from Mr. Pandit?

- (1) 380                              (2) 415  
 (3) 400                              (4) 350  
 (5) None of these

**(PNB Management Trainee  
Exam. 28.11.2010)**

**260.** The largest and the second largest angles of a triangle are in the ratio of 13 : 12 respectively. The smallest angle is 20% of the sum of the largest and the second largest angles. What is the sum of the smallest and the second largest angles ?

- (1)  $120^\circ$                       (2)  $108^\circ$   
 (3)  $100^\circ$                       (4)  $102^\circ$   
 (5) None of these

**(Bank Of Maharashtra  
Exam. 19.12.2010)**

**261.** Twenty five percent of Pranab's annual salary is equal to eighty percent of Surya's annual salary. Surya's monthly salary is forty percent of Dheeru's monthly salary. If Dheeru's annual salary is 6 lacs, what is Pranab's monthly salary ? (At some places annual income and at some place monthly income are given)

- (1) 7.68 lacs                      (2) 56,000  
 (3) 8.4 lacs                        (4) 64,000  
 (5) None of these

**(Bank Of Maharashtra  
Exam. 19.12.2010)**

**262.** The ratio between the three angles of a quadrilateral is 1 : 6 : 2 respectively. The value of the fourth angle of the quadrilateral is  $45^\circ$ . What is the difference between the value of the largest and the smallest angles of the quadrilateral ?

- (1)  $165^\circ$                       (2)  $140^\circ$

- (3)  $175^\circ$                       (4)  $150^\circ$   
 (5) None of these

**(Bank Of Maharashtra  
Exam. 19.12.2010)**

**263.** The ratio between the angles of a quadrilateral is 3 : 4 : 6 : 5. Two-third of the largest angle of the quadrilateral is equal to the smaller angle of a parallelogram. What is the value of adjacent angle of the parallelogram ?

- (1)  $120^\circ$                       (2)  $110^\circ$   
 (3)  $100^\circ$                       (4)  $130^\circ$   
 (5) None of these

**(Oriental Bank Of Commerce PO  
Exam. 26.12.2010 (Ist Sitting))**

**264.** Rohit has some 50 paise coins, some 2 rupee coins, some 1 rupee coins and some 5 rupee coins. The value of all the coins is 50. Number of 2 rupee coins is 5 more than that of the 5 rupee coins. 50 paise coins are double in number than 1 rupee coins. Value of 50 paise coins and 1 rupee coins is 26. How many 2 rupee coins does he have?

- (1) 4                              (2) 2  
 (3) 7                              (4) Cannot be determined  
 (5) None of these

**(Union Bank Of India PO  
Exam. 09.01.2001)**

**265.** The ratio between the adjacent angles of a parallelogram is 2 : 3 respectively. Half the smaller angle of the parallelogram is equal to the smallest angle of a quadrilateral. Largest angle of quadrilateral is four times its smallest angle. What is the sum of largest angle of quadrilateral and the smaller angle of parallelogram ?

- (1)  $252^\circ$                       (2)  $226^\circ$   
 (3)  $144^\circ$                       (4)  $180^\circ$   
 (5) None of these

**(Union Bank Of India PO  
Exam. 09.01.2001)**

**266.** One of the angles of a triangle is two-third of sum of adjacent angles of parallelogram. Remaining angles of

the triangle are in ratio 5 : 7 respectively. What is the value of second largest angle of the triangle ?

- (1)  $25^\circ$                               (2)  $40^\circ$   
 (3)  $35^\circ$                               (4) Cannot be determined  
 (5) None of these

**(Corporation Bank PO  
Exam. 16.01.2011)**

**267.** The largest and the smallest angles of a triangle are in the ratio of 3:1 respectively. The second largest angle of the triangle is equal to  $44^\circ$ . What is the value of 150 per cent of the largest angle of the triangle?

- (1) 149                              (2) 129  
 (3) 153                              (4) 173  
 (5) None of these

**(UCO Bank PO Exam. 30.01.2011)**

**268.** One of the angles of a quadrilateral is thrice the smaller angle of a parallelogram. The respective ratio between the adjacent angles of the parallelogram is 4:5. Remaining three angles of the quadrilateral are in ratio 4:11:9 respectively. What is the sum of the largest and the smallest angles of the quadrilateral?

- (1)  $255^\circ$                               (2)  $260^\circ$   
 (3)  $265^\circ$                               (4)  $270^\circ$   
 (5) None of these

**(UCO Bank PO Exam. 30.01.2011)**

**269.** Smallest angle of a triangle is equal to two-third of the smallest angle of a quadrilateral. The ratio between the angles of the quadrilateral is 3 : 4 : 5 : 6. Largest angle of the triangle is twice its smallest angle. What is the sum of second largest angle of the triangle and largest angle of the quadrilateral?

- (1)  $160^\circ$                               (2)  $180^\circ$   
 (3)  $190^\circ$                               (4)  $170^\circ$   
 (5) None of these

**(Bank Of Baroda PO  
Exam. 13.03.2011)**

**270.** The largest and the second largest angles of a triangle are in the ratio of

4 : 3 respectively. The smallest angle is half the largest angle. What is the difference between the smallest and the largest angles of the triangle ?

- (1)  $30^\circ$  (2)  $60^\circ$   
 (3)  $40^\circ$  (4)  $20^\circ$   
 (5) None of these

**(Allahabad Bank PO  
Exam. 17.04.2011)**

**271.** The ratio between the three angles of a quadrilateral is 13:9:5 respectively. The value of the fourth angle of the quadrilateral is  $36^\circ$ . What is the difference between the **largest** and the **second smallest** angles of the quadrilateral ?

- (1)  $104^\circ$  (2)  $108^\circ$   
 (3)  $72^\circ$  (4)  $96^\circ$   
 (5) None of these

**(Allahabad Bank PO  
Exam. 17.04.2011)**

**272.** The ratio between the adjacent angles of a parallelogram is 7 : 8 respectively. Also the ratio between the angles of quadrilateral is 5 : 6 : 7 : 12. What is the sum of the smaller angle of parallelogram and second largest angle of the quadrilateral ?

- (1)  $168^\circ$  (2)  $228^\circ$   
 (3)  $156^\circ$  (4)  $224^\circ$   
 (5) None of these

**(Indian Overseas Bank  
PO Exam. 22.05.2011)**

**273.** The age of Sulekha and Arunima are in the ratio of 9 : 8 respectively. After 5 years the ratio of their age will be 10 : 9. What is the difference (in years) between their age?

- (1) 4 years (2) 5 years  
 (3) 6 years (4) 7 years  
 (5) None of these

**(Andhra Bank PO  
Exam. 14.09.2008)**

**274.** The age of Sonal and Nitya are in the ratio of 9 : 5 respectively. After 8 years the ratio of their age will be 13 : 9. What is the difference (in years) between their age ?

- (1) 4 years (2) 12 years  
 (3) 6 years (4) 14 years

(5) None of these

**(Oriental Bank of Commerce  
PO Exam. 21.12.2008 &  
United India Insurance AO  
Exam. 26.05.2013)**

**275.** The ratio of the age of a father and son is 17 : 7 respectively. 6 years ago the ratio of their age was 3 : 1 respectively. What is the father's present age ?

- (1) 64 yrs (2) 51 yrs  
 (3) 48 yrs  
 (4) Cannot be determined  
 (5) None of these

**(UCO Bank PO Exam. 22.03.2009)**

**276.** Ratio of Rani's and Komal's age is 3 : 5 respectively. Ratio of Komal's and Pooja's age is 2 : 3 respectively. If Rani is two-fifth of Pooja's age, what is Rani's age ?

- (1) 10 years (2) 15 years  
 (3) 24 years  
 (4) Cannot be determined  
 (5) None of these

**(Indian Overseas Bank  
PO Exam. 05.04.2009)**

**277.** Present age of Amit and his father are in the ratio of 2 : 5 respectively. Four years hence the ratio of their age becomes 5 : 11 respectively. What was father's age five years ago ?

- (1) 40 years (2) 45 years  
 (3) 30 years (4) 35 years  
 (5) None of these

**(Andhra Bank PO  
Exam. 05.07.2009)**

**278.** Four years ago Shyam's age was times that of Ram. Four years hence, Shyam's age will be times that of Ram. What is the present age of Shyam ?

- (1) 15 years (2) 20 years  
 (3) 16 years (4) 24 years  
 (5) 8 years

**(Corporation Bank PO  
Exam. 22.11.2009)**

**279.** The ratio of the age of Tina and Rakesh is 9 : 10 respectively. Ten

years ago the ratio of their age was 4 : 5 respectively. What is the present age of Rakesh ?

- (1) 25 years                      (2) 20 years  
(3) 30 years                      (4) 24 years  
(5) None of these

**(Indian Bank PO Exam.  
17.10.2010)**

**280.** The present age of Vishal and Shekhar are in the ratio of 14 : 17 respectively. Six years from now, their age will be in the ratio of 17 : 20 respectively. What is Shekhar's present age ?

- (1) 17 years                      (2) 51 years  
(3) 34 years                      (4) 28 years  
(5) None of these

**(Bank Of India Banking  
Officer Exam. 24.01.2010)**

**281.** The ratio between the age of a father and a son at present is 5 : 2 respectively. Four years hence the ratio between the age of the son and his mother will be 1 : 2 respectively. What is the ratio between the present age of the father and the mother respectively ?

- (1) 3 : 4  
(2) 5 : 4  
(3) 4 : 3  
(4) Cannot be determined  
(5) None of these

**(Allahabad Bank PO  
Exam. 21.02.2010)**

**282.** Radha's present age is three years less than twice her age 12 years ago. Also the respective ratio between Raj's present age and Radha's present age is 4 : 9. What will be Raj's age after 5 years ?

- (1) 12 years                      (2) 7 years  
(3) 21 years  
(4) Cannot be determined  
(5) None of these

**(Punjab & Sind Bank PO  
Exam. 16.05.2010)**

**283.** The ratio of the present age of Meena and Fiona is 16 : 13 respectively. Four years ago the

respective ratio of their age was 14 : 11. What will be Fiona's age four years from now ?

- (1) 28 years                      (2) 32 years  
(3) 26 years                      (4) 36 years  
(5) None of these

**(United Bank Of India  
PO Exam. 14.11.2010)**

**284.** The respective ratio of the present age of Swati and Trupti is 4 : 5. Six years hence the respective ratio of their age will be 6 : 7. What is the difference between their age?

- (1) 2 years                      (2) 3 years  
(3) 4 years  
(4) Cannot be determined  
(5) None of these

**(PNB Management Trainee  
Exam. 28.11.2010)**

**285.** The respective ratio between the present age of Ram and Rakesh is 6 : 11. Four years ago the ratio of their age was 1 : 2 respectively. What will be Rakesh's age after five years?

- (1) 45 years                      (2) 29 years  
(3) 49 years  
(4) Cannot be determined  
(5) None of these

**(Corporation Bank PO  
Exam. 16.01.2011)**

**286.** The respective ratio between the present age of son, mother, father and grandfather is 2:7:8:12. The average age of son and mother is 27 years. What will be mother's age after 7 years?

- (1) 40 years                      (2) 41 years  
(3) 48 years                      (4) 49 years  
(5) None of these

**(UCO Bank PO Exam. 30.01.2011)**

**287.** The respective ratio between the present age of Ram, Rohan and Raj is 3 : 4 : 5. If the average of their present age is 28 years then what would be the sum of the age of Ram and Rohan together after 5 years?

- (1) 45 years                      (2) 55 years  
(3) 52 years                      (4) 59 years



(5) None of these

**(Bank Of Baroda PO  
Exam. 13.03.2011)**

**288.** The respective ratio between present age of Manoj and Wasim is 3 : 11. Wasim is 12 years younger than Rehana. Rehana's age after 7 years will be 85 years. What is the present age of Manoj's father who is 25 years older than Manoj ?

- (1) 43 years                      (2) 67 years  
(3) 45 years                      (4) 69 years  
(5) None of these

**(Indian Overseas Bank  
PO Exam. 22.05.2011)**

**289.** The respective ratio between the present age of Aarti and Savita is 5 :  $x$ . Aarti is 9 years younger than Jahnvi. Jahnvi's age after 9 years will be 33 years. The difference between Savita's and Aarti's age is same as the present age of Jahnvi. What will come in place of  $x$  ?

- (1) 21                              (2) 37  
(3) 17                              (4) Cannot be determined  
(5) None of these

**(IBPS Bank PO/MT CWE  
Exam.18.09.2011)**

**290.** An amount of money is to be divided among P, Q and R in the ratio of 3 : 5 : 7 respectively. If the amount received by R is 4,000 more than the amount received by Q, what will be the total amount received by P and Q together ?

- (1) 8,000                              (2) 12,000  
(3) 16,000  
(4) Cannot be determined  
(5) None of these

**(Allahabad Bank PO  
Exam. 21.02.2010)**

**291.** Rita invested 25% more than Sunil. Sunil invested 30% less than Abhinav who invested 6,000. What is the respective ratio between the amount that Rita invested and the total amount invested by all of them together ?

- (1) 35 : 104                              (2) 13 : 29

(3) 101 : 36

(4) 35 : 103

(5) None of these

**(Punjab & Sind Bank PO  
Exam. 16.05.2010)**

**292.** When X is subtracted from the numbers 9, 15 and 27, the remainders are in continued proportion. What is the value of X?

- (1) 8                                      (2) 6  
(3) 4                                      (4) 5  
(5) None of these

**(IBPSBank PO/MT  
CWE 17.06.2012)**

**293.** A certain amount was to be distributed among A, B and C in the ratio 2 : 3 : 4 respectively, but was erroneously distributed in the ratio 7 : 2 : 5 respectively. As a result of this, B got 40 less. What is the amount?

- (1) 210                                      (2) 270  
(3) 230                                      (4) 280  
(5) None of these

**(IBPSBank PO/MT  
CWE 17.06.2012)**

**294.** A particular sum was divided among A, B and C in the ratio 2 : 6 : 7 respectively. If the amount received by A was 4,908, what was the difference between the amount received by B and C ?

- (1) 2,454                                      (2) 3,494  
(3) 2,135                                      (4) 2,481  
(5) None of these

**(IBPS RRBs Office Assistant CWE  
Exam. 09.09.2012)**

**295.** The average age of a man and his son is 30 years. The ratio of their age four years ago was 10 : 3 respectively. What is the difference between the present age of the man and his son?

- (1) 28 years                                      (2) 16 years  
(3) 26 years                                      (4) 44 years  
(5) None of these

**(IBPS RRBs Office Assistant CWE  
Exam. 09.09.2012)**

**296.** A sum of 221 is divided among X, Y and Z such that X gets 52 more

than Y. Y gets 26 more than Z. The ratio of the shares of X, Y and Z respectively is :

- (1) 9 : 5 : 3                      (2) 9 : 3 : 5  
 (3) 5 : 9 : 3                      (4) 10 : 6 : 5  
 (5) None of these

**(Indian Overseas Bank PO  
 Online Exam. 01.09.2013)**

**297.** The average weight of boys in a class is 45 kg while that of girls is 36 kg. The average weight of the whole class is 42.25 kg. What is the respective ratio between the number of boys and girls in the class ?

- (1) 11 : 25                      (2) 25 : 11  
 (3) 25 : 12                      (4) 12 : 25  
 (5) None of these

**(IBPS Bank PO/MT CWE-IV  
 18.10.2014)**

**298.** If 50% of a certain number is equal to that of another number, what is the ratio between the numbers ?

- (1) 3 : 2                          (2) 2 : 5  
 (3) 5 : 2                          (4) 3 : 4  
 (5) 4 : 3

**(Corporation Bank Specialist  
 Officer (Marketing)  
 Exam. 22.12.2014)**

**299.** The ratio of the present age of Mahesh and Ajay is respectively 3 : 2. After 8 years, ratio of their age will be 11 : 8. What will be the present age of Mahesh's son if his age is half of the present age of Ajay ?

- (1) 12 years                      (2) 24 years  
 (3) 18 years                      (4) 9 years  
 (5) None of these

**(Corporation Bank Specialist  
 Officer (Marketing)  
 Exam. 22.12.2014)**

**300.** A vessel contains 64 litres of mixture of milk and water in the ratio 7 : 3 respectively. 8 litres of mixture is replaced by 12 litres of milk. What is the ratio of milk and water in the resulting mixture ?

- (1) 64 : 21                      (2) 35 : 22  
 (3) 64 : 23                      (4) 65 : 21

(5) None of these

**(IBPS Bank PO/MT CWE-IV  
 18.10.2014)**

**301.** There was a science exhibition in an auditorium. On the first day 14 persons visited the exhibition, on the second day 12 persons and on the third day only 10 persons visited the exhibition. The ratio of admission fees collected from each of them on these days was 2 : 3 : 5 respectively. If the total amount collected on these three days was Rs. 4560, what amount was collected on the first day ?

- (1) Rs. 1120                      (2) Rs. 1140  
 (3) Rs. 1150                      (4) Rs. 1160  
 (5) None of these

**(Bank of Baroda PO  
 Exam. 14.08.2014)**

**302.** The ratio of present ages of P and Q is 8 : 5. After 4 years their ages will be in the ratio 4 : 3 respectively. What will be the ratio of P's age after 7 years from now and Q's age now ?

- (1) 3 : 2                          (2) 1 : 2  
 (3) 2 : 1                          (4) 3 : 1  
 (5) None of these

**(IBPS Bank PO/MT CWE-IV  
 18.10.2014)**

**303.** 15 years ago the average age of a family of four members was 40 years. Two children were born in that span of 15 years. The present average age of the family remained unchanged. Among the two children who were born in between the 15 years. If the older child at present is 8 years more than the younger one, what is the respective ratio between the present age of the older child and the present age of the younger child ?

- (1) 9 : 4                          (2) 7 : 3  
 (3) 7 : 6                          (4) 7 : 4  
 (5) 9 : 5

**(BOB Junior Management  
 Grade/Scale-I Exam.  
 18.04.2015)**

**304.** 4 years ago, the respective ratio between A's age at that time and

four times of B's age at that time was 5 : 12. Eight years hence of A's age at that time will be less than B's age at that time by 2 years. What is B's present age ?

- (1) 10 years                      (2) 14 years  
(3) 12 years                      (4) 5 years  
(5) 8 years

**(IBPS RRBs Officer Scale-I & II  
CWE 12.09.2015)**

**305.** The present age of Bob is equal to Abby's age 8 years ago. Four years hence, the respective ratio between Bob's age and Abby's age will be 4 : 5 at that time. What is Bob's present age?

- (1) 24 years                      (2) 32 years  
(3) 40 years                      (4) 20 years  
(5) 28 years

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 03.10.2015)**

**306.** Respective ratio between total number of students studying in College A and College B is 5 : 8. In College B, out of the total number of students, there are boys, out of which 60% study Commerce and the remaining 800 boys study in other streams. What is the total number of students in College A ?

- (1) 1500                          (2) 2500  
(3) 1200                          (4) 4000  
(5) 2000

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 04.10.2015)**

**307.** At present, the respective ratio between the ages of A and B is 3 : 4 and that between A and C is 1 : 2. Six years hence, the sum of ages of A, B and C will be 96 years. What is the present age of A ?

- (1) 12 years                      (2) 21 years  
(3) 18 years                      (4) 15 years  
(5) 9 years

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 04.10.2015)**

**308.** B is 8 years older than A and 8 years younger than C. 12 years hence, respective ratio of the ages of

A and C will be 5 : 9. What is the sum of present ages of A, B and C ?

- (1) 58 years                      (2) 46 years  
(3) 48 years                      (4) 60 years  
(5) None of these

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015  
1st Sitting)**

**309.** 'B' is 3 years older than 'A' and 'B' is also 3 years younger than 'C'. 3 years hence, the respective ratio between the ages of A and C will be 4 : 5. What is the sum of the present ages of A, B and C ?

- (1) 48 years                      (2) 56 years  
(3) 63 years                      (4) 84 years  
(5) 72 years

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015)**

**310.** The present ages of Ranjana and Rakhi are in the ratio of 15 % 17 respectively. After 6 years, the respective ratio between the age of Ranjana and Rakhi will be 9 % 10. What will be the age of Ranjana after 6 years?

- (1) Other than those given as options  
(2) 40 years                      (3) 34 years  
(4) 30 years                      (5) 36 years

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**311.** If 7 boys and 2 men working together can do three times as much work per hour as a boy and a man together, what will be the respective ratio of work done by a boy and a man for the given time?

- (1) 3 : 1                              (2) 1 : 2  
(3) 1 : 3                              (4) 2 : 3  
(5) 1 : 4

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**312.** At present, the respective ratio between the ages of A and B is 3 : 4 and that between A and C is 1 : 2. Six years hence, the sum of the ages of A, B and C will be 96 years. What is the present age of A?

- (1) 12 years                      (2) 21 years

- (3) 18 years                      (4) 15 years  
(5) 9 years

**(IBPS Bank PO/MT CWE-V  
(Pre.) 04.10.2015)**

**313.** Four years ago, the respective ratio between the age of Ram and that of Sonu, was 4 : 9. Tina is ten years older than Ram. Tina is ten years younger than Sonu. What is Tina's present age ?

- (1) 40 years                      (2) 36 years  
(3) 30 years                      (4) 20 years  
(5) 42 years

**(IBPS Specialist Officer (IT)  
CWE 14.02.2016)**

**314.** When a number is added to a second number, the sum is percent of the second number. What is the ratio between the first number to the second number?

- (1) 3 : 7                              (2) 7 : 4  
(3) 7 : 3                              (4) Data inadequate  
(5) None of these

**(SBI Banks PO Exam. 20.08.2000)**

**315.** A sum of money is to be distributed among P, Q and R in the ratio 6 : 19 : 7. If R gives 200 from his share to Q, the ratio of P, Q and R becomes 3 : 10 : 3, what is the total sum?

- (1) 6400                              (2) 12800  
(3) 3200                              (4) Data inadequate  
(5) None of these

**(SBI Banks PO Exam. 20.08.2000)**

**316.** In a school the number of boys and that of the girls are in the respective ratio of 2 : 3. If the number of boys is increased by 20% and that of girls is increased by 10%, what will be the new ratio of number of boys to that of the girls ?

- (1) 14 : 5                              (2) 5 : 8  
(3) 13 : 4                              (4) Data inadequate  
(5) None of these

**(SBI Banks PO Exam. 11.02.2001)**

**317.** Income of two companies A and B are in the ratio of 5 : 8. Had the income of company 'A' been more by 25 lakhs, the ratio of their income

would have been 5 : 4 respectively. What is the income of company 'B' ?

- (1) 80 lakhs                      (2) 50 lakhs  
(3) 40 lakhs                      (4) 60 lakhs  
(5) None of these

**(SBI Banks PO Exam. 11.02.2001)**

**318.** Ratio of the earnings of A and B is 4 : 7 respectively. If the earnings of A increase by 50% and the earnings of B decrease by 25% the new ratio of their earnings becomes 8 : 7 respectively. What are A's earnings ?

- (1) 26,000                              (2) 28,000  
(3) 21,000                              (4) Data inadequate  
(5) None of these

**(SBI Associate Banks PO  
Exam. 21.07.2002)**

**319.** Salaries of A, B and C are in the ratio of 2 : 3 : 5 respectively. If their salaries were increased by 15%, 10% and 20% respectively what will be the new respective ratio of their salaries ?

- (1) 3 : 3 : 10  
(2) 23 : 33 : 60  
(3) 10 : 11 : 20  
(4) Can't be determined  
(5) None of these

**(SBI Associate Banks PO  
Exam. 21.07.2002 &**

**LIC Assistant Administrative  
Officer (AAO) Exam, 2006)**

**320.** Present age of Seema and Naresh are in the respective ratio of 5:7. Five years hence the ratio of their age becomes 3:4 respectively. What is Naresh's present age (in years)?

- (1) 25                                      (2) 40  
(3) 30                                      (4) Can not be determined  
(5) None of these

**(SBI PO Exam. 09.01.2005)**

**321.** A and B together can complete a task in 15 days. B and C together can complete the same task in 20 days. A and C together can complete the same task in 30 days. What is the respective ratio of the number of days taken by A while completing the same task alone to the number of days taken by C while completing the same task alone?

- (1) 2 : 3                      (2) 1 : 4  
 (3) 1 : 3                      (4) 3 : 1  
 (5) None of these

**(SBI Specialist (IT)  
 Officer Exam. 19.04.2014)**

**322.** A sum of money is divided among A, B, C and D in the ratio of 3 : 5 : 9 : 13 respectively. If the share of C is 2412 more than the share of A, then what is the total amount of money of B and D together ?

- (1) 4422                      (2) 7236  
 (3) 6030                      (4) 4,824  
 (5) None of these

**(SBI PO Preliminary (Tier-I)  
 Exam. 27.07.2008)**

**323.** The age of Khushi and Jagriti are in the ratio of 5 : 8 respectively. After 8 years the ratio of their age will be 3 : 4. What is the difference in their age ?

- (1) 16 years                      (2) 8 years  
 (3) 10 years                      (4) 12 years  
 (5) None of these

**(SBI PO Preliminary (Tier-I)  
 Exam. 27.07.2008)**

**324.** The respective ratio of the present age of a mother and daughter is 7 : 1. Four years ago the respective ratio of their age was 19:1. What will be the mother's age four years from now?

- (1) 42 years                      (2) 38 years  
 (3) 46 years                      (4) 36 years  
 (5) None of these

**(SBI & Rural Business PO  
 Exam. 18.04.2010)**

**325.** Mr. X invested a certain amount in Debit and Equity funds in the ratio of 4 : 5 respectively. At the end of one year, he earned a total dividend of 30% on his investment. After one year he reinvested the amount including dividend in the ratio of 6 : 7 in Debit and Equity Funds. If the amount reinvested in Equity Funds was 94, 500, what was the original amount invested in Equity Funds ?

- (1) 75,000                      (2) 81,007  
 (3) 60,000                      (4) 65,007  
 (5) None of these

**(SBI Associate Banks PO  
 Exam. 07.08.2011)**

**326.** A certain amount was to be distributed among A, B and C in the ratio 3 : 4 : 5 respectively, but was erroneously distributed in the ratio 9 : 4 : 7 respectively. As a result of this B got Rs. 60 less. What is the amount ?

- (1) Rs. 480                      (2) Rs. 460  
 (3) Rs. 450                      (4) Rs. 440  
 (5) None of these

**327.** The sum of present ages of Ria and Abby is 48 years. Today Abby is 4 years older than Shweta. The respective ratio of the present ages of Ria and Shweta is 4 : 7. What was Abby's age two years ago ?

- (1) 32 years                      (2) 30 years  
 (3) 28 years                      (4) 34 years  
 (5) None of these

**(SBI PO Phase-I (Preliminary)  
 Online Exam. 20.06.2015)**

**328.** AT present, Pia is 6 years older to Ray. The respective ratio between the present ages of Pia and Mini is 3 : 4. At present Ray is 14 years younger to Mini. What is Ray's present age ?

- (1) 16 years                      (2) 20 years  
 (3) 14 years                      (4) 18 years  
 (5) 24 years

**(SBI PO Phase-I (Preliminary)  
 Online Exam. 21.06.2015)**

**329.** Monthly salary of Dex is th of his father's monthly salary. Dex's sister's monthly salary is th of their father's monthly salary. Dex's sister pays Rs. 12,800, which is th of her monthly salary as study loan. Savings and expenses made out of the monthly salary, by Dex is in the respective ratio 3 : 5. How much does Dex save each month ?

- (1) Rs. 12,000                      (2) Rs. 10,600  
 (3) Rs. 10,400                      (4) Rs. 12,600  
 (5) Rs. 12,400

**(SBI PO Phase-I (Preliminary)  
Online Exam. 21.06.2015)**

- 330.** Joe's present age is  $\frac{1}{3}$ th of his father's present age. Joe's brother is 3 years older than Joe. The respective ratio between present ages of Joe's father and Joe's brother is 14 : 5. What is Joe's present age ?
- (1) 6 years                      (2) 15 years  
(3) 12 years                    (4) 18 years  
(5) 20 years

**(SBI PO Phase-I (Preliminary)  
Online Exam. 27.06.2015)**

- 331.** The age of Samir and Tanuj are in the ratio of 8 : 15 years respectively. After 9 years the ratio of their age will be 11 : 18. What is the difference (in years) between their age ?
- (1) 24 years                    (2) 20 years  
(3) 33 years                    (4) 21 years  
(5) None of these

**(RBI Grade-B Officer  
Exam. 2007)**

- 332.** Ratio of earnings of A and B is 8 : 9 respectively. If the earnings of A increase by 50% and the earnings of B decrease by 25%, the new ratio of their earnings become 16:9 respectively. What are A's earnings?
- (1) 37,000                      (2) 28,500  
(3) 22,000                      (4) Cannot be determined  
(5) None of these

**(RBI Grade-B Officer Exam. 2008  
& RBI Officer Grade-B Online  
Exam, 25.08.2013)**

- 333.** In a college, the ratio of boys to girls is 31 : 23 respectively. When 75 more girls join the college, this ratio becomes 124 : 107. How many more girls should join the college to make the number of boys and girls equal?
- (1) 75                              (2) 90  
(3) 60                              (4) 85  
(5) None of these

**(RBI Grade-B Officer  
Exam.06.02.2011)**

- 334.** The sum of Shipa's age after 4 years and Raghu's age 4 years ago is

63 years and the respective ratio between the Shipa's age four years ago and Raghu's age after 3 years is 10 : 21. What is Shipa's present age ? (in years)

- (1) 25                              (2) 34  
(3) 24                              (4) 28  
(5) 39

**(NABARD Officer Grade 'A'  
Online Exam. 03.08.2014)**

- 335.** Three years ago, Raj's age was equal to the sum of the present ages of his only son and only daughter. Three years ago, the respective ratio between the ages of his daughter and his son that time was 12:13. If Raj's wife is 5 years younger to him and her present age is twice the present age of their daughter, what is the present age of their son? (in years)
- (1) 27 years                      (2) 24 years  
(3) 29 years                      (4) 26 years  
(5) 25 years

**(RBI Officer Grade 'B' Phase-I  
Exam. 21.11.2015)**

- 336.** Poorvi's age 8 years ago is equal to the sum of present ages of her son and her daughter. 5 years hence, the ratio between her daughter's age and her son's age will be 7 : 6 respectively. Poorvi's husband is 7 years elder than her. His husband's present age is thrice the present age of his son. What is their daughter's present age?
- (1) 23 years                      (2) 24 years  
(3) 28 years                      (4) 25 years  
(5) None of these

**(RBI Officer Grade 'B' Phase-I  
Online Exam. 22.11.2015)**

- 337.** The number of employees shed through voluntary retirement in company A was 23,000 and that in company B was 6325. What is the ratio of employees retired voluntarily from company A to that retired from company B?
- (1) 40 : 11                      (2) 10 : 11  
(3) 11 : 10                      (4) 11 : 40

**(United India Insurance Co.  
AAO Exam. 21.04.2002)**

- 338.** Ratio of the earnings of A and B is 4 : 7 respectively. If the earnings of A increase by 50% and the earnings of B decrease by 25% the new ratio of their earnings becomes 8 : 7 respectively what are A's earnings ?
- (1) 26,000                      (2) 28, 000  
(3) 21,000                      (4) Data inadequate  
(5) None of these

**(LIC Assistant Administrative  
Officer (AAO) Exam. 2006)**

- 339.** The cost of making an article is divided between materials, labour and overheads in the ratio of 3:4:1. If the material costs 234, then the labour cost is:
- (1) 176                              (2) 312  
(3) 78                                (4) 390

**(NICL (GIC) AO (Finance)  
Exam. 15.12.2013)**

- 340.** The present age of A, B and C are in the ratio of 8 : 14 : 22 respectively. The present age of B, C and D are in the ratio of 21 : 33 : 44 respectively. Which of the following represents the ratio of the present age of A, B, C and D respectively ?
- (1) 12 : 21 : 33 : 44  
(2) 12 : 22 : 31 : 44  
(3) 12 : 21 : 36 : 44  
(4) Cannot be determined  
(5) None of these

**(LIC Assistant Administrative  
Officer Exam. 2008)**

- 341.** Three-fourth of a number is equal to 60% of another number. What is the difference between the numbers?
- (1) 18                                (2) 32  
(3) 24  
(4) Cannot be determined  
(5) None of these

**(LIC Assistant Administrative  
Officer Exam. 2008)**

- 342.** The sum of three numbers is 136. If the ratio between first and second be 2 : 3 and that between second and

third be 5 : 3, then the second number is :

- (1) 40                                (2) 48  
(3) 52                                (4) 60

**(LIC Assistant Administrative Officer  
(AAO) Exam. 07.06.2009)**

- 343.** The sides of a triangle are in the ratio and its perimeter is 104 cm. The length of the longest side (in cm.) is :

- (1) 26                                (2) 32  
(3) 48                                (4) 52

**(LIC Assistant Administrative Officer  
(AAO) Exam. 07.06.2009)**

- 344.** Cost of a diamond varies directly as the square of its weight. A diamond broke into four pieces with their weight in the ratio 1 : 2 : 3 : 4. If the loss in the total value of the diamond was 70,000, the price of the original diamond was

- (1) 1,00,000                      (2) 1,40,000  
(3) 1,50,000                      (4) 1,75,000

**(New India Assurance AO  
Exam. 25.10.2009)**

- 345.** The angles of a quadrilateral are in ratio of 3 : 5 : 9 : 7. The second largest angle of the quadrilateral is equal to the largest angle of a triangle. One of the angles of the triangle is 25°. What is the value of second largest angle of the triangle ?

- (1) 60°                                (2) 50°  
(3) 40°                                (4) 20°  
(5) None of these

**(United India Insurance AO  
Exam. 27.03.2011)**

- 346.** Abhijit invested in three schemes A, B and C the amounts in the ratio of 2 : 3 : 4 respectively. If the schemes offered interest @ 20 p.c.p.a. 16 p.c.p.a. and 15 p.c.p.a. respectively, what will be the respective ratio of the amounts after one year ?

- (1) 10 : 8 : 5  
(2) 12 : 14 : 15  
(3) 12 : 15 : 22  
(4) Cannot be determined

(5) None of these

**(LIC Assistant Administrative Officer Exam. 2008)**

**347.** The price of a diamond is proportional to the square of its mass, which is measured in carats. A 6 carat diamond was broken into two parts and total price of the two pieces is of the price of original diamond. The masses (in carat) of two pieces are

- (1) 3.5 and 2.5                      (2) 5 and 1  
(3) 4.5 and 1.5                      (4) 3.2 and 2.8

**(Oriental Insurance Company AAO Exam. 08.04.2012)**

**348.** If  $A : B = 1 : 3$ ,  $B : C = 5 : 7$ ,  $C : D = 9 : 7$ , then  $A : B : C : D = ?$

- (1) 15 : 45 : 63 : 49  
(2) 15 : 49 : 45 : 63  
(3) 45 : 15 : 63 : 49  
(4) 49 : 15 : 45 : 63

**(NICL (GIC) AO (Finance) Exam. 15.12.2013)**

**349.** A camel pursues an elephant and takes 5 leaps for every 7 leaps of the elephant, but 5 leaps of elephant are equal to 3 leaps of camel. What is the ratio of speed of camel and elephant ?

- (1) 21 : 25                              (2) 25 : 21  
(3) 23 : 21                              (4) 21 : 23

**(United India Insurance AAO Exam. 03.06.2012)**

**350.** The sum of the three consecutive odd numbers is 285. What is the ratio of the smallest and largest numbers respectively ?

- (1) 97 : 95                              (2) 93 : 95  
(3) 95 : 93                              (4) 93 : 97  
(5) None of these

**(LIC Assistant Administrative Officer (AAO) Exam. 12.05.2013)**

**351.** The ratio of the number of students studying in school A, B and C is  $5 : 6 : 8$ . If the number of students in each of the schools is increased by 30% 25% and 25% respectively, what will be the new

ratio of the students in schools A, B and C?

- (1) 14 : 15 : 20                      (2) 13 : 15 : 20  
(3) 13 : 14 : 15                      (4) 15 : 17 : 19

**(NICL (GIC) AO (Finance) Exam. 15.12.2013)**

**352.** If  $x : y = 4 : 5$ , then

- $(3x + y) : (5x + 3y) =$   
(1) 3 : 5                                  (2) 5 : 3  
(3) 17 : 35                              (4) 35 : 17

**(NICL (GIC) AO**

**Exam. 08.09.2013 (Paper-I)**

**353.** The ratio between two numbers is  $2 : 3$ . If each number is increased by 4, the ratio between them becomes  $5 : 7$ , the difference between the numbers is

- (1) 8                                        (2) 6  
(3) 4                                        (4) 2

**(NICL (GIC) AO**

**Exam. 08.09.2013 (Paper-I)**

**354.** In a ratio which is equal to  $5 : 8$ , if the antecedent is 40, then the consequent is:

- (1) 25                                      (2) 64  
(3) 48  
(4) None of these

**(NICL (GIC) Administrative Officer Exam. 15.12.2013)**

**355.** The price of sugar is increased by 20%. If the expenditure is not allowed to increase, the ratio between the reduction in consumption and the original consumption is

- (1) 1 : 3                                  (2) 1 : 4  
(3) 1 : 6                                  (4) 1 : 5

**(NICL (GIC) Administrative Officer Exam. 15.12.2013)**

**356.** The difference between the present age of Anil and Sudhir is 6 years. The ratio between their age after 4 years will be  $3 : 4$ . What can be the present age of Sudhir?

- (1) 15 years                              (2) 18 years  
(3) 20 years                              (4) 24 years

**(NICL (GIC) Administrative Officer Exam. 15.12.2013)**

**357.** The age of Melwyn and Louis are in the ratio of  $7 : 10$  respectively. After 6 years the ratio of their age



will be 17 : 23. What is the difference in their age ?

- (1) 8 years (2) 4 years  
(3) 12 years (4) 10 years  
(5) None of these

**(New India Assurance AO  
Exam. 25.10.2009)**

**358.** The average temperature of Gwalior, Agra and Lucknow is  $37^{\circ}$  C. The average temperature of Agra, Gwalior and Delhi is  $38^{\circ}$  C. If the temperature of Delhi is  $39^{\circ}$ C, find the ratio of temperature of Delhi to that of Lucknow ?

- (1) 12 : 11 (2) 13 : 12  
(3) 12 : 13  
(4) Can't be determined

**(NICL (GIC) AO (Finance)  
Exam. 08.09.2013 (Paper-I)**

**359.** In what respective ratio two varieties of rice costing 36 per kg and 60 per kg be mixed; so that by selling the mixture for 54 per kg 20% profit is earned ?

- (1) 3 : 2 (2) 7 : 5  
(3) 5 : 3 (4) 5 : 2  
(5) 4 : 3

**(NIACL Administrative Officer  
(AO) Exam. 10.01.2015)**

**360.** Samartha is five times as old as his daughter Trisha and Samartha's wife Phalguni's age is 26 years more than that of Trisha. The difference between thrice the age of Samarth ten years ago and twice the age of Phalguni ten years ago was 42 years. What will be the respective ratio of Phalguni's age 12 years hence and Samartha's age 12 years hence?

- (1) 23 : 26 (2) 24 : 29  
(3) 19 : 23 (4) 21 : 25  
(5) 18 : 23

**(OICL Specialist Officer (Finance)  
Exam. 03.05.2015)**

**361.** The ratio between the present ages of A and B is 2 : 3 respectively. B's age sixteen years hence will be twice of A's age four years hence. What is the difference between the present ages of A and B ?

- (1) 6 years (2) 12 years  
(3) 8 years (4) 4 years  
(5) 15 years

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 05.03.2016)**

**362.** The ratio between the present ages of A and B is 2 : 3 respectively. B's age twenty one years hence will be twice of A's age six years hence. What is difference between the present ages of A and B?

- (1) 15 years (2) 9 years  
(3) 8 years (4) 10 years  
(5) 6 years

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 06.03.2016)**

**8. PROFIT AND LOSS**

1. A dishonest merchant sells his grocery using weights 15% less than the true weights and makes a profit of 20%. Find his total gain percentage.  
a) Gain 40%                      b) gain 54.17%  
c) gain 41.17%                  d) Gain 42%  
e) NOTA
2. A man bought two bicycles for Rs. 2500 each. If he sells one at a profit of 5%, then how much should he sell the other so that he makes a profit of 20% on the whole?  
a) 40%                              b) 35%  
c) 25%                              d) 38%
3. A shopkeeper allows a discount of 10% on the marked price and still gains 17% on the whole. Find at what percent above the cost price did he marked his goods.  
a) 40%                              b) 30%  
c) 35%                              d) 25%
4. A dishonest merchant sells his grocery using weights 15% less than the true weights and makes a profit of 20%. Find his total gain percentage.  
a) Gain 40%                      b) gain 54.17%  
c) gain 41.17%                  d) Gain 42%  
e) NOTA
5. A man bought two bicycles for Rs. 2500 each. If he sells one at a profit of 5%, then how much should he sell the other so that he makes a profit of 20% on the whole?  
a) 40%                              b) 35%  
c) 25%                              d) 38%
6. A shopkeeper allows a discount of 10% on the marked price and still gains 17% on the whole. Find at what percent above the cost price did he marked his goods.  
a) 40%                              b) 30%  
c) 35%                              d) 25%
7. A sells a set of books to B for Rs. 300 at a profit of 25%. B sells it to C at a loss of 10%.  
i) What was the original price paid by A?  
ii) What was the price paid by C to B?  
A. 240, 260                      B. 250, 270  
C. 250, 260                      D. 240, 270
8. If an article is sold for Rs. 178 at a loss of 11%, what should be its selling price in order to earn a profit of 11%?  
(a) Rs. 222.50    (b) Rs. 267  
(c) Rs. 222                      (d) Rs. 220
9. A businessman sells a commodity at 10% profit. If he had bought it at 10% less and sold it for Rs. 2 less, then he would have gained 50/3%. The cost price of the commodity is  
(a) Rs. 32                              (b) Rs. 36  
(c) Rs. 40                              (d) Rs. 48
10. A car worth Rs. 1,50,000 was sold by X to Y at 5% profit. Y sold the car back to X at 2% loss. In the entire transaction.  
(a) X gained Rs. 4,350  
(b) Y lost Rs. 4,350  
(c) X gained Rs. 3,150  
(d) X lost Rs. 3,150
11. Alfred buys an old scooter for Rs. 4700 and spends Rs. 800 on its repairs. If he sells the scooter for Rs. 5800, his gain percent is:  
a)  $4\frac{4}{7}\%$                               b)  $5\frac{5}{11}\%$   
c) 10%                              d) 12%
12. If selling price is doubled, the profit triples. Find the profit percent.  
a)  $66\frac{2}{3}$                               b) 100

- c)  $105\frac{1}{3}$                       d) 120
- 13.** In a certain store, the profit is 320% of the cost. If the cost increases by 25% but the selling price remains constant, approximately what percentage of the selling price is the profit?  
a) 30%                      b) 70%  
c) 100%                      d) 250%
- 14.** A shopkeeper expects a gain of 22.5% on his cost price. If in a week, his sale was of Rs. 392, what was his profit?  
a) Rs. 18.20                      b) Rs. 70  
c) Rs. 72                      d) Rs. 88.25
- 15.** When a plot is sold for Rs. 18,700, the owner loses 15%. At what price must that plot be sold in order to gain 15%?  
a) Rs. 21,000                      b) Rs. 22,500  
c) Rs. 25,300                      d) Rs. 25,800
- 16.** A trader mixes 26 kg of rice at Rs. 20 per kg with 30 kg of rice of other variety at Rs. 36 per kg and sells the mixture at Rs. 30 per kg. His profit percent is:  
A) No profit, no loss  
B) 5%  
C) 8%                      D) 10%
- 17.** By selling 45 lemons for Rs 40, a man loses 20%. How many should he sell for Rs 24 to gain 20% in the transaction ?  
A) 16                      B) 18  
C) 20                      D) 22
- 18.** By selling 45 lemons for Rs 40, a man loses 20%. How many should he sell for Rs 24 to gain 20% in the transaction ?  
A) 16                      B) 18  
C) 20                      D) 22
- 19.** A milkman purchases the milk at Rs. x per litre and sells it at Rs. 2x per litre still he mixes 2 litres water with every 6 litres of pure milk. What is the profit percentage?  
A) 116%                      B) 116.66%  
C) 60%                      D) 100%
- 20.** If selling price is doubled, the profit triples. Find the profit percent ?  
A) 100%                      B) 200%  
C) 300%                      D) 400%
- 21.** If books bought at prices ranging from Rs. 200 to Rs. 350 are sold at prices ranging from Rs. 300 to Rs. 425, what is the greatest possible profit that might be made in selling eight books ?  
A) 600                      B) 1200  
D) 1800                      D) None of these
- 22.** Tarun got 30% concession on the labelled price of an article and sold it for Rs. 8750 with 25% profit on the price he bought. What was the labelled price ?  
A) 10000                      B) 12000  
C) 13000                      D) 14000
- 23.** A man buys oranges at Rs 5 a dozen and an equal number at Rs 4 a dozen. He sells them at Rs 5.50 a dozen and makes a profit of Rs 50. How many oranges does he buy?  
A) 30 dozens                      B) 40 dozens  
C) 50 dozens                      D) 60 dozens
- 24.** A trader sold an article at a loss of 5% but when he increased the selling price by Rs.65 he gained 3.33% on the cost price. If he sells the same article at Rs. 936, what is the profit percentage?  
A) 15%                      B) 16.66%  
C) 20%                      D) data insufficient
- 25.** Bhajan Singh purchased 120 reams of paper at Rs 80 per ream. He spent Rs 280 on transportation, paid octroi at the rate of 40 paise per ream and paid Rs 72 to the coolie. If

he wants to have a gain of 8 %, what must be the selling price per ream?

- A) 90                                  B) 89  
C) 87.48                                D) 86

**26.** The marked price of an article is increased by 25% and the selling price is increased by 16.66%, then the amount of profit doubles. If the original marked price be Rs. 400 which is greater than the corresponding cost price by 33.33% , what is the increased selling price?

- A) 240                                  B) 360  
C) 420                                  D) 600

**27.** The sale price of an article including the sales tax is Rs. 616. The rate of sales tax is 10%. If the shopkeeper has made a profit of 12%, then the cost price of the article is :

- A) Rs. 560                              B) Rs. 530  
C) Rs. 500                              D) Rs. 514

**28.** By mixing two qualities of pulses in the ratio 2: 3 and selling the mixture at the rate of Rs 22 per kilogram, a shopkeeper makes a profit of 10 %. If the cost of the smaller quantity be Rs 14 per kg, the cost per kg of the larger quantity is:

- A) Rs 23                                B) Rs 25  
C) Rs 24                                D) None of these

**29.** A shopkeeper sells one-third of his goods at a profit of 10%, another one-third at a profit of 20%, and the rest at a loss of 6%.What is his overall profit percentage ?

- A) 6%                                    B) 8%  
C) 10%                                  D) 12%

**30.** Every year before the festive season,a shopkeeper increases the price of the product by 35% and then introduce two successive discount of 10% and 15% respectively.what is percentage loss and percentage gain ?

- A) 3.27 % loss                        B) 4.15 % loss

- C) 3.27 % gain                        D) 4.15 % gain

**31.** Rahul went to purchase a Nokia mobile handset, the shopkeeper told him to pay 20% tax if he asked the bill. Rahul manages to get the discount of 5% on the actual saleprice of the mobile and he paid the shopkeeper Rs. 3325 without tax. Besides he manages to avoid to pay 20% tax on the already discounted price, what is the amount of discount that he has gotten?

- A) 750                                  B) 375  
C) 875                                  D) 525

**32.** A car mechanic purchased four old cars for Rs. 1 lakh. He spent total 2 lakh in the maintenance and repairing of these four cars. what is the average sale price of the rest three cars to get 50% total profit if he has already sold one of the four cars at Rs. 1.2 lakh?

- A) 1.5 lakh                              B) 1.1 lakh  
C) 1.2 lakh                              D) 1.65 lakh

**33.** The profit earned by selling an article for Rs. 832 is equal to the loss incurred when the same article is sold for Rs. 448. What should be the sale price for making 50% profit ?

- A) Rs. 660                              B) Rs. 560  
C) Rs. 1060                             D) Rs. 960

**34.** A person sold two cows each for Rs.9900. If he gained 10% on one and lost 20% on the other, then which of the following is true?

- A) He Gained Rs. 200  
B) He lost Rs. 200  
C) He neither gained nor lost  
D) None of the above

**35.** A retailer buys product from a shopkeeper at discount of 40% on the list price (marked price) and sells them to the customer at a discount of 25% on the list price.What is his profit percentage ?

- A) 10%                                  B) 15%

C) 20%                      D) 25%

**36.** If the selling price of a mat is five times the discount offered and if the percentage of discount is equal to the percentage profit, find the ratio of the discount offered to the cost price.

A) 6:31                      B) 11:30  
C) 7:30                      D) 31:6

**37.** Raghu earns 25% on an investment but loses 10% on another investment. If the ratio of the two investment is 3:5. What is the gain or loss on two investments taken together ?

A) 1.251 %                      B) 3.125 %  
C) 7.21 %                      D) 9.451 %

**38.** Every year before the festive season, a brand store increases the price of the product by 42% and then introduce two successive discount of 10% and 11% respectively. What is percentage loss and percentage gain ?

A) 3.25% loss                      B) 13.742% loss  
C) 3.25% gain                      D) 13.742% gain

**39.** A seller uses 840 gm in place of 1 kg to sell his goods. Find his actual profit/loss % When he sells his article on 4% loss on cost price ?

A) 14.28 % profit  
B) 24.18 % profit  
C) 14.28 % loss  
D) 24.18 % loss

**40.** A shopkeeper sold a mobile phone for Rs. 12000. Had he offered discount of 10% on the selling price, there would be a loss of 4%. What is the cost price of that Mobile phone?

A) Rs. 12,500                      B) Rs. 11,250  
C) Rs. 12,750                      D) Rs. 11,680

**41.** A driver of auto rickshaw makes a profit of 20% on every trip when he carries 3 passengers and the price of petrol is Rs. 30 a litre. Find the % profit for the same journey if he goes for 4 passengers per trip and the

price of petrol reduces to Rs. 24 litres ?

A) 68%                      B) 80%  
C) 75%                      D) 100%

**42.** A quantity of tea is sold at Rs. 5.75 per kilogram. The total gain by selling the tea at this rate is Rs. 60. Find the quantity of tea being sold if a profit of 15% is made on the deal ?

A) 72 kgs                      B) 80 kgs  
C) 76 kgs                      D) 84 kgs

**43.** A shopkeeper who deals in books sold a book at 16% loss. Had she charged an additional Rs.60 while selling it , her profit would have been 14%. Find the cost price, in rupees, of the book ?

A) Rs. 185                      B) Rs. 154  
C) Rs. 200                      D) Rs. 177

**44.** Sambhu buys rice at Rs. 10/kg and puts a price tag on it so as to earn a profit of 20%. However, his faulty balance shows 1000 gm when it is actually 800 gm. What is his actual gain percentage ?

A) 50%                      B) 25%  
C) 75%                      D) 60%

**45.** A salesman calculated his profit on the marked price and finds it to be 30%. He forgets the fact that he gave a discount of 20%. What is his actual profit percentage?

A) 260/11%                      B) 18.4%  
C) 22.5%                      D) 100/7%

**46.** A merchant buys two items for Rs. 7500. One item he sells at a profit of 16% and the other item at 14% loss. In the deal, the merchant makes neither any profit nor any loss. What is the difference between the selling price of both the items?

A) Rs. 620                      B) Rs. 654  
C) Rs. 725                      D) Rs. 747

**47.** The market price of an article was 40% more than its cost price. Rana

was going to sell it at market price to a customer, but he showed Rana some defects in the article, due to which Rana gave him a discount of 28.57%. Next day he came again and showed Rana some more defects, hence he gave him another discount that was equal to 12.5% of the cost price. What was the approximate profit/loss to Rana ?

- A) Loss of 12.5%  
 B) Profit of 12.5%  
 C) Loss of 24.5%  
 D) Profit of 22.5%

48. By selling 12 marbles for a rupee, a shopkeeper loses 20%. In order to gain 20% in the transaction, he should sell the marbles at the rate of how many marbles for a rupee?

- (a) 8 (b) 6  
 (c) 4 (d) 3

49. Three successive discounts of 10%, 12% and 15% amount to a single discount of:

- (a) 36.28 % (b) 34.68%  
 (c) 37 % (d) None of these

50. A reduction of 20% in the price of sugar enables a Purchaser to obtain  $2\frac{1}{2}$  kg more for Rs.160. Find the original price per kg of sugar.

- (a) Rs. 12 (b) Rs. 20  
 (c) Rs. 16 (d) Rs. 18

51. Two motor cars were sold for Rs. 9,900 each, gaining 10% on one and losing 10% on the other. The gain or loss per cent in the whole transaction is :

- (a) Neither loss no gain  
 (b)  $\frac{1}{99}$ % gain  
 (c)  $c$  % profit  
 (d) 1% loss

52. A cycle agent buys 30 bicycles, of which 8 are first grade and the rest are second grade for Rs. 3150. Find at what price he must sell the first

grade bicycles so that if he sells the second grade bicycles at third quarter of the price, he may make a profit of 40% on both the types of transactions ?

- (a) Rs 200 (b) Rs 240  
 (c) Rs180 (d) Rs210

53. A dairyman pays Rs6.4 per litre of milk. He adds water And sells the mixture at Rs8 per litre, thereby making 37.5% profit. The proportion of water to milk received by the customers is :

- (a) 1 : 5 (b) 1 : 10  
 (c) 1 : 20 (d) 1 : 12

54. The cost price of 20 articles is the same as the selling Price of  $x$  articles. If the profit is 25%, then the value of  $x$  is

- (a) 25 (b) 18  
 (c) 16 (d) 15

55. A departmental store receives a shipment of 1,000 shirts, For which it pays Rs9,000. The store sells the shirts at a price 80 per cent above the cost for one month, after which it reduces the price of the shirts to 20 per cent above the cost. The store sells 750 shirts for one month and 50 per cent of the remaining shirts afterwards. How much gross income did the sales of the shirts generate ?

- (a) Rs10,000 (b) Rs10,80  
 (c) Rs12,150 (d) Rs13,500

56. A company blends two varieties of tea from two different tea gardens, one variety costing Rs 20 per kg and other Rs 25 per kg, in the ratio 5 : 4. He sells the blended tea at Rs 23 per kg. Find his profit per cent :

- (a) 5% profit (b) 3.5% loss  
 (c) 3.5% profit (d) No profit, no loss

57. An article is listed at Rs65. A customer bought this article for Rs 56.16 and got two successive discounts of which the first one is

10%. The other rate of discount of this scheme that was allowed by the shopkeeper was :

- (a) 3% (b) 4%  
(c) 6% (d) 2%

**58.** Three partners altogether invested Rs1,14,000 in a business. At the end of the year, one got Rs337.50, the second Rs 1,125.00 and the third, Rs675 as profit. What is the percentage of profit ?

- (a) 5.8% (b) 4.8%  
(c) 1.8% (d) 3.8%

**59.** A shopkeepers sells an article at  $12\frac{1}{2}\%$  loss. If he sells it for Rs92.50 more, then he gains 6%. What is the cost price of the article?

- (a) Rs510 (b) Rs500  
(c) Rs575 (d) Rs600

**60.** Ramesh purchased a bicycle for Rs5,200 and spent Rs800 on its repairs. He had to sell it for Rs5,500. Find his profit or loss per cent.

- (a) Rs844.37 (b) Rs488.47  
(c) Rs588.47 (d) None of these

**61.** Dhiraj purchased 150 kg of rice. He sold  $\frac{1}{3}$  rd of it at 10% loss. At what per cent of profit must he sell the Remaining rice so that he can make 10% profit on the whole?

- (a) 20% (b) 15%  
(c) 10% (d) None of these

**62.** A grocer purchased 20 kg of rice at the rate of Rs. 15 per kg and 30 kg of rice at the rate of Rs. 13 per kg. At what price per kg should he sell the mixture to earn  $33\frac{1}{3}\%$  profit on the cost price?

- (a) Rs. 28.00 (b) Rs. 20.00  
(c) Rs. 18.40 (d) Rs. 17.40

**63.** A builder purchased a plot of land for Rs. 80 lakh and constructed a five-storey building inclusive of ground floor on it. How much should he charge for each flat to make 25%

profit on his investment on land, if there are five flats on each storey?

- (a) Rs. 50000 (b) Rs. 100000  
(c) Rs. 500000 (d) None of these

**64.** The difference between a discount of 35% and two successive discounts of 20% and 20% on a certain bill was Rs. 22. Find the amount of the bill.

- (a) Rs. 1,100 (b) Rs. 200  
(c) Rs. 2,200 (d) None of these

**65.** A grocer purchased 80 kg of sugar at Rs. 13.50 per kg And mixed it with 120 kg sugar at Rs. 16 per kg. At what rate should he sell the mixture to gain 16%?

- (a) Rs. 17 per kg  
(b) Rs. 17.40 per kg  
(c) Rs. 16.5 per kg  
(d) Rs. 16 per kg

**66.** A sells a tube to B at a profit of 20% and B sells it to C at profit of 25 %. If C pays Rs. 225 for it, what did A pay for it?

- (a) Rs. 100 (b) Rs. 125  
(c) Rs. 150 (d) Rs. 175

**67.** Prabhu purchased 30 kg of rice at the rate of Rs. 17.50 per kg and another 30 kg rice at a certain rate. He mixed the two and sold the entire quantity at the rate of Rs. 18.60 per kg and made 20 per cent overall profit. At what price per kg did he purchase the lot of another 30 kg rice?

- (a) Rs. 14.50 (b) Rs. 12.50  
(c) Rs. 15.50 (d) Rs. 13.50

**68.** A trader marks his goods at such a price that he can deduct 15% for cash and yet make 20% profit. Find the marked price of an item which costs him Rs. 90

- (a) Rs.  $135\frac{11}{13}$  (b) Rs.  $105\frac{3}{21}$   
(c) Rs.  $127\frac{1}{17}$  (d) Rs.  $95\frac{1}{21}$

**69.** A trader wants 10% profit on the selling price of a Product whereas his

expenses amount to 15% on sales. What should be his rate of mark up on an article costing Rs. 9?

- (a) 20% (b)  $66\frac{2}{3}\%$   
(c) 30% (d)  $\frac{100}{3}\%$

**70.** An article is listed at Rs. 65. A customer bought this Article for Rs. 56.16 and got two successive discounts of which the first one is 10%. The other rate of discount of this scheme that was allowed by the shopkeeper was

- (a) 3% (b) 4%  
(c) 6% (d) 2%

**71.** The sale price of an article including the sales tax is Rs. 616. The rate of sales tax is 10%. If the shopkeeper has made a profit of 12%, then the cost price of the article is :

- (a) Rs. 500 (b) Rs. 515  
(c) Rs. 550 (d) Rs. 600

**72.** A man sold two watches for Rs. 1000 each. On one he Gains 25% and on the other 20% loss. Find how much % does he gain or lose in the whole transaction?

- (a)  $\frac{100}{41}\%$  loss (b)  $\frac{100}{41}\%$  gain  
(c) No gain, no loss  
(d) Cannot be determined

**73.** The cost price of 20 articles is equal to the selling price Of 25 articles. The loss percent in the transaction is

- (a) 5 (b) 20  
(c) 25 (d) 30

**74.** Rajni purchased a mobile phone and a refrigerator for Rs. 12000 and Rs. 10000 respectively. She sold the first at a loss of 12% and the second at a profit of 8%. What is her overall loss/profit?

- (a) loss of Rs. 280  
(b) profit of Rs. 2160  
(c) loss of Rs. 240  
(d) None of these

**75.** A property dealer sells a house for Rs. 6,30,000 and in The bargain makes a profit of 5%. Had he sold it for Rs. 5,00,000, then what percentage of loss or gain he would have made?

- (a)  $2\frac{1}{4}\%$  gain (b) 10% loss  
(c)  $12\frac{1}{2}\%$  loss (d)  $16\frac{2}{3}\%$  loss

**76.** A manufacturer sells a car to a dealer at a profit of 50%, The dealer sells it to a customer at a profit fo 20% and the customer sells it to a friend for Rs. 288000 at a loss of 20%. Find the cost of manufacturer.

- (a) 200000 (b) 300000  
(c) 400000 (d) 50000

**77.** A dishonest dealer professes to sell his goods at cost price, but he uses a weight of 960 gm for the kg weight. Find his gain percent.

- (a) 2.8% (b)  $4\frac{1}{6}\%$   
(c) 4.16% (d)  $3\frac{1}{3}\%$

**78.** A shopkeeper sold an article offering a disount of 5% And earned a profit of 23.5%. What would have been thepercentage of profit earned if no discount was offered?

- (a) 24.5 (b) 28.5  
(c) 30 (d)None of these

**79.** A man sells an article at 5% profit. If he had bought it at5% less and sold if for Rs. 1 less, he would have gained10%. Find the cost price.

- (a) 100 (b) 150  
(c) 200 (d) 250

**80.** It is known that the shopkeeper takes a discount of 10%from his supplier and he disregards this discount whilemarking up (i.e., he marks up at the undiscounted price),find the percentage profit for the shopkeeper if there is no other change from the previous problem.

- (a) 32% (b) 36.66%  
(c) 40.33% (d) 46.66%



- 81.** A shopkeeper marks up his goods by 40% and gives a discount of 10%. Apart from this, he uses a faulty balance also, which reads 1000 gm for 800 gm. What is his net profit percentage?  
 (a) 57.5% (b) 63.5%  
 (c) 42.5% (d) 36.5%
- 82.** A supplier sells 20 pencils at the marked price of 16 pens to a retailer. The retailer, in turn, sells them at the marked price. What is the percentage profit or percentage loss of the retailer?  
 (a) Loss 25% (b) Profit 25%  
 (c) Loss 20% (d) Profit 20%
- 83.** A milkman defrauds by means of a false measure to the tune of 20% in buying and also defrauds to the tune of 25% in selling. Find his overall % gain.  
 (a) 15% (b) 30%  
 (c) 50% (d) 45%
- 84.** A businessman, while selling 20 articles, loses the cost price of 5 articles. Had he purchased the 20 articles for 25% less and sold them for  $33\frac{1}{3}$  % more than the Original selling price, what is his gain  
 (a) 5% (b) 75%  
 (c)  $33\frac{1}{3}$ % (d) 45%
- 85.**  $\frac{2}{3}$  of a consignment was sold at 6 % profit and the rest at a loss of 3 %. If there was an overall profit of Rs. 540, find the value of the consignment.  
 (a) Rs. 15,000 (b) Rs. 18000  
 (c) Rs. 35000 (d) Rs. 45000
- 86.** The ratio between the sale price and the cost price of an article is 7 : 5. What is the ratio between the profit and the cost price of that article?  
 (a) 2 : 7 (b) 5 : 2  
 (c) 7 : 9 (d) None of these
- 87.** The percentage profit earned by selling an article for Rs. 1920 is equal to the percentage loss incurred by selling the same article for Rs. 1280. At what price should the article be sold to make 25% profit?  
 (a) Rs. 2000 (b) Rs. 2200  
 (c) Rs. 2400 (d) None of these
- 88.** The profit by selling an item was 25%. If the item was marked 40% above the selling price then what is the ratio of the marked price to the cost price of the item?  
 (a)  $\frac{5}{4}$  (b)  $\frac{7}{4}$   
 (c)  $\frac{3}{4}$  (d)  $\frac{1}{4}$
- 89.** Two dealers X and Y selling the same model of Refrigerator mark them under the same selling prices. X gives successive discounts of 25% and 5% and Y gives successive discounts of 16% and 12%. From whom is it more profitable to purchase the refrigerator?  
 (a) From Y  
 (b) From X  
 (c) Indifferent between the two  
 (d) Cannot be determined
- 90.** A shopkeeper marks up his goods by 20% and then gives a discount of 20%. Besides he cheats both his supplier and customer by 100 grams i.e., he takes 1100 gram from his supplier and sells only 900 grams to his customer. What is his net profit percentage?  
 (a) 24.5% (b) 17.33%  
 (c) 25% (d) 32.5%
- 91.** Amit bought two cars. He then sold the first car at 10% profit and the second one at 25% profit. The selling price of the second car is 25% more than the selling price of the first car. What is the approximate profit per cent in both the cars together?  
 (a) 17.85% (b) 18.36%  
 (c) 16.19%

(d) Cannot be determined

**92.** A pharmaceutical company made 3000 strips of tablets At a cost of Rs. 4800. The company gave away 1000 strips of tablets of doctors as free samples. A discount of 25% was allowed on the printed price. Find the ratio of profit if the price is raised from Rs. 3.25 to Rs. 4.25 per strip and if at the atter price, samples to doctors were done away with. (New profit/old profit)

- (a) 55.5                      (b) 63.5  
(c) 75                         (d) 99.25

**93.** A trader mixes three varieties of groundnuts costing Rs. 50, Rs. 20 and Rs. 30 per kg in the ratio 2 : 4 : 3 in terms of weight, and sells the mixture of Rs. 33 per kg. What percentage of profit does he make?

- (a) 8%                         (b) 9%  
(c) 10%                        (d) None of these

**94.** A manufacturer sells a pair of glasses to a wholesaleddealer at a profit of 18%. The wholesaler sells the sameto a retailer at a profit of 20%. The retailer in turn sellsthem to a customer for Rs. 30.09, thereby earning a profit of 25%. The cost price for the manufacturer is

- (a) Rs. 16                      (b) Rs. 20  
(c) Rs. 17                      (d) Rs. 24

**95.** The AMS magazine prints 5000 copies for Rs. 5,00,000every month. In the July issue of the magazine, AMSdistributed 500 copies free. Besides, it was able to sell2/3 of the remaining magazines were sold at the printedprice of the magazine (which was Rs. 200). Find thepercentage profit of AMS in the magazine venture in themonth of July (assume a uniform 20% of the sale priceas the vendor's discount and also assume that AMS earnsno income from advertising for the issue).

- (a) 56%                      (b) 24%  
(c) 28%                      (d) 22.6%

**96.** Samant bought a microwave oven and paid 10% less Than the original price. He sold it with 30% profit on the Price he had paid. What percentage of profit did Samant Earn on the original price?

- (a) 17%                      (b) 20%  
(c) 27%                      (d) 32%

**97.** If 5% more is gained by selling an article for Rs. 350 Than by selling it for Rs. 340 the cost of the article is:

- (a) Rs. 50                      (b) Rs. 160  
(c) Rs. 200                      (d) Rs. 225

**98.** A discount of 15% on one article is the same as adiscount of 20% on another article. The costs of the twoarticles can be:

- (a) Rs. 40, Rs. 20  
(b) Rs. 60, Rs. 40  
(c) Rs. 80, Rs. 60  
(d) Rs. 60, Rs. 40

**99.** A shopkeeper earns a profit of 12% on selling a book at10% discount on the printed price. The ratio of the costprice to the printed price of the book is:

- (a) 45 : 56                      (b) 50 : 61  
(c) 55 : 69                      (d) 99 : 125

**100.** By selling a watch at a profit of 10 per cent, a man got Rs 15 more than half its price. What is the price of the watch?

- (a) 10                         (b) 15  
(c) 25                         (d) 5

**101.** A bookseller marks his books at an advance of 69% on The actual cost of production. He allows a discount of 15% and also given a copy free for every dozen sold at a time. What rate per cent profit does the bookseller make, if books are sold in lots of 12 ?

- (a) 32.6                      (b) 47.5

(c) 24.9 (d) None of these

(c) Rs. 17 (d) Rs. 18

**102.** A video magazine distributor made 3500 copies of the March issue of the magazine at a cost of Rs. 3,50,000. He Gave 500 cassettes free to some key video libraries. He Also allowed a 25% discount on the market price of the Cassettes and gave one extra cassette free with every 29 Cassettes bought at a time. In this manner, he was able to sell all the 3500 cassettes that were produced. If the market price of a cassette was Rs. 150, then what is his gain or loss per cent for the March issue of the video magazine?

(a) 3.4% loss (b) 15% gain  
(c) 40% gain (d) 6.8% loss

**103.** A cash payment that will settle a bill for 250 chairs at Rs. 50 per chair less 20% and 15% with a further discount of 5% on cash payment is

(a) Rs. 8075 (b) Rs. 7025  
(c) Rs. 8500 (d) None of these

**104.** An oil refinery takes 1000 L of crude oil as input and after refining for 1 h gives certain amount of output oil X L. This can be sold in the market at a profit of Rs. 30 per L. If this oil is further refined for  $\frac{1}{2}$ h, it gives oil Y L. This can be sold at a profit of Rs. 50 per L. Output and input ratio at both the stages is 90%. The maximum amount that can be earned from 1000 L of crude input is

(a) Rs. 40000 (b) Rs. 30000  
(c) Rs. 27000 (d) Rs. 40500

**105.** A manufacturer sells a pair of glasses to a wholesale Dealer at a profit of 18%. The wholesaler sells the same to a retailer at a profit of 20%. The retailer in turn sells them to a customer for Rs. 30.09, thereby earning a profit of 25%. The cost price for the manufacturer is

(a) Rs. 15 (b) Rs. 16

**106.** A dealer offers a cash discount of 20% and still makes a profit of 20%, when he further allows 16 articles to a dozen to a particularly sticky bargainer. How much per cent above the cost price were his wares listed?

(a) 100% (b) 80%  
(c) 75% (d) 66  $\frac{2}{3}$ %

**107.** Instead of a metre scale cloth merchant uses a 120 cm Scale while buying but uses an 80 cm scale while selling the same cloth. If he offers a discount of 20 per cent of cash payment, what is his overall per cent profit?

(a) 20% (b) 25%  
(c) 40% (d) 15%

**108.** A book is sold at profit of Rs. 20, which is 10% of its Cost price. If its C.P. is increased by 50% and it is still sold at a profit of 10%, then find the new profit.

(a) Rs. 30 (b) Rs. 50  
(c) Rs. 60 (d) Rs. 300

**109.** A fruitseller sells mangoes at the rate of Rs. 9 per kg and thereby loses 20%. At what price per kg, he should have sold them to make a profit of 5%?

(a) Rs. 11.81 (b) Rs. 12  
(c) Rs. 12.25 (d) Rs. 12.31

**110.** A man would gain 20% by selling a chair for Rs. 47.5 And would gain 15% by selling a table for Rs. 57.5. He sells the chair for Rs. 36, what is the least price for which he must sell the table to avoid any loss on the two together

(a) Rs. 50.2 (b) Rs. 55.8  
(c) Rs. 60 (d) Rs. 53.6

**111.** By selling 5 dozen mangoes for Rs. 156 it was found That  $\frac{3}{10}$  th of the outlay was gained. What should the

retail price per mango be in order to gain 60% ?

- (a) Rs. 4 (b) Rs. 2  
(c) Rs. 3.2 (d) Rs. 4.2

**112.** An article is sold at 20 % profit. If its CP and SP are less By Rs. 10 and Rs. 5 respectively the percentage of profit increases by 10 %. Find the cost price.

- (a) Rs. 40 (b) Rs. 80  
(c) Rs. 60 (d) Rs. 50

**113.** A man purchases two clocks A and B at a total cost of Rs. 650. He sells A with 20% profit and B at a loss of 25% and gets the same selling price for both the clocks. What are the purchasing prices of A and B respectively?

- (a) Rs. 225; Rs. 425  
(b) Rs. 250; Rs. 400  
(c) Rs. 275; Rs. 375  
(d) Rs. 300; Rs. 350

**114.** A person purchases 100 pens at a discount of 10%. The net amount of money spent by the person to purchase the pens is Rs. 600. The selling expenses incurred by the person are 15% on the net cost price. What should be the selling price for 100 pens in order to earn a profit of 25%?

- (a) Rs. 802.50 (b) Rs. 811.25  
(c) Rs. 862.50 (d) Rs. 875

**115.** A milkman buys milk contained in 10 vessels of equal size. If he sells his milk at Rs. 5 a litre, he loses Rs. 200; if he sells it at Rs. 6 a litre, he would gain Rs. 150 on the whole. Find the number of litres contained in each vessel.

- (a) 20 litres (b) 30 litres  
(c) 25 litres (d) 35 litres

**116.** A shopkeeper purchased a table marked at Rs. 200 at successive discount of 10% and 15% respectively. He spent Rs. 7 on

transportation and sold the table for Rs. 200. Find his gain %?

- (a) No loss or gain (b) 25%  
(c) 30% (d) 40%

**117.** A man buys 2 dozen bananas at Rs. 16 per dozen. After selling 18 bananas at the rate of Rs. 12 per dozen, the shopkeeper reduced the rate of Rs. 4 per dozen. The percent loss is:

- (a) 25.2% (b) 32.4%  
(c) 36.5% (d) 37.5%

**118.** A space research company wants to sell its two products A and B. If the product A is sold at 20% loss and the Product B at 30% gain, the company will not lose anything. If the product A is sold at 15% loss and the product B at 15% gain, the company will lose Rs. 6 million in the deal. What is the cost of product B ?

- (a) Rs. 140 million  
(b) Rs. 120 million  
(c) Rs. 100 million  
(d) Rs. 80 million

**119.** Two-third of a consignment was sold at a profit of 5% And the remainder at a loss of 2 %. If the total profit was Rs. 400, the value of the consignment ( in rupees)

- (a) 20,000 (b) 15,000  
(c) 12, 000 (d) 10, 000

**120.** A dealer sold a radio at a loss of 2.5%. Had he sold it for Rs. 100 more, he would have gained  $7\frac{1}{2}\%$ . In order to Gain  $12\frac{1}{2}\%$ , he should sell it for:

- (a) Rs. 850 (b) Rs. 925  
(c) Rs. 1, 080 (d) Rs. 1, 125

**121.** The raw material and manufacturing cost formed individually 70% and 30% of the total cost and the profit percentage is 14.28% of the raw material. If the cost of raw material increase by 20% and the cost of

manufacturing is increased by 40% and the selling price is increased by 80%, then the new profit percentage is :

- (a) 57% (b) 65.8%  
(c) 60% (d) can't determined

**122.** A person purchased a cupboard and a cot for Rs.18,000. He sold the cupboard at a profit of 20% and the cot at a Profit of 30%. If his total profit was 25.833%, find the cost price of the cupboard.

- (a) Rs. 10,500 (b) Rs. 12,000  
(c) Rs. 7500 (d) Rs. 10,000

**123.** A sells a car priced at Rs. 36,000. He gives a discount of 8% on the first Rs. 20,000 and 5% on the remaining Rs. 16,000. His competitor B sells a car of the same make, priced at Rs. 36,000. If he wants to be competitive what percent discount should B offer on the marked price.

- (a) 5% (b) 5.5%  
(c) 6.66% (d) 8.33%

**124.** In a certain store, the profit is 320% of the cost. If the Cost increases by 25% but the selling price remains constant, approximately what percentage of the selling price is the profit?

- (a) 30% (b) 70%  
(c) 100% (d) 250%

**125.** A shopkeeper bought 150 calculators at the rate of Rs. 250 per calculator. He spent Rs. 2500 on transportation And packing. If the marked price of calculator is Rs. 320 Per calculator and the shopkeeper gives a discount of 5% On the marked price then what will be the percentage

Profit gained by the shopkeeper?

- (a) 20% (b) 14%  
(c) 15% (d) 16%

**126.** A firm of readymade garments makes both men's and women's

shirts. Its average profit is 6% of the sales. Its profit in men's shirts average 8% of the sales and women's shirts comprise 60% of the output. The average profit per sale rupee in women shirts is

- (a) 0.0466 (b) 0.0666  
(c) 0.0166 (d) 0.0366

**127.** A tradesman marks his goods at 25% above cost price And allows discount of 12.5 per cent for cash payment. What profit per cent does he make ?

- (a)  $9\frac{3}{8}$  (b)  $9\frac{1}{8}$   
(c)  $9\frac{5}{8}$  (d)  $9\frac{7}{8}$

**128.** A bookseller sells a book at a profit of 10%. If he had bought it at 4% less and sold it for Rs. 6 more, he would have gained  $18\frac{3}{4}$  per cent. What did it cost him?

- (a) 120 (b) 130  
(c) 140 (d) 150

**129.** A watch passes through three hands and each gains 25%. If the third sells it for Rs. 250, what did the first pay for it?

- (a) 128 (b) 130  
(c) 145 (d) 150

**130.** I loss 9 per cent by selling pencils at the rate of 15 rupee. How many for a rupee must I sell them to gain 5 per cent?

- (a) 10 (b) 13  
(c) 15 (d) 18

**131.** A manufacturer makes a profit of 15% by selling a Colour TV for Rs. 5750. If the cost of manufacturing increases by 30% and the price paid by the retailer is increased by 20%, find the profit percent made by the manufacturer.

- (a)  $6\frac{2}{13}\%$  (b)  $4\frac{8}{13}\%$   
(c)  $6\frac{1}{13}\%$  (d)  $7\frac{4}{13}\%$

- 132.** The profit earned when an article is sold for Rs. 800 is 20 times the loss incurred when it is sold for Rs. 275. At what price should the article be sold if it is desired to make a profit of 25%  
 (a) Rs. 300 (b) Rs. 350  
 (c) Rs. 375 (d) Rs. 400
- 133.** Each of A and B sold their article at Rs. 1818 but A Incurred a loss of 10% while B gained by 1%. What is the ratio of cost price of the articles of A to that of B?  
 (a) 101 : 90 (b) 85 : 89  
 (c) 81 : 75 (d) None of these
- 134.** A manufacturer of a certain item can sell all he can Produce at the selling price of Rs. 60 each. It costs him Rs. 40 in materials and labour to produce each item and he has overhead expenses of Rs. 3,000 per week in order to operate that plant. The number of units he should produce and sell in order to make a profit of at least Rs. 1,000 per week is  
 (a) 300 (b) 250  
 (c) 400 (d) 200
- 135.** Dolly goes to a shop to purchase a doll priced at Rs. 400. She is offered 4 discount options by the shopkeeper. Which of these options should she opt for to gain maximum advantage of the discount offered?  
 (a) Single discount of 30%  
 (b) 2 successive discounts of 15% each  
 (c) 2 successive discounts of 20% and 10%  
 (d) 2 successive discounts of 20% and 12%
- 136.** A trader sells goods to a customer at a profit of  $k\%$  over the cost price, besides it he cheats his customer by giving 880 g only instead of 1 kg. Thus his overall profitpercentage is 25%. Find the value of  $k$ ?  
 (a) 8.33% (b) 8.25%  
 (c) 10% (d) 12.5%
- 137.** A, B and C invest in the ratio of 3 : 4 : 5. The percentage of return on their investments are in the ratio of 6 : 5 : 4. Find the total earnings, if B earns Rs. 250 more than A :  
 (a) Rs. 6000 (b) Rs. 7250  
 (c) Rs. 5000 (d) None of these
- 138.** A car mechanic purchased four old cars for Rs. 1 lakh. He spent total 2 lakh in the maintenance and repairing of these four cars. What is the average sale price of the rest three cars to get 50% total profit if he has already sold one of the four cars at Rs. 1.2 lakh?  
 (a) 1.5 lakh (b) 1.1 lakh  
 (c) 1.2 lakh (d) 1.65 lakh
- 139.** The cost of setting up a magazine is Rs. 2800. The cost Of paper and ink etc. is Rs. 80 per 100 copies and printing cost is Rs. 160 per 100 copies. In the last month 2000 copies were printed but only 1500 copies could be sold at Rs. 5 each. Total 25% profit on the sale price was realized. There is one more resource of income from the magazine which is advertising. What sum of money was obtained from the advertising in magazine?  
 (a) Rs. 1750 (b) Rs. 2350  
 (c) Rs. 1150 (d) Rs. 1975
- 140.** A person purchases 90 clocks and sells 40 clocks at again of 10% and 50 clocks at gain of 20%. If he sold all of them at a uniform profit of 15%, then he would have got Rs. 40 less. The cost price of each clock is:  
 (a) Rs. 50 (b) Rs. 60  
 (c) Rs. 80 (d) Rs. 90
- 141.** A tradesman fixed his selling price of goods at 30% Above the cost

price. He sells half the stock at this price, one quarter of his stock at a discount of 15% on the original selling price and rest at a discount of 30% on the original selling price. Find the gain percent altogether.

- (a) 14.875% (b) 15.375%  
(c) 15.575% (d) 16.375%

- 142.** Cheap and Best, a kirana shop bought some apples at 4 Per rupee and an equal number at 5 per rupee. He then sold the entire quantity at 9 for 2 rupees. What is his percentage profit or loss?  
(a) 1.23% loss (b) 6.66%  
(c) 8.888% (d) No profit no loss

- 143.** Amar sold his moped to Bharat at 20% profit and Bharat sold it to Sridhar at 10% profit. Sridhar sold the same to a mechanic and received Rs. 2, 316. If Amar had sold the same moped to the mechanic and receive the same amount the mechanic paid to Sridhar, what profit percentage would Amar have made?  
(a) 52% (b) 48%  
(c) 33.3%  
(d) Cannot be determined

- 144.** Rohit bought 20 soaps and 12 toothpastes. He marked-up the soaps by 15% on the cost price of each, and the toothpastes by Rs. 20 on the cost price each. He sold 75% of the soaps and 8 toothpastes and made a profit of Rs. 385. If the cost of a toothpaste is 60% the cost of a soap and he got no return on unsold items, what was his overall profit or loss?  
(a) Loss of Rs. 355  
(b) Loss of Rs. 210  
(c) Loss of Rs. 250  
(d) None of these

- 145.** A dealer buys dry fruit at the rate of Rs. 100, Rs. 80 and Rs. 60 per kg. He bought them in the ratio 12 : 15 : 20 by weight. He in total gets 20% profit by selling the first two and at

last he finds he has no gain no loss in selling the whole quantity which he had. What was the percentage loss he suffered for the third quantity ?

- (a) 40% (b) 20%  
(c) 30% (d) 50%

- 146.** The ratio of selling price of 3 articles A, B and C is 8 : 9 : 5 and the ratio of percentage profit is 8 : 7 : 14 respectively. If the profit percentage of A is 14.28% and the cost price of B is Rs. 400, what is the overall percentage gain?  
(a) 14.28% (b) 17.87%  
(c) 16.66% (d) None of these

- 147.** In an office the number of employees reduces in the ratio of 3 : 2 and the wages increases in the ratio of 20 : 27. What is the profit percentage of employees over the previous wages?  
(a) 10% (b) 9.09%  
(c) 11.11% (d) None of these

- 148.** The cost of servicing of a Maruti car at Maruti car Pvt.Ltd. is Rs. 400. Manager of service centre told me that For the second service within a year a customer can avail A 10% discount and further for third and fourth servicing he can avail 10% discount of the previous amount paid, within a year. Further if a customer gets more than 4 services within a year he has to pay just 60% of the servicing charges on these services. A customer availed 5 services from the same servicing station, what is the total percentage discount fetched by the customer?  
(a) 19.42% (b) 18.5%  
(c) 17.6% (d) 26%

- 149.** An article costing Rs. 20 was marked 25% above the cost price. After two successive discounts of the same percentage, the customer now pays Rs. 20.25. What would be the percentage change in profit had the

price been increased by the same percentage twice successively instead of reducing it?

- (a) 3600% (b) 3200%  
(c) 2800% (d) 4000%

**150.** By mixing two brands of tea and selling the mixture at the rate of Rs. 177 per kg, a shopkeeper makes a profit of 18%. If to every 2 kg of one brand costing Rs. 200 per kg, 3 kg of the other brand is added, then how much per kg does the other brand cost?

- (a) Rs. 110 (b) Rs. 120  
(c) Rs. 140 (d) None of these

**151.** Jonny has two cycles and one rickshaw. The rickshaw is worth Rs. 96. If he sells the rickshaw along with the first cycle, he has an amount double that of the value of the second cycle. But if he decides to sell the rickshaw along with the second cycle, the amount received would be less than the value of first cycle by Rs. 306. What is the value of first cycle?

- (a) Rs. 900 (b) Rs. 600  
(c) Rs. 498 (d) None of these

**152.** A dishonest dealer professes to sell his goods at cost price. But he uses a false weight and thus gains  $6\frac{18}{47}\%$  For a kg, he uses a weight of:

- (a) 940 gms (b) 947 gms  
(c) 953 gms (d) 960 gms

**153.** DSNL charges a fixed rental of Rs. 350 per month. It allows 200 calls free per month. Each call is charged at Rs. 1.4 when the number of calls exceeds 200 per month and it charges Rs. 1.6 when the number of calls exceeds 400 per month and so on. A customer made 150 calls in February and 250 calls in March. By how much per cent is each call cheaper in March than each call in February?

- (a) 28% (b) 25%

- (c) 18.5% (d) None of these

**154.** Tika Chand has a weighing balance in which there is a technical fault. The right pan of his balance measures always 200 g more than its left pan. Tika Chand usually misuses this balance in his business. While purchasing the articles he puts goods in the left pan and weight in the right pan while selling he reverses the order i.e., goods in the right pan and weight in the left pan. He uses only 2 kg weight for the measurement and to measure 2n kg weight he measures n times by 2-2 kg but he sells goods at cost price. What is his profit percentage?

- (a) 20% (b)  $22\frac{2}{9}\%$   
(c)  $18\frac{2}{11}\%$  (d) None of these

**155.** Rotomac produces very fine quality of writing pens. Company knows that on an average 10% of the produced pens are always defective so are rejected before packing. Company promises to deliver 7200 pens to its wholesaler at Rs. 10 each. It estimates the overall profit on all the manufactured pens to be 25%. What is the manufacturing cost of each pen?

- (a) Rs. 6 (b) Rs. 7.2  
(c) Rs. 5.6 (d) Rs. 8

**156.** A dishonest dealer purchases goods at 20% discount of the cost price of Rs. x and also cheats his wholesaler by getting his goods by 80% of x, but he gives a discount of 25% besides he cheats his customer by weighing 10% less than the required. What is his overall profit percentage?

- (a) 125% (b) 100%  
(c) 98.66% (d) 120%

**157.** An egg seller sells his eggs only in the packs of 3 eggs, 6 eggs, 9 eggs, 12 eggs etc., but the rate is not



Necessarily uniform. One day Raju (which is not the same egg seller) purchased at the rate of 3 eggs for a rupee and the next hour he purchased equal number of eggs at the rate of 6 eggs for a rupee. Next day he sold all the eggs at the rate of 9 eggs for Rs. 2. What is his percentage profit or loss?

- (a) 10% loss                      (b) 11.11% loss  
(c) 3% loss                        (d) 2.5% profit

**158.** A milkman purchases 10 litres of milk at Rs. 7 per litre And forms a mixture by adding freely available water Which constitutes 16.66% of the mixture. Later on he replaced the mixture by some freely available water and thus the ratio of milk is to water is 2 : 1. He then sold the new mixture at cost price of milk and replaced amount of mixture at twice the cost of milk then what is the profit percentage?

- (a) 68%                              (b) 34%  
(c) 40%                              (d) None of these

**159.** Raghav bought 25 washing machines and microwave Ovens for Rs. 2,05,000. He sold 80% of the washing machines and 12 microwave ovens for a profit of Rs. 40,000. Each washing machine was marked up by 20% over cost and each microwave oven was sold at a profit of Rs. 2,000. The remaining washing machines and 3 microwave ovens could not be sold. What is Raghav's overall profit/loss?

- (a) Rs. 1000 profit  
(b) Rs. 2500 loss  
(c) Rs. 1000 loss  
(d) Cannot be determined

**160.** A man buys apples at a certain price per dozen and sellsthem at eight times that price per hundred. His gain orloss per cent is \_\_\_\_\_.

- (a) 4%                                (b) - 4%  
(c) 5%                                (d) - 5%

**161.** A person bought two clocks. The cost price of one of Them exceeds the cost price of the other by  $\frac{1}{4}$ th. He sold the dearer one at a gain of 10% and the other at a gain of 7.5% and thus got Rs. 98 in all as S.P. Find the cost price of the cheaper one.

- (a) Rs. 40                              (b) Rs. 50  
(c) Rs. 30                              (d) Rs. 60

**162.** A trader buys a certain amount of goods worth Rs. 22520. He decides to make a profit of 5.36% on the sale of goods worth Rs. 5000 ad increase the profit percent by 3.14% for sales upto Rs. 15000 and then increase the profit percent for the sale of remaining lot such that he is able to make a profit of 25% on the sale of the full lot. Find the profit that he makes on the third lot of goods.

- (a) Rs. 5620                              (b) Rs. 4512  
(c) Rs. 3212                              (d) None of these

**163.** A person sells his table at a profit of  $12\frac{1}{2}$  % and the otherhand if he sells the table at a loss of  $8\frac{1}{3}$  % but on the whole he gains Rs. 25. On the other hand if he sells the table at a loss of  $8\frac{1}{3}$  % and the chair at a profit of  $12\frac{1}{2}$  % then he neither gains nor loses. Find the cost price of the table.

- (a) Rs. 120                              (b) Rs. 360  
(c) Rs. 240                              (d) Rs. 230

**164.** A man sells an article at 5% profit. If he had bought it at 5% less and sold it for Rs. 1 less, he would have gained 10%. The cost price of the article is :

- (a) Rs. 200                              (b) Rs. 150  
(c) Rs. 240                              (d) Rs. 280

**165.** There are fifty successive percentage discounts given ina series of 2%, 4%, 6%, 8%...and so on. What is the netdiscount?

- (a) 98%                                (b) 2550%  
(c) 100%                                (d) Infinite

- 166.** A dishonest dealer marks up the price of his goods by 20% and gives a discount of 10% to the customer. He also uses a 900 gram weight instead of a 1 kilogram weight. Find his percentage profit due to these Maneuvers.
- (a) 8% (b) 12%  
(c) 20% (d) 16%
- 167.** Three varieties of rice with Cost Price (in Rs./kg) 28, 36 and 45 are mixed in the ratio  $a : b : c$  respectively. It is known that  $a$ ,  $b$  and  $c$  are in Geometric Progression where  $a < b < c$ . The Cost Price (in Rs./kg) of the mixture becomes 40. What would have been the Cost Price (in Rs./kg) of the mixture had the three varieties been mixed in the ratio  $c : a : b$ ?
- (a) 24 (b) 28  
(c) 34 (d) 38
- 168.** The cost price of four articles A, B, C and D are 'a', 'b', 'c' and 'd' respectively. A, B, C and D are sold at profit of 10%, 20%, 30% and 40% respectively. If the net profit on the sale of these four articles is 25%, 'a', 'b', 'c' and 'd' cannot be in the ratio
- (a) 4 : 1 : 4 : 3 (b) 1 : 2 : 2 : 1  
(c) 2 : 3 : 6 : 1 (d) 5 : 2 : 7 : 3
- 169.** Kadbury offers a packet of 5 chocolates at the list price of 4 chocolates and on purchasing 19 such packets gives one packet absolutely free. A trader receives 20 packets of the chocolates in the offer and sells each chocolate at its list price. What is his net percentage profit?
- (a) 24% (b) 31.58%  
(c) 35% (d) 53.75%
- 170.** A watch dealer sells watches at Rs. 600 per watch. However, he is forced to give two successive discounts of 10% and 5% respectively. However, he recovers the sales tax on the net sale price from the customer at 5% of the net price. What price does a customer have to pay him to buy the watch.
- (a) Rs. 539.75 (b) Rs. 539.65  
(c) Rs. 538.75 (d) Rs. 538.65
- 171.** A merchant makes a profit of 20% by selling an article. What would be the percentage change in the profit percent had he paid 10% less for it and the customer paid 10% more for it?
- (a) 120% (b) 125%  
(c) 133.33% (d) 150%
- 172.** Two thousand people lived in a Village of which 55% were male and the rest were female. The male population earned a profit of 5% and the female population earned 8% on an investment of Rs. 50 each. Find the change in the percentage profit of the village if the ratio of male to female gets reversed the next year, population remaining the same.
- (a) Drop of 0.3  
(b) Increase of 0.3  
(c) Increase of 0.45  
(d) Drop of 0.45
- 173.** Vipul decided to donate 5% of his salary. On the day of donation he changed his mind and donated 1687.50 which was 75% of what he had decided earlier. How much is Vipul's salary?
- (1) 37,500  
(2) 45,000  
(3) 33,750  
(4) Cannot be determined  
(5) None of these
- (Corporation Bank PO  
Exam. 29.07.2006)**
- 174.** Two numbers are less than the third number by 50% and 54% respectively. By how much per cent is the second number less than the first number?
- (1) 13% (2) 10%

- (3) 12%  
 (4) Cannot be determined  
 (5) None of these

**(Bank Of Maharashtra  
 PO Exam. 25.05.2008)**

**175.** In an election between two candidates, one got 52% of total valid votes. 25% of the total votes were invalid. The total number of votes were 8400. How many valid votes did the other person get?

- (1) 3276                      (2) 3196  
 (3) 3024  
 (4) Cannot be determined  
 (5) None of these

**(Bank Of Maharashtra  
 PO Exam. 25.05.2008)**

**176.** One fourth of two-fifth of 30% of a number  $x$  is equal to 15. Find 20% of the same number.

- (1) 100                      (2) 120  
 (3) 105                      (4) 80  
 (5) None of these

**(IBPS RRBs Officer Scale-I  
 CWE, 06.09.2014)**

**177.** Vishakha spent 68,357 on the renovation for her home, 25,675 on buying music system and the remaining 28% of the total amount she had as cash with her. What was the total amount?

- (1) 94,032  
 (2) 36,568  
 (3) 1,30,600  
 (4) Cannot be determined  
 (5) None of these

**(Andhra Bank PO  
 Exam. 14.09.2008)**

**178.** Vaishali spent 31,897 on the air conditioner for her home, 38,789 on buying plasma television and the remaining 23% of the total amount she had as cash with her. What was the total amount?

- (1) 74,625  
 (2) 86,750  
 (3) 91,800  
 (4) Cannot be determined

- (5) None of these

**(Bank Of Baroda Specialist  
 Officer Exam. 05.10.2008)**

**179.** In a class of 35 students and 6 teachers, each student got sweets that are 20% of the total number of students and each teacher got sweets that are 40% of the total number of students. How many sweets were there?

- (1) 245                      (2) 161  
 (3) 406                      (4) 84  
 (5) None of these

**(Oriental Bank of Commerce  
 PO Exam. 21.12.2008 &  
 United India Insurance AO  
 Exam, 26.05.2013)**

**180.** Prithvispent 89,745 on his college fees, 51,291 on Personality Development Classes and the remaining 27% of the total amount he had as cash with him. What was the total amount?

- (1) 1,85,400                      (2) 1,89,600  
 (3) 1,91,800                      (4) 1,93,200  
 (5) None of these

**(Oriental Bank of Commerce  
 PO Exam. 21.12.2008 &  
 United India Insurance AO  
 Exam, 26.05.2013)**

**181.** In a class of 65 students and 4 teachers, each student got sweets that are 20% of the total number of students and each teacher got sweets that are 40% of the total number of students. How many sweets were there?

- (1) 845                      (2) 897  
 (3) 949                      (4) 104  
 (5) None of these

**(Canara Bank PO  
 Exam. 15.03.2009)**

**182.** Bovina spent 44,668 on her air tickets, 56,732 on buying gifts for the family members and the remaining 22% of the total amount she had as cash with her. What was the total amount?

- (1) 28,600                      (2) 1,30,000

- (3) 1,01,400 (4) 33,800  
(5) None of these

**(Canara Bank PO  
Exam. 15.03.2009)**

**183.** Rubina decided to donate 16% of her monthly salary to an NGO. On the day of donation she changed her mind and donated 6,567 which was 75% of what she had decided earlier. How much is Rubina's monthly salary ?

- (1) 8,756 (2) 54,725  
(3) 6,56,700 (4) 45,696  
(5) None of these

**(Canara Bank PO  
Exam. 15.03.2009)**

**184.** A sum of 2,236 is divided among A, B and C such that A receives 25% more than C and C receives 25% less than B. What is A's share in the amount ?

- (1) 460 (2) 890  
(3) 780 (4) 1280  
(5) None of these

**(Indian Overseas Bank  
PO Exam. 05.04.2009)**

**185.** Mr. Giridhar spends 50% of his monthly income on household items and out of the remaining he spends 50% on transport, 25% on entertainment, 10% on sports and remaining amount of 900 is saved. What is Mr. Giridhar's monthly income ?

- (1) 6,000 (2) 12,000  
(3) 9,000  
(4) Cannot be determined  
(5) None of these

**(United Bank of India  
PO Exam. 21.06.2009)**

**186.** Income of A is 150% of the income of B and income of C is 120% of the income of A. If the total income of A, B and C together is 86,000, what is C's income ?

- (1) 30,000 (2) 32,000  
(3) 20,000 (4) 36,000  
(5) None of these

**(Andhra Bank PO  
Exam. 05.07.2009)**

**187.** Population of a country increases every year by 10%. If the population in January 2006 was 15.8 lakhs, what was the population in January 2008?

- (1) 19,11,800 (2) 18,96,000  
(3) 19,11,600 (4) 18,94,000  
(5) None of these

**(PNB Specialist Officer's  
Exam. 16.08.2009)**

**188.** Mr. X spends 20% of his monthly income on household expenditure. Out of the remaining 25% he spends on children's education, 15% on transport, 15% on medicine and 10% on entertainment. He is left with 9,800 after incurring all these expenditures. What is his monthly income?

- (1) 35,000 (2) 28,000  
(3) 65,333 (4) 48,400  
(5) None of these

**(PNB Specialist Officer's  
Exam. 16.08.2009)**

**189.** Aman's expense is 30% more than Vimal's expense and Vimal's expense is 10% less than Raman's expense. If the sum of their expense is 6447, then what would be the Aman's expense ?

- (1) 2,200 (2) 2,457  
(3) 1,890 (4) 2,100  
(5) None of these

**(Corporation Bank PO  
Exam. 22.11.2009)**

**190.** A candidate appearing for an examination has to secure 35% marks to pass. But he secured only 40 marks and failed by 30 marks. What would be the maximum marks of test ?

- (1) 280 (2) 180  
(3) 200 (4) 150  
(5) 210

**(Corporation Bank PO  
Exam. 22.11.2009)**

191. Twenty per cent of Anuj's annual salary is equal to seventy five per cent of Raj's annual salary. Raj's monthly salary is 60% of Ravi's monthly salary. If Ravi's annual salary is 1.44lacs, what is Anuj's monthly salary ?

- (1) 2,70,000  
 (2) 27,000  
 (3) 3,24,000  
 (4) 5,400  
 (5) None of these

**(Bank Of Baroda PO  
 Exam. 30.05.2010)**

192. In a test, minimum passing percentage for girls and boys is 35% and 40% respectively. A boy scored 483 marks and failed by 117 marks. What are the minimum passing marks for girls ?

- (1) 425                      (2) 520  
 (3) 500  
 (4) 625  
 (5) None of these

**(Central Bank Of India PO  
 Exam. 25.07.2010)**

193. Twelve percent of Kaushal's monthly salary is equal to sixteen percent of Nandini's monthly salary. Suresh's monthly salary is half that of Nandini's monthly salary. If Suresh's annual salary is 1.08lacs, what is Kaushal's monthly salary ?

- (1) 20,000                      (2) 18,000  
 (3) 26,000                      (4) 24,000  
 (5) None of these

**(Central Bank Of India PO  
 Exam. 25.07.2010)**

194. In an exam Ritiz scored 52 per cent marks, Sunil scored 64 per cent marks and Ravi scored 74 percent of marks. The maximum marks of the exam are 750. What are the average marks scored by all the three boys together ?

- (1) 475                      (2) 485  
 (3) 450                      (4) 490  
 (5) None of these

**(Syndicate Bank PO  
 Exam. 29.08.2010)**

195. Two candidates fought an election. One of them got 64% of the total votes polled and won with 992 votes. What was the total number of votes polled?

- (1) 1500  
 (2) 1580  
 (3) 1550  
 (4) Cannot be determined  
 (5) None of these

**(PNB Management Trainee  
 Exam. 28.11.2010)**

196. In a test, minimum passing percentage for girls and boys is 30% and 45% respectively. A boy scored 280 marks and failed by 80 marks. How many more marks did a girl require to pass in the test if she scored 108 marks ?

- (1) 132                      (2) 140  
 (3) 160                      (4) 112  
 (5) None of these

**(Bank Of Maharashtra  
 Exam. 19.12.2010 &  
 IBPS Bank PO/MT CWE  
 Exam, 18.09.2011)**

197. Puneet scored 175 marks in a test and failed by 35 marks. If the passing percentage of the test is 35 per cent, what are the maximum marks of the test ?

- (1) 650                      (2) 700  
 (3) 750                      (4) 600  
 (5) None of these

**(Union Bank Of India PO  
 Exam. 09.01.2001)**

198. In a school there are 2000 students out of whom 36 per cent are girls. Each boy's monthly fee is 480 and each girl's monthly fee is 25 per cent less than a boy. What is the total of the monthly fees of girls and boys together ?

- (1) 8,73,400                      (2) 8,67,300  
 (3) 8,76,300                      (4) 8,73,600  
 (5) None of these

**(Union Bank Of India PO  
Exam. 09.01.2001)**

**199.** A sum of 731 is divided among A, B and C, such that 'A' receives 25% more than 'B' and 'B' receives 25% less than 'C'. What is C's share in the amount ?

- (1) 172                      (2) 200  
(3) 262                      (4) 258  
(5) None of these

**(Punjab & Sind Bank PO  
Exam. 23.01.2011)**

**200.** In an examination Raman scored 25 marks less than Rohit. Rohit scored 45 more marks than Sonia. Rohan scored 75 marks which is 10 more than Sonia. Ravi's score is 50 less than maximum marks of the test. What **approximate** percentage of marks did Ravi score in the examination if he gets 34 marks more than Raman ?

- (1) 90 %                      (2) 70 %  
(3) 80 %                      (4) 60 %  
(5) 85 %

**(UCO Bank PO Exam. 30.01.2011)**

**201.** Raman scored 456 marks in an exam and Sita got 54 percent marks in the same exam which is 24 marks less than Raman. If the minimum passing marks in the exam is 34 percent, then how much more marks did Raman score than the minimum passing marks?

- (1)184                      (2)196  
(3)190                      (4)180  
(5)None of these

**(Bank Of Baroda PO  
Exam.13.03.2011)**

**202.** In a school there are 250 students out of whom 12 percent are girls. Each girl's monthly fee is 450 and each boy's monthly fee is 24 percent more than a girl. What is the total monthly fee of girls and boys together?

- (1) 1,36,620                      (2) 1,36,260  
(3) 1,32,660                      (4) 1,32,460  
(5) None of these

**(Indian Overseas Bank PO  
Exam. 22.05.2011)**

**203.** An HR Company employs 4800 people, out of which 45 percent are males and 60 percent of the males are either 25 years or older. How many males are employed in HR Company who are younger than 25 years ?

- (1) 2480                      (2) 2320  
(3) 1278                      (4) 864  
(5) None of these

**(IBPS Bank PO/MT CWE  
Exam. 18.09.2011)**

**204.** A salesman offers a commission of  $x\%$  on the first sale of worth Rs. 3000 and  $y\%$  on the part of sale exceeding it. He gives Rs. 1100 as commission on a sale of Rs. 7000 and Rs. 1660 as commission on a sale of Rs. 11000. Find the value of  $x$  and  $y$  respectively.

- (1)18% and 14%  
(2)18% and 12%  
(3)14% and 16%  
(4)16% and 14%  
(5)None of these

**(SIDBI Bank Officer Exam.  
09.09.2014)**

**205.** Six-eleventh of a number is equal to twenty two percent of second number. Second number is equal to the one-fourth of third number. The value of the third number is 2400, What is the 45% of first number?

- (1) 107.6                      (2) 131.1  
(3) 115.4                      (4) 143.8  
(5) None of these

**(IBPS Bank PO/MT CWE  
Exam. 18.09.2011)**

**206.** In an Entrance Examination Seema scored 56 percent marks, Nitya scored 92 percent marks and Meena scored 634 marks. The maximum marks of the examination are 875. What are the average marks scored by all the three girls together?

- (1) 1939                      (2) 817  
(3) 680                      (4) 643  
(5) None of these

**(IBPS Bank PO/MT CWE  
Exam. 18.09.2011)**

- 207.** Five-ninth of a number is equal to twenty five percent of second number. Second number is equal to one-fourth of third number. The value of third number is 2960. What is 30 percent of first number?
- (1) 88.8                      (2) 99.9  
(3) 66.6  
(4) Cannot be determined  
(5) None of these

**(Indian Overseas Bank PO  
Exam. 22.05.2011)**

- 208.** Dinesh's monthly income is four times Suresh's monthly income. Suresh's monthly income is twenty percent more than Jyoti's monthly income. Jyoti's monthly income is 22,000. What is Dinesh's monthly income ?
- (1) 1,06,500                      (2) 1,05,600  
(3) 1,04,500                      (4) 1,05,400  
(5) None of these

**(Indian Overseas Bank  
PO Exam. 22.05.2011)**

- 209.** Ruby's monthly income is three times Gayatri's monthly income, Gayatri's monthly income is fifteen percent more than Priya's monthly income, Priya's monthly income is 32,000. What is Ruby's **Annual** income ?
- (1) 1,20,300                      (2) 13,24,800  
(3) 38,800                      (4) 54,600  
(5) None of these

**(IBPS Bank PO/MT CWE  
Exam. 18.09.2011)**

- 210.** Pradeep invested 20% more than Mohit. Mohit invested 10% less than Raghu. If the total sum of their investment is 17,880, how much amount did Raghu invest ?
- (1) 6,000                      (2) 8,000  
(3) 7,000                      (4) 5,000  
(5) None of these

**(Corporation Bank PO  
Exam. 16.01.2011)**

- 211.** In an examination, 70% of students passed in English and 65%

passed in Maths. If 27% of students failed in both subjects and 248 students passed in both subjects, how many students did appear in the examination?

- (1) 400                      (2) 375  
(3) 425                      (4) 450  
(5) None of these

**(IDBI Officer Grade  
Exam. 22.08.2014)**

- 212.** Akash scored 73 marks in subject A. He scored 56% marks in subject B and x marks in subject C. Maximum marks in each subject were 150. The overall percentage marks obtained by Akash in all the three subjects together were 54%. How many marks did he score in subject C?
- (1) 84                      (2) 86  
(3) 79                      (4) 73  
(5) None of these

**(IBPS Bank PO/MT  
CWE 17.06.2012)**

- 213.** If the price of rice be increased by 38% then by how much per cent should its consumption be reduced so that expenditure does not increase ?
- (1) 27.5                      (2) 30  
(3) 32                      (4) 36  
(5) None of these

- 214.** The difference between the population of a city two consecutive years ago from today is 5000. If there is 10% increase in population per year from the previous year, what is the present population of the city ?
- (1) 66000                      (2) 66550  
(3) 56660                      (4) 67500  
(5) None of these

**(Bank of Baroda PO  
Exam. 14.08.2014)**

- 215.** In an examination, 30% of total students failed in Hindi, 45% failed in English and 20% failed in both subjects. Find the percentage of those who passed in both the subjects.
- (1) 35.7%                      (2) 35%

(3)40%

(4)45%

(5)44%

**(IBPS Bank PO/MT  
CWE-III 26.10.2013)**

**216.** In order to pass in an examination, a student is required to get 342 marks out of the aggregate marks. Neha got 266 marks and was declared fail by 8 per cent. What is the minimum passing percentage of the examination?

(1)28%

(2) 36%

(3)33%

(4)26%

(5) None of these

**(IBPS RRBs Office Assistant  
CWE 09.09.2012)**

**217.** In a company 'XYZ', the respective ratio between the total number of under-graduate employees and the total number of graduate employees is 13 : 23. The Company has only two branches, one in Mumbai and other in Delhi. If the total number of under-graduate employees in Mumbai branch is 351, which is 30% of the total undergraduate employees in the company, what is the total number of graduate employees in the company ?

(1)2185

(2)1955

(3)2070

(4)2691

(5)None of these

**(BOB Junior Management  
Grade/Scale-I Exam.  
18.04.2015)**

**218.** A vessel contains a mixture of milk and water in the respective ratio of 14 : 3. 25.5 litres of the mixture is taken out from the vessel and 2.5 litres of pure water and 5 litres of pure milk is added to the mixture. If the resultant mixture contains 20% water, what was the initial quantity of mixture in the vessel before the replacement ? (inlitres)

(1) 51

(2)102

(3)68

(4)85

(5)34

**(IBPS RRBs Officer Scale-I & II  
CWE 12.09.2015)**

**219.** Monthly salaries of Pia and Som are in the respective ratio of 5 : 4. Pia, from her monthly salary, gives th to her mother. 15% towards her sister's tuition fees, 18% towards a loan and she shops with the remaining amount which was Rs. 2,100. What is the monthly salary of Som ?

(1)Rs.25,000

(2)Rs.30.000

(3)Rs.15,000

(4)Rs.20,000

(5)Rs.24,000

**(IBPS RRBs Officer Scale-I & II  
CWE 12.09.2015)**

**220.** A gave 40% of his monthly salary to Mr. B. Mr. B spent 20% of this amount on taxi fare. He spent the remaining amount in the respective ratio of 3 : 5 on tuition fees and library membership. If he spent Rs. 1720 for membership, what is A's monthly salary ?

(1)Rs. 8500

(2)Rs. 8600

(3)Rs. 7600

(4)Rs. 7500

(5)None of these

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015  
Ist Sitting)**

**221.** 'A' gave 25% of an amount to 'B'. from the money B got, he spent 30% on a dinner. Out of the remaining amount, the respective ratio between the amount B kept as savings and the amount he spent on buying a book is 5 : 2. If B bought the book for Rs. 460, how much money did A have in the beginning ?

(1)Rs. 12600

(2)Rs. 9200

(3)Rs. 12000

(4)Rs. 9000

(5)Rs. 8000

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015)**

**222.** If the present population of a state is 27500 and after 2 years it increases to 40,931, then what is the rate of increase per year ?

(1)25%

(2)10%

(3)17%

(4)13%



(5)22%

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**223.** In a class of 80 students and 5 teachers, each student got sweets that are 15% of the total number of students and each teacher got sweets, that are 25% of the total number of students. How many sweets were there?

- (1) 1050 (2)1060  
(3)Other than those given as options  
(4) 1040 (5)1030

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**224.** Bhavana decided to donate 12% of her monthly salary to an orphanage. On the day of donation she changed her mind and donated Rs. 2,400 which was 125% of what she had decided earlier. How much is Bhavana's salary?

- (1)Cannot be determined  
(2)Other than those given as options  
(3)Rs. 14,750  
(4)Rs. 18,500  
(5)Rs. 16,000

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**225.** Gaurav spent Rs. 38460 on the renovation of his home, Rs. 24468 on buying home theatre and the remaining 28% of the total amount he had as cash with him. What was the total amount?

- (1)Cannot be determined  
(2)Rs. 76,500  
(3)Other than those given options  
(4)Rs. 92,600  
(5)Rs. 87,400

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**226.** The respective ratio between the monthly salaries of Rene and Som is 5 : 3. Out of her monthly salary Rene gives th as rent, th to her mother, 30% as her education loan and keeps 25% aside for miscellaneous expenditure. Remaining Rs. 5000 she

keeps as savings. What is Som's monthly salary ?

- (1) Rs. 21000 (2) Rs. 24000  
(3) Rs. 27000 (4)Rs. 36000  
(5)Rs. 18000

**(IBPS RRBs Officer Scale-I & II  
CWE 13.09.2015)**

**227.** The respective ratio between total number of students studying in College A and College B is 5 : 8. In College B, out of the total number of students, th are boys, out of which 60% study Commerce and the remaining 800 boys study in other streams. What is the total number of students in College A?

- (1)1500 (2)2500  
(3)1200 (4)4000  
(5)2000

**(IBPS Bank PO/MT CWE-V  
(Pre.) 04.10.2015)**

**228.** In the year 2013, the population of a village A was 30% more than the population of village B. The population of village A in 2014 increased by 20% as compared to the previous year. If the population of village A in 2014 was 7176, what was the population of village B in 2013 ?

- (1) 4000 (2) 5000  
(3)4800 (4)4600  
(5)5200

**(IBPS Specialist Officer (IT)  
CWE 14.02.2016)**

**229.** Tom gave 20% of a certain amount of money to Ali. From the money Ali received, he spent 25% on school fees and 35% on buying school uniform. After the mentioned expenses, Ali had Rs. 2800 remaining with him. How much money did Tom have intially ?

- (1)Rs. 21,000  
(2)Rs. 35,000  
(3)Rs. 30,000  
(4)Rs. 27,000  
(5)Rs. 28,000

**(IBPS Specialist Officer (IT)  
CWE 14.02.2016)**

**230.** In a competitive examination in State 'A', 6% candidates got selected from the total appeared candidates. State 'B' had an equal number of candidates appeared and 7% candidates got selected with 80 more candidates got selected than state 'A'. What was the number of candidates appeared from each state?

- (1) 8000 (2) 8400  
(3) 7600 (4) Data inadequate  
(5) None of these

**(SBI Associate Banks PO Exam. 16.07.2000)**

**231.** Sumitra has an average of 56% on her first 7 examinations. How much she should make on her eighth examination to obtain an average of 60% on 8 examinations?

- (1) 88% (2) 78%  
(3) 98% (4) Cannot be determined  
(5) None of these

**(SBI Banks PO Exam. 20.08.2000)**

**232.** In a recent survey 40% houses contained two or more people. Of those houses containing only one person 25% were having only a male. What is the percentage of all houses, which contain exactly one female and no males?

- (1) 75% (2) 40%  
(3) 15% (4) Cannot be determined  
(5) None of these

**(SBI Banks PO Exam. 20.08.2000)**

**233.** The strength of a school increases and decreases every alternate year. It starts with increase by 10% and thereafter the percentage of increase/decrease is the same. Which of the following is **definitely true** about the strength of the school in 2000 as compared to that in 1996 ?

- (1) Increase approximately by 2%  
(2) Decrease approximately by 2%  
(3) Increase approximately by 20%  
(4) Decrease approximately by 20%  
(5) None of these

**(SBI Banks PO Exam. 11.02.2001)**

**234.** 405 sweets were distributed equally among children in such a way that the number of sweets received by each child is 20% of the total no. of children. How many sweets did each child receive ?

- (1) 15 (2) 45  
(3) 9 (4) 18  
(5) None of these

**(SBI Associate Banks PO Exam. 21.07.2002 &**

**LIC Assistant Administration Officer (AAO) Exam, 2006)**

**235.** The salary of an employee increases consistently by 50% every year. If his salary today is 10,000, what will be the salary after another 4 years ?

- (1) 62,500 (2) 26,500  
(3) 50,625 (4) 33,750  
(5) None of these

**(SBI PO Exam. 09.01.2005)**

**236.** Mr. Yadav spends 80% of his monthly salary on consumable items and 50% of the remaining on clothes and transport. He saves the remaining amount. If his savings at the end of the year are 5370, how much amount per month he would have spent on clothes and transport?

- (1) 4,037 (2) 8,076  
(3) 9,691.20 (4) 4,845.60  
(5) None of these

**(SBI PO Exam. 26.11.2006)**

**237.** Mr. Shamin's salary increases every year by 10% in June. If there is no other increase or reduction in the salary and his salary in June 2011 was 22,385, what was his salary in June 2009 ?

- (1) 18,650 (2) 18,000  
(3) 19,250 (4) 18,500  
(5) None of these

**(SBI Associate Banks PO Exam. 07.08.2011)**

**238.** Mr. Sarang invests 6% of his monthly salary i.e. 2,100 on insurance policies. Also he invests 8% of his monthly salary on family mediclaim policies and another 9% of

his salary on NSCs. What is the total annual amount invested by Mr. Sarang ?

- (1) 11,400                      (2) 96,600  
 (3) 8,050                        (4) 9,500  
 (5) None of these

**(SBI PO Preliminary (Tier-I)  
Exam. 27.04.2008)**

**239.** An article was bought for Rs. 12850 and its price was marked at 30% above the cost price. It was sold at a discount of 10% on the marked price. What was the profit per cent on the cost price ?

- (1) 16%                            (2) 17%  
 (3) 15%                            (4) 18%  
 (5) None of these

**(SBI Specialist (IT)  
Officer Exam. 19.04.2014)**

**240.** Ms. PoojaPushpan invests 13% of her monthly salary, i.e. 8554 in Mediclaim Policies. Later she invests 23% of her monthly salary on Child Education Policies. Also she invests another 8% of her monthly salary on Mutual Funds. What is the total annual amount invested by Ms. PoojaPushpan ?

- (1) 28952                        (2) 43428  
 (3) 347424                      (4) 173712  
 (5) None of these

**(SBI PO Preliminary (Tier-I)  
Exam. 27.07.2008)**

**241.** In a class of 240 students, each student got sweets that are 15% of the total number of students. How many sweets were there ?

- (1) 3000                        (2) 3125  
 (3) 8640  
 (4) Cannot be determined  
 (5) None of these

**(SBI PO Preliminary (Tier-I)  
Exam. 27.07.2008)**

**242.** Sonika spent 45,760 on the interior decoration for her home, 27896 on buying air conditioner and the remaining 28% of the total amount she had as cash with her. What was the total amount ?

- (1) 98540                        (2) 102300  
 (3) 134560  
 (4) Cannot be determined  
 (5) None of these

**(SBI PO Preliminary (Tier-I)  
Exam. 27.07.2008)**

**243.** Product of one-third of a number and 150% of another number is what percent of the product of original number ?

- (1) 80%                            (2) 50%  
 (3) 75%                            (4) 120%  
 (5) None of these

**(SBI Associate Banks PO  
Exam. 07.08.2011)**

**244.** In a vessel there is 40 litres mixture of milk and water. There is 15% water in the mixture. The milkman sells 10 litres of mixture to a customer and thereafter adds 12.5 litres of water to the remaining mixture. What is the respective ratio of milk and water in the new mixture ?

- (1) 2 : 3                            (2) 3 : 2  
 (3) 3 : 4                            (4) 4 : 3  
 (5) None of these

**(SBI PO Phase-I (Preliminary)  
Online Exam. 20.06.2015)**

**245.** In a 140 litres of mixture of milk and water, percentage of water is only 30%. The milkman gave 20 litres of this mixture to a customer. Then he added equal quantities of pure milk and water to the remaining mixture. As a result the respective ratio of milk and water in the mixture became 2 : 1. What was the quantity of milk added ? (in litres)

- (1) 12                                (2) 16  
 (3) 18                                (4) 8  
 (5) 10

**(SBI PO Phase-I (Preliminary)  
Online Exam. 21.06.2015)**

**246.** In a 90 litres mixture of milk and water, percentage of water is only 30%. The milkman gave 18 litres of this mixture to a customer and then added 18 litres of water to the

remaining mixture. What is the percentage of milk in the final mixture ?

- (1)64 (2)48  
(3)52 (4)68  
(5) 56

**(SBI PO Phase-I (Preliminary)  
Online Exam. 27.06.2015)**

**247.** Abhay gave 30% of his money to Vijay. Vijay gave rd of what he received to his mother. Vijay's mother gave th of the money she received from Vijay, to the grocer. Vijay's mother is now left with Rs. 600. How much money did Abhay have initially ?

- (1)Rs. 6,200 (2)Rs. 8,000  
(3)Rs. 6,000 (4)Rs. 8,200  
(5)Rs. 10,200

**(SBI PO Phase-I (Preliminary)  
Online Exam. 27.06.2015)**

**248.** Ms. Sujata invests 7% i.e. 2170 of her monthly salary in mutual funds. Later she invests 18% of her monthly salary in recurring deposits. Also, she invests 6% of her salary on NSC's. What is the total annual amount invested by Ms. Sujata ?

- (1) 1,25,320 (2) 1,13,520  
(3) 1,35,120 (4) 1,15,320  
(5) None of these

**(RBI Grade-B Officer  
Exam. 2007)**

**249.** Sujata scored 2240 marks in an examination that is 128 marks more than the minimum passing percentage of 64%. What is the percentage of marks obtained by Meena if she scores 907 marks less than Sujata?

- (1)35% (2)40%  
(3)45% (4)36%  
(5)48%

**(RBI Officer Grade 'B'  
Online Exam. 25.08.2013)**

**250.** From a vessel containing 'X' litres of milk, 20% of milk was taken out and replaced with equal amount of

water. Again, 20% of the mixture of milk and water was taken out and replaced with equal amount of water. This process was continued similarly for the third time and the quantity of milk left in the vessel after the third replacement was 71.68 litres. What was the initial quantity of milk (in litres) in the vessel (value of x) ?

- (1) 120 (2)125  
(3)160 (4)150  
(5)140

**(NABARD Officer Grade 'A'  
Online Exam. 03.08.2014)**

**251.** In a village, 70% registered voters cast their votes in the election. Only two candidates (A and B) contested the election. A won the election by 400 votes. Had A received 12.5% less votes, the result would have been tie. How many registered voters are there in the village?

- (1)4200 (2) 4500  
(3)4000 (4)4250  
(5) 3500

**(RBI Officer Grade 'B' Phase-I  
Exam. 21.11.2015)**

**252.** In a village 60% votes were cast in an election. A and B were the contestants. A won by 600 votes. If B had got 40% more votes, there would have been a tie between them. Find the number of recognised voters in the village.

- (1)4500 (2)2800  
(3)3500 (4)3600  
(5)3900

**(RBI Officer Grade 'B' Phase-I  
Online Exam. 22.11.2015)**

**253.** The number of Gypsy-cars sold in 1998 was 16,500 and that sold in 1997 was 16,580. How much was the percentage decrease in the sales of the Gypsy-cars from 1997 to 1998?

- (1) More than 1 per cent  
(2) less than 1 per cent  
(3) Zero per cent  
(4) Cannot be determined

(United India Insurance Co.  
AAO Exam. 21.04.2002)

254. In an examination the percentage of students qualified to the number of students appeared from school 'A' is 70%. In school 'B' the number of students appeared is 20% more than the students appeared from school 'A' and the number of students qualified from school 'B' is 50% more than the students qualified from school 'A'. What is the percentage of students qualified to the number of students appeared from school 'B'?

- (1) 30% (2) 70%  
(3) 87.5% (4) 78.5%  
(5) None of these

(LIC Assistant Administrative  
Officer (AAO) Exam. 24.04.2005)

255. Fresh grapes contain 80% water while dry grapes contain 10% water. If the weight of dry grapes is 250 kg, what was its total weight when it was fresh?

- (1) 1000 kg (2) 1100 kg  
(3) 1125 kg (4) 1225 kg

(NICL (GIC) AO (Finance)  
Exam. 15.12.2013)

256. A money lender finds that due to fall in the rate of interest from 8% to %, his yearly income diminishes by 61.50. His capital (in Rupees) is :

- (1) 26000 (2) 24600  
(3) 23800 (4) 22400

(LIC Assistant Administrative  
Officer (AAO) Exam. 07.06.2009)

257.  $p$  is six times as large as  $q$ . The per cent that  $q$  is less than  $p$  is

- (1)% (2)%  
(3) 90% (4) 60%

(LIC Assistant Administrative  
Officer (AAO) Exam. 07.06.2009)

258. A papaya tree was planted 2 years ago. It increases at the rate of 20% every year. If at present, the height of the tree is 540 cm, what was it when the tree was planted?

- (1) 324 cm (2) 400 cm  
(3) 375 cm (4) 432 cm

(NICL (GIC) Administrative  
Officer Exam. 15.12.2013)

259. Sunil scored 54 percent marks in a test. Ravi scored 450 marks in same test which is 300 less than Sonu. Sunil's score is 60 more marks than Sonu. If Ram scored 900 marks in the test. What is Ram's percentage ?

- (1) 80% (2) 65%  
(3) 75% (4) 60%  
(5) None of these

(United India Insurance AO  
Exam. 27.03.2011)

260. In a school there are 800 students out of whom 45 percent are girls. Monthly fee of each boy is 600 and monthly fee of each girl is 30 percent less than each boy. What is the total monthly fee of girls and boys together ?

- (1) 4,25,400 (2) 4,14,600  
(3) 4,19,600 (4) 4,23,400  
(5) None of these

(United India Insurance AO  
Exam. 27.03.2011)

261. ( $x$  % of  $y$  +  $y$  % of  $x$ ) is :

- (1)  $x$  % of  $y$  (2)  $y$  % of  $x$   
(3) 2% of  $xy$  (4)  $xy$  % of 3

(General Insurance Corporation  
AAO Exam. 11.12.2011)

262. In a market research project, 20% opted for Nirma detergent whereas 60% opted for Surf Blue detergent. The rest were unsure. If the difference between those who opted for Surf Blue and those who were uncertain is 720, How many respondents were covered in the survey ?

- (1) 1800 (2) 1440  
(3) 3600  
(4) Data Inadequate

(General Insurance Corporation  
AAO Exam. 11.12.2011)

263. Fresh cherries contain 99% water. Suppose you have 1 kg of fresh cherries. After a few hours in the

sun, some water evaporates and the percentage of water in the cherries becomes 98%. The new weight (in g) of cherries is

- (1)750 (2)700  
(3)600 (4)500

**(Oriental Insurance Company  
AAO Exam. 08.04.2012)**

**264.**  $p$  and  $q$  are inversely proportional to each other and are positive. If  $p$  increases by 100%, then  $q$  increases by

- (1)50% (2) 100%  
(3)150% (4)200%

**(United India Insurance AAO  
Exam. 03.06.2012)**

**265.** An interview panel found that a candidate has given a wrong detail about his height. While filling up his form he filled up 20% more than his actual height. His actual height is 5 feet 2 inches. By what approximate percent should he reduce his height to get actual height?

- (1)15% (2)14%  
(3)18% (4)17%  
(5)None of these

**(LIC Assistant Administrative Officer  
(AAO) Exam. 12.05.2013)**

**266.** If 30% of  $(x - y) = 20%$  of  $(x + y)$ , then what percent of  $x$  is  $y$ ?

- (1)25% (2)20%  
(3)30% (4) 24%

**(NICL (GIC) AO (Finance)  
Exam. 08.09.2013 (Paper-I)**

**267.** If 90% of  $A = 30%$  of  $B$  and  $B = x\%$  of  $A$ , then the value of  $x$  is

- (1)800 (2)300  
(3)700 (4)400

**(NICL (GIC) AO (Finance)  
Exam. 08.09.2013 (Paper-I)**

**268.** Anurag's annual income is Rs. 6,36,000. He spends 22% of his monthly income on paying bills, 18% on household items, 12% on paying his children's fees and 4% he donates to a charity. If two-fifth of the remaining amount he invests in

mutual funds, what is the amount left with him every month?

- (1)Rs. 17,850 (2)Rs. 12,162  
(3)Rs. 9,328 (4)Rs. 13,992  
(5)Rs. 14,650

**(NIACL Administrative Officer  
(AO) Exam. 10.01.2015)**

**269.** In an election only two candidates contested. 30% of the registered votes did not cast their votes and 180 votes were declared invalid. The winner got 684 votes more than his opponent. The number of valid votes received by the winner is 42% of the number of registered voters. How many registered voters cast their votes?

- (1)2660 (2)2260  
(3)2160 (4)2800  
(5)2520

**(OICL Specialist Officer (Finance)  
Exam. 03.05.2015)**

**270.** In a 120 litre mixture of milk and water, water is only 25%. The milkman sold 20 litres of this mixture and then he added 16.2 litres of pure milk and 3.8 litres of pure water in the remaining mixture. What is the percentage of water in the final mixture?

- (1)22 (2)21  
(3)24 (4)25  
(5)20

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 22.03.2015)**

**271.** In a 120 litre mixture of milk and water, water is only 25%. The milkman sold 20 litres of this mixture and then he added 16.2 litres of pure milk and 3.8 litres of pure water in the remaining mixture. What is the percentage of water in the final mixture?

- (1)22 (2)21  
(3)24 (4)25  
(5)20

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 22.03.2015)**

**9. SIMPLE AND COMPOUND INTEREST**

1. To buy furniture for a new apartment, Sylvia Chang Borrowed Rs.5000 at 11% per annum simple interest for 11 months. How much interest will she pay?  
(a) 500 (b) 504.17  
(c) 6050 (d) 605
2. Find the compound interest on Rs. 18,750 in 2 years the Rate of interest being 4% for the first year and 8% for the Second year.  
(a) 2310 (b) 1130  
(c) 3120 (d) None of these
3. At a simple interest Rs. 800 becomes Rs. 956 in three years. If the interest rate, is increased by 3%, how much would Rs. 800 become in three years?  
(a) Rs. 1020.80 (b) Rs. 1004  
(c) Rs. 1028 (d) Data inadequate
4. On retirement, a person gets 1.53 lakhs of his provident fund which he invests in a scheme at 20% p.a. His monthly income from this scheme will be  
(a) Rs. 2, 450 (b) Rs. 2,500  
(c) Rs. 2, 550 (d) Rs. 2,600
5. In how many minimum number of complete years, the interest on Rs. 212.50 P at 3% per annum will be in exact number of rupees?  
(a) 6 (b) 8  
(c) 9 (d) 7
6. A scooter costs Rs. 25, 000 when it is brand new. At the end of each year, its value is only 80% of what it was at the beginning of the year. What is the value of the scooter at the end of 3 years?  
(a) Rs. 10,000 (b) Rs. 12,500  
(c) Rs. 12,800 (d) Rs. 12,000
7. Village A has a population of 6800, which is decreasing at the rate of 120 per year. Village B has a population of 4200, which is increasing at the rate of 80 per year. In how many years will the population of the two villages will become equal ?  
(a) 9 (b) 11  
(c) 13 (d) 16
8. A person invested some amount at the rate of 12% simple interest and a certain amount at the rate of 10% simple interest. He received yearly interest of Rs. 130. But if he had interchanged the amounts invested, he would have received Rs. 4 more as interest. How much did he invest at 12% simple interest ?  
(a) Rs. 700 (b) Rs. 500  
(c) Rs. 800 (d) Rs. 400
9. A certain amount is lent at  $x\%$  p.a. simple interest for two years. Instead, if the amount was lent at  $2x\%$  p.a. simple interest for ' $y$ ' more years, then the interest would have been five times the earlier interest. What is the value of  $y$ ?  
(a) 2 years (b) 3 years  
(c) 4 years (d) 5 years
10. A certain sum of money triple itself in 8 years. In how Many years it will be five times?  
(a) 22 years (b) 16 years  
(c) 20 years (d) 24 years
11. The difference between CI and SI on a certain sum of Money at 10% per annum for 3 years is Rs. 620. Find the principal if it is known that the interest is compounded annually.  
(a) Rs. 200, 000 (b) Rs. 20,000  
(c) Rs. 10,000 (d) Rs. 100, 000

12. Michael Bolton has \$90,000 with him. He purchases a car, a laptop and a flat for \$15,000, \$13,000 and \$35,000 respectively and puts the remaining money in a bank deposit that pays compound interest @15% per annum. After 2 years, he sells off the three items at 80% of their original price and also withdraws his entire money from the bank by closing the account. What is the total change in his asset?  
(a) - 4.5% (b) + 3.5%  
(c) - 4.32% (d) + 5.5%
13. An amount of Rs. 12820 due 3 years hence, is fully repaid in three annual instalments starting after 1 year. The first instalment is  $\frac{1}{2}$  the second instalment and the second instalment is  $\frac{2}{3}$  of the third instalment. If the rate of interest is 10% per annum, find the first instalment.  
(a) Rs. 2400 (b) Rs. 1800  
(c) Rs. 2000 (d) Rs. 2500
14. What will be the ratio of simple interest earned by a certain amount at the same rate of interest for 6 years and that for 9 years?  
(a) 1 : 3 (b) 1 : 4  
(c) 2 : 3 (d) None of these
15. A man borrows Rs. 6000 at 5% interest, on reducing balance, at the start of the year. If he repays Rs. 1200 at the end of each year, find the amount of loan outstanding, (in Rs.), at the beginning of the third year.  
(a) 3162.75 (b) 4155.00  
(c) 4155.00 (d) 5100.00
16. Two equal sums were lent, one at the rate of 11% p.a. for five years and the other at the rate of 8% p.a. for six years, both under simple interest. If the difference in interest accrued in the two cases is Rs. 1008, find the sum.  
(a) Rs. 11,200 (b) Rs. 5,600  
(c) Rs. 12,600 (d) Rs. 14,400
17. A sum is invested at compound interest payable annually. The interest in two successive years was Rs. 225 and Rs. 236.25. Find the rate of interest  
(a) 2% (b) 3%  
(c) 5% (d) 9%
18. A person borrowed Rs. 500 at 3% per annum S.I. and Rs. 600 at  $4\frac{1}{2}$ % per annum on the agreement that the whole sum, will be returned only when the total interest becomes Rs. 126. The number of years, after which the borrowed sum is to be returned, is :  
(a) 2 (b) 3  
(c) 4 (d) 5
19. A bank offers 5% compound interest calculated on a half-yearly basis. A customer deposits Rs. 1600 each on 1<sup>st</sup> January and 1<sup>st</sup> July of a year. At the end of the year, the amount he would have gained by way of interest is  
(a) Rs. 120 (b) Rs. 121  
(c) Rs. 122 (d) Rs. 123
20. A sum of money invested at simple interest triples itself in 8 years. How many times will it become in 20 years?  
(a) 8 times (b) 7 times  
(c) 6 times (d) 9 times
21. The population of a city is 200,000. If the annual birth rate and the annual death rate are 6% and 3% respectively, then calculate the population of the city after 2 years.  
(a) 212,090 (b) 206,090  
(c) 212,000 (d) 212,180
22. The population of Bangalore was 1283575 on 1 January 2001 and the growth rate of population was 10% in the last year and 5% in the years



prior to it, the only exception being 1999 when because of a huge exodus there was a decline of 20% in population. What was the population of January 1, 1995 ?

- (a) 1,000,000                      (b) 1,200,000  
(c) 1,250,000                      (d) 1,500,000

**23.** A person bought a motorbike under the following scheme: Down payment of Rs. 15,000 and the rest amount at 8% per annum for 2 years. In this way, he paid Rs. 28,920 in total. Find the actual price of the motorbike. (Assume simple interest).

- (a) Rs. 26,000                      (b) Rs. 27,000  
(c) Rs. 27,200                      (d) Rs. 26,500

**24.** The ratio of the amount for two years under C.I. Annually and for one year under S.I. is 6 : 5. When the rate of interest is same, then the value of rate of interest is

- (a) 12.5%                              (b) 18%  
(c) 20%                                (d) 16.66%

**25.** Mr. Bajaj invested  $\frac{1}{7}$  of his total investment at 4% and  $\frac{1}{2}$  at 5% and rest at 6% for the one year and received total interest of Rs. 730. What is the total sum invested?

- (a) Rs. 70000                      (b) Rs. 14000  
(c) Rs. 24000                      (d) Rs. 38000

**26.** Akram Ali left an amount of Rs. 340000 to be divided between his two sons aged 10 years and 12 years such that both of them would get an equal amount when each attain 18 years age. What is the share of elder brother if the whole amount was invested at 10% simple interest ?

- (a) 120000                              (b) 140000  
(c) 160000                              (d) 180000

**27.** A Sonata watch is sold for Rs. 440 cash or for Rs. 200 Cash down payment together with Rs. 244 to be paid after one month. Find the rate

of interest charged in the instalment scheme

- (a) 10%                                      (b) 15%  
(c) 20%                                      (d) 25%

**28.** The compound interest on a certain sum for 2 years at 10% per annum is Rs. 1260. The simple interest on the same sum for double the time at half the rate per cent per annum is

- (a) Rs. 1200                              (b) Rs. 1160  
(c) Rs. 1208                              (d) Rs. 1175

**29.** Manish borrowed a sum of Rs. 1150 from Anil at the Simple rate of 6% per annum for 3 years. He then added some more money to the borrowed sum of lent it to Sunil for the same time at 9% per annum at simple interest. If Manish gains Rs. 274.95 by way of interest on the borrowed sum as well as his own amount from the whole transaction, then what is the sum lent by him to Sunil?

- (a) Rs. 1290                              (b) Rs. 1785  
(c) Rs. 1285                              (d) Rs. 1200

**30.** The simple interest on a sum of money will be Rs. 300 after 5 years. In the next 5 years principal is trebled, what will be the total interest at the end of the 10th year?

- (a) 1200                                      (b) 900  
(c) 600                                        (d) 1500

**31.** A person lent a certain sum of money at 4% simple interest; and in 8 years the interest amounted to Rs. 340 less than the sum lent. Find the sum lent.

- (a) 500                                        (b) 600  
(c) 1000                                      (d) 1500

**32.** A sum was put at simple interest at a certain rate for 2 years. Had it been put at 1% higher rate, it would have fetched Rs. 24 more? The sum is

- (a) 1200                                      (b) 1500  
(c) 1800                                      (d) 2000

- 33.** A sum of money at compound interest amounts in two years to Rs. 2809, and in three years to Rs. 2977.54. Find the rate of interest and the original sum  
 (a) 2000 (b) 2100  
 (c) 2200 (d) 2500
- 34.** Consider the following statements  
 If a sum of money is lent at simple interest, then the  
 I. money gets doubled in 5 years if the rate of interest is  $16\frac{2}{3}\%$ .  
 II. money gets doubled in 5 years if the rate of interest is 20%.  
 III. money becomes four times in 10 years if it gets doubled in 5 years.  
 Of these statements,  
 (a) I and III are correct  
 (b) II alone is correct  
 (c) III alone is correct  
 (d) II and III are correct
- 35.** Simple interest on a certain amount is  $\frac{9}{16}$  of the principal. If the numbers representing the rate of interest in percent and time in years be equal, then time, for which the principal is lent out, is  
 (a)  $5\frac{1}{2}$  years (b)  $6\frac{1}{2}$  years  
 (c) 7 years (d)  $7\frac{1}{2}$  years
- 36.** If the rate increases by 2%, the simple interest received on a sum of money increases by Rs. 108. If the time period is increased by 2 years, the simple interest on the same sum increases by Rs. 180. The sum is :  
 (a) Rs. 1800 (b) Rs. 3600  
 (c) Rs. 5400 (d) Data inadequate
- 37.** A man lends Rs. 10,000 in four parts. If he gets 8% on Rs. 2000;  $7\frac{1}{2}\%$  on Rs. 4000 and  $8\frac{1}{2}\%$  on Rs. 1400; What percent must he get for the remainder, if his Average annual interest is 8.13% ?  
 (a) 7% (b) 9%  
 (c)  $9\frac{1}{4}\%$  (d)  $10\frac{1}{2}\%$
- 38.** A man borrows Rs. 12,500 at 20% compound interest. At the end of every year he pays Rs. 2000 as part repayment. How much does he still owe after three such instalments?  
 (a) Rs. 12,000 (b) Rs. 12,864  
 (c) Rs. 15,600 (d) None of these
- 39.** A part of Rs. 38,800 is lent out at 6% per six months. The rest of the amount is lent out at 5% per annum after One year. The ratio of interest after 3 years from the time When first amount was lent out is 5 : 4. Find the second Part that was lent out at 5%  
 (a) Rs. 26, 600 (b) Rs. 28,800  
 (c) Rs. 27,500 (d) Rs. 28,000
- 40.** The difference between C.I. and S.I. on a certain sum of money at 10% per annum for 3 years is Rs. 620. Find the principal if it is known that the interest is compounded annually.  
 (a) Rs. 200,000 (b) Rs. 20,000  
 (c) Rs. 10,000 (d) Rs. 100,000
- 41.** We had 1000 goats at the beginning of year 2001 and then no. of goats each year increases by 10% by giving birth (compounded annually). At the end of each year, we double the no. of goats by purchasing the same no. of goats as there is the no. of goats with us at the time. What is the no. of goats at the beginning of 2004?  
 (a) 10600 (b) 10648  
 (c) 8848 (d) 8226
- 42.** The population of towns A and B is the ratio of 1 : 4. For the next 2 years, the population of A would increase and that of B would decrease by the same percentage every year. After 2 years, their population became equal. What is the percentage change in the population?  
 (a) 33.33% (b) 66.66%  
 (c) 25% (d) Not possible

- 43.** If the population of a town at the beginning of a year was 1530000, and the birth rate was 53.2, while the death rate was 31.2 per 1000 of the population, then the net increase in the population at the end of the year was  
(a) 336600 (b) 363600  
(c) 366300 (d) 330000
- 44.** Arun borrowed a sum of money from Jayant at the rate of 8% per annum simple interest for the first four years, 10% per annum for the next six years and 12% per annum for the period beyond ten years. If he pays a total of Rs. 12,160 as interest only at the end of 15 years, how much money did he borrow?  
(a) Rs. 8000 (b) Rs. 10,000  
(c) Rs. 12,000 (d) Rs. 9,000
- 45.** What will be the difference in simple and compound interest on Rs. 2000 after three years at the rate of 10 percent per annum?  
(a) Rs. 160 (b) Rs. 42  
(c) Rs. 62 (d) Rs. 20
- 46.** Aniket deposited two parts of a sum of Rs. 25000 in different banks at the rates of 15% per annum and 18% per annum respectively. In one year he got Rs. 4050 as the total interest. What was the amount deposited at the rate of 18% per annum?  
(a) Rs. 9000 (b) Rs. 18000  
(c) Rs. 15000 (d) None of these
- 47.** Mr. X invested an amount for 2 years at 15 percent per annum at simple interest. Had the interest been compounded, he would have earned Rs. 450/- more as interest. What was the amount invested?  
(a) Rs. 22000 (b) Rs. 24000  
(c) Rs. 25000 (d) None of these
- 48.** Mr. Sridharan invested money in two schemes A and B, offering compound interest at 8 percent per annum and 9 percent per annum respectively. If the total amount of interest accrued through the two schemes together in two years was Rs. 4818.30 and the total amount invested was Rs. 27,000, what was the amount invested in Scheme A?  
(a) Rs. 15,000 (b) Rs. 13,500  
(c) Rs. 12,000  
(d) Cannot be determined
- 49.** Parameshwaran invested an amount of Rs. 12,000 at the simple interest rate of 10 percent per annum and another amount at the simple interest rate of 20 percent per annum. The total interest earned at the end of one year on the total amount invested became 14 percent per annum. Find the total amount invested.  
(a) Rs. 22,000 (b) Rs. 25,000  
(c) Rs. 20,000 (d) Rs. 24,000
- 50.** A father left a will of Rs. 68,000 to be divided between his two sons aged 10 years and 12 years such that they may get equal amount when each attains the age of 18 years. If the money is reckoned at 10% p.a., find how much each gets at the time of the will.  
(a) Rs. 30,000, Rs. 38,000  
(b) Rs. 28,000, Rs. 40,000  
(c) Rs. 32,000, Rs. 36,000  
(d) Cannot be determined
- 51.** Two equal sums of money were invested, one at 4% and the other at 4.5%. At the end of 7 years, the simple interest received from the latter exceeded that received from the former by Rs. 31.50. Each sum was  
(a) Rs. 1,200 (b) Rs. 600  
(c) Rs. 750 (d) Rs. 900

- 52.** A sum of Rs. 725 is lent in the beginning of a year at a Certain rate of interest. After 8 months, a sum of Rs. 362.50 more is lent but at the rate twice the former. At the end of the year, Rs. 33.50 is earned as interest from both the loans. What was the original rate of interest?  
(a) 3.6% (b) 4.5%  
(c) 5% (d) 3.46%
- 53.** David invested certain amount in three different schemes A, B and C with the rate of interest 10% p.a., 12% p.a. And 15% p.a. respectively. If the the total interest accrued In one year was Rs. 3200 and the amount invested in Scheme C was 150 % of the amount invested in Scheme A and 240% of the amount invested in Scheme B, what was the amount invested in Scheme B?  
(a) Rs. 5000 (b) Rs. 6500  
(c) Rs. 8000  
(d) cannot be determined
- 54.** Subash purchased a refrigerator on the terms that he is required to pay Rs. 1,500 cash down payment followed by Rs. 1,020 at the end of first year, Rs. 1,003 at the end of second year and Rs. 990 at the end of third year. Interest is charged at the rate of 10% per annum. Calculate the cash price  
(a) Rs. 3,000 (b) Rs. 2,000  
(c) Rs. 4,000 (d) Rs. 5,000
- 55.** A owes B Rs. 1,573, payable  $1\frac{1}{2}$  years hence. Also B owes A Rs. 1,444.50, payable 6 months hence. If they want to settle the account forthwith, keeping 14% as the rate of interest, then who should pay whom and how much ?  
(a) A to B, Rs. 28.50  
(b) B to A, Rs. 37.50  
(c) A to B, Rs. 50  
(d) B to A, Rs. 50
- 56.** Seema invested an amount of Rs. 16,000 for two years On compound interest and received an amount of Rs. 17,640 on maturity. What is the rate of interest ?  
(a) 5% pa (b) 8% pa  
(c) 4% pa  
(d) Data inadequate
- 57.** A finance company declares that, at a certain compound interest rate, a sum of money deposited by anyone will become 8 times in three years. If the same amount is deposited at the same compound rate of interest, then in how many year will it become 16 times ?  
(a) 5 years (b) 4 years  
(c) 6 years (d) 7 years
- 58.** Two friends A and B jointly lent out Rs. 81,600 at 4% Per annum compound interest. After 2 years A gets the Same amount as B gets after 3 years. The investment made by B was  
(a) Rs. 40,000 (b) Rs. 30,000  
(c) Rs. 45,000 (d) Rs. 38,000
- 59.** A money-lender, lends a part of his money at 10% per Annum and the rest at 15% per annum. His annual income is Rs. 1900. However, if he had interchanged the rate of interest on the two sums, he would have earned Rs. 200 more. The amount lent will fetch what 15%?  
(a) Rs. 6000 (b) Rs. 4000  
(c) Rs. 10000 (d) Rs. 4400
- 60.** The simple interest on a sum of money is  $\frac{1}{9}$  th of the principal, and the number of years is equal to the rate percent per annum. Find the rate per cent.  
(a)  $3\frac{1}{3}$  % (b) 3%  
(c) 10% (d) None of these
- 61.** Amin borrowed some money from Vishwas. The rate of interest for first

two years is 8% p.a., for the next three years is 11% p.a. and for the period beyond 5 years 14% p.a. Vishwas got an amount of Rs. 10920 as an interest at the end of eight years. Then what amount was borrowed by Amin?

- (a) Rs. 12000 (b) Rs. 15000  
(c) Rs. 1400 (d) None of these

**62.** Nikhilesh invested certain amount in three different Schemes A, B and C with the rate of interest 10 percent per annum, 12 percent per annum and 15 percent per annum respectively. If the total interest accrued in one year was Rs. 3200 and the amount invested in scheme C was 150% of the amount invested in scheme A and 240% of the amount invested in scheme B, what was the amount invested in scheme B?

- (a) Rs. 8000 (b) Rs. 5000  
(c) Rs. 6500  
(d) Cannot be determined

**63.** If there are three sums of money  $P$ ,  $Q$  and  $R$  so that  $P$  is the simple interest of  $Q$  and  $Q$  is the simple interest of  $R$ , rate % and time are same in each case, then the relation of  $P$ ,  $Q$  and  $R$  is given by

- (a)  $P^2 = QR$  (b)  $Q^2 = PR$   
(c)  $R^2 = PQ$  (d)  $PQR = 100$

**64.** The difference between the simple interest received from two different sources on Rs. 1500 for 3 years is Rs. 13.50. The difference between their rates of interest is:

- (a) 0.1% (b) 0.2%  
(c) 0.3% (d) 0.4%

**65.** A person invested in all Rs. 2600 at 4%, 6% and 8% per Annum simple interest. At the end of the year, he got the same interest in all the three cases. The money invested at 4% is:

- (a) Rs. 200 (b) Rs. 600  
(c) Rs. 800 (d) Rs. 1200

**66.** A sum of money is accumulating at compound interest at a certain rate of interest. If simple interest instead of compound were reckoned, the interest for the first two years would be diminished by Rs. 20 and that for the first three years, by Rs. 61. Find the sum.

- (a) Rs. 7,000 (b) Rs. 8,000  
(c) Rs. 7,500 (d) Rs. 6,500

**67.** A man borrows Rs. 6000 at 10% compound rate of interest. He pays back Rs. 2000 at the end of each year to clear his debt. The amount that he should pay to clear all his dues at the end of third year is

- (a) Rs. 6000 (b) Rs. 3366  
(c) Rs. 3060 (d) Rs. 3066

**68.** Arun invested a sum of money at a certain rate of simple interest for a period of 4 yrs, the total interest earned by him would have been 50% more than the earlier interest amount. What was the rate of interest per cent per annum?

- (a) 4 (b) 8  
(c) 5  
(d) Cannot be determined

**69.** Mr. Duggal invested Rs. 20000 with rate of interest @ 20% per annum. The interest was compounded half-yearly for the first year and in the next year it was compounded yearly. What will be the total interest earned at the end of 2 years?

- (a) Rs. 8800 (b) Rs. 9040  
(c) Rs. 8040 (d) Rs. 9800

**70.** The compound interest accrued on an amount of Rs. 25500 at the end of 3 years is Rs. 8440.50. What would be the simple interest accrued on the same amount at the same rate in the same period?

- (a) Rs. 4650 (b) Rs. 5650  
(c) Rs. 6650 (d) Rs. 7650

- 71.** A certain sum of money amounts to Rs. 756 in 2 years And to Rs. 873 in 3.5 years. Find the sum and the rate of interest.  
(a) 11% (b) 13%  
(c) 15% (d) 19%
- 72.** A sum of Rs. 1000 after 3 years at compound interest becomes a certain amount that is equal to the amount that is the result of a 3 year depreciation from Rs. 1728. Find the difference between the rates of C.I. and depreciation. (Given C.I. is 10% p.a.) (Approximately)  
(a) 3.33% (b) 0.66%  
(c) 3% (d) 2%
- 73.** A property dealer bought a rectangular plot (of land) in Noida 5 years ago at the rate of Rs. 1000 per m<sup>2</sup>. The Cost of plot is increases by 5% in every 6 years and the Worth of a rupee falls down at a rate of 2% in every 5 years. What is the approximate value of the land per meter<sup>2</sup> 25 years hence?  
(a) Rs. 995 (b) Rs. 1134  
(c) Rs. 1500 (d) Rs. 1495
- 74.** Hari Lal and Hari Prasad have equal amounts. Hari Lal invested all his amount at 10% compounded annually for 2 years and Hari Prasad invested  $\frac{1}{4}$  at 10% compound interest (annually) and rest at  $r\%$  per annum at simple interest for the same 2 years period. The amount received by both at the end of 2 years is same. What is the value of  $r$ ?  
(a) 14% (b) 12.5%  
(c) 10.5% (d) 11%
- 75.** A person lent out some money for 1 year at 6% per Annum simple interest and after 18 months, he again lent out the same money at a simple interest of 24% per annum. In both the cases, he got Rs. 4704. Which of these could be the amount that was lent out in each case if interest is paid half-yearly?  
(a) Rs. 4000 (b) Rs. 4400  
(c) Rs. 4200 (d) Rs. 3600
- 76.** Three persons Amar, Akbar and Anthony invested Different amounts in a fixed deposit scheme for one year at the rate of 12% per annum and earned a total interest of Rs. 3,240 at the end of the year. If the amount invested by Akbar is Rs.5000 more than the amount invested by Amar and the invested by Anthony is Rs. 2000 more than the amount invested by Akbar, what is the amount invested by Akbar?  
(a) Rs. 12,000 (b) Rs. 10,000  
(c) Rs. 7000 (d) Rs. 5000
- 77.** According to the 2001 census, the population growth Rate of Lucknow is going to be an increasing. AP with first year's rate as 5% and common difference as 5%, but simultaneously the migration, rate is an increasing GP with first term as 1% and common ratio as 2. If population on 31 December 2000 is 1 million, then find in which year will Lucknow witness its first fall in population?  
(a) 2005 (b) 2006  
(c) 2007 (d) 2008
- 78.** Extending this plan, ISBI further announced that widows Of all the martyrs can get the loans in which the proportion of soft loan will be double. This increase in the proportion of the soft loan component is only applicable for the first year. For all subsequent years, the soft loan component applicable on the loan, follows the values provided in the table. The widow of a soldier takes Rs. 40,000 under scheme 1 in one account for 1 year and Rs. 60,000 under scheme 2 for 2 years. Find the total interest paid by her over the 2 year period.  
(a) Rs. 11,600 (b) Rs. 10,000

(c) Rs. 8800 (d) None of these

**79.** A certain amount earns simple interest of 1,750/- after 7 years. Had the interest been 2% more, how much more interest would it have earned ?

- (1) 35/- (2) 350/-  
 (3) 245/-  
 (4) Cannot be determined  
 (5) None of these

**(Canara Bank PO Exam. 09.02.2003 & SBI Associate Banks PO Exam. 07.01.2007)**

**80.** Vishwas borrowed a total amount of 30,000 part of it on simple interest, rate of 12 p.c.p.a. and remaining on simple interest rate of 10 p.c.p.a. If at the end of 2 years he paid in all 36,480 to settle the loan amount, what was the amount borrowed at 12 p.c.p.a.?

- (1) 16000  
 (2) 18000  
 (3) 17500  
 (4) 12000  
 (5) None of these

**(Indian Overseas Bank PO Exam. 15.06.2008)**

**81.** The simple interest accrued on an amount of 2,500 at the end of six years is 1,875. What would be the simple interest accrued on an amount of 6,875 at the same rate and same period ?

- (1) 4,556.5 (2) 5,025.25  
 (3) 4,895.25 (4) 5,245.5  
 (5) None of these

**(PNB Agriculture Officer Exam. 04.01.2009)**

**82.** What amount a man would have received on a principal of 4,000 after two years at simple interest at the rate of 5 per cent per annum ?

- (1) 4,161 (2) 5,200  
 (3) 4,400 (4) 4,100  
 (5) 4,190

**(Corporation Bank PO Exam. 22.11.2009)**

**83.** Shamita took a loan at simple interest rate of 6 p.c.p.a. in the first year and it increased by 1.5 p.c.p.a. every year. If she pays 8,190 as interest at the end of 3 years, what was her loan amount?

- (1) 36000 (2) 35400  
 (3) 36800  
 (4) Cannot be determined  
 (5) None of these

**(Indian Bank Rural Marketing Officer Exam. 03.01.2010)**

**84.** Arun invested a sum of money at a certain rate of simple interest for a period of four years. Had he invested the same sum for a period of six years the total interest earned by him would have been fifty percent more than the earlier interest amount. What was the rate of interest per cent per annum ?

- (1) 4%  
 (2) 8%  
 (3) 5%  
 (4) Cannot be determined  
 (5) None of these

**(Allahabad Bank PO Exam. 21.02.2010)**

**85.** The simple interest accrued on a sum of certain principal is 1,200 in four years at the rate of 8 p.c.p.a. What would be the simple interest accrued on thrice of that principal at the rate of 6 p.c.p.a. in 3 years ?

- (1) 2,025 (2) 3,025  
 (3) 2,250 (4) 2,150  
 (5) None of these

**(Oriental Bank Of Commerce PO Exam. 26.12.2010 (Ist Sitting))**

**86.** What total amount would Mithilesh get at the end of three years if he invests an amount of 11,200 in a scheme which offers simple interest at the rate of 8.5 p. c. p. a. for three years?

- (1) 14,056 (2) 14,348  
 (3) 13,852 (4) 15,064  
 (5) None of these

**(Indian Bank PO Exam.  
02.01.2011)**

**87.** Ravi borrowed some money at the rate of 4 p.c.p.a. for the first three years, at the rate of 8 p.c.p.a. for the next two years and at the rate of 9 p.c.p.a. for the period beyond 5 years. If he pays a total simple interest of 19,550 at the end of 7 years, how much money did he borrow?

- (1) 39,500 (2) 42,500  
(3) 41,900 (4) 43,000  
(5) None of these

**(Punjab & Sind Bank PO  
Exam. 23.01.2011)**

**88.** A sum of 3200 becomes 3456 in two years at a certain rate of simple interest. What is the rate of interest per annum ?

- (1) 5.5% (2) 6%  
(3) 4% (4) 4.5%  
(5) None of these

**(Indian Overseas Bank PO  
Online Exam. 01.09.2013)**

**89.** A sum of 2200 is invested at two different rate of interest. The difference between the interest got after 4 years is 202.40. What is the difference between the rate of interest ?

- (1) 3.3% (2) 2.3%  
(3) 3.5% (4) 2.5%  
(5) None of these

**(Indian Overseas Bank PO  
Online Exam. 01.09.2013)**

**90.** A sum of 16800 is divided into two parts. One part is lent at the simple interest of 6% per annum and the other at 8% per annum. After 2 years total sum received is 19000. The sum lent at 6% of simple interest is

- (1) 12200 (2) 12000  
(3) 11000 (4) 10000  
(5) None of these

**(IBPS Bank PO/MT  
CWE-III 26.10.2013)**

**91.** What will be the difference between the interest accrued on a sum of 4500 at 12% per annum for 2 years

and that on a sum of 5600 at 9% per annum for 2 years ?

- (1) 75 (2) 72  
(3) 69 (4) 76  
(5) None of these

**(Corporation Bank Specialist  
Officer (Marketing)  
Exam. 22.02.2014)**

**92.** A sum was invested at a certain rate of simple interest for two years. If the sum were invested at 3% more rate of interest, it would have fetched 72 more. What is the sum ?

- (1) 1000 (2) 1200  
(3) 1150 (4) 1250  
(5) None of these

**(IDBI Officer Grade  
Exam. 22.08.2014)**

**93.** The sum invested in scheme B is twice the sum invested in scheme A. Investment in scheme A is made for 3 years at 8% p.a. simple interest and in Scheme B for 2 years at 9% p.a. simple interest. The total interest earned from both the schemes is Rs. 1800. How much was invested in Scheme A ?

- (1) Rs. 4000 (2) Rs. 3500  
(3) Rs. 3000 (4) Rs. 2500  
(5) Rs. 4500

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 04.10.2015)**

**94.** The interest earned when Rs. 'P' is invested for four years in a scheme offering 9% p.a. simple interest is more than the interest earned when the same sum (Rs. P) is invested for two years in another scheme offering 12% p.a. simple interest, by Rs. 360. What is the value of P ?

- (1) 2000 (2) 3500  
(3) 2500 (4) 4000  
(5) 3000

**(IBPS Specialist Officer (IT)  
CWE 14.02.2016)**

**95.** Mr. A lends 40% of sum at 15% p.a. 50% of rest sum at 10% p.a. and the rest at 18% p.a. rate of interest.



What would be the rate of interest if the interest is calculated on the whole sum?

- (1) 13.4% p.a.                      (2) 14.33% p.a.  
 (3) 14.4% p.a.                      (4) 13.33% p.a.  
 (5) None of these

**(SBI Associate Banks PO  
Exam. 16.07.2000)**

**96.** A sum of 5000/- amounts to 6,050/- in two years. What is the rate of interest?

- (1) 15% p.a.                      (2) 13% p.a.  
 (3) 11% p.a.                      (4) 21% p.a.  
 (5) None of these

**(SBI Associate Banks PO  
Exam. 16.07.2000)**

**97.** Srinivasan invests two equal amounts in two banks giving 10% and 12% rate of interest respectively. At the end of year the interest earned is 1650/-. Find the sum invested in each.

- (1) 8,500/-                      (2) 15,000/-  
 (3) 7,500/-                      (4) 17,000/-  
 (5) None of these

**(SBI Associate Banks PO  
Exam. 16.07.2000)**

**98.** 800 becomes 956 in 3 years at certain simple rate of interest. If the rate of interest is increased by 4%, what amount will 800 become in 3 years?

- (1) 1020.8  
 (2) 1025  
 (3) 1052  
 (4) Data inadequate  
 (5) None of these

**(SBI PO Exam. 26.11.2006)**

**99.** Veena obtained an amount of 8,376 as simple interest on a certain amount at 8 p.c.p.a. after 6 years. What is the amount invested by Veena ?

- (1) 17,180                      (2) 18,110  
 (3) 16,660                      (4) 17,450  
 (5) None of these

**SBI PO Preliminary (Tier-I)  
Exam. 27.04.2008**

**100.** Equal amounts are invested in two schemes A and B for 6 years and 8 years respectively. Scheme A offers interest at the rate of 12% per annum and scheme B offers interest at the rate of 8% per annum. The difference between the interests earned is Rs. 1280. What is the amount invested in each scheme ?

- (1) Rs. 16000                      (2) Rs. 16500  
 (3) Rs. 17000                      (4) Rs. 18000  
 (5) None of these

**(SBI PO Phase-I (Preliminary)  
Online Exam. 20.06.2015)**

**101.** Rs. 16,000 was invested for three years, partly in Scheme A at the rate of 5% Simple Interest per annum and partly in scheme B at the rate of 8% Simple Interest per annum. Total interest received at the end was Rs. 3480. How much sum of money invested in Scheme A ?

- (1) Rs. 6,000                      (2) Rs. 6,500  
 (3) Rs. 4,500                      (4) Rs. 4,000  
 (5) Rs. 8,000

**(SBI PO Phase-I (Preliminary)  
Online Exam. 21.06.2015)**

**102.** A took a certain sum as loan from bank at a rate of 8% simple interest per annum. A lends the same amount to B at 12% simple interest per annum. If at the end of five years, A made profit of Rs. 800 from the deal, how much was the original sum ?

- (1) Rs. 6,500                      (2) Rs. 4,000  
 (3) Rs. 6,200                      (4) Rs. 6,000  
 (5) Rs. 4,500

**(SBI PO Phase-I (Preliminary)  
Online Exam. 27.06.2015)**

**103.** Simple interest on a certain sum at a certain annual rate of interest is 16% of the sum. If the numbers representing rate percent and time in years be equal, then the rate of interest is

- (1) 4%                                      (2) 6%  
 (3) 4.5%                                      (4) 6.5%

(5) None of these

**(LIC Assistant Administrative Officer (AAO) Exam. 12.05.2013)**

**104.** The annual income of Adhiraj is 702000. He spends 18% of his monthly income on payments of bills, 14% on domestic needs, 16% on children's education and 6% on donations. He invests the remaining amount in mutual fund. Find the remaining amount with Adhiraj.

- (1) 8770 (2) 8870  
(3) 8790 (4) 8970  
(5) None of these

**105.** The difference between the compound interest and simple interest on a sum of 18000 at the same rate of interest for 2 years is 405. What is the rate of interest per cent per annum?

- (1) 15% (2) 12%  
(3) 14% (4) 10%  
(5) None of these

**(NIACL Administrative Officer (AO) Exam. 11.01.2015)**

**106.** Suresh invested a sum of 15000 at 9 per cent per annum simple interest and 12000 at 8 per cent per annum compound interest for a period of 2 years. What amount of interest did Suresh earn in 2 years ?

- (1) 4096.60 (2) 4696.80  
(3) 4896.60 (4) 4698.60  
(5) None of these

**(Syndicate Bank PO Exam. 10.10.2004)**

**107.** Satish invests 35,500 in a scheme which earns him simple interest at the rate of 15 p.c.p.a. for two years. At the end of two years he reinvests the principal amount plus interest earned in another scheme which earns him compound interest at the rate of 20 p.c.p.a. What will be the total interest earned by Satish over the principal amount at the end of 5 years ?

- (1) 30,956.80 (2) 35,017.20  
(3) 43,597.80 (4) 44,247.20  
(5) None of these

**(Union Bank of India PO Exam. 27.11.2005)**

**108.** The simple interest accrued on an amount of 14,800 at the end of three years is 6,216. What would be the compound interest accrued on the same amount at the same rate in the same period ?

- (1) 6986.1142 (2) 7042.2014  
(3) 7126.8512 (4) 8321.4166  
(5) None of these

**(Corporation Bank PO Exam. 29.07.2006)**

**109.** The simple interest accrued on an amount of 40,000 at the end of three years is 12,000. What would be the compound interest accrued on the same amount at the same rate in the same period ?

- (1) 18,765 (2) 15,350  
(3) 21,555 (4) 13,240  
(5) None of these

**(Andhra Bank PO Exam. 14.09.2008)**

**110.** The compound interest accrued on an amount of 22,000 at the end of two years is 5,596.8. What would be the simple interest accrued on the same amount at the same rate in the same period ?

- (1) 5,420 (2) 5,360  
(3) 5,280 (4) 5,140  
(5) None of these

**(Oriental Bank of Commerce PO Exam. 21.12.2008 &**

**United India Insurance AO Exam. 26.05.2013)**

**111.** The compound interest accrued on an amount of 25,500 at the end of three years is 8,440.5. What would be the simple interest accrued on the same amount at the same rate in the same period?

- (1) 4,650 (2) 5,650  
(3) 6,650 (4) 7,650  
(5) None of these

**(Canara Bank PO Exam. 15.03.2009)**

**112.** What would be the compound interest obtained on an amount of 20,000 at the rate of 15 p.c.p.a. after 4 years ?

- (1) 14,980.125                      (2) 19,680.125  
 (3) 16,780.125                      (4) 18,980.125  
 (5) None of these

**(Indian Overseas Bank PO  
Exam. 05.04.2009)**

**113.** Mr. Duggal invested 20,000 with rate of interest at 20 p.c.p.a. The interest was compounded half yearly for first year and in the next year it was compounded yearly. What will be the total interest earned at the end of two years?

- (1) 8,800                                (2) 9,040  
 (3) 8,040                                (4) 9,800  
 (5) None of these

**(United Bank of India PO  
Exam. 21.06.2009)**

**114.** What will be the compound interest accrued on an amount of 10,000 at the rate of 20 p.c.p.a. in two years if the interest is compounded half yearly ?

- (1) 4,400                                (2) 4,600  
 (3) 4,641                                (4) 4,680  
 (5) None of these

**(Andhra Bank PO Exam. 05.07.2009)**

**115.** What would be the compound interest accrued on an amount of 7,400 at the rate of 13.5 p.c.p.a. at the end of two years? (rounded off to two digits after decimal)

- (1) 2,136.87                              (2) 2,306.81  
 (3) 2,032.18                              (4) 2,132.87  
 (5) None of these

**(Indian Bank PO Exam. 17.10.2010)**

**116.** What would be the compound interest accrued on an amount of 45,400 at the end of two years at the rate of 15 p.c.p.a. ?

- (1) 16411.5                                (2) 14461.5  
 (3) 16461.5                                (4) 14641.5  
 (5) None of these

**(Bank Of India Banking Officer  
Exam. 24.01.2010)**

**117.** Sonika invested an amount of 5,800 for 2 years. At what rate of compound interest will she get an amount of 594.5 at the end of two years ?

- (1) 5 p.c.p.a.                              (2) 4 p.c.p.a.  
 (3) 6 p.c.p.a.                              (4) 8 p.c.p.a.  
 (5) None of these

**(Corporation Bank PO  
Exam. 09.05.2010)**

**118.** A man gets a simple interest of 1,000 on a certain principal at the rate of 5 p.c.p.a. in 4 years. What compound interest will the man get on twice the principal in two years at the same rate ?

- (1) 1,050                                (2) 1,005  
 (3) 11,025                                (4) 10,125  
 (5) None of these

**(Punjab & Sind Bank PO  
Exam. 16.05.2010)**

**119.** What will be the **approximate** difference in the simple and compound interest accrued on an amount of 2600 at the rate of 15 p.c.p.a. at the end of three years ?

- (1) 167                                      (2) 194  
 (3) 202                                      (4) 172  
 (5) 184

**(United Bank Of India PO  
Exam. 14.11.2010)**

**120.** Pamela invested an amount of 35,000 for two years at the rate of 5 p.c.p.a. What amount of compound interest would she receive at the end of two years?

- (1) 3587.50                                (2) 3500  
 (3) 3580.50                                (4) 3565.50  
 (5) None of these

**(PNB Management Trainee  
Exam. 28.11.2010)**

**121.** The simple interest accrued on a sum of certain principal is 2,000 in five years at the rate of 4 p.c.p.a. What would be the compound interest accrued on same principal at same rate in two years ?

- (1) 716                                      (2) 724  
 (3) 824                                      (4) 816

(5) None of these

**(Corporation Bank PO**

**Exam. 16.01.2011)**

**122.** The difference between the amount of compound interest and simple interest accrued on an amount of 26000 at the end of 3 years is 2994.134 What is the rate of interest p.c.p.a. ?

- (1) 22% (2) 17%  
(3) 19%  
(4) Cannot be determined  
(5) None of these

**(Punjab & Sind Bank PO**

**Exam. 23.01.2011)**

**123.** The simple interest accrued on a sum of certain principal is 6500 in eight years at the rate of 13 per cent per year. What would be the compound interest accrued on that principal at the rate of 8 per cent per year in 2 years?

- (1) 1040 (2) 1020  
(3) 1060 (4) 1200  
(5) None of these

**(UCO Bank PO Exam. 30.01.2011)**

**124.** The simple interest accrued on a sum of certain principal is 7,200 in six years at the rate of 12 p.c.p.a. What would be the compound interest accrued on that principal at the rate of 5 p.c.p.a. in 2 years?

- (1) 1,020 (2) 1,055  
(3) 1,050 (4) 1,025  
(5) None of these

**(Bank Of Baroda PO**

**Exam. 13.03.2011)**

**125.** The simple interest accrued on an amount of 22,500 at the end of four years is 10,800. What would be the compound interest accrued on the same amount at the same rate at the end of two years ?

- (1) 14,908 (2) 5,724  
(3) 26,234 (4) 8,568  
(5) None of these

**(IBPS Bank PO/MT**

**CWE 18.09.2011)**

**126.** What is the difference between the simple and compound interest on 7300 at the rate of 6 p.c.p.a. in 2 years?

- (1) 29.37 (2) 26.28  
(3) 31.41 (4) 23.22  
(5) 21.34

**(IBPSBank PO/MT CWE**

**17.06.2012)**

**127.** The compound interest earned on a sum in 3 years at 15% per annum compounded annually is 6500.52. What is the sum ?

- (1) 12480 (2) 10500  
(3) 14800 (4) 13620  
(5) None of these

**(IBPSSpecialist Officer**

**CWE 17.03.2013 &**

**SBI PO Preliminary (Tier-I)**

**Exam. 27.07.2008)**

**128.** What would be the compound interest obtained on an amount of 7,790 at the rate of 10 p.c.p.a. after two years ?

- (1) 1532.60 (2) 1495.90  
(3) 1653.50 (4) 1635.90  
(5) None of these

**(IBPS RRBs Office Assistant CWE**

**Exam. 09.09.2012)**

**129.** The present population of a village is 32500. After two years the population of village will be 49972. What is the rate of growth of population per annum ?

- (1) 16% (2) 20%  
(3) 24% (4) 18%  
(5) 17%

**130.** What will be the respective ratio of the present value and depreciated value after two years of a machine if its value depreciates at 25% per annum ?

- (1) 16 : 9 (2) 9 : 16  
(3) 3 : 4 (4) 4 : 3  
(5) None of these

**(IDBI Officer Grade Exam.**

**22.08.2014)**

**131.** The difference between the compound interest and the simple

interest for a period of 2 years at the rate of 10% per annum is 50. Find the principal.

- (1) 4000 (2) 5000  
(3) 5500 (4) 4500  
(5) None of these

**(IBPS RRBs Officer Scale-I  
CWE, 06.09.2014)**

**132.** A person invested equal amounts in two schemes A and B at the same rate of interest. Scheme A offers simple interest while scheme B offers compound interest. After two years he got 1920 from scheme A as interest and 2112 from scheme B. If the rate of interest is increased by 4%, what will be the total interest after two years from both schemes?

- (1) 4884.48 (2) 4888.48  
(3) 4884.84 (4) 4384.48  
(5) None of these

**(IBPS Bank PO/MT CWE-IV  
18.10.2014)**

**133.** Raman took a loan of Rs. 15,000 from Laxman. It was agreed that for the first three years rate of interest charged would be at 8% Simple Interest per annum and at 10% Compound Interest (compounded annually) from the fourth year onwards. Raman did not pay anything until the end of the fifth year. How much would he repay if he clears the entire amount, only at the end of fifth year? (in Rupees)

- (1) 22,506 (2) 22,105  
(3) 22,900 (4) 22,500  
(5) 22,450

**(BOB Junior Management  
Grade/Scale-I Exam.  
18.04.2015)**

**134.** A sum of money was invested for 14 years in Scheme A which offers simple interest at a rate of 8% p.a. The amount received from Scheme A after 14 years was then invested for two years in Scheme B which offers compound interest (compounded annually) at a rate of 10% p.a. If the interest received from

Scheme B was Rs. 6,678, what was the sum invested in Scheme A?

- (1) 15,500 (2) 14,500  
(3) 16,500 (4) 12,500  
(5) 15,000

**(IBPS RRBs Officer Scale-I & II  
CWE 12.09.2015)**

**135.** Rs. 6100 was partly invested in Scheme A at 10% p.a. compound interest (compounded annually) for 2 years and partly in Scheme B at 10% p.a. simple interest for 4 years. Both the schemes give equal interests. How much was invested in Scheme A?

- (1) Rs. 3,750 (2) Rs. 4,500  
(3) Rs. 4,000 (4) Rs. 3,250  
(5) Rs. 5,000

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 03.10.2015)**

**136.** A invests a certain sum in scheme A at compound interest (compounded annually) of 10% per annum for 2 years. In scheme B he invests at simple interest of 8% per annum for 2 years. He invests in schemes A and B in the ratio of 1 : 2. The difference between the interests earned from both the schemes is Rs. 990. Find the amount invested in scheme A.

- (1) Rs. 7500 (2) Rs. 8000  
(3) Rs. 9000 (4) Rs. 8500  
(5) Rs. 8600

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015  
1st Sitting)**

**137.** The respective ratio of the sums invested for 2 years each, in scheme A offering 20% per annum compound interest (compounded annually) and in Scheme B offering 9% p.a. simple interest is 1 : 3. Difference between the interests earned from both the schemes is Rs. 12000. How much was invested in scheme A?

- (1) Rs. 10500 (2) Rs. 15000  
(3) Rs. 12000 (4) Rs. 12500  
(5) Rs. 10000

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015)**

**138.** The simple interest (p.a.) accrued on an amount of Rs. 17,000 at the end of four years is Rs. 6,800. What would be the compound interest (compounded annually) accrued on the same amount at the same rate after two years?

- (1) Cannot be determined
- (2) Other than those given as options
- (3) Rs. 3,570
- (4) Rs. 3,260
- (5) Rs. 3,980

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**139.** The difference between the simple interest on a certain sum at the rate of 10% per annum for 2 years and compound interest which is compounded every 6 months is 124.05. What is the principal sum?

- (1) 10,000
- (2) 6,000
- (3) 12,000
- (4) 8,000
- (5) None of these

**(SBI Banks PO Exam. 20.08.2000)**

**140.** Sudharshan invested Rs. 15,000 at interest @ 10 p.c. p.a. for one year. If the interest is compounded every six months what amount will Sudharshan get at the end of the year ?

- (1) 16,537.50
- (2) 16, 500
- (3) 16, 525.50
- (4) 18,150
- (5) None of these

**(SBI Associate Banks PO  
Exam. 21.07.2002 &**

**LIC Assistant Administrative  
Officer (AAO) Exam. 2006)**

**141.** What will be the compound interest on a sum of 25,000 after three years at the rate of 12 per cent p.a. ?

- (1) 10123.20
- (2) 9000.30
- (3) 10483.20
- (4) 9720
- (5) None of these

**(SBI Banks PO Exam. 18.05.2003)**

**142.** Mr. Rao invests a sum of 41,250 at the rate of 6 p.c.p.a. What **approximate** amount of compound

interest will he obtain at the end of 3 years?

- (1) 8,100
- (2) 7,425
- (3) 8,210
- (4) 7,879
- (5) 7,295

**(SBI PO Preliminary (Tier-I)  
Exam. 27.04.2008)**

**143.** The simple interest accrued on an amount of 20,000 at the end of three years is 7,200. What would be the compound interest accrued on the same amount at the same rate in the same period?

- (1) 8342.36
- (2) 8098.56
- (3) 8246.16
- (4) 8112.86
- (5) None of these

**(SBI PO Preliminary (Tier-I)  
Exam. 27.07.2008)**

**144.** The compound interest earned by Suresh on a certain amount at the end of two years at the rate of 8 p.c.p.a was 1,414.4. What was the total amount that Suresh got back at the end of two years in the form of principal plus interest earned ?

- (1) 9,414.4
- (2) 9,914.4
- (3) 9,014.4
- (4) 8,914.4
- (5) None of these

**(SBI & Rural Business PO  
Exam. 18.04.2010)**

**145.** The compound interest earned on a sum in 3 years at 20% per annum compounded annually is Rs. 6800. What is the sum ?

- (1) Rs. 9340.7
- (2) Rs. 7430.7
- (3) Rs. 9240.7
- (4) Rs. 9420.7
- (5) None of these

**(SBI Specialist (IT)  
Officer Exam. 19.04.2014)**

**146.** The compound interest accrued on an amount at the end of two years at the rate of 12 p.c.p.a is 2,862. What is the amount ?

- (1) 11,250
- (2) 12,200
- (3) 13,500
- (4) 10,000
- (5) None of these

**(RBI Grade-B Officer  
Exam.06.02.2011)**

**147.** Rashmi had Rs. 4,200. She invested some of it in scheme A for 4 years and rest of the money she invested in scheme B for two years. Scheme A offers simple interest at a rate of 22%p.a. and scheme B offers compound interest (compounded annually) at a rate of 10% p.a. if the interest received from Scheme A is Rs. 1,516 more than the interest received from Scheme B, what was the sum invested by her in scheme A ?

- (1) Rs. 2,600                      (2) Rs. 2,000  
 (3) Rs. 2,200                      (4) Rs. 2,400  
 (5) Rs. 1,800

**(NABARD Officer Grade 'A'  
 Online Exam. 03.08.2014)**

**148.** An equal sum is invested for seven years in Scheme A offering simple interest at  $x\%$  p.a. and in scheme B for two years offering compound interest at 10% p.a. (compounded annually). The interest earned from scheme A is thrice of the interest earned from scheme B. Had the rate interest been  $(x - 4)\%$  simple interest per annum in scheme A, the difference in the interest earned from both the schemes would have been Rs. 700. What was the sum invested in each of the schemes?

- (1) Rs. 8000                      (2) Rs. 5000  
 (3) Rs. 6000                      (4) Rs. 4500  
 (5) Rs. 10000

**(RBI Officer Grade 'B' Phase-I  
 Exam. 21.11.2015)**

**149.** A certain amount is invested in scheme A for 6 years which offers simple interest at the rate of  $x\%$  per annum. The same amount is invested in scheme B for 2 years which offers compound interest compounded annually at the rate of 10% per annum. Interest earned from scheme A is twice to that earned from scheme B. If the rate of interest of scheme A had been  $(x + 2)\%$  per annum, the difference between the interests after corresponding periods would have

been Rs. 3960. What is the amount invested in each scheme?

- (1) Rs. 35000                      (2) Rs. 32000  
 (3) Rs. 33000                      (4) Rs. 33500  
 (5) None of these

**(RBI Officer Grade 'B' Phase-I  
 Online Exam. 22.11.2015)**

**150.** Rajan invested an amount of 8,000/- in a fixed deposit scheme for 2 years at compound interest rate 5 percent p.a. How much amount will Rajan get on maturity of the fixed deposit?

- (1) 8,620/-                      (2) 8,840/-  
 (3) 8,800/-                      (4) 8,600/-  
 (5) None of these

**(LIC Assistant Administrative Officer  
 (AAO) Exam. 24.04.2005)**

**151.** The difference between the compound interest and simple interest for the amount 5, 000 in 2 years is 32. The rate of interest is

- (1) 5%                                  (2) 8%  
 (3) 10%                                (4) 12%

**(NICL (GIC) AO (Finance)  
 Exam. 15.12.2013)**

**152.** A sum of money becomes 13,380 after 3 years and 20,070 after 6 years on compound interest. The sum (in Rupees) is :

- (1) 8800                                (2) 8890  
 (3) 8920                                (4) 9040

**(United India Insurance Co.  
 (AAO) Exam. 11.03.2007)**

**153.** The compound interest (in Rupees) on 5,600 for 1years at 10% per annum, compounded annually, is

- (1) 882.70                              (2) 873.50  
 (3) 868                                  (4) 840

**(LIC Assistant Administrative  
 Officer (AAO) Exam. 07.06.2009)**

**154.** The simple interest accrued on an amount of 27,500 at the end of three years is 1 0,230. What would be the **approximate** compound interest accrued on the same amount at the same rate in the same period ?

- (1) 11,550                              (2) 12,620

- (3) 10,950                      (4) 11,900  
 (5) 13,500

**(New India Assurance AO  
 Exam. 25.10.2009)**

**155.** A sum of money lent out at compound interest increases in value by 50% in 5 years. A person wants to lend three different sum  $x$ ,  $y$  and  $z$  for 10, 15 and 20 years respectively at the above rate in such a way that he gets back equal sum at the end of their respective periods. The ratio  $x : y : z$  is

- (1) 6 : 9 : 4                      (2) 9 : 4 : 6  
 (3) 9 : 6 : 4                      (4) 6 : 4 : 9

**(New India Assurance AO  
 Exam. 25.10.2009)**

**156.** The simple interest accrued on a sum of certain principal is 6,400 in four years at the rate of 8p.c.p.a. What would be the compound interest accrued on that principal at the rate of 2 p.c.p.a. in 2 years ?

- (1) 800                              (2) 808  
 (3) 704                              (4) 700  
 (5) None of these

**(United India Insurance AO  
 Exam. 27.03.2011)**

**157.** A sum of 91,000 is borrowed at 20% per annum compounded annually. If the amount is to be paid in three equal instalments, the annual instalment will be

- (1) 43,200                          (2) 42,800  
 (3) 42,500                          (4) 42,300

**(United India Insurance AAO  
 Exam. 03.06.2012)**

**158.** The population of a city in the year 2013 was 93771. During 2011–12, the rate of growth of population was 8% and that in 2012–13 it was 15%. What was the population of the city in the year 2011 ?

- (1) 76500                          (2) 75500  
 (3) 67500                          (4) 57700  
 (5) None of these

**(NIACL Administrative  
 Officer (AO) Exam. 11.01.2015)**

**159.** Rs. 1500 were invested for 5 years in scheme A which offers simple interest at the rate of 14% p.a. The amount received after 5 years and some additional money, is then invested in scheme B, for 2 years, which offers compound interest (compounded annually) at the rate of 20% p.a. If the compound interest received from scheme B after 2 years is Rs. 1408, what was the additional money invested in scheme B apart from the amount received from scheme A?

- (1) Rs. 450                          (2) Rs. 650  
 (3) Rs. 500                          (4) Rs. 280  
 (5) Rs. 520

**160.** The population of a state in the year 2013 was 1,12,926. If the rate of increase was 10% and 20% respectively from the year 2011 to 2012 and 2012 to 2013, what was the population in the year 2011 ?

- (1) 85,550                          (2) 86,450  
 (3) 79,550                          (4) 75,550  
 (5) 76,950

**(NIACL Administrative Officer  
 (AO) Exam. 10.01.2015)**

**161.** A certain sum is invested for 2 years in scheme A at 10% p.a. compound interest (compounded annually). Same sum is also invested for 3 years in scheme B at  $x\%$  p.a. simple interest. The interest earned from scheme A is half to that of earned from scheme B. What is the value of  $x$  ?

- (1) 20                                  (2) 9  
 (3) 12                                  (4) 18  
 (5) 14

**(LIC Assistant Administrative Officer  
 (AAO) Online Exam. 05.03.2016)**

**162.** A certain sum is invested for 2 years in scheme A at 20% p.a. compound interest compounded annually. Same sum is also invested for the same period in scheme B at  $x\%$  p.a. at a simple interest. The interest earned from scheme A is



twice of that earned from scheme B.

What is the value of  $x$  ?

- (1) 10                      (2) 11  
(3) 15                      (4) 12  
(5) 19

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 06.03.2016)**

## 10. QUARDRETIC EQUATION

**Directions (Q. 1-5):** Two equations (I) and (II) are given in each question. On the basis of these equations you have to decide the relation between 'x' and 'y' and give answer.

- (1) if  $x > y$                       (2) if  $x < y$   
 (3) if  $x \geq y$                       (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between 'x' and 'y'.

1. I.  $6x^2 - 19x + 15 = 0$   
II.  $10y^2 - 29y + 21 = 0$
2. I.  $12x^2 + 11x - 56 = 0$   
II.  $4y^2 - 15y + 14 = 0$
3. I.  $3x^2 + 13x + 12 = 0$   
II.  $Y^2 + 9y + 20 = 0$
4. I.  $8x^2 - 15x + 7 = 0$   
II.  $2y^2 - 7y + 6 = 0$
5. I.  $7x - 3y = 13$   
II.  $5x + 4y = 40$

**Directions (Q. 6-10):** In the following questions, two equations numbered I and II are given. You have to solve both the equations and give answer

- (1) if  $x > y$                       (2) if  $x < y$   
 (3) if  $x \geq y$                       (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between x and

6. I.  $2x^2 - 11x + 15 = 0$   
II.  $21y^2 - 23y + 6 = 0$
7. I.  $5x^2 - 16x + 11 = 0$   
II.  $5y^2 - 3y - 2 = 0$
8. I.  $X^2 + 11x + 28 = 0$   
II.  $2y^2 + 13y + 20 = 0$
9. I.  $6x^2 + 29x + 35 = 0$   
II.  $3y^2 + 19y + 30 = 0$
10. I.  $2x + 5y = 6$   
II.  $5x + 11y = 9$

**Directions (Q. Nos. 11-15)** In the following questions two equations numbered I and II are

given. You have to solve both the equations and—Give answer

- (1) if  $x > y$                       (2) if  $x \geq y$   
 (3) if  $x < y$                       (4) if  $x \leq y$   
 (5) if  $x = y$  or the relationship cannot be established

11. I.  $\sqrt{1225x} + \sqrt{4900} = 0$   
II.  $(81)^{1/4}y + (343)^{1/3} = 0$
12. I.  $\frac{18}{x^2} + \frac{6}{x} - \frac{12}{x^2} = \frac{8}{x^2}$   
II.  $y^3 + 9.68 + 5.64 = 16.95$
13. I.  $\frac{2^5 + 11^3}{6} = x^3$   
II.  $4y^3 = -(589 \div 4) + 5y^3$
14. I.  $12x^2 + 11x + 12 = 10x^2 + 22x$   
II.  $13y^2 - 18y + 3 = 9y^2 - 10y$
15. I.  $(x^{7/5} \div 9) = 169 \div y^{3/5}$   
II.  $y^{1/4}x y^{1/4}x^7 = 273 \div y^{1/2}$

**Directions (Q. 16 - 20):** Two equations (I) and (II) are given in each question. On the basis of these equations you have to decide the relation between x and y and give answer

- (1) if  $x > y$                       (2) if  $x < y$   
 (3) if  $x \geq y$                       (4) if  $x \leq y$   
 (5) if  $x = y$ , or no relation can be established between x and y.

16. I.  $x = \sqrt[4]{2401}$   
II.  $2y^2 - 9y - 56 = 0$
17. I.  $5x^2 + 3x - 14 = 0$   
II.  $2y^2 - 9y + 10 = 0$
18. I.  $8x^2 + 31x + 21 = 0$   
II.  $5y^2 + 11y - 36 = 0$
19. I.  $3x - y = 12$   
II.  $y = 1089$
20. I.  $15x^2 + 68x + 77 = 0$   
II.  $3y^2 + 29y + 68 = 0$

**Directions (Q.21-25):** Two equations (I) and (II) are given in each question. On the basis of these equations, you have to decide the relation between x and y and give answer

- (1) if  $x > y$                       (2) if  $x < y$   
 (3) if  $x \geq y$                       (4) if  $x \leq y$   
 (5) if  $x = y$ , or no relation can be established between  $x$  and  $y$ .

21. I.  $2x^2 + x - 1 = 0$   
 II.  $6y^2 - 13y + 5 = 0$   
 22. I.  $21x^2 - 122x + 165 = 0$   
 II.  $3y^2 - 2y - 33 = 0$   
 23. I.  $5x^2 - 29x + 36 = 0$   
 II.  $10y^2 - 3y - 27 = 0$   
 24. I.  $7x + 4y = 3$   
 II.  $5x + 3y = 3$   
 25. I.  $7x^2 - 54x + 99 = 0$   
 II.  $4y^2 - 16y + 15 = 0$

**Directions (Q. 26-30):** Two equations (I) and (II) are given in each question. On the basis of these equations, you have to decide the relation between  $x$  and  $y$  and give answer

- (1) if  $x > y$                       (2) if  $x < y$   
 (3) if  $x \geq y$                       (4) if  $x \leq y$   
 (5) if  $x = y$ , or no relation can be established between  $x$  and  $y$ .
26. I.  $5x^2 - 87x + 378 = 0$   
 II.  $3y^2 - 49y + 200 = 0$   
 27. I.  $10x^2 - x - 24 = 0$   
 II.  $y^2 - 2y = 0$   
 28. I.  $x^2 - 5x + 6 = 0$   
 II.  $2y^2 - 15y + 27 = 0$   
 29. I.  $3x + 2y = 301$   
 II.  $7x - 5y = 74$   
 30. I.  $14x^2 - 37x + 24 = 0$   
 II.  $28y^2 - 53y + 24 = 0$

**Directions (Q. 31-35):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$                       (2) if  $x \geq y$   
 (3) if  $x < y$                       (4) if  $x \leq y$   
 (5) if  $x = y$  or relationship between  $x$  and  $y$  cannot be established
31. I.  $11x + 5y = 117$   
 II.  $7x + 13y = 153$   
 32. I.  $6x^2 + 51x + 105 = 0$

- II.  $2y^2 + 25y + 78 = 0$   
 33. I.  $6x + 7y = 52$   
 II.  $14x + 4y = 35$   
 34. I.  $x^2 + 11x + 30 = 0$   
 II.  $y^2 + 12y + 36 = 0$   
 35. I.  $2x^2 + x - 1 = 0$   
 II.  $2y^2 - 3y + 1 = 0$

**Directions (Q.36-40)** In the following questions three equations numbered I, II and III are given. You have to solve all the equations either together or separately, or two together and one separately, or by any other method and give answer If

- (1)  $x < y = z$                       (2)  $x < y < z$   
 (3)  $x < y > z$                       (4)  $x = y > z$   
 (5)  $x = y = z$  or if none of the above relationship is established
36. I.  $7x + 6y + 4z = 122$   
 II.  $4x + 5y + 3z = 88$   
 III.  $9x + 2y + z = 78$   
 37. I.  $7x + 6y = 110$   
 II.  $4x + 3y = 59$   
 III.  $x + z = 15$   
 38. I.  $x = \sqrt{(36)^{1/2} \times (1296)^{1/4}}$   
 II.  $2y + 3z = 33$   
 III.  $6y + 5z = 71$   
 39. I.  $8x + 7y = 135$   
 II.  $5x + 6y = 99$   
 III.  $9y + 8z = 121$   
 40. I.  $(x + y)^3 = 1331$   
 II.  $x - y + z = 0$   
 III.  $xy = 28$

**Directions (Q. 41-45):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$                       (2) if  $x \geq y$   
 (3) if  $x < y$                       (4) if  $x \leq y$   
 (5) if  $x = y$  or relationship between  $x$  and  $y$  cannot be established
41. I.  $7x^2 - 9x + 2 = 0$   
 II.  $y^2 - 4y + 3 = 0$   
 42. I.  $x^2 = 64$

II.  $2y^2 + 25y + 72 = 0$

43. I.  $x^2 + x - 20 = 0$

II.  $2y^2 - 19y + 45 = 0$

44. I.  $7x + 3y = 26$

II.  $2x + 17y = -41$

45. I.  $3x^2 - 20x + 33 = 0$

II.  $2y^2 - 11y + 15 = 0$

**Directions (Q. 46-50):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or relationship between  $x$  and  $y$  cannot be established.

46. I.  $4x^2 - 43x + 105 = 0$

II.  $7y^2 - 29y + 30 = 0$

47. I.  $x^2 + 13x + 40 = 0$

II.  $y^2 + 7y + 10 = 0$

48. I.  $x = \sqrt[3]{2197}$

II.  $2y^2 - 54y + 364 = 0$

49. I.  $5x^2 - 27x + 36 = 0$

II.  $y^2 - 2y + 2 = 0$

50. I.  $13x - 8y + 81 = 0$

II.  $15x + 5y + 65 = 0$

**Directions (Q. 51-55):** Two equations (I) and (II) are given in each question. On the basis of these equations, you have to decide the relation between  $x$  and  $y$  and give answer

- (1) if  $x > y$  (2) if  $x < y$   
 (3) if  $x \geq y$  (4) if  $x \leq y$   
 (5) if  $x = y$ , or no relation can be established between  $x$  and  $y$ .

51. I.  $15x^2 - 19x + 6 = 0$

II.  $6y^2 - 5y + 1 = 0$

52. I.  $x = \sqrt{172}$

II.  $y^2 - 29y + 210 = 0$

53. I.  $3x^2 - 20x + 32 = 0$

II.  $2y^2 - 19y + 44 = 0$

54. I.  $3x + 8y = -2$

II.  $4x + 18y = 1$

55. I.  $2x^2 - 15x + 28 = 0$

II.  $10y^2 - y - 119 = 0$

**Directions (Q. 56-70):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or relationship between  $x$  and  $y$  cannot be established.

56. I.  $676x^2 - 1 = 0$

II.  $y = \frac{1}{\sqrt[3]{13824}}$

57. I.  $8x + 13y = 62$

II.  $13x - 17y + 128 = 0$

58. I.  $7x^2 + 2x = 120$

II.  $y^2 + 11y + 30 = 0$

59. I.  $x^2 = 7x$

II.  $(y + 7)^2 = 0$

60. I.  $2x^2 + 5x - 33 = 0$

II.  $y^2 - y - 6 = 0$

**Directions (Q. 61-65):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or the relationship between  $x$  and  $y$  cannot be established.

61. I.  $x^2 + 12x + 36 = 0$

II.  $y^2 + 15y + 56 = 0$

62. I.  $x^2 = 35$

II.  $y^2 + 13y + 42 = 0$

63. I.  $2x^2 - 3x - 35 = 0$

II.  $y^2 - 7y + 6 = 0$

64. I.  $6x^2 - 29x + 35 = 0$

II.  $2y^2 - 19y + 35 = 0$

65. I.  $12x^2 - 47x + 40 = 0$

II.  $4y^2 + 3y - 10 = 0$

**Directions (Q. 66-70):** In each of these questions, two equations (I) and (II) are given. You have

**to solve both the equations and give answer**

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between 'x' and 'y'.

66. I.  $x^2 + 3x - 28 = 0$

II.  $y^2 - 11y + 28 = 0$

67. I.  $6x^2 - 17x + 12 = 0$

II.  $6y^2 - 7y + 2 = 0$

68. I.  $x = \frac{\sqrt{256}}{\sqrt{576}}$

II.  $3y^2 + y - 2 = 0$

69. I.  $x^2 = 64$

II.  $y^2 = 9y$

70. I.  $x^2 + 6x - 7 = 0$

II.  $41y + 17 = 140$

**Directions (Q. 71-75): In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer**

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or a relationship between x and y cannot be established.

71. I.  $x^2 + 3x = 28$

II.  $y^2 + 16y + 63 = 0$

72. I.  $x = \sqrt[3]{2197}$

II.  $y^2 = 169$

73. I.  $8x^2 - 49x + 45 = 0$

II.  $8y^2 - y - 9 = 0$

74. I.  $42x - 17y = -67$

II.  $7x + 12y = -26$

75. I.  $x^2 - 8x + 15 = 0$

II.  $2y^2 - 21y + 55 = 0$

**Directions (Q. 76-80): In each of these questions two equations (I) and (II) are given. You have to solve both the equations and give answer**

- (1) if  $p > q$  (2) if  $p \geq q$   
 (3) if  $p < q$  (4) if  $p \leq q$   
 (5) if  $p = q$  or no relation can be established between p and q.

76. I.  $2.3p - 20.01 = 0$

II.  $2.9q - p = 0$

77. I.  $p = \sqrt{1764}$

II.  $q^2 = 1764$

78. I.  $p^2 - 26p + 168 = 0$

II.  $q^2 - 25q + 156 = 0$

79. I.  $p^2 - 13p + 42 = 0$

II.  $q^2 + q - 42 = 0$

80. I.  $6p - 5q = -47$

II.  $5p + 3q = 11$

**Directions(Q. 81-85): In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer**

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between 'x' and 'y'.

81. I.  $2x^2 + 13x - 7 = 0$

II.  $2y^2 - 5y + 3 = 0$

82. I.  $2x^2 - 15x + 28 = 0$

II.  $4y^2 - 16y + 15 = 0$

83. I.  $x^2 + 8x + 16 = 0$

II.  $y^2 = 16$

84. I.  $x^2 - 2x - 24 = 0$

II.  $y^2 + 8y = 0$

85. I.  $x^2 + 4x = 0$

II.  $y^2 + 10y + 25 = 0$

**Directions (Q. 86-90): In each of these questions two equations (I) and (II) are given. You have to solve both the equations and give answer**

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between x and y

86. I.  $2x^2 + x - 1 = 0$

II.  $2y^2 + 13y + 15 = 0$

87. I.  $x^2 + 12x + 32 = 0$

II.  $2y^2 + 15y + 27 = 0$

88. I.  $6x^2 - 17x + 12 = 0$

II.  $7y^2 - 13y + 6 = 0$

89. I.  $x^2 - 82x + 781 = 0$

II.  $y^2 = 5041$

90. I.  $6x^2 - 47x + 80 = 0$   
 II.  $2y^2 - 9y + 10 = 0$

**Directions (Q. 91-95):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation between 'x' and 'y' can be established.

91. I.  $3x^2 - 7x - 20 = 0$   
 II.  $y^2 - 8y + 16 = 0$

92. I.  $x^2 - 72 = 0$   
 II.  $y^2 - 9y + 8 = 0$

93. I.  $9x^2 - 114x + 361 = 0$   
 II.  $y^2 = 36$

94. I.  $13x + 17y = 107$   
 II.  $x - 11y = -41$

95. I.  $9x^2 + 18x + 9 = 0$   
 II.  $y^2 - 3y + 2 = 0$

**Directions (Q. 96-100) :** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer .

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between 'x' and y.

96. I.  $4x + 7y = 42$   
 II.  $3x - 11y = -1$

97. I.  $9x^2 - 29x + 22 = 0$   
 II.  $y^2 - 7y + 12 = 0$

98. I.  $3x^2 - 4x - 32 = 0$   
 II.  $2y^2 - 17y + 36 = 0$

99. I.  $3x^2 - 19x - 14 = 0$   
 II.  $2y^2 + 5y + 3 = 0$

100. I.  $x^2 + 14x + 49 = 0$   
 II.  $y^2 + 9y = 0$

**Directions (Q. 101-105):** In each of these questions, two equations (I) and (II) are given. You have

to solve both the equations and give answer ,

- (1) if  $x < y$  (2) if  $x \leq y$   
 (3) if  $x = y$ , or no relation can be established between x and y  
 (4) if  $x > y$  (5) if  $x \geq y$

101. I.  $9x^2 = 1$   
 II.  $4y^2 + 11y - 3 = 0$

102. I.  $3x^2 + 5x - 2 = 0$   
 II.  $2y^2 - 7y + 5 = 0$

103. I.  $6x^2 + 13x + 5 = 0$   
 II.  $3y^2 + 11y + 10 = 0$

104. I.  $7x - 4y = 29$   
 II.  $5x + 3y - 50 = 0$

105. I.  $x^2 - 5 = 0$   
 II.  $4y^2 - 24y + 35 = 0$

**Directions (Q. 106-110) :** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between x and y

106. I.  $35x^2 - 53x + 20 = 0$   
 II.  $56y^2 - 97y + 42 = 0$

107. I.  $x = \sqrt[3]{4913}$   
 II.  $13y + 3x = 246$

108. I.  $x^2 - 5x - 14 = 0$   
 II.  $y^2 + 7y + 10 = 0$

109. I.  $x^2 - 3481 = 0$   
 II.  $3y^2 = \sqrt[3]{216000}$

110. I.  $5x^2 + 2x - 3 = 0$   
 II.  $2y^2 + 7y + 6 = 0$

**Directions (Q. 111-115) :** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relationship can be established.

111. I.  $20x^2 - 67x + 56 = 0$

II.  $56y^2 - 67y + 20 = 0$

112. I.  $x^4 = 65536$

II.  $y = \sqrt[3]{4096}$

113. I.  $2x^2 + 11x - 40 = 0$

II.  $4y^2 - 27y + 44 = 0$

114. I.  $7x = 4y + 85$

II.  $y = \sqrt[3]{17557}$

115. I.  $x^2 = 14641$

II.  $y = \sqrt{14641}$

**Directions (Q. 116-120):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or if there is no relation between 'x' and 'y'.

116. I.  $x^2 + 42 = 13x$

II.  $y = \sqrt[4]{1296}$

117. I.  $x^2 + x - 2 = 0$

II.  $y^2 + 7y + 12 = 0$

118. I.  $3x^2 - 23x + 40 = 0$

II.  $2y^2 - 23y + 66 = 0$

119. I.  $15x^2 - 46x + 35 = 0$

II.  $4y^2 - 15y + 14 = 0$

120. I.  $x^2 + 5x - 6 = 0$

II.  $2y^2 - 11y + 15 = 0$

**Directions (Q. 121-125):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or If there is no relation between 'x' and 'y'.

121. I.  $2x^2 - 21x + 54 = 0$

II.  $y^2 - 14y + 49 = 0$

122. I.  $x^2 - 19x + 70 = 0$

II.  $2y^2 - 17y + 35 = 0$

123. I.  $3x^2 + 5x - 8 = 0$

II.  $y^2 - 4y + 3 = 0$

124. I.  $12x^2 - 16x + 5 = 0$

II.  $18y^2 - 45y + 25 = 0$

125. I.  $3x^2 + 11x + 8 = 0$

II.  $3y^2 + 20y + 32 = 0$

**Directions (Q. 126-130):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relationship can be established between 'x' and 'y'.

126. I.  $x = \sqrt[3]{357911}$

II.  $y = \sqrt{5041}$

127. I.  $5x + 7y = -43$

II.  $9x - 17y = 41$

128. I.  $x^2 + 11x + 30 = 0$

II.  $y^2 + 9y + 20 = 0$

129. I.  $4x^2 + 3x - 1 = 0$

II.  $6y^2 - 5y + 1 = 0$

130. I.  $3x^2 + 15x + 18 = 0$

II.  $2y^2 + 15y + 27 = 0$

**Directions (Q. 131-135):** In the following questions, two equations numbered I and H are given. You have to solve both the equations and give answer—

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or relationship cannot be established

131. I.  $4x + 3y = (1600)^{1/2}$

II.  $6x - 5y = (484)^{1/2}$

132. I.  $2x^2 - (4 \div \sqrt{13})x + 2\sqrt{13} = 0$

II.  $10y^2 - (18 + 5\sqrt{13})y \div 9\sqrt{13} = 0$

133. I.  $(6x^2 + 17) - (3x^2 + 20) = 0$

II.  $(5y^2 - 12) - (9y^2 - 16) = 0$

134. I.  $(169)^{1/2}x + \sqrt{289} = 134$

II.  $(361)^{1/2}y^2 - 270 = 1269$

135. I.  $821x^2 - 757x^2 = 256$

II.  $196y^3 - 12y^3 = 16$

**Directions (Q. 136-140):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$

- (3) if  $x < y$                       (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between  $x$  and  $y$ .

136. I.  $5x - 7y = -24$   
 II.  $13x + 3y = 86$   
 137. I.  $x^2 - 13x + 40 = 0$   
 II.  $y^2 + 3y - 40 = 0$   
 138. I.  $8x^2 - 26x + 15 = 0$   
 II.  $2y^2 - 17y + 30 = 0$   
 139. I.  $x^2 = 484$   
 II.  $y^2 - 45y + 506 = 0$   
 140. I.  $13x - 21 = 200 - 4x$   
 II.  $y = \sqrt[3]{2197}$

**Directions (Q. 141-145) :** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $p > q$                       (2) if  $p \geq q$   
 (3) if  $p < q$                       (4) if  $p \leq q$   
 (5) if  $p = q$  or there is no relation between 'p' and 'q'.
141. I.  $(p + q)^2 = 3136$   
 II.  $q + 2513 = 2569$   
 142. I.  $4p^2 - 16p + 15 = 0$   
 II.  $2q^2 + 5q - 7 = 0$   
 143. I.  $p^2 = 49$   
 II.  $q^2 + 15q + 56 = 0$   
 144. I.  $2p^2 + 5p - 12 = 0$   
 II.  $2q^2 - q - 1 = 0$   
 145. I.  $p^2 - 12p + 35 = 0$   
 II.  $q^2 - 25 = 0$

**Directions (Q. 146-150) :** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$                       (2) if  $x < y$   
 (3) if  $x \geq y$                       (4) if  $x \leq y$   
 (5) if  $x = y$  or there is no relation between 'x' and 'y'.
146. I.  $3x^2 + 7x + 2 = 0$   
 II.  $2y^2 + 9y + 10 = 0$   
 147. I.  $x^2 + x - 2 = 0$   
 II.  $y^2 - 3y + 2 = 0$

148. I.  $20x^2 - 51x + 27 = 0$   
 II.  $15y^2 - 16y + 4 = 0$   
 149. I.  $7x^2 + 16x - 15 = 0$   
 II.  $y^2 - 6y - 7 = 0$   
 150. I.  $x^2 = 729$   
 II.  $y^2 + 58y + 840 = 0$

**Directions (Q. 151-155) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and give answer if

- (1)  $x > y$                       (2)  $x \geq y$   
 (3)  $x < y$                       (4)  $x \leq y$   
 (5)  $x = y$  or the relationship between 'x' and 'y' cannot be established.
151. I.  $\frac{15}{\sqrt{x}} - \frac{9}{\sqrt{x}} = x^{1/2}$   
 II.  $y^{10} - (36)^5 = 0$   
 152. I.  $5x + 2y = 96$   
 II.  $3(7x + 5y) = 489$   
 153. I.  $(441)^{1/2} x^2 - 111 = (15)^2$   
 II.  $\sqrt{121}y^2 + (6)^3 = 260$   
 154. I.  $17x = (13)^2 + \sqrt{196} + (5)^2 + 4x$   
 II.  $9y - 345 = 4y - 260$   
 155. I.  $3x^2 - 13x + 14 = 0$   
 II.  $y^2 - 7y + 12 = 0$
- Directions (Q. 156-160) :** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer
- (1) if  $x > y$                       (2) if  $x \geq y$   
 (3) if  $x < y$                       (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between  $x$  and  $y$ .
156. I.  $2x^2 - 15x + 28 = 0$   
 II.  $2y^2 + 3y - 35 = 0$   
 157. I.  $7x - 5y = 24$   
 II.  $4x + 3y = 43$   
 158. I.  $x = \sqrt[3]{2744}$   
 II.  $y = \sqrt{487}$   
 159. I.  $x^2 - 9x + 8 = 0$   
 II.  $2y^2 - 11y + 5 = 0$   
 160. I.  $2x^2 + 3x + 1 = 0$   
 II.  $6y^2 + 17y + 12 = 0$



**Directions (Q. 161-165) :** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between  $x$  and  $y$ .

161. I.  $3x^2 - 29x + 56 = 0$

II.  $3y^2 - 5y - 8 = 0$

162. I.  $5x^2 + 26x - 24 = 0$

II.  $5y^2 - 34y + 24 = 0$

163. I.  $x^2 - 7x = 0$

II.  $2y^2 + 5y + 3 = 0$

164. I.  $7x - 4y = 40$

II.  $8x + 8y = 8$

165. I.  $15x^2 - 41x + 14 = 0$

II.  $2y^2 - 13y + 20 = 0$

**Directions (Q. 166-170) :** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between  $x$  and  $y$ .

166. I.  $x^2 - 8\sqrt{3}x + 45 = 0$

II.  $y^2 - \sqrt{2}y - 24 = 0$

167. I.  $x - 7\sqrt{2}x + 24 = 0$

II.  $y - 5\sqrt{2}y + 12 = 0$

168. I.  $12x^2 - 17x + 6 = 0$

II.  $20y^2 - 31y + 12 = 0$

169. I.  $3x^2 - 8x + 4 = 0$

II.  $4y^2 - 15y + 9 = 0$

170. I.  $x^2 - 16x + 63 = 0$

II.  $y^2 - 2y - 35 = 0$

**Directions (Q. 171-175):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between  $x$  and  $y$ .

171. I.  $63x - 94\sqrt{x} + 35 = 0$

II.  $32y - 52\sqrt{y} + 21 = 0$

172. I.  $x^2 - 7\sqrt{3}x - 35\sqrt{15} = 5\sqrt{5}x$

II.  $y^2 - 5\sqrt{5}y + 30 = 0$

173. I.  $14x^2 + 11x - 15 = 0$

II.  $20y^2 - 31y + 12 = 0$

174. I.  $\sqrt{25}x + \sqrt{16}y = 41$

II.  $\sqrt{16}x - \sqrt{25}y = 40$

175. I.  $\sqrt{x} - \frac{18^{15/2}}{x^2} = 0$

II.  $\sqrt{y} = \frac{19^{9/2}}{y}$

**Directions (Q. 176-180) :** In each of these questions, two equations (I) and (II) are given. Solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x < y$   
 (3) if  $x \geq y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between 'x' and 'y'.

176. I.  $63x - 194\sqrt{x} + 143 = 0$

II.  $99y - 255\sqrt{y} + 150 = 0$

177. I.  $16x^2 - 40x - 39 = 0$

II.  $12y^2 - 113y + 255 = 0$

178. I.  $x - 7\sqrt{3}x + 36 = 0$

II.  $y - 12\sqrt{2}y + 70 = 0$

179. I.  $x^2 - 7\sqrt{7}x + 84 = 0$

II.  $y^2 - 5\sqrt{5}y + 30 = 0$

180. I.  $10x - 6y = 13$

II.  $45x + 24y = 56$

**Directions (Q. 181-185) :** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x > y$  (2) if  $x \geq y$   
 (3) if  $x < y$  (4) if  $x \leq y$   
 (5) if  $x = y$  or no relation can be established between  $x$  and  $y$ .

181. I.  $x^2 - 2x - 15 = 0$

II.  $y^2 + 5y + 6 = 0$

182. I.  $x^2 - x - 12 = 0$

II.  $y^2 - 3y + 2 = 0$

183. I.  $x - \sqrt{169} = 0$

II.  $y^2 - 169 = 0$

184. I.  $x^2 - 32 = 112$

185. II.  $y - \sqrt{256} = 0$   
 I.  $x^2 - 25 = 0$   
 II.  $y^2 - 9y + 20 = 0$

**Directions (Q. 186-190):** In the following questions, three equations numbered I, II and III are given. You have to solve all the equations either together or separately, or two together and one separately or by any other method and give answer

- (1) if  $x = y > z$  (2) if  $x < y = z$   
 (3) if  $x < y > z$   
 (4) if  $x = y = z$  or if none of the above relationship can be established.  
 (5) if  $x > y < z$

186. I.  $3x + 5y = 69$   
 II.  $9x + 4y = 108$   
 III.  $x + z = 12$

187. I.  $y = \sqrt{729^{\frac{1}{3}}x6541^{\frac{1}{4}}}$   
 II.  $2x + 5z = 54$   
 III.  $6x + 4z = 74$

188. I.  $2x + 3y + 4z = 66$   
 II.  $2x + y + 3z = 42$   
 III.  $3x + 2y + 4z = 63$

189. I.  $(x + z)^3 = 1728$   
 II.  $2x + 3y = 35$   
 III.  $x - z = 2$

190. I.  $4x + 5y = 37$   
 II.  $x + z = 8$   
 III.  $7x + 3y = 36$

**Directions (Q. 191-194):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (1) if  $x < y$  (2) if  $x \leq y$   
 (3) if  $x = y$  or no relation can be established  
 (4) if  $x > y$  (5) if  $x \geq y$

191. I.  $7x + 3y = 77$

II.  $2x + 5y = (2601)^{\frac{1}{2}}$

192. I.  $3x^2 - (6 + \sqrt{17})x + 2\sqrt{17} = 0$   
 II.  $10y^2 - (18 + 5\sqrt{17})y + 9\sqrt{17} = 0$

193. I.  $(289)^{1/2}x - \sqrt{324} = 203$

II.  $(484)^{1/2}y + \sqrt{225} = 183$

194. I.  $679x^2 - 168x^2 = 3066$

II.  $\sqrt{144}y^3 - 9y^3 = 1536$

**Directions (Q. 195-197):** In the following questions two equations numbered I and II are given. Solve both the equations and give answer

- (1) if  $x < y$  (2) if  $x \geq y$   
 (3) if  $x \leq y$  (4) if  $x > y$   
 (5) if  $x = y$  or no relationship can be established

195. I.  $3x + 4y = (1681)^{\frac{1}{2}}$

II.  $3x + 2y = (961)^{\frac{1}{2}}$

196. I.  $3x^2 - (6 + \sqrt{17})x + 2\sqrt{17} = 0$

II.  $10y^2 - (15 + \sqrt{17})y + 3\sqrt{17} = 0$

197. I.  $x^2 - 16x + 63 = 0$

II.  $y^2 - 2y - 35 = 0$

**Directions (198-202) :** For the two given equations I and II.

**Give answer (1)** if p is greater than q.

**Give answer (2)** if p is smaller than q.

**Give answer (3)** if p is equal to q.

**Give answer (4)** if p is either equal to or greater than q.

**Give answer (5)** if p is either equal to or smaller than q.

**(Canara Bank PO Exam.  
09.02.2003 & RBI Grade-B  
Officer Exam. 2007)**

198. I.  $p^2 + 5p + 6 = 0$

II.  $q^2 + 3q + 2 = 0$

199. I.  $p^2 = 4$

II.  $q^2 + 4q = -4$

200. I.  $p^2 + p = 56$

II.  $q^2 - 17q + 72 = 0$

201. I.  $3p + 2q - 58 = 0$

II.  $4q + 4p = 92$

202. I.  $3p^2 + 17p + 10 = 0$

II.  $10q^2 + 9q + 2 = 0$

**Directions (203-207) :** In each of the following questions two equations are given. You have to solve the equations and

**Give answer (1)** if  $x < y$

**Give answer (2)** if  $x \leq y$

**Give answer (3)** if  $x = y$

**Give answer (4)** if  $x \geq y$

**Give answer (5)** if  $x > y$

**(Syndicate Bank PO  
Exam.10.10.2004)**

203. I.  $4x^2 - 8x + 3 = 0$

II.  $2y^2 - 7y + 6 = 0$

204. I.  $x^2 + x - 6 = 0$

II.  $2y^2 - 13y + 21 = 0$

205. I.  $x^2 - x - 6 = 0$

II.  $2y^2 + 13y + 21 = 0$

206. I.  $x^2 = 4$

II.  $y^2 + 6y + 9 = 0$

207. I.  $2x + 3y = 4$

II.  $3x + 2y = 11$

**Directions (208-213) :** In each of the following questions two equations I and II are given. You have to solve both the equations and -

Give answer if

(1)  $x > y$  (2)  $x \geq y$

(3)  $x < y$  (4)  $x \leq y$

(5)  $x = y$  or relationship between  $x$  and  $y$  cannot be established:

**(Union Bank of India PO  
Exam. 27.11.2005)**

208. I.  $4x + 2y = 51$

II.  $15y + 13x = 221$

209. I.  $8x^2 + 3x = 38$

II.  $6y^2 + 34 = 29y$

210. I.  $x^2 + 91 = 20x$

II.  $10y^2 - 29y + 21 = 0$

211. I.  $6x^2 + 13x + 5 = 0$

II.  $9y^2 + 22y + 8 = 0$

212. I.  $(x+y)^2 = 784$

II.  $92551 = 92567 - y$

213. If  $4x + 5y = 83$  and then what is the value of  $y - x$ ?

(1) 3

(2) 4

(3) 7

(4) 11

(5) None of these

**(Indian Overseas Bank PO  
Exam. 15.06.2008)**

**Directions (214-219) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer (1)** if  $X > Y$

**Give answer (2)** if  $X \geq Y$

**Give answer (3)** if  $X < Y$

**Give answer (4)** if  $X \leq Y$

**Give answer (5)** if  $X = Y$

or the relationship cannot be established

**(UCO Bank PO Exam. 22.03.2009)**

214. I.  $x^2 - 14x + 48 = 0$

II.  $y^2 + 6 = 5y$

215. I.  $x^2 + 9x + 20 = 0$

II.  $y^2 + 7y + 12 = 0$

216. I.  $x^2 = 529$

II.  $y = \sqrt{529}$

217. I.  $x^2 + 13x = -42$

II.  $y^2 + 16y + 63 = 0$

218. I.  $2x + 3y = 14$

II.  $4x + 2y = 16$

**(Indian Overseas Bank PO  
Exam. 05.04.2009)**

**Directions(220-224) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer (1)** If  $x > y$

**Give answer (2)** If  $x \geq y$

**Give answer (3)** If  $x < y$

**Give answer (4)** If  $x \leq y$

**Give answer (5)** If  $x = y$  or the relationship cannot be established.

**(Corporation Bank PO  
Exam. 22.11.2009)**

219. I.  $x^2 - 1 = 0$

II.  $y^2 + 4y + 3 = 0$

220. I.  $x^2 - 7x + 12 = 0$

221. II.  $y^2 - 12y + 32 = 0$   
I.  $x^3 - 371 = 629$   
II.  $y^3 - 543 = 788$
222. I.  $5x + 2y = 31$   
II.  $3x + 7y = 36$
223. I.  $2x^2 + 11x + 12 = 0$   
II.  $5y^2 + 27y + 10 = 0$

**Directions (225–229) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer (1) If  $x > y$**

**Give answer (2) If  $x \geq y$**

**Give answer (3) If  $x < y$**

**Give answer (4) If  $x \leq y$**

**Give answer (5) If  $x = y$  or the relationship cannot be established.**

**(Indian Bank PO Exam.  
17.10.2010)**

224. I.  $2x^2 + 11x + 14 = 0$   
II.  $4y^2 + 12y + 9 = 0$
225. I.  $x^2 - 4 = 0$   
II.  $y^2 + 6y + 9 = 0$
226. I.  $x^2 - 7x + 12 = 0$   
II.  $y^2 + y - 12 = 0$
227. I.  $x^2 = 729$   
II.  $y =$
228. I.  $x^4 - 227 = 398$   
II.  $y^2 + 321 = 346$

**Directions(230–234) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer (1) if  $x > y$**

**Give answer (2) if  $x \geq y$**

**Give answer (3) if  $x < y$**

**Give answer (4) if  $x \leq y$**

**Give answer (5) if  $x = y$  or the relationship cannot be established.**

**(Punjab & Sind Bank PO  
Exam. 16.05.2010)**

229. I.  $x^2 - x - 12 = 0$   
II.  $y^2 + 5y + 6 = 0$

230. I.  $x^2 - 8x + 15 = 0$   
II.  $y^2 - 3y + 2 = 0$
231. I.  $x^2 - 32 = 112$   
II.  $y - 7 = 0$
232. I.  $x - 5 = 0$   
II.  $y^2 - 121 = 0$
233. I.  $x^2 - 16 = 0$   
II.  $y^2 - 9y + 20 = 0$

**Directions(234–236) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and\_\_\_\_\_

**Give answer (1) if  $x > y$**

**Give answer (2) if  $x \geq y$**

**Give answer (3) if  $x < y$**

**Give answer (4) if  $x \leq y$**

**Give answer (5) if  $x = y$  or the relationship cannot be established**

**(Bank Of Baroda PO  
Exam. 30.05.2010)**

234. I.  $3x^2 + 8x + 4 = 0$   
II.  $4y^2 - 19y + 12 = 0$
235. I.  $x^2 + x - 20 = 0$   
II.  $y^2 - y - 30 = 0$
236. I.  $225x^2 - 4 = 0$   
II.  $+ 2 = 0$

**Directions (237–239) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and —

**Give answer (1) If  $x > y$**

**Give answer (2) If  $x \geq y$**

**Give answer (3) If  $x < y$**

**Give answer (4) If  $x \leq y$**

**Give answer (5) If  $x = y$**

or the relationship cannot be established

**(Central Bank Of India PO  
Exam. 25.07.2010)**

237. I.  $5x^2 - 18x + 9 = 0$   
II.  $20y^2 - 13y + 2 = 0$
238. I.  $x^3 - 878 = 453$   
II.  $y^2 - 82 = 39$
239. I.  $x^2 + 11x + 30 = 0$

$$\text{II. } y^2 + 7y + 12 = 0$$

**Directions(240–242) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer (1)** if  $x > y$

**Give answer (2)** if  $x \geq y$

**Give answer (3)** if  $x < y$

**Give answer (4)** if  $x \leq y$

**Give answer (5)** if  $x = y$  or the relationship cannot be established

**(Syndicate Bank PO  
Exam. 29.08.2010)**

240. I.  $3x - 2y = 10$

II.  $5x - 6y = 6$

241. I.  $x^2 + x - 12 = 0$

II.  $y^2 - 5y + 6 = 0$

242. I.  $x^2 + 9x + 18 = 0$

II.  $y^2 - 13y + 40 = 0$

**Directions(243–244) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and —

**Give answer (1)** if  $x > y$

**Give answer (2)** if  $x \geq y$

**Give answer (3)** if  $x < y$

**Give answer (4)** if  $x \leq y$

**Give answer (5)** if  $x = y$  or the relationship cannot be established.

**(Bank Of India PO  
Exam. 31.10.2010)**

243. I.  $x^2 - 1200 = 244$

II.  $y + 122 = 159$

244. I.  $x^2 - 9x + 20 = 0$

II.  $y^2 - 13y + 42 = 0$

**(PNB Management Trainee  
Exam. 28.11.2010)**

**Directions (245–246) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer**

(1) If  $x > y$  (2) If  $x \geq y$

(3) If  $x < y$  (4) If  $x \leq y$

(5) If  $x = y$  or the relationship cannot be established

**(Bank Of Maharashtra  
Exam. 19.12.2010)**

245. I.  $20x^2 - x - 12 = 0$

II.  $20y^2 + 27y + 9 = 0$

246. I.  $x^2 - 218 = 106$

II.  $y^2 - 37y + 342 = 0$

**Directions (247–249) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer If**

(1)  $x > y$

(2)  $x \geq y$

(3)  $x < y$

(4)  $x \leq y$

(5)  $x = y$  or the relationship cannot be established

**(Oriental Bank Of Commerce PO  
Exam. 26.12.2010 (Ist Sitting))**

247. I.  $x^2 - 7x + 12 = 0$

II.  $y^2 - 9y + 20 = 0$

248. I.  $y^2 - x^2 = 32$

II.  $y - x = 2$

249. I.  $3x + 5y = 28$

II.  $8x - 3y = 42$

**Directions (250–251) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer if**

(1)  $x > y$

(2)  $x \geq y$

(3)  $x < y$

(4)  $x \leq y$

(5)  $x = y$  or the relationship cannot be established

**(Union Bank Of India PO  
Exam. 09.01.2001 &  
RBI Grade-B Officer  
Exam. 2008)**

250. I.  $8x^2 - 78x + 169 = 0$

II.  $20y^2 - 117y + 169 = 0$

251. I.  $x^2 - 208 = 233$

$$\text{II. } y^2 - 47 + 371 = 0$$

**Directions (252–254) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer if**

- (1)  $x > y$
- (2)  $x \geq y$
- (3)  $x < y$
- (4)  $x \leq y$
- (5)  $x = y$  or the relationship cannot be established

**(Corporation Bank PO Exam. 16.01.2011)**

252. I.  $x^2 - 11x + 24 = 0$   
II.  $2y^2 - 9y + 9 = 0$
253. I.  $x^3 \times 13 = x^2 \times 247$   
II.  $y^{1/3} \times 14 = 294 \div y^{2/3}$
254. I.  $(17)^2 + 144 \div 18 = x$   
II.  $(26)^2 - 18 \times 21 = y$

**Directions (255–259) :** In each of these questions, two equations are given. You have to solve these equations and find out the values of  $x$  and  $y$  and

**Give answer If**

- (1)  $x < y$
- (2)  $x > y$
- (3)  $x \leq y$
- (4)  $x \geq y$
- (5)  $x = y$

**(Punjab & Sind Bank PO Exam. 23.01.2011)**

255. I.  $16x^2 + 20x + 6 = 0$   
II.  $10y^2 + 38y + 24 = 0$
256. I.  $18x^2 + 18x + 4 = 0$   
II.  $12y^2 + 29y + 14 = 0$
257. I.  $8x^2 + 6x = 5$   
II.  $12y^2 - 22y + 8 = 0$
258. I.  $17x^2 + 48x = 9$   
II.  $13y^2 = 32y - 12$
259. I.  $4x + 7y = 209$   
II.  $12x - 14y = -38$

**Directions :** In the following questions two equations numbered I and II are given. You

have to solve both the equations and

**Give answer (1)** if  $x > y$

**Give answer (2)** if  $x \geq y$

**Give answer (3)** if  $x < y$

**Give answer (4)** if  $x \leq y$

**Give answer (5)** if  $x = y$  or the relationship cannot be established

**(UCO Bank PO Exam. 30.01.2011)**

260. I.  $3x^2 - 19x + 28 = 0$   
II.  $5y^2 - 18y + 16 = 0$

**Directions (261–263) :** In the following questions, two equations numbered I and II are given. You have to solve both the equations and —

**Give answer If**

- (1)  $x > y$
- (2)  $x \geq y$
- (3)  $x < y$
- (4)  $x \leq y$
- (5)  $x = y$  or the relationship cannot be established

**(Indian Overseas Bank PO Exam. 22.05.2011)**

261. I.  $x^2 - 19x + 84 = 0$   
II.  $y^2 - 25y + 156 = 0$
262. I.  $x^3 - 468 = 1729$   
II.  $y^2 - 1733 + 1564 = 0$
263. I.  $x + 1234 = 1486$   
II.  $y + 2081 = 2345$

**Directions (264–267) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer If**

- (1)  $x > y$
- (2)  $x \square y$
- (3)  $x < y$
- (4)  $x \square y$
- (5)  $x = y$  or the relationship cannot be established

**(IDBI Bank Officer Exam. 16.09.2012)**

264. I.  $5x + 2y = 96$   
II.  $3(7x + 5y) = 489$

265. I.  $x^2 - 111 = (15)^2$

II.  $y^2 + (6)^3 = 260$

266. I.  $17x = (13)^2 + (5)^2 + 4x$

II.  $9y - 345 = 4y - 260$

267. I.  $3x^2 - 13x + 14 = 0$

II.  $y^2 - 7y + 12 = 0$

**Directions (268-271) :** In each of the following questions two equations are given. Solve these equations and give answer :

(1) if  $x \geq y$ , i.e.,  $x$  is greater than or equal to  $y$

(2) if  $x > y$ , i.e.,  $x$  is greater than  $y$

(3) if  $x \leq y$ , i.e.,  $x$  is less than or equal to  $y$

(4) if  $x < y$ , i.e.,  $x$  less than  $y$

(5)  $x = y$  or no relation can be established between  $x$  and  $y$

**(IBPSSpecialist Officer  
CWE 17.03.2013)**

268. I.  $x^2 + 5x + 6 = 0$

II.  $y^2 + 7y + 12 = 0$

269. I.  $x^2 + 20 = 9x$

II.  $y^2 + 42 = 13y$

270. I.  $2x + 3y = 14$

II.  $4x + 2y = 16$

271. I.  $x^2 + 4x + 4 = 0$

II.  $y^2 - 8y + 16 = 0$

**Directions (272-276) :** In each of the following questions, two equations are given. You have to solve these equations and

**Give answer If**

(1)  $x < y$

(2)  $x > y$

(3)  $x = y$

(4)  $x \geq y$

(5)  $x \leq y$

**(IBPS Bank PO/MT  
CWE-III 26.10.2013)**

272. I.  $x^2 - 24x + 144 = 0$

II.  $y^2 - 26y + 169 = 0$

273. I.  $2x^2 + 3x - 20 = 0$

II.  $2y^2 + 19y + 44 = 0$

274. I.  $6x^2 + 77x + 121 = 0$

II.  $y^2 + 9y - 22 = 0$

275. I.  $x^2 - 6x = 7$

II.  $2y^2 + 13y + 15 = 0$

276. I.  $10x^2 - 7x + 1 = 0$

II.  $35y^2 - 12y + 1 = 0$

**Directions (277 - 280) :** In each of the following questions equation I and equation II have been given. You have to solve both of these equations and

Give answer If

(1)  $x < y$

(2)  $x > y$

(3)  $x \leq y$

(4)  $x \geq y$

(5)  $x = y$  or no relation between two can be established.

**(Corporation Bank Specialist Officer  
(Marketing) Exam. 22.02.2014)**

277. I.  $4x^2 - 32x + 63 = 0$

II.  $2y^2 - 11y + 15 = 0$

278. I.  $12x^2 + 17x + 6 = 0$

II.  $6y^2 + 5y + 1 = 0$

279. I.  $20x^2 + 9x + 1 = 0$

II.  $30y^2 + 11y + 1 = 0$

280. I.  $x^2 + 17x + 72 = 0$

II.  $y^2 + 19y + 90 = 0$

**Directions(281-285) :** In the following questions, two equations I and II have been given. You have to solve both equations and

**Give answer if**

(1)  $x > y$

(2)  $x \geq y$

(3)  $x < y$

(4)  $x \leq y$

(5)  $x = y$  or the relation cannot be established.

**(Bank of Baroda PO  
Exam. 14.08.2014)**

281. I.  $6x^2 + 23x + 20 = 0$

II.  $6y^2 + 31y + 35 = 0$

282. I.  $x^2 = 81$

II.  $y^2 - 18y + 81 = 0$

283. I.  $4x^2 + 20x + 21 = 0$

II.  $2y^2 + 17y + 35 = 0$

284. I.  $x^2 - 14x + 48 = 0$

II.  $y^2 + 6 = 5y$

285. I.  $38x^2 - 3x - 11 = 0$

II.  $28y^2 + 32y + 9 = 0$

**Directions (286-290) :** In each of the following questions two equations I and II have been given. You have to solve both the equations and

**Give answer (1)** if  $x > y$

**Give answer (2)** if  $x \geq y$

**Give answer (3)** if  $x < y$

**Give answer (4)** if  $x \leq y$

**Give answer (5)** if  $x = y$  or relationship cannot be established between them

**(IDBI Officer Grade Exam. 22.08.2014)**

286. I.  $9x^2 - 27x + 8 = 0$

II.  $4y^2 - 13y + 3 = 0$

287. I.  $x^2 - 28x + 196 = 0$

II.  $y^2 = 196$

288. I.  $6x^2 + 41x + 63 = 0$

II.  $12y^2 + 55y + 63 = 0$

289. I.  $x^2 - 4x - 21 = 0$

II.  $y^2 - 4y - 32 = 0$

290. I.  $4x^2 + 11x + 6 = 0$

II.  $2y^2 + 11y + 15 = 0$

**Directions (291 - 295) :** In the following questions, two equations numbered I and II are given. You have to solve both the equations and —

**Give answer If**

(1)  $x > y$

(2)  $x \geq y$

(3)  $x < y$

(4)  $x \leq y$

(5)  $x = y$  or the relationship cannot be established

**(SIDBI Bank Officer Exam. 09.09.2014)**

291. I.  $2x^2 - 13x - 189 = 0$

II.  $2y^2 - 3y - 189 = 0$

292. I.  $x^2 + 30x + 81 = 0$

II.  $y^2 - 9y - 162 = 0$

293. I.  $4x^2 - 25x + 39 =$

II.  $18y^2 - 15y + 3 = 0$

294. I.  $4x^2 - 15x - 46 = 0$

II.  $6y^2 + 35y + 46 = 0$

295. I.  $3x^2 - 21x + 18 = 0$

II.  $y^2 - 13y + 42 = 0$

**Directions(296-300) :** In the following questions, two equations I and II have been given. You have to solve both equations and

**Give answer if**

(1)  $x > y$

(2)  $x \geq y$

(3)  $x < y$

(4)  $x \leq y$

(5)  $x = y$  or the relation cannot be established.

**(IBPS RRBs Officer Scale-I CWE, 06.09.2014)**

296. I.  $2x^2 - 19x + 45 = 0$

II.  $6y^2 - 48y + 90 = 0$

297. I.  $2x^2 + 15x + 28 = 0$

II.  $4y^2 + 18y + 14 = 0$

298. I.  $2x^2 + 18x + 40 = 0$

II.  $2y^2 + 15y + 27 = 0$

299. I.  $6x^2 - 29x + 35 = 0$

II.  $3y^2 - 11y + 10 = 0$

300. I.  $x^2 + 3x - 28 = 0$

II.  $y^2 - y - 20 = 0$

**Directions (301-305) :**

In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer If**

(1)  $x > y$

(2)  $x \geq y$

(3)  $x < y$

(4)  $x \leq y$

(5)  $x = y$  or the relationship cannot be established

**(IBPS Bank PO/MT CWE-IV 18.10.2014)**

301. I.  $8x^2 + 26x + 15 = 0$

II.  $4y^2 + 24y + 35 = 0$



302. I.  $x^2 - 5x - 24 = 0$   
 II.  $y^2 - 7y - 18 = 0$
303. I.  $6x^2 + 19x + 15 = 0$   
 II.  $24y^2 + 11y + 1 = 0$
304. I.  $9x^2 - 27x + 20 = 0$   
 II.  $6y^2 - 5y + 1 = 0$
305. I.  $x^2 - 6x + 9 = 0$   
 II.  $y^2 - 11y + 24 = 0$

**Directions (306-310) :** In these questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer If**

- (1)  $x \geq y$   
 (2)  $x < y$   
 (3)  $x > y$   
 (4)  $x \leq y$   
 (5)  $x = y$  relationship between  $x$  and  $y$  cannot be established.

**(BOB Junior Management Grade/Scale-I Exam. 18.04.2015)**

306. I.  $2x^2 - x - 10 = 0$   
 II.  $2y^2 - y - 21 = 0$
307. I.  $2x^2 + 11x + 15 = 0$   
 II.  $4y^2 + 22y + 24 = 0$
308. I.  $2x^2 + 9x + 9 = 0$   
 II.  $2y^2 + 17y + 36 = 0$
309. I.  $3x^2 - 22x + 40 = 0$   
 II.  $2y^2 - 19y + 44 = 0$
310. I.  $3x^2 - 16x + 21 = 0$   
 II.  $3y^2 - 28y + 65 = 0$

**Directions(311-315) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer (1)** if  $x > y$

**Give answer (2)** if  $x \geq y$

**Give answer (3)** if  $x < y$

**Give answer (4)** if  $x \leq y$

**Give answer (5)** if  $x = y$  or the relationship cannot be established.

**(IBPS RRBs Officer Scale-I & II CWE 12.09.2015)**

311. I.  $x^2 - 3x - 88 = 0$   
 II.  $y^2 + 8y - 48 = 0$
312. I.  $5x^2 + 29x + 20 = 0$   
 II.  $25y^2 + 25y + 6 = 0$
313. I.  $2x^2 - 11x + 12 = 0$   
 II.  $2y^2 - 19y + 44 = 0$
314. I.  $3x^2 + 10x + 8 = 0$   
 II.  $3y^2 + 7y + 4 = 0$
315. I.  $2x^2 + 21x + 10 = 0$   
 II.  $3y^2 + 13y + 14 = 0$

**Directions (356-360) :** In these questions, two equations numbered I and II are given. You have to solve both the equations and select the appropriate option.

**(IBPS Bank PO/MT CWE-V (Preliminary) 03.10.2015)**

316. I.  $2x^2 + 19x + 45 = 0$   
 II.  $2y^2 + 11y + 12 = 0$   
 (1)  $x > y$  (2)  $x \geq y$   
 (3)  $x < y$   
 (4) relationship between  $x$  and  $y$  cannot be determined  
 (5)  $x \leq y$
317. I.  $3x^2 - 13x + 12 = 0$   
 II.  $2y^2 - 15y + 28 = 0$   
 (1)  $x > y$  (2)  $x \geq y$   
 (3)  $x < y$   
 (4) relationship between  $x$  and  $y$  cannot be determined  
 (5)  $x \leq y$
318. I.  $x^2 = 16$   
 II.  $2y^2 - 17y + 36 = 0$   
 (1)  $x > y$  (2)  $x \geq y$   
 (3)  $x < y$   
 (4) relationship between  $x$  and  $y$  cannot be determined  
 (5)  $x \leq y$
319. I.  $6x^2 + 19x + 15 = 0$   
 II.  $3y^2 + 11y + 10 = 0$   
 (1)  $x > y$  (2)  $x \geq y$   
 (3)  $x < y$   
 (4) relationship between  $x$  and  $y$  cannot be determined  
 (5)  $x \leq y$
320. I.  $2x^2 - 11x + 15 = 0$

$$\text{II. } 2y^2 - 11y + 14 = 0$$

- (1)  $x > y$  (2)  $x \geq y$   
 (3)  $x < y$   
 (4) relationship between  $x$  and  $y$   
 cannot be determined  
 (5)  $x \leq y$

**Directions (321–325)** : In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer (1)** if  $x > y$

**Give answer (2)** if  $x \geq y$

**Give answer (3)** if  $x < y$

**Give answer (4)** if  $x \leq y$

**Give answer (5)** if  $x = y$  or the relationship cannot be established.

**(IBPS Bank PO/MT CWE–V  
 (Preliminary) 04.10.2015)**

321. I.  $x^2 + x - 12 = 0$   
 II.  $y^2 + 2y - 8 = 0$   
 322. I.  $4x^2 - 13x + 9 = 0$   
 II.  $3y^2 - 14y + 16 = 0$   
 323. I.  $8x^2 + 18x + 9 = 0$   
 II.  $4y^2 + 19y + 21 = 0$   
 324. I.  $3x^2 + 16x + 21 = 0$   
 II.  $6y^2 + 17y + 12 = 0$   
 325. I.  $x^2 = 49$   
 II.  $y^2 - 4y - 21 = 0$

**Directions(326 – 330)** : In each of the following questions, two equations numbered I and II are given. You have to solve both the equations and give answer

- (1) if  $x \geq y$   
 (2) if  $x \leq y$   
 (3) if  $x > y$   
 (4) if  $x < y$   
 (5) if  $x = y$  or relationship between  $x$  and  $y$  cannot be established

**(IBPS Bank PO/MT CWE–V  
 (Preliminary) 10.10.2015  
 Ist Sitting)**

326. I.  $x^2 = 81$   
 II.  $y^2 + 13y + 36 = 0$   
 327. I.  $2x^2 - 11x + 14 = 0$

$$\text{II. } 2y^2 - 7y + 6 = 0$$

328. I.  $3x^2 - 13x + 14 = 0$   
 II.  $3y^2 - 17y + 22 = 0$   
 329. I.  $2x^2 + 9x + 9 = 0$   
 II.  $4y^2 + 9y + 5 = 0$   
 330. I.  $x^2 - 7x + 12 = 0$   
 II.  $2y^2 - 19y + 44 = 0$

**Directions (331–335)** : In these questions, two equations numbered I and II are given. You have to solve both the equations and select the appropriate option.

**(IBPS Bank PO/MT CWE–V  
 (Preliminary) 10.10.2015)**

331. I.  $x^2 = 144$   
 II.  $y^2 - 24y + 144 = 0$   
 (1)  $x \leq y$  (2)  $x \geq y$   
 (3) relationship between  $x$  and  $y$   
 cannot be determined  
 (4)  $x < y$  (5)  $x > y$   
 332. I.  $2x^2 - 9x + 10 = 0$   
 II.  $2y^2 - 13y + 20 = 0$   
 (1)  $x \leq y$  (2)  $x \geq y$   
 (3) relationship between  $x$  and  $y$   
 cannot be determined  
 (4)  $x < y$  (5)  $x > y$   
 333. I.  $2x^2 + 15x + 27 = 0$   
 II.  $2y^2 + 7y + 6 = 0$   
 (1)  $x \leq y$  (2)  $x \geq y$   
 (3) relationship between  $x$  and  $y$   
 cannot be determined  
 (4)  $x < y$  (5)  $x > y$   
 334. I.  $3x^2 - 13x + 12 = 0$   
 II.  $3y^2 - 13y + 14 = 0$   
 (1)  $x \leq y$  (2)  $x \geq y$   
 (3) relationship between  $x$  and  $y$   
 cannot be determined  
 (4)  $x < y$  (5)  $x > y$   
 335. I.  $5x^2 + 8x + 3 = 0$   
 II.  $3y^2 + 7y + 4 = 0$   
 (1)  $x \leq y$  (2)  $x \geq y$   
 (3) relationship between  $x$  and  $y$   
 cannot be determined  
 (4)  $x < y$  (5)  $x > y$

**Directions (336–340)** : In the following questions two equations numbered I and II are given. You

have to solve both the equations and

**Give answer (1)** if  $x > y$

**Give answer (2)** if  $x \geq y$

**Give answer (3)** if  $x < y$

**Give answer (4)** if  $x \leq y$

**Give answer (5)** if  $x = y$  or the relationship between  $x$  and  $y$  cannot be established.

**(IBPS RRBs Officer Scale-I & II  
CWE 13.09.2015)**

336. I.  $x^2 - 4x - 12 = 0$   
II.  $y^2 - 5y - 14 = 0$
337. I.  $3x^2 - 22x + 40 = 0$   
II.  $5y^2 - 21y + 16 = 0$
338. I.  $25x^2 + 35x + 12 = 0$   
II.  $10y^2 + 9y + 2 = 0$
339. I.  $12x^2 + 7x + 1 = 0$   
II.  $6y^2 + 5y + 1 = 0$
340. I.  $3x^2 - 13x - 10 = 0$   
II.  $3y^2 + 10y - 8 = 0$

**Directions(341-346) :**

In each of the following questions, two equations numbered I and II are given. You have to solve both the equations and select the appropriate option.

**Give answer If**

- (1)  $x > y$   
(2)  $x \leq y$   
(3)  $x \geq y$   
(4)  $x < y$   
(5) Relationship between  $x$  and  $y$  cannot be established

**(IBPS Specialist Officer (IT)  
CWE 14.02.2016)**

341. I.  $2x^2 - 21x + 52 = 0$   
II.  $2y^2 - 11y + 12 = 0$
342. I.  $3x^2 - 13x + 14 = 0$   
II.  $2y^2 - 5y + 3 = 0$
343. I.  $4x^2 - 8x + 3 = 0$   
II.  $4y^2 - 15y + 14 = 0$
344. I.  $2x^2 - 9x + 9 = 0$   
II.  $y^2 - 7y + 12 = 0$
345. I.  $4x^2 + 19x + 22 = 0$   
II.  $2y^2 + 11y + 15 = 0$

346. I.  $x^2 + 8x + 15 = 0$   
II.  $y^2 + 3y + 2 = 0$

**Directions (347-349) :** In each question below one or more equation (s) is/are provided. On the basis of these you have to find out relation between  $p$  and  $q$ .

**Give answer (1)** if  $p = q$

**Give answer (2)** if  $p > q$ .

**Give answer (3)** if  $q > p$

**Give answer (4)** if  $p \square q$  and

**Give answer (5)** if  $q \square p$

**(SBI Banks PO Exam. 20.08.2000)**

347. I.  $4q^2 + 8q = 4q + 8$   
II.  $p^2 + 9p = 2p - 12$
348. I.  $2p^2 + 40 = 18p$   
II.  $q^2 = 13q - 42$
349. I.  $6q^2 +$   
II.  $12p^2 + 2 = 10p$

**Directions (350-354) :** In each of the questions a pair of equations is given. You have to find the values of  $x$  and  $y$  and give answer.

- (1) if  $x < y$  (2) if  $x \square y$   
(3) if  $x = y$  (4) if  $x > y$   
(5) if  $x \square y$

**(SBI Associate Banks PO**

**Exam. 21.07.2002 &**

**LIC Assistant Administrative  
Officer (AAO) Exam. 2006)**

350. I.  $2x^2 - 7x + 6 = 0$   
II.  $4y^2 = 9$
351. I.  $4x^2 - 4x - 3 = 0$   
II.  $4y^2 + 12y + 5 = 0$
352. I.  $4x^2 = 49$   
II.  $9y^2 - 66y + 121 = 0$
353. I.  $x^2 + 9x + 14 = 0$   
II.  $y^2 + y - 2 = 0$
354. I.  $9x^2 - 18x + 5 = 0$   
II.  $2y^2 - 9y + 10 = 0$

**Directions (355 - 358) :** For the two given equations I and II.

**Give answer (1)** if  $p$  is greater than  $q$ .

**Give answer (2)** if  $p$  is smaller than  $q$ .

**Give answer (3)** if  $p$  is equal to  $q$ .

**Give answer (4)** if  $p$  is either equal to or greater than  $q$ .

**Give answer (5)** if  $p$  is either equal to or smaller than  $q$ .

**(SBI Banks PO Exam. 18.05.2003)**

355. I.  $6p^2 + 5p + 1 = 0$   
II.  $20q^2 + 9q = -1$
356. I.  $3p^2 + 2p - 1 = 0$   
II.  $2q^2 + 7q + 6 = 0$
357. I.  $3p^2 + 15p = -18$   
II.  $q^2 + 7q + 12 = 0$
358. I.  $p^2 + 13p + 42 = 0$   
II.  $q^2 = 36$

**Directions (359-363) :** In each of these questions two equations numbered I & II are given. You have to solve both the equations and give answer

- (1) if  $a < b$  (2) if  $a > b$   
(3) if relationship between  $a$  &  $b$  cannot be established  
(4) if  $ab$  (5) if  $ab$

**(SBI PO Exam. 09.01.2005)**

359. I.  $a^2 + 5a + 6 = 0$   
II.  $b^2 + 3b + 2 = 0$
360. I.  $2a^2 + 3a + 1 = 0$   
II.  $12b^2 + 7b + 1 = 0$
361. I.  $a^2 = 4$   
II.  $a^2 = 9$
362. I.  $6a^2 - 25a + 25 = 0$   
II.  $15b^2 - 16b + 4 = 0$
363. I.  $4a^2 - 20a + 21 = 0$   
II.  $2b^2 - 5b + 3 = 0$

**Directions (364-368) :** In each question below one or two equation(s) is/are provided. On the basis of these you have to find out relation between  $p$  and  $q$ .

**Give answer (1)** if  $p = q$

**Give answer (2)** if  $p > q$

**Give answer (3)** if  $p < q$

**Give answer (4)** if  $p \geq q$  and

**Give answer (5)** if  $q \geq p$

**(SBI PO Exam. 26.11.2006)**

364. I.  $p^2 + 24 = 10p$   
II.  $2q^2 + 18 = 12q$

365.  $pq + 30 = 6p + 5q$
366. I.  $q^2 + q = 2$   
II.  $p^2 + 7p + 10 = 0$
367. I.  $p^2 + 16 = 8p$   
II.  $4q^2 + 64 = 32q$
368. I.  $2p^2 + 12p + 16 = 0$   
II.  $2q^2 + 14q + 24 = 0$

**Directions (369-373) :** In each of the following questions two equations are given. You have to solve them and

**Give answer (1)** if  $p < q$ ;

**Give answer (2)** if  $p > q$ ;

**Give answer (3)** if  $p \leq q$

**Give answer (4)** if  $p \geq q$

**Give answer (5)** if  $p = q$

**(SBI Associate Banks PO Exam. 07.01.2007)**

369. I.  $p^2 - 7p = -12$   
II.  $q^2 - 3q + 2 = 0$
370. I.  $12p^2 - 7p = -1$   
II.  $6q^2 - 7q + 2 = 0$
371. I.  $p^2 + 12p + 35 = 0$   
II.  $2q^2 + 22q + 56 = 0$
372. I.  $p^2 - 8p + 15 = 0$   
II.  $q^2 - 5q = -6$
373. I.  $2p^2 + 20p + 50 = 0$   
II.  $q^2 = 25$

**Directions (374-378) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and —

**Give answer (1)** if  $x > y$

**Give answer (2)** if  $x \geq y$

**Give answer (3)** if  $x < y$

**Give answer (4)** if  $x \leq y$

**Give answer (5)** if  $x = y$  or the relationship cannot be established.

**(SBI PO Phase-I (Preliminary) Online Exam. 20.06.2015)**

374. I.  $3x^2 + 14x + 15 = 0$   
II.  $6y^2 + 17y + 12 = 0$
375. I.  $3x^2 - 17x + 24 = 0$   
II.  $4y^2 - 15y + 14 = 0$
376. I.  $2x^2 + 11x + 14 = 0$

377. I.  $3x^2 + 13x + 12 = 0$   
 II.  $2y^2 + 17y + 33 = 0$

378. I.  $x^2 - 22x + 121 = 0$   
 II.  $y^2 = 121$

**Directions (379– 383) :** In each of the following questions, two equations numbered I and II are given. You have to solve both the equations and give answer

- (1)if  $x \geq y$   
 (2)if  $x < y$   
 (3)if  $x > y$   
 (4)if  $x < y$   
 (5)if relationship between  $x$  and  $y$  cannot be established

**(SBI PO Phase-I (Preliminary) Online Exam. 21.06.2015)**

379. I.  $4x^2 + 17x + 15 = 0$   
 II.  $3y^2 + 19y + 28 = 0$

380. I.  $3x^2 - 17x + 22 = 0$   
 II.  $5y^2 - 21y + 22 = 0$

381. I.  $3x^2 + 11x + 10 = 0$   
 II.  $2y^2 + 13y + 21 = 0$

382. I.  $3x^2 + 13x + 14 = 0$   
 II.  $8y^2 + 26y + 21 = 0$

383. I.  $3x^2 - 14x + 15 = 0$   
 II.  $15y^2 - 34y + 15 = 0$

**Directions (384–388) :**

In these questions two equations numbered I and II are given. You have to solve both the equations and give answer

- (1) if  $x < y$   
 (2)if  $x > y$   
 (3)if  $x < y$   
 (4)if  $x > y$   
 (5)if  $x = y$  or relationship between  $x$  and  $y$  cannot be established

**(SBI PO Phase-I (Preliminary) Online Exam. 27.06.2015)**

384. I.  $2x^2 + 23x + 63 = 0$   
 II.  $4y^2 + 19y + 21 = 0$

385. I.  $3x^2 + 29x + 56 = 0$

386. I.  $3x^2 + 23x + 44 = 0$   
 II.  $2y^2 + 15y + 25 = 0$

387. I.  $4x^2 - 29x + 45 = 0$   
 II.  $3y^2 + 20y + 33 = 0$

388. I.  $2x^2 - 13x + 21 = 0$   
 II.  $3y^2 - 19y + 28 = 0$

389. I.  $2x^2 - 13x + 21 = 0$   
 II.  $5y^2 - 22y + 21 = 0$

389. Which value of  $x$  does satisfy the inequality  $2x^2 + x - 3 < 0$ ?

- (1) (2)  
 (3)  $x > 1$  (4)  
 (5) None of these

**(RBI Grade-B Officer Exam.17.11.2002)**

**Directions : (390-394)** In each of the following questions, one or two equations (s) is/are given. On their basis you have to determine relation between  $x$  and  $y$  and then,

Give answer (1) if  $x < y$

Give answer (2) if  $x > y$

Give answer (3) if  $x \leq y$

Give answer (4) if  $x \geq y$

Give answer (5) if  $x = y$

**(RBI Grade-B Officer Exam.17.11.2002)**

390. I.  $x^2 + 3x + 2 = 0$

II.  $2y^2 = 5y$

391. I.  $2x^2 + 5x + 2 = 0$

II.  $4y^2 = 1$

392. I.  $y^2 + 2y - 3 = 0$

II.  $2x^2 - 7x + 6 = 0$

393. I.  $x^2 + 2x - 8 = 0$

II.  $y^2 - 2 = 7$

394. I.  $x^2 - 5x + 6 = 0$

II.  $y^2 + y - 6 = 0$

**Directions (395-398) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give Answer If**

(1)  $x > y$

(2)  $x \geq y$

- (3)  $x < y$   
 (4)  $x \leq y$   
 (5)  $x = y$  or the relationship cannot be established

**(RBI Grade-B Officer  
Exam.06.02.2011)**

395. I  $x^2 + 5x + 6 = 0$   
 II  $y^2 + 3y + 2 = 0$   
 396. I  $x^2 - 10x + 24 = 0$   
 II  $y^2 - 9y + 20 = 0$   
 397. I  $x^2 - 72 = x$   
 II  $y^2 = 64$   
 398. I  $x^2 - 463 = 321$   
 II  $y^2 - 421 = 308$

**Directions (399-402) :** In the following questions three equations numbered I, II and III are given. You have to solve all the equations either together or separately, or two together and one separately, or by any other method and—

**Give answer If**

- (1)  $x < y = z$   
 (2)  $x \leq y < z$   
 (3)  $x < y > z$   
 (4)  $x = y > z$   
 (5)  $x = y = z$  or if none of the above relationship is established

**(RBI Grade 'B' Officer's  
Exam. 18.12.2011)**

399. I.  $7x + 6y + 4z = 122$   
 II.  $4x + 5y + 3z = 88$   
 III.  $9x + 2y + z = 78$   
 400. I.  $7x + 6y = 110$   
 II.  $4x + 3y = 59$   
 III.  $x + z = 15$   
 401. I.  $8x + 7y = 135$   
 II.  $5x + 6y = 99$   
 III.  $9y + 8z = 121$   
 402. I.  $(x + y)^3 = 1331$   
 II.  $x - y + z = 0$   
 III.  $xy = 28$

**Directions(403-406) :** In each of the following questions, two equations I and II have been

given. Solve these questions and answer

- (1) if  $x < y$   
 (2) if  $x \leq y$   
 (3) if  $x = y$  or the relation cannot be established  
 (4) if  $x > y$   
 (5) if  $x > y$

**(RBI Officer Grade 'B' Phase-I,  
Exam. 03.08.2014)**

- 403.I.  $30x^2 + 11x + 1 = 0$   
 II.  $42y^2 + 13y + 1 = 0$   
 404.I.  $x^2 - x - x + = 0$   
 II.  $y^2 - 3y + 2 = 0$   
 405.I.  $x^2 + 12x + 36 = 0$   
 II.  $y^2 = 16$   
 406.I.  $9x^2 + 3x - 2 = 0$   
 II.  $8y^2 + 6y + 1 = 0$

**Directions (407 - 411) :** In these questions two equations numbered I and II are given. You have to solve both the equations and give answer

- (i) if  $x < y$   
 (ii) if  $x > y$   
 (iii) if  $x \leq y$   
 (iv) if  $x \geq y$   
 (v) if  $x = y$  or relationship between  $x$  and  $y$  cannot be established

**(NABARD Officer Grade 'A'  
Online Exam. 03.08.2014)**

407. I.  $4x^2 + 16x + 15 = 0$   
 II.  $4y^2 + 17y + 18 = 0$   
 408. I.  $x^2 + 7x + 12 = 0$   
 II.  $y^2 + 5y + 6 = 0$   
 409. I.  $64x^2 - 64x + 15 = 0$   
 II.  $21y^2 - 13y + 2 = 0$   
 410. I.  $15x^2 - 19x + 6 = 0$   
 II.  $45y^2 - 47y + 12 = 0$   
 411. I.  $2x^2 + 5x + 2 = 0$   
 II.  $12y^2 + 7y + 1 = 0$

**Directions(412-415) :** In each of the following questions, two equations I and II have been given. Solve these questions and answer

- (1) if  $x < y$   
 (2) if  $x \leq y$   
 (3) if  $x = y$  or the relation cannot be established  
 (4) if  $x \geq y$   
 (5) if  $x > y$

**(RBI Officer Grade 'B' Phase-I Exam. 03.08.2014)**

- 412.I.  $30x^2 + 11x + 1 = 0$   
 II.  $42y^2 + 13y + 1 = 0$   
 413.I.  $x^2 - x - x + = 0$   
 II.  $y^2 - 3y + 2 = 0$   
 414.I.  $x^2 + 12x + 36 = 0$   
 II.  $y^2 = 16$   
 415.I.  $9x^2 + 3x - 2 = 0$   
 II.  $8y^2 + 6y + 1 = 0$

**Directions (416–420) :** In the following questions, two equations numbered I and II are given. You have to solve both the equations and —

**Give answer If**

- (1)  $x > y$   
 (2)  $x \geq y$   
 (3)  $x < y$   
 (4)  $x \leq y$   
 (5)  $x = y$  or the relationship cannot be established

**(NIACL Administrative Officer (AO) Exam. 11.01.2015)**

416. I.  $2x^2 - 25x + 77 = 0$   
 II.  $2y^2 - 21y + 55 = 0$   
 417. I.  $2x^2 + 9x + 7 = 0$   
 II.  $2y^2 + 9y + 10 = 0$   
 418. I.  $9x^2 - 33x + 28 = 0$   
 II.  $6y^2 - 25y + 25 = 0$   
 419. I.  $9x^2 - 36x + 35 = 0$   
 II.  $2y^2 - 15y - 17 = 0$   
 420. I.  $x^2 + 7x + 12 = 0$   
 II.  $2y^2 + 11y + 15 = 0$

**Directions (421–425) :** In the given questions two equations numbered I and II are given. You have to solve both the equations and give answer.

**(NIACL Administrative Officer (AO) Exam. 10.01.2015)**

- (1) If  $x < y$  (2) If  $x > y$   
 (3) If  $x \geq y$  (4) If  $x \leq y$   
 (5) relationship between  $x$  and  $y$  cannot be established.

- 421.I.  $2x^2 - 7x + 3 = 0$   
 II.  $2y^2 - 7y + 6 = 0$   
 422.I.  $4x^2 + 16x + 15 = 0$   
 II.  $2y^2 + 3y + 1 = 0$   
 423.I.  $9x^2 - 45x + 56 = 0$   
 II.  $4y^2 - 17y + 18 = 0$   
 424.I.  $2x^2 + 11x + 14 = 0$   
 II.  $2y^2 + 15y + 28 = 0$   
 425.I.  $6x^2 + 11x + 14 = 0$   
 II.  $4y^2 - 7y - 2 = 0$

**Directions (426–430) :** In the following questions two equations numbered I and II are given. You have to solve both the equations and choose the appropriate option.

**Give answer If**

- (1)  $x > y$   
 (2)  $x < y$   
 (3)  $x \geq y$   
 (4)  $x \leq y$   
 (5)  $x = y$  or the relationship cannot be established

**(LIC Assistant Administrative Officer (AAO) Online Exam. 05.03.2016)**

426. I.  $3x^2 + 7x + 2 = 0$   
 II.  $y^2 + 5y + 6 = 0$   
 427. I.  $2x^2 - 13x + 21 = 0$   
 II.  $2y^2 - 9y + 10 = 0$   
 428. I.  $3x^2 - 14x + 15 = 0$   
 II.  $2y^2 - 9y + 9 = 0$   
 429. I.  $3x^2 - 10x + 8 = 0$   
 II.  $2y^2 - 11y + 15 = 0$   
 430. I.  $x^2 = 25$   
 II.  $y^2 - 6y + 9 = 0$

**Directions (431–435) :** In these questions two equations numbered I and II are given. You

have to solve both the equations  
and give answer

(1)if  $x > y$

(2)if  $x < y$

(3)if  $x \geq y$

(4)if  $x \leq y$

(5)if  $x = y$  or relationship between  $x$   
and  $y$  cannot be  
established

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 06.03.2016)**

431. I.  $x^2 = 10$

II.  $y^2 - 9y + 20 = 0$

432. I.  $2x^2 - 15x + 27 = 0$

II.  $2y^2 - 13y + 20 = 0$

433. I.  $9x^2 - 21x + 10 = 0$

II.  $y^2 - 8y + 15 = 0$

434. I.  $2x^2 - 13x + 15 = 0$

II.  $2y^2 - 11y + 12 = 0$

435. I.  $2x^2 + 7x + 6 = 0$

II.  $2y^2 + 17y + 30 = 0$



## 11. TIME AND DISTANCE

1. A certain distance is covered by a train with a certain speed. If half the distance is covered in double time, then the ratio of this speed to that of the original one is  
 (a) 1 : 4                                      (b) 4 : 1  
 (c) 1 : 2                                      (d) 2 : 1
2. A man makes his upward journey at 16 km/h and Downward journey at 28 km/h. What is his average speed ?  
 (a) 32 km/h                                      (b) 56 km/h  
 (c) 20.36 km/h                                      (d) 22 km/h
3. Sound is said to travel in air at about 1100 feet per second. A man hears the axe striking the tree,  $\frac{11}{5}$  seconds after he sees it strike the tree. How far is the man from the wood chopper?  
 (a) 2197 ft                                      (b) 2420 ft  
 (c) 2500 ft                                      (d) 2629 ft
4. A salesman travels a distance of 50 km in 2 hours and 30 minutes. How much faster, in kilometres per hour, on an average, must he travel to make such a trip in  $\frac{5}{6}$  hour less time?  
 (a) 10    (b) 20  
 (c) 30    (d) None of these
5. Two persons A and B started from two different Places towards each other. If the ratio of their speed be 3 : 5, then what is the ratio of distance covered by A and B respectively till the point of meeting  
 (a) 1 : 2    (b) 3 : 4  
 (c) 3 : 5    (d) 5 : 3
6. If a man travels at 30 km/h, he reaches his destination late by 10 minutes but if he travels at 42 km/h then he reaches 10 minutes earlier. The distance travelled by him is  
 (a) 30 km    (b) 35 km  
 (c) 45 km    (d) 36 km
7. Two trains each of 120 m in length, run in opposite directions with a velocity of 40 m/s and 20 m/s respectively. How long will it take for the tail ends of the two trains to meet each other during the course of their journey?  
 (a) 20 s    (b) 3 s  
 (c) 4 s    (d) 5 s
8. Two trains starting at the same time from two stations, 200 km apart and going in oppositedirections, cross each other at a distance of 110 km from one of them. What is the ratio of their speeds?  
 (a) 11 : 20    (b) 9 : 20  
 (c) 11 : 9    (d) 19 : 20
9. Two runner start running together for a certain distance, one at 8 km/h and another at 5 km/h. The former arrives one and half an hour, before the latter. The distance (in km) is:  
 (a) 12    (b) 20  
 (c) 25    (d) 36
10. A can complete a journey in 10 hours. He travels first half of the journey at the rate of 21 km/hr and second half at the rate of 24 km/hr. Find the total journey in km.  
 (a) 220 km    (b) 224 km  
 (c) 230 km    (d) 234 km
11. A train is moving at a speed of 132 km/h. If the length of the train is 110 metres, how long will it take to cross a railway platform, 165 metres long ?  
 (a) 5 s    (b) 7.5 s  
 (c) 10 s    (d) 15 s
12. A person travels equal distances with speeds of 3km/hr, 4 km/hr and

- 5km/hr and takes a total time of 47 minutes. The total distance (in km) is:  
(a) 2 (b) 3  
(c) 4 (d) 5
- 13.** A and B travel the same distance at 9 km/h and 10 km/h respectively. If A takes 20 minutes longer than B, the distance travelled by each is:  
(a) 16 (b) 20  
(c) 30 (d) None of these
- 14.** A passenger train takes two hours less for a journey of 300 km if its speed is increased by 5 km/h from its normal speed. The normal speed of the train is  
(a) 35 km/h (b) 50 km/h  
(c) 25 km/h (d) 30 km/h
- 15.** A gun is fired at a distance of 3.32 km from Chauhan. He hears its sound 10 seconds later. Find the speed of the sound.  
(a) 301 m/s (b) 302 m/s  
(c) 332 m/s (d) 340 m/s
- 16.** A walks around a circular field at the rate of one round per hour while B runs around it at the rate of six rounds per hour. They start in the same direction from the same point at 7.30 a.m. They shall first cross each other at:  
(a) 7.42 a.m. (b) 7.48 a.m.  
(c) 8.10 a.m. (d) 8.30 a.m.
- 17.** A car driver travels from the plains to a hill station, which are 200 km apart at an average speed of 40 km/h. In the return trip he covers the same distance at an average speed of 20 km/h. The average speed of the car over the entire distance of 400 km is  
(a) 16.56 km/h (b) 17.89 km/h  
(c) 26.67 km/h (d) 35 km/h
- 18.** Two trains of equal lengths are running on parallel tracks in the same direction at 46 km/h and 36 km/h, respectively. The faster train passes the slower train in 36 sec. The length of each train is  
(a) 50 m (b) 80 m  
(c) 72 m (d) 82 m
- 19.** In a 800 m race around a stadium having the Circumference of 200 m, the top runner meets the last runner on the 5<sup>th</sup> minute of the race. If the top runner runs at twice the speed of the last runner, what is the time taken by the top runner to finish the race ?  
(a) 20 min (b) 15 min  
(c) 10 min (d) 5 min
- 20.** Excluding stoppages, the speed of a train is 45 km/h and including stoppages, it is 36 km/h. For how many minutes does the train stop per hour ?  
(a) 10 min. (b) 12 min.  
(c) 15 min. (d) 18 min.
- 21.** The driving wheel of a locomotive engine, 2.1 m in radius, makes 75 revolutions in one minute. Find the speed of the train in km/h.  
(a) 60 km/h (b) 59.4 km/h  
(c) 61.5 km/h (d) None of these
- 22.** A train covers 180 km distance in 4 hours. Another train covers the same distance in 1 hour less. What is the difference in the distances covered by these trains in one hour ?  
(a) 45 km (b) 9 km  
(c) 40 km (d) None of these
- 23.** Speed of a speed-boat when moving in the direction parallel to the direction of the current is 16 km/hr. Speed of the current is 3 km/hr. So the speed of the boat against the current will be (in km/hr)  
(a) 22 (b) 9.5  
(c) 10 (d) None of these

- 24.** A plane left 30 minutes later than the scheduled time and in order to reach the destination 1500 km away in time, it had to increase the speed by 250 km/h from the usual speed. Find its usual speed.  
 (a) 720 km/h (b) 740 km/h  
 (c) 730 km/h (d) 750 km/h
- 25.** Two trains are 2 km apart and their lengths are 200 m and 300 m. They are approaching towards each other with a speed of 20 m/s and 30 m/s, respectively. After how much time will they cross each other ?  
 (a) 50 s (b) 100 s  
 (c) 25/3 s (d) 150 s
- 26.** A train 300 m long is running at a speed of 90 km/hr. How many seconds will it take to cross a 200 m long train running in the opposite direction at a speed of 60 km/hr ?  
 (a)  $7\frac{1}{5}$  (b) 60  
 (c) 12 (d) 20
- 27.** A boat travels upstream from *B* to *A* and downstream from *A* to *B* in 3 hours. If the speed of the boat in still water is 9 km/hr and the speed of the current is 3 km/hr, the distance between *A* and *B* is  
 (a) 4 km (b) 8 km  
 (c) 6 km (d) 12 km
- 28.** A motor boat can travel at 10 km/h in still water. It travelled 91 km downstream in a river and then returned, taking altogether 20 hours. Find the rate of flow of the river.  
 (a) 6 km/hr (b) 5 km/hr  
 (c) 8 km/hr (d) 3 km/hr
- 29.** Two men starting from the same place walk at the rate of 5 km/h and 5.5 km/h respectively. What time will they take to be 8.5 km apart, if they walk in the same direction?  
 (a) 16 h (b) 8 h 30 min  
 (c) 4 h 5min (d) 17 h
- 30.** Speed of a boat in standing water is 9 km/h and the speed of the stream is 1.5 km/h. A man rows to a place at a distance of 105 km and comes back to the starting point. The total time taken by him is  
 (a) 20 h (b) 18 h  
 (c) 16 h (d) 24 h
- 31.** An aeroplane travels distances 2500 km, 1200 km and 500 km at the rate of 500 km/hr, 400 km/hr, and 250 km/hr, respectively. The average speed is  
 (a) 420 km/hr (b) 405 km/hr  
 (c) 410 km/hr (d) 575 km/hr
- 32.** There are 20 poles with a constant distance between each pole. A car takes 24 seconds to reach the 12th pole. How much time will it take to reach the last pole?  
 (a) 25.25 s (b) 17.45 s  
 (c) 35.75 s (d) 41.45 s
- 33.** A man walks half of the journey at 4 km/h by cycle does one third of journey at 12 km/h and rides the remainder journey in a horse cart at 9 km/h, thus completing the whole journey in 6 hours and 12 minutes. The length of the journey is  
 (a) 36 km (b)  $\frac{1332}{67}$  km  
 (c) 40 km (d) 28 km
- 34.** A train covers 180 km distance in 4 hours. Another train covers the same distance in 1 hour less. What is the difference in the distances covered by these trains in one hour ?  
 (a) 45 km (b) 9 km  
 (c) 40 km (d) None of these
- 35.** The jogging track in a sports complex is 726 metres in circumference. Pradeep and his wife start from the same point and walk in opposite directions at 4.5 km/h and 3.75 km/h, respectively. They will meet for the first time in

- (a) 5.5 min                      (b) 6.0 min  
(c) 5.28 min                     (d) 4.9 min
- 36.** A boat goes 24 km upstream and 28 km downstream in 6 hours. It goes 30km upstream and 21 km downstream in 6 hours and 30 minutes. The speed of the boat in still water is :  
(a) 10 km/h                      (b) 4 km/h  
(c) 14 km/h                      (d) 6km/h
- 37.** Two trains for Mumbai leave Delhi at 6 a.m. and 6 : 45 am and travel at 100 kmph and 136 kmph respectively. How many kilometres from Delhi will the two trains be together  
(a) 262.4 km                      (b) 260 km  
(c) 283.33 km                     (d) 275 km
- 38.** Two points A and B are located 48 km apart on the riverfront. A motorboat must go from A to B and return to A as soon as possible. The river flows at 6 km/h. What must be the least speed of the motorboat in still water for the trip from A to B and back again to be completed in not more than six hours (assume that the motorboat does not stop at B)?  
(a) 18 km/h                      (b) 16 km/h  
(c) 25 km/h                      (d) 46 km/h
- 39.** A 200 m-long train passes a 350 m long platform in 5 s. If a man is walking at a speed of 4 m/s along the track and the train is 100 m away from him, how much time will it take to reach the man?  
(a) Less than 1 s                (b) 1.04 s  
(c) More than 2s                (d) Data insufficient
- 40.** A clock gains 15 minutes per day. It is set right at 12 noon. What time will it show at 4.00 am, the next day?  
(a) 4 : 10 am                      (b) 4 : 45 am  
(c) 4 : 20 am                      (d) 5 : 00 am
- 41.** During a journey of 80 km a train covers first 60km with a speed of 40 km/h and completes the remaining distance with a speed of 20 km/h. What is the average speed of the train during the whole journey?  
(a) 30 km/h                      (b) 32 km/h  
(c) 36 km/h                      (d) 40 km/h
- 42.** A travels from B to C, a distance of 250 miles, in 5.5 hours. He returns to B in 4 hours 40 minutes. His average speed is  
(a) 44                                (b) 46  
(c) 48                                (d) 50
- 43.** A race course is 400 metres long. A and B run a race and A wins by 5 metres. B and C run over the same course and B wins by 4 metres. C and D run over it and D wins by 16 metres. If A and D run over it, then who would win and by how much ?  
(a) A by 8.4 metres  
(b) D by 8.4 metres  
(c) D by 7.3 metres  
(d) A by 7.3 metres
- 44.** A circular running path is 726 metres in circumference. Two men start from the same point and walk in opposite directions at 3.75 km/h and 4.5 km/h, respectively. When will they meet for the first time ?  
(a) After 5.5 min                (b) After 6.0 min  
(c) After 5.28 min                (d) After 4.9 min
- 45.** R and S start walking each other at 10 AM at the speeds of 3 km/hr and 4 km/hr respectively. They were initially 17.5 km apart. At what time do they meet?  
(a) 2 : 30 PM                      (b) 11 : 30 AM  
(c) 1 : 30 PM                      (d) 12 : 30 PM
- 46.** A person travels from P to Q at a speed of 40 kmph and returns by increasing his speed by 50%. What is his average speed for both the trips?  
(a) 36 kmph                      (b) 45 kmph  
(c) 48 kmph                      (d) 50 kmph

47. A car travels first half distance between two places with a speed of 40 km/h and the rest of the half distance with a speed of 60 km/h. The average speed of the car is  
(a) 48 km/h (b) 37 km/h  
(c) 44 km/h (d) None of these
48. Two cyclists start on a circular track from a given point but in opposite directions with speeds of 7 m/sec and 8 m/sec respectively. If the circumference of the circle is 300 metres, after what time will they meet at the starting point?  
(a) 100 sec (b) 20 sec  
(c) 300 sec (d) 200 sec
49. If a train runs at 40 kmph, it reaches its destination late by 11 minutes but if it runs at 50 kmph, it is late by 5 minutes only. The correct time for the train to complete its journey is:  
(a) 13 min. (b) 15 min.  
(c) 19 min. (d) 21 min.
50. A man while returning from his factory, travels  $\frac{2}{3}$  of the distance by bus and  $\frac{3}{4}$  of the rest by car, and the remaining by foot. If he travels 2 km on foot, find the distance covered by him.  
(a) 24 km (b) 22 km  
(c) 28 km (d) 26 km
51. A car driver, driving in a fog, passes a pedestrian who was walking at the rate of 2 km/hr in the same direction. The pedestrian could see the car for 6 minutes and it was visible to him up to a distance of 0.6 km. What was the speed of the car?  
(a) 15 km/hr (b) 30 km/hr  
(c) 20 km/hr (d) 8 km/hr
52. A plane left 30 min later than its scheduled time to reach its destination 1500 km away. In order to reach in time it increases its speed by 250 km/h. What is its original speed?  
(a) 1000 km/h (b) 750 km/h  
(c) 600 km/h (d) 800 km/h
53. Bombay Express left Delhi for Bombay at 14.30 hrs, travelling at a speed of 60 kmph and Rajdhani Express left Delhi for Bombay on the same day at 16.30 hrs, travelling at a speed of 80 kmph. How far away from Delhi will the two trains meet?  
(a) 120 km (b) 360 km  
(c) 480 km (d) 500 km
54. A person can swim at a speed of 9 km per hour in still water. If the speed of the stream is 6 km per hour, then how long does he take to swim up to a distance of 9 km and return at the starting point?  
(a) 2 hours (b)  $2\frac{1}{2}$  hours  
(c)  $3\frac{3}{5}$  hours (d)  $3\frac{3}{4}$  hours
55. A thief goes away with a Maruti car at a speed of 40 km/h. The theft has been discovered after half an hour and the owner sets off in another car at 50 km/h. When will the owner overtake the thief from the start.  
(a)  $2\frac{1}{2}$  hours (b) 2 hr 20 min  
(c) 1 hr 45 min  
(d) cannot be determined
56. A man is walking at a speed of 10 km per hour. After every kilometre, he takes rest for 5 minutes. How much time will he take to cover a distance of 5 kilometres?  
(a) 48 min. (b) 50 min.  
(c) 45 min. (d) 55 min.
57. One-fourth of a certain journey is covered at the rate of 25 km/h, one-third at the rate of 30 km/h and the rest at 50 km/h. Find the average speed for the whole journey.  
(a) 600/53 km/h  
(b) 1200/53 km/h

- (c) 1800/53 km/h  
(d) 1600/53 km/h

**58.** A railway passenger counts the telegraph poles on the rail road as he passes them. The telegraph poles are at a distance of 50 meters. What will be his count in 4 hours if the speed of the train is 45 km per hour?  
(a) 2500 (b) 600  
(c) 3600 (d) 5000

**59.** A long distance runner runs 9 laps of a 400 metres track every day. His timings (in minutes) for four consecutive days are 88, 96, 89 and 87 respectively. On an average, how many metres/minute does the runner cover?  
(a) 40 m/min (b) 45 m/min  
(c) 38 m/min (d) 49 m/min

**60.** A dog starts chasing a cat 2 hours later. It takes 2 hours for the dog to catch the cat. If the speed of the dog is 30 km/h, what is the speed of the cat?  
(a) 10 km/h (b) 15 km/h  
(c) 20 km/h  
(d) Can't be determined

**61.** A and B can run 200 m in 22 seconds and 25 seconds, respectively. How far is B from the finishing line when A reaches in?  
(a) 8 m (b) 12 m  
(c) 16 m (d) 24 m

**62.** If a man walks at the rate of 5 kmph, he misses a train by 7 minutes. However, if he walks at the rate of 6 kmph, he reaches the station 5 minutes before the arrival of the train. Find the distance covered by him to reach the station.  
(a) 4 km (b) 6 km  
(c) 5 km (d) 7 km

**63.** The speed of a car increases by 2 kms after every one hour. If the distance travelled in the first

one hour was 35 kms, what was the total distance travelled in 12 hours?  
(a) 456 kms (b) 482 kms  
(c) 552 kms (d) None of these

**64.** It takes eight hours for a 600 km journey, if 120 km is done by train and the rest by car. It takes 20 minutes more, if 200 km is done by train and the rest by car. The ratio of the speed of the train to that of the speed of the car is  
(a) 4 : 3 (b) 3 : 4  
(c) 3 : 2 (d) 2 : 3

**65.** Wheels of diameters 7 cm and 14 cm start rolling simultaneously from X and Y which are 1980 cm apart towards each other in opposite directions. Both of them make the same number of revolutions per second. If both of them meet after 10 seconds, the speed of the smaller wheel is  
(a) 22 cm/s (b) 44 cm/s  
(c) 66 cm/s (d) 132 cm/s

**66.** A person has to cover a distance of 6 km in 45 minutes. If he covers one-half of the distance in two-thirds of the total time; to cover the remaining distance in the remaining time, his speed (in km/hr) must be:  
(a) 6 (b) 8  
(c) 12 (d) 15

**67.** An aeroplane first flew with a speed of 440 km/h and covered a certain distance. It still had to cover 770 km less than what it had already covered, but it flew with a speed of 660 km/h. The average speed for the entire flight was 500 km/h. Find the total distance covered.  
(a) 3250 km (b) 2750 km  
(c) 4400 km (d) 1375 km

**68.** A car travels the first one-third of a certain distance with a speed of 10 km/hr, the next one-third distance with a speed of 20 km/hr, and the

last one-third distance with a speed of 60 km/hr. The average speed of the car for the whole Journey is

- (a) 18 km/hr (b) 24 km/hr  
(c) 30 km/hr (d) 36 km/hr

**69.** A train starts from Delhi at 6 : 00 AM and reaches Ambala Cantt at 10 AM. The other train starts from Ambala Cantt at 8 AM and reaches Delhi at 11:30 PM. If the distance between Delhi and Ambala Cantt. is 200 km, then at what time did the two trains meet each other ?

- (a) 8 : 56 AM (b) 8 : 46 AM  
(c) 7 : 56 AM (d) 8 : 30 AM

**70.** Rahul can row a certain distance downstream in 6 hours and return the same distance in 9 hours. If the speed of Rahul in still water is 12 km/hr, find the speed of the stream.

- (a) 2 km/hr (b) 2.4 km/hr  
(c) 3 km/hr (d) Data inadequate

**71.** A man can row 4.5 km/hr in still water and he finds that it takes him twice as long to row up as to row down the river. Find the rate of the stream.

- (a) 1.5 km/hr (b) 2 km/hr  
(c) 2.5 km/hr (d) 1.75 km/hr

**72.** A man sitting in a train travelling at the rate of 50 km/hr observes that it takes 9 sec for a goods train travelling in the opposite direction to pass him. If the goods train is 187.5 m long, find its speed.

- (a) 40 km/hr (b) 25 km/hr  
(c) 35 km/hr (d) 36 km/hr

**73.** Two trains are moving in opposite directions at speeds of 60 km/hour and 90 km/hour. Their lengths are 1.10 km and 0.9 km respectively. The time taken by the slower train to cross the faster train in seconds is

- (a) 36 (b) 49  
(c) 45 (d) 48

**74.** It takes eight hours for a 600 km journey, if 120 km is done by train

and the rest by car. It takes 20 minutes more, if 200 km is done by train and the rest by car. The ratio of the speed of the train to that of the car is

- (a) 2 : 3 (b) 3 : 2  
(c) 3 : 4 (d) 4 : 3

**75.** The distance between two cities A and B is 330 km. A train starts from A at 8 a.m. and travels towards B at 60 km/hr. Another train starts from B at 9 a.m. and travels towards A at 75 km/hr. At what time do they meet?

- (a) 10 a.m. (b) 10.30 a.m.  
(c) 11 a.m. (d) 11.30 a.m.

**76.** A and B run a 5 km race on a round course of 400 m. If their speeds be in the ratio 5 : 4, how often does the winner pass the other?

- (a)  $4\frac{1}{2}$  times (b)  $2\frac{3}{4}$  times  
(c)  $3\frac{1}{2}$  times (d)  $2\frac{1}{2}$  times

**77.** A motorcyclist covered two thirds of a total journey at his usual speed. He covered the remaining distance at three fourth of his usual speed. As a result, he arrived 30 minutes later than the time he would have taken at usual speed. If the total journey was 180 km, the what is his usual speed?

- (a) 40 kmph (b) 36 kmph  
(c) 30 kmph (d) 32 kmph

**78.** A man can row a certain distance against the stream in six hours. However, he would take two hours less to cover the same distance with the current. If the speed of the current is 2 kmph, then what is the rowing speed in still water?

- (a) 10 kmph (b) 12 kmph  
(c) 14 kmph (d) 8 kmph

**79.** If I walk at 4 km/h, I miss the bus by 10 minutes. If I walk at 5 km/h, I reach 5 minutes before the arrival of

the bus. How far I walk to reach the bus stand ?

- (a) 5 km (b) 4.5 km  
(c)  $5\frac{1}{4}$  km (d) Cannot be determined

**80.** A man covers a certain distance on a toy train. If the train moved 4 km/h faster, it would take 30 minutes less. If it moved 2 km/h slower, it would have taken 20 minutes more. Find the distance.

- (a) 60 km (b) 58 km  
(c) 55 km (d) 50 km

**81.** An aeroplane flies along the four sides of a square at the speeds of 200, 400, 600 and 800 km/h. Find the average speed of the plane around the field.

- (a) 384 km/h (b) 370 km/h  
(c) 368 km/h (d) None of these

**82.** A thief steals a car at 2 : 30 p.m. and drives it at 60 kmph. The theft is discovered at 3 p.m. and the owner sets off in another car at 75 kmph. When will he overtake the thief ?

- (a) 4 : 30 p.m. (b) 4 : 45 p.m.  
(c) 5 p.m. (d) 5 : 15 p.m.

**83.** Points A and B are 70 km apart on a highway. One car starts from A and the another one from B at the same time. If they travel in the same direction, they meet in 7 hours. But if they travel towards each other, they meet in one hour. The speeds of the two cars are, respectively.

- (a) 45 and 25 km/h  
(b) 70 and 10 km/h  
(c) 40 and 30 km/h  
(d) 60 and 40 km/h

**84.** A river 3 m deep and 40 m wide is flowing at the rate of 2 km per hour. How much water (in litres) will fall into the sea in a minute?

- (a) 4,00,000 (b) 40,00,000  
(c) 40,000 (d) 4,000

**85.** Vinay fires two bullets from the same place at an interval of 12 minutes but Raju sitting in a train approaching the place hears the second report 11 minutes 30 seconds after the first. What is the approximate speed of train (if sound travels at the speed of 330 metre per second)?

- (a)  $660/23$  m/s (b)  $220/7$  m/s  
(c)  $330/23$  m/s (d)  $110/23$  m/s

**86.** A dog sees a cat. It estimates that the cat is 25 leaps away. The cat sees the dog and starts running with the dog in hot pursuit. If in every minute, the dog makes 5 leaps and the cat makes 6 leaps and one leap of the dog is equal to 2 leaps of the cat. Find the time in which the cat is caught by the dog (assume an open field with no trees)

- (a) 12 minutes (b) 15 minutes  
(c) 12.5 minutes (d) None of these

**87.** A train of 300 m is travelling with the speed of 45 km/h when it passes point A completely. At the same time, a motorbike starts from point A with the speed of 70 km/h. When it exactly reaches the middle point of the train, the train increases its speed to 60 km/h and motorbiker reduces its speed to 65 km/h. How much distance will the motorbike travel while passing the train completely?

- (a) 2.52 km (b) 2.37 km  
(c) 2 km (d) None of these

**88.** A group of soldiers are marching with a speed of 5 m/s. The distance between the first and the last row of soldiers is 100 m. A dog starts running from the last row and moves towards the first row, turns and comes back to the last row. If the dog



has travelled 400 m, the speed of the dog is

- (a) 5 2m s                      (b) 3 5m s  
(c) 6 5m s                      (d) 6 2m s

**89.** Ram runs  $7/4$  times as fast as Sham, If Ram gives Sham a start of 300 m, how far must the winning post be if both Ram and Sham have to end the race at the same time?

- (a) 1400 m                      (b) 700 m  
(c) 350 m                      (d) 210 m

**90.** A watch, which gains time uniformly, was 5 Minutes behind the correct time when it showed 11:55 AM on Monday. It was 10 minutes ahead of the correct time when it showed 06:10 PM on the next day. When did the watch show the correct time?

- (a) 6 AM, Tuesday  
(b) 6 PM, Monday  
(c) 2 PM, Tuesday  
(d) 10 PM, Monday

**91.** Pankaj went to the post-office at the speed of 60 km/hr while returning for his home he covered the half of the distance at the speed of 10 km/hr, but suddenly he realized that he was getting late so he increased the speed and reached the home by covering rest half of the distance at the speed of 30 km/hr. The average speed of the Pankaj in the whole length of journey is:

- (a) 5.67 km/hr                      (b) 24 km/hr  
(c) 22.88 km/hr                      (d) 5.45 km/hr

**92.** With an average speed of 40 km/h, a train reaches its destination in time. If it goes with an average speed of 35 km/h, it is late by 15 minutes. The length of the total journey is:

- (a) 40 km                      (b) 70 km  
(c) 30 km                      (d) 80 km

**93.** A student rides on a bicycle at 8 km/h and reaches his school 2.5

minutes late. The next day he increases his speed to 10 km/h and reaches the school 5 minutes early. How far is the school from his house?

- (a) 1.25 km                      (b) 8 km  
(c) 5 km                      (d) 10 km

**94.** Two rockets approach each other, one at 42000 mph and the other at 18000 mph. They start 3256 miles apart. How far are they apart (in miles) 1 minute before impact ?

- (a) 1628                      (b) 1000  
(c) 826                      (d) 1200

**95.** Two guns were fired from the same place at an interval of 10 minutes and 30 seconds, but a person in the train approaching the place hears the second shot 10 minutes after the first. The speed of the train (in km/hr), supposing that speed travels at 330 metres per second, is

- (a) 19.8                      (b) 58.6  
(c) 59.4                      (d) 111.80

**96.** Train A running at 60 km/h leaves Mumbai for Delhi at 6 p.m. Train B running at 90 km/h also leaves for Delhi at 9 p.m. Train C leaves Delhi for Mumbai at 9 p.m. If all the three trains meet at the same time between Mumbai and Delhi, then what is the speed of train C, if distance between Delhi and Mumbai is 1260 km ?

- (a) 60 km/h                      (b) 90 km/h  
(c) 120 km/h                      (d) 135 km/h

**97.** A boat, while going downstream in a river covered a distance of 50 mile at an average speed of 60 miles per hour. While returning, because of the water resistance, it took one hour fifteen minutes to cover the same distance. What was the average speed of the boat during the whole journey?

- (a) 40 mph                      (b) 48 mph

(c) 50 mph (d) 55 mph

- 98.** A man takes 5 hour 45 min. in walking to a certain place and riding back. He would have gained 2 hours by riding both ways. The time he would take to walk both ways, is  
 (a) 3 hrs 45 min (b) 7 hrs 30 mi  
 (c) 7 hrs 45 min (d) 11 hrs 45 min
- 99.** A boatman rows to a place 45 km distant and back in 20 hours. He finds that he can row 12 km with the stream in same time as 4 km against the stream . Find the speed of the stream.  
 (a) 3 km/hr (b) 2.5 km/hr  
 (c) 4 km/hr  
 (d) Cannot be determined
- 100.** A man goes 15 metres due west and then 8 metres due north. How far is he from the starting point?  
 (a) 19 metres (b) 16 metres  
 (c) 17 metres (d) 15 metres
- 101.** Two trains, 130 m and 110 m long, are going in the same direction. The faster train takes one minute to pass the other completely. If they are moving in opposite directions, they pass each other completely in 3 seconds. Find the speed of each train.  
 (a) 38 m/sec, 36 m/sec  
 (b) 42 m/sec, 38 m/sec  
 (c) 36 m/sec, 42 m/sec  
 (d) None of these
- 102.** A man who can swim 48 m/min in still water swims 200 m against the current and 200 m with the current. If the difference between those two times is 10 minutes, find the speed of the current.  
 (a) 30 m/min (b) 29 m/min  
 (c) 31 m/min (d) 32 m/min
- 103.** A train after travelling 150 km meets with an accident and then proceeds with  $\frac{3}{5}$  of its former speed and arrives at its destination 8 h late. Had the accident occurred 360 km further, it would have reached the destination 4 h late. What is the total distance travelled by the train?  
 (a) 840 km (b) 960 km  
 (c) 870 km (d) 1100 km
- 104.** A man who can swim 48 m/min in still water swims 200 m against the current and 200 m with the current. If the difference between those two times is 10 min, what is the speed of the current?  
 (a) 30 m/min (b) 31 m/min  
 (c) 29 m/min (d) 32 m/min
- 105.** A man walks a certain distance and rides back In  $6\frac{1}{4}$  h. He can walk both ways in  $7\frac{3}{4}$  h. How long it would take to ride both ways ?  
 (a) 5 hours (b)  $4\frac{1}{2}$  hours  
 (c)  $4\frac{3}{4}$  hours (d) 6 hours
- 106.** An accurate clock shows 8 o'clock in the morning. Through how many degrees will the hour hand rotate when the clock shows 2 o'clock in the afternoon?  
 (a)  $144^\circ$  (b)  $150^\circ$   
 (c)  $168^\circ$  (d)  $180^\circ$
- 107.** Shyam's house, his office and his gym are all Equidistant from each other. The distance between any 2 of them is 4 km. Shyam starts walking from his gym in a direction parallel to the road connecting his office and his house and stops when he reaches a point directly east of his office. He then reverses direction and walks till he reaches a point directly south of his office. The total distance walked by Shyam is  
 (a) 6 km (b) 9 km  
 (c) 16 km (d) 12 km
- 108.** A dog after travelling 50 km meets a swami who counsels him to go slower. He then proceeds at  $\frac{3}{4}$  of

his former speed and arrives at his destination 35 minutes late. Had the meeting occurred 24 km further the dog would have reached its destination 25 minutes late. The speed of the dog is

- (a) 48 km/h (b) 36 km/h  
(c) 54 km/h (d) 58 km/h

**109.** Ramesh and Somesh are competing in a 100 m race. Initially, Ramesh runs at twice the speed of Somesh for the first fifty m. After the 50 m mark, Ramesh runs at  $\frac{1}{4}$ th his initial speed while Somesh continues to run at his original speed. If Somesh catches up with Ramesh at a distance of 'N' m from the finish line, then N is equal to

- (a) 35 (b) 10  
(c) 45 (d) None of these

**110.** A, B, and C are three participants in a kilometer race. If A can give B a start of 40 metres and B can give C a start of 25 metres, how many metres of a start can A give to C?

- (a) 60 m (b) 64 m  
(c) 62 m (d) 66 m

**111.** A monkey ascends a greased pole 12 metres high. He ascends 2 metres in first minute and slips down 1 metre in the alternate minute. In which minute, he reaches the top?

- (a) 21<sup>st</sup> (b) 22<sup>nd</sup>  
(c) 23<sup>rd</sup> (d) 24<sup>th</sup>

**112.** Mallah can row 40 km upstream and 55 km downstream in 13 h and 30 km upstream and 44 km downstream in 10 hours. What is the speed of Mallah in still water?

- (a) 6 km/h (b) 12 km/h  
(c) 3 km/h (d) 8 km/h

**113.** A passenger sitting in a train of length 100 m, which is running with speed of 60 km/h passing through two bridges, notices that he crosses the first bridge and the second bridge

in time intervals which are in the ratio of 7 : 4 respectively. If the length of first bridge be 280 m, then the length of second bridge is:

- (a) 490 m (b) 220 m  
(c) 160 m  
(d) Can't be determined

**114.** A man can cross a downstream river by steamer in 40 minutes and same by boat in 1 hour. If the time of crossing the river in upstream direction by steamer is 50% more than downstream time by the steamer and the time required by boat to cross the same river by boat in upstream is 50% more than the time required in downstream by boat. What is the time taken for the man to cross the river downstream by steamer and then return to same place by boat half the way and by steamer the rest of the way?

- (a) 85 min (b) 115 min  
(c) 120 min (d) 125 min

**115.** A tiger is 50 of its own leaps behind a deer. The tiger takes 5 leaps per minute to the deer's 4. If the tiger and the deer cover 8 m and 5 m per leap respectively, what distance will the tiger have to run before it catches the deer?

- (a) 600 m (b) 700 m  
(c) 800 m (d) 1000 m

**116.** A candle of 6 cm long burns at the rate of 5 cm in 5 h and another candle of 8 cm long burns at the rate of 6 cm in 4h. What is the time required by each candle to remain of equal lengths after burning for some hours, when they start to burn simultaneously with uniform rate of burning?

- (a) 1 h (b) 1.5 h  
(c) 2 h (d) None of these

**117.** Two persons start from the opposite ends of a 90 km straight track and run to and fro between the

two ends. The speed of first person is 30 m/s and the speed of other is  $125/6$  m/s. They continue their motion for 10 hours. How many times they pass each other?

- (a) 10 (b) 9  
(c) 12 (d) None of these

**118.** At what time after 3:10 am, the acute angle made by the minute and hour-hand is double to that of a 3:10 am, for the first time?

- (a) 4 h 43 min (b) 3 h 48 min  
(c)  $3\text{h } \frac{320}{11}$  min (d) None of these

**119.** A swiss watch is being shown in a museum which has a very peculiar property. It gains as much in the day as it loses during night between 8 pm to 8 am. In a week how many times will the clock show the correct time?

- (a) 6 times (b) 14 times  
(c) 7 times (d) 8 times

**120.** The metro service has a train going from Mumbai to Pune and Pune to Mumbai every hour, the first one at 6 a.m. The trip from one city to other takes  $4\frac{1}{2}$  hours, and all trains travel at the same speed. How many trains will you pass while going from Mumbai to Pune if you start at 12 noon?

- (a) 8 (b) 10  
(c) 9 (d) 13

**121.** A wall clock gains 2 minutes in 12 hours, while a table clock loses 2 minutes in 36 hours; both are set right at noon on Tuesday. The correct time when they both show the same time next would be

- (a) 12 : 30 night (b) 12 noon  
(c) 1 : 30 night (d) 12 night

**122.** Two ants start simultaneously from two ant holes towards each other. The first ant covers 8% of the distance between the two ant holes in 3 hours, the second ant covered

$\frac{7}{120}$  of the distance in 2 hours 30 minutes. Find the speed (feet/h) of the second ant if the first ant travelled 800 feet to the meeting point.

- (a) 15 feet/h (b) 25 feet/h  
(c) 45 feet/h (d) 35 feet/h

**123.** A watch loses  $2/3\%$  time during the 1st week and gains  $1/3\%$  time during the next week. If on a Sunday noon, it showed the right time, what time will it show at noon on the Saturday after the next.

- (a) 11 : 26 : 24 a.m.  
(b) 10 : 52 : 18 a.m.  
(c) 10 : 52 : 48 a.m.  
(d) 11 : 36 : 24 a.m.

**124.** My Scooty gives an average of 40 kmpl of petrol. But after recent filling at the new petrol pump, its average dropped to 38 kmpl. I investigated and found out that it was due to adulterated petrol. Petrol pumps add kerosene, which is  $2/3$  cheaper than petrol, to increase their profits. Kerosene generates excessive smoke and knocking and gives an average of 18 km per 900 ml. If I paid Rs. 30 for a litre of petrol, what was the additional amount the pump-owner was making ?

- (a) Rs. 1.75 (b) Rs. 1.80  
(c) Rs. 2.30 (d) Rs. 2

**125.** I have to reach a certain place at a certain time and I find that I shall be 15 min too late, if I walk at 4 km an hour, and 10 min too soon, if I walk at 6 km an hour. How far have I to walk?

- (a) 25 km (b) 5 km  
(c) 10 km (d) None of these

**126.** On a journey across Bombay, a tourist bus averages 10 km/h for 20% of the distance, 30 km/h for 60% of it and 20 km/h for the

remainder. The average speed for the whole journey was

- (a) 10 km/h (b) 30 km/h  
(c) 5 km/h (d) 20 km/h

**127.** The average speed of a train in the onward journey is 25% more than that in the return journey. The train halts for one hour on reaching the destination. The total time taken for the complete to and fro journey is 17 hours, covering a distance of 800 km. The speed of the train in the onward journey is:

- (a) 45 km/hr (b) 47.5 km/hr  
(c) 52 km/hr (d) 56.25 km/hr

**128.** Pankaj walked at 5 km/h for certain part of the journey and then he took an auto for the remaining part of the journey travelling at 25 km/h. If he took 10 hours for the entire journey. What part of journey did he travelled by auto if the average speed of the entire journey be 17 km/h:

- (a) 750 km (b) 100 km  
(c) 150 km (d) 200 km

**129.** Train *X* starts from point *A* for point *B* at the same time that train *Y* starts from *B* to *A*. Point *A* and *B* are 300 km apart. The trains are moving at a constant speed atleast at 25 km/h. The trains meet each other 3 hours after they start. If the faster train takes atleast 2 more hours to reach the destination. By which time will the slower train have definitely reached its destination? (Ignoring the length of trains in crossing).

- (a) 4 hours after the start  
(b) 7.5 hours after the start  
(c) 6 hours after the start  
(d) None of the above

**130.** A boat takes 7 hours to go from *P* to *R*, through a midpoint *Q*, but it takes 8 hours to go from *P* to *Q*, and then return from *Q* to *P*. How long it would take to go from *R* to *P*?

- (a) 7 h (b) 8 h  
(c) 9 h (d) None of these

**131.** *A* beats *B* by 100 m in a race of 1200 m and *B* beats *C* by 200 m in a race of 1600 m. Approximately by how many metres can *A* beat *C* in a race of 9600 m?

- (a) 1600 m (b) 1800 m  
(c) 1900 m (d) 2400 m

**132.** *A* gives both *B* and *C* a start of 60 m in a 1500 m race. However, while *B* finishes with him, *C* is 15 m behind them when *A* and *B* cross the finishing line. How much start can *B* give *C* for the 1500 m race course?

- (a)  $7\frac{6}{23}$  m (b)  $15\frac{5}{8}$  m  
(c)  $7\frac{11}{16}$  m (d)  $5\frac{5}{24}$  m

**133.** Due to the technical snag in the signal system two trains start approaching each other on the same rail track from two different stations, 240 km away from each other. When the two trains at 60 km/h touching each time each train. The bird is initially sitting on the top of the engine of one of the trains and it moves so till these trains collide. If these trains collide one and a half hour after the start, then how many kilometers bird travels till the time of collision of trains?

- (a) 90 km (b) 130 km  
(c) 120 km (d) None of these

**134.** A surveillance plane is moving between two fixed places Pukhwara and Kargil at 120 km/hr. The distance between two places is 600 km. After 18 hour what will be the distance between the Kargil and its position if it is starts moving from Pukhwara?

- (a) 360 km (b) 300 km  
(c) 240 km (d) None of these

**135.** There are three runners Tom, Dick and Harry with their respective speeds of 10 km/h, 20 km/h and 30 km/h. They are initially at P and they have to run between the two points P and Q which are 10 km apart from each other. They start their race at 6 am and end at 6 pm on the same day. If they run between P and Q without any break, then how many times they will be together either at P and Q during the given time period?

- (a) 5 (b) 7  
(c) 4 (d) 12

**136.** A soldier fired two bullets at an interval of 335 seconds moving at a uniform speed  $v_1$ . A terrorist who was running ahead of the soldier in the same direction, hears the two shots at an interval of 330 seconds? If the speed of sound is 1188 km/h, then who is the faster and by how much?

- (a) Soldier, 22 km/h  
(b) Terrorist, 25 km/h  
(c) Soldier, 18 km/h  
(d) Terrorist, 20 km/h

**137.** A man goes to the fair in Funcity with his son and faithful dog. Unfortunately man misses his son which he realises 20 minutes later. The son comes back towards his home at the speed of 20 m/min and man follows him at 40 m/min. The dog runs to the son(child) and comes back to the man (father) to show him the direction of his son. It keeps moving to and fro at 60 m/min between son and father, till the man meets the son. What is the distance travelled by the dog in direction of the son?

- (a) 800 m (b) 1675 m  
(c) 848 m (d) 1000 m

**138.** A thief sees a jeep at a distance of 250 m, coming towards him at 36 km/h. Thief takes 5 seconds to

realise that there is nothing but the police is approaching him by the jeep and start running away from police at 54 km/hr. But police realise after 10 seconds, when the thief starts running away, that he is actually a thief and gives chase at 72 km/h. How long after thief saw police and catchup with him and what is the distance police had to travel to do so?

- (a) 50 s, 1000 m (b) 65s, 1150 m  
(c) 65 s, 1300 m (d) 45s, 1050 m

**139.** In a circus there was a leopard and a tiger walking in the two different rings of same radii. There I observed that when leopard moved 3 steps, tiger moved 5 steps in the same time, but the distance traversed by leopard in 5 steps is equal to the distance traversed by tiger in 4 steps. What is the number of rounds that a leopard made when tiger completed 100 rounds

- (a) 120 (b) 48  
(c) 75 (d) None of these

**140.** Arti and Barkha start swimming towards each other from the deep end and shallow end respectively of a swimming pool in Funcity. They start their swimming simultaneously in the length of 300 m pool. The ratio of their speeds is 1 : 2 respectively. Each swimmer rests for 6 seconds once she reaches the other end and starts swimming back. Where will they meet for the second time in the still water of swimming pool?

- (a) 30 m from the shallow end  
(b) at the shallow end  
(c) at the depend  
(d) can't be determined

**141.** If the two incorrect watches are set at 12:00 noon at correct time, when will both the watches show the correct time for the first time given that the first watch gains 1 min in 1

hour and second watch loses 4 min in 2 hours:

- (a) 6 pm, 25 days later  
 (b) 12:00 noon, 30 days later  
 (c) 12 noon, 15 days later  
 (d) 6 am 45 days later

**142.** Ramu purchased a second hand swiss watch which is very costly. In this watch the minute-hand and hour hand coincide after every  $65\frac{3}{11}$  minutes. How much time does the watch lose or gain per day?

- (a) 4 min (b) 5 min  
 (c) 4 min, 20 sec (d) None of these

**143.** Kumbhakarna starts sleeping between 1 am and 2 am and he wakes up when his watch shows such a time that the two hands (i.e., hour-hand and minute-hand) interchanging the respective places. He wakes up between 2 am and 3 am on the same night. How long does he sleep?

- (a)  $55\frac{5}{13}$  min (b)  $110\frac{10}{13}$  min  
 (c)  $54\frac{6}{13}$  min (d) None of these

**144.** A faulty clock gains 10 minutes every hour. If the time is set correctly at 12 Noon on 1st Jan 2010, then how many times will its minute-hand and hour-hand meet in the next 24 hours ?

- (a) 22 (b) 26  
 (c) 24 (d) 25

**145.** Progressive express left for New Delhi, increasing its speed in each hour. It started its journey from Lucknow, but after four hours of its journey it met with accident. Its speed in the fourth hour was  $\frac{7}{5}$  times that of the third hour and the speed in the third hour was  $\frac{10}{7}$  times that of the second hour and in the second hour it was  $\frac{7}{5}$  times that of the first hour. If it would have been travelled with the half of the speed that of the

third hour, then it would have gone 160 km less in the same time (i.e., in four hours). The average speed of the train during the journey of 4 hours was:

- (a) 50 km/hr (b) 90 km/hr  
 (c) 80 km/hr  
 (d) can't be determined

**146.** Two rifles are fired from the same place at a difference of 11 minutes 45 seconds. But a man who is coming towards the place in a train hears the second sound after 11 minutes. Find the speed of train.

- (a) 72 km/h (b) 36 km/h  
 (c) 81 km/h (d) 108 km/h

**147.** Two people A and B start from P and Q (distance = D) at the same time towards each other. They meet at a point R, which is at a distance 0.4 D from P. They continue to move to and fro between the two points. Find the distance from point P at which the fourth meeting takes place.

- (a) 0.8 D (b) 0.6 D  
 (c) 0.3 D (d) 0.4 D

**148.** Two riders on the horseback with a gun and a bullet proof shield were moving towards each other at a constant speed of 20 km/h and 5 km/h respectively. When they were 100 km apart, they started firing bullets at each other at the speed of 10 km/h. When a bullet of rider 1 hits the shield of rider 2, rider 2 fires a bullet and the process continues vice versa. Neglecting the time lag at the instant when the bullet hits the shield and the rider fires the shot, find the total distance covered by all the bullets shot by both the riders.

- (a) 50 km (b) 40 km  
 (c) 25 km (d) None of these

**149.** A passenger train departs from Ahmedabad at 6 pm for Bombay. At 9 p.m. an express train, whose

average speed exceeds that of the passenger train by 15 km/h, leaves Bombay for Ahmedabad. Two trains meet each other midroute. At what time do they meet, given that the distance between the cities is 1080 km?

- (a) 4 pm (b) 2 pm  
(c) 12 midnight (d) 6 am

**150.** A car covers a distance of 715 km at a constant speed. If the speed of the car had been 10 km/h more, then it would have taken 2 h less to cover the same distance. What is the original speed of the car?

- (a) 55 km/h (b) 50 km/h  
(c) 45 km/h (d) 65 km/h

**151.** A train leaves station X at 5 a.m. and reaches station Y at 9 a.m. Another train leaves station Y at 7 a.m. and reaches station X at 10: 30 a.m. At what time do the two trains cross each other?

- (a) 7 : 36 am (b) 7 : 56 am  
(c) 8 : 36 am (d) 8 : 56 am

**152.** A train covered a certain distance at a uniform speed. If the train had been 6 km/h faster, then it would have taken 4 hours less than the scheduled time. And, if the train were slower by 6 km/h, then the train would have taken 6 hours more than the scheduled time. The length of the journey is

- (a) 700 km (b) 740 km  
(c) 720 km (d) 760 km

**153.** A man swimming in a stream which flows  $1\frac{1}{2}$  km/hr., finds that in a given time he can swim twice as far with the stream as he can against it. At what rate does he swim?

- (a)  $5\frac{1}{2}$  km/hr (b)  $4\frac{1}{2}$  km/hr  
(c)  $7\frac{1}{2}$  km/hr (d) None of these

**154.** In a 400 metres race, A gives B a start of 5 seconds and beats him by

15 metres. In another race of 400 metres, A beats B by  $7\frac{1}{7}$  seconds. Find their speeds.

- (a) 8 m/sec, 7 m/sec  
(b) 7 m/sec, 6 m/sec  
(c) 6 m/sec, 5 m/sec  
(d) 5 m/sec, 4 m/sec

**155.** The speeds of three cars are in the ratio 2 : 3 : 4. The ratio between the times taken by these cars to travel the same distance is

- (a) 4 : 3 : 2 (b) 2 : 3 : 4  
(c) 4 : 3 : 6 (d) 6 : 4 : 3

**156.** Anand travelled 300 km by train and 200 km by taxi. It took him 5 h and 30 min. However, if he travels 260 km by train and 240 km by taxi, he takes 6 min more. The speed of the train is

- (a) 100 km/h (b) 120 km/h  
(c) 80 km/h (d) 110 km/h

**157.** A boat takes 19 h for travelling downstream from point A to point B and coming back to a point C midway between A and B. If the velocity of the stream is 4 km/h and the speed of the boat in still water is 14 km/h, what is the distance between A and B?

- (a) 200 km (b) 180 km  
(c) 160 km (d) 220 km

**158.** A car travels 25 km/h faster than a bus for a journey of 500 km. If the bus takes 10 h more than the car, then the speeds of the car and the bus are

- (a) 25 km/h and 40 km/h  
(b) 50 km/h and 25 km/h  
(c) 25 km/h and 60 km/h  
(d) None of these

**159.** Speed of a speed-boat when moving in the Direction perpendicular to the direction of the current is 16 km/h. Speed of the current is 3 km/h. So the speed of



the boat against the current will be (in km/h)

- (a) 22 (b) 9.5  
(c) 10 (d) None of these

**160.** Two ants start simultaneously from two ant holes towards each other. The first ant covers 8% of the distance between the two ant holes in 3 hours, the second ant covered  $\frac{7}{120}$  of the distance in 2 hours 30 minutes. Find the speed (feet/h) of the second ant if the first ant travelled 800 feet to the meeting point.

- (a) 15 feet/h (b) 25 feet/h  
(c) 45 feet/h (d) 35 feet/h

**161.** Two Indian tourists in the US cycled towards each other, one from point A and the other from point B. The first tourist left point A 6 hrs later than the second left point B, and it turned out on their meeting that he had travelled 12 km less than the second tourist. After their meeting, they kept cycling with the same speed, and the first tourist arrived at B 8 hours later and the second arrived at A 9 hours later. Find the speed of the faster tourist.

- (a) 4 km/h (b) 6 km/h  
(c) 9 km/h (d) 2 km/h

**162.** A motorcyclist left point A for point B. Two hours later, another motorcyclist left A for B and arrived at B at the same time as the first motorcyclist. Had both motorcyclists started simultaneously from A and B travelling towards each other, they would have met in 80 minutes. How much time did it take the faster motorcyclist to travel from A to B?

- (a) 6 hours (b) 3 hours  
(c) 2 hours (d) 4 hours

**163.** Shaurya and Arjit take a straight route to the same terminal point and travel with constant speeds. At the initial moment, the positions of the

two and the terminal point form an equilateral triangle. When Arjit covered a distance of 80 km, the triangle become right-angled. When Arjit was at a distance of 120 km from the terminal point, the Shaurya arrived at the point. Find the distance between them at the initial moment assuming that there are integral distances throughout the movements described.

- (a) 300 km (b) 240 km  
(c) 200 km (d) 225 km

**164.** Three cars started simultaneously from Ajmer to Benaras along the same highway. The second car travelled with a speed that was 10 km/h higher than the first car's speed and arrived at Benaras 1 hour earlier than the first car. The third car arrived at Benaras 33.33 minutes earlier than the first car, travelling half the time at the speed of the first car and the other half at the speed of the second car. Find the total distance covered by these three cars during their journey between Ajmer and Benaras.

- (a) 360 km (b) 600 km  
(c) 540 km (d) 840 km

**165.** Two towns are at a distance of 240 km from each other. A motorist takes 8 hours to cover the distance if he travels at a speed of  $V_0$  km/h from town A to an intermediate town C, and then continues on his way with an acceleration of  $x$  km/hr<sup>2</sup>. He needs the same time to cover the whole distance if he travels from A to C at  $V_0$  km/h and from C to B at  $V_1$  km/h or from A to C at  $V_1$  km/h from C to B at  $V_0$  km/h. Find  $V_0$  if the acceleration 'x' is double  $V_0$  in magnitude and  $V_0 \neq V_1$

- (a) 15 km/h (b) 10 km/h  
(c) 20 km/h (d) 8 km/h

**166.** A pedestrian and a cyclist left Nagpur for Buti Bori at the same

time. Having reached Buti Bori, the cyclist turned back and met the pedestrian an hour after the start. After their meeting, the pedestrian continued his trip to Buti Bori and cyclist turned back and also headed for Buti Bori. Having reached Buti Bori, the cyclist turned back again and met the pedestrian 30 mins after their first meeting. Determine what time it takes the pedestrian 30 mins after their first meeting. Determine what time it takes the pedestrian to cover the distance between Nagpur and Buti Bori.

- (a) 1 hour (b) 2 hours  
(c) 2.5 hours (d) 3 hours

**167.** A motor starts with the speed of 70 kmph with its speed increasing every two hours by 10 kmph. In how many hours will it cover 345 kms ?

- (1) hours (2) hours  
(3) 4 hours 5 minutes  
(4) Cannot be determined  
(5) None of these

**(Canara Bank PO Exam.  
09.02.2003**

**& SBI Associate Banks PO  
Exam. 07.01.2007)**

**168.** A train running at the speed of 20 metres/second crosses a pole in 24 seconds less than the time it requires to cross a platform thrice its length at the same speed. What is the length of the train ?

- (1) 270 metres  
(2) 340 metres  
(3) 180 metres  
(4) Cannot be determined  
(5) None of these

**(Union Bank of India PO  
Exam. 27.11.2005)**

**169.** A man takes 6 hours 35 minutes in walking to a certain place and riding back. He would have taken 2 hours less by riding both ways. What would be the time he would take to walk both ways?

- 1) 4 hours 35 minutes  
2) 8 hours 35 minutes  
3) 10 hours

- 4) 8 hours 25 minutes  
5) None of these

**(Bank Of Maharashtra PO  
Exam. 25.05.2008)**

**170.** A train travelling at the speed of 60 kmph crosses a platform in 20 seconds. What is the length of the train ?

- 1) 333 metres  
2) 300 metres  
3) 336 metres  
4) Cannot be determined  
5) None of these

**(Indian Overseas Bank PO  
Exam. 15.06.2008)**

**171.** A boat running downstream covers a distance of 30 kms in 2 hours. While coming back the boat takes 6 hours to cover the same distance. If the speed of the current is half that of the boat, what is the speed of that boat in kmph ?

- 1) 15  
2) 5  
3) 10  
4) Cannot be determined  
5) None of these

**(Indian Overseas Bank PO  
Exam. 15.06.2008)**

**172.** Samir drove at the speed of 45 kmph. from home to a resort. Returning over the same route, he got stuck in traffic and took an hour longer, also he could drive only at the speed of 40 kmph. How many kilometres did he drive each way ?

- (1) 250 kms. (2) 300 kms.  
(3) 310 kms. (4) 275 kms.  
(5) None of these

**(Bank Of Baroda Specialist  
Officer Exam. 05.10.2008)**

**173.** A 240 metres long train crosses a platform twice its length in 40 seconds. What is the speed of the train ?

- 1) 6 metres/sec.  
2) 28 metres/sec.  
3) 18 metres/sec.  
4) 16 metres/sec.  
5) None of these

**(PNB Agriculture Officer  
Exam. 04.01.2009)**

174. A boat running at the speed of 34 kmph downstream covers a distance of 4.8 kms. in 8 minutes. The same boat while running upstream at same speed covers the same distance in 9 minutes. What is the speed of the current?
- (1) 2.4 kmph                      (2) 3 kmph  
(3) 2 kmph                        (4) 3.2 kmph  
(5) None of these

**(PNB Specialist Officer's  
Exam. 16.08.2009)**

175. A bus started its journey from Ramgarh and reached Devgarh in 44 minutes with its average speed of 50 km/hour. If the average speed of the bus is increased by 5 km/hour, how much time will it take to cover the same distance ?
- (1) 40 minutes                      (2) 38 minutes  
(3) 36 minutes                      (4) 31 minutes  
(5) 49 minutes

**(Corporation Bank PO  
Exam. 22.11.2009)**

176. A man walked at a speed of 4 km/hr from point A to B and came back from point B to A at the speed of 6 km/hr. What would be the ratio between the time taken by man in walking from point A to B to point B to A respectively ?
- (1) 5 : 3                              (2) 2 : 3  
(3) 2 : 1                              (4) 4 : 3  
(5) 3 : 2

**(Corporation Bank PO  
Exam. 22.11.2009)**

177. A bus covered a certain distance from village A to village B at the speed of 60 km./hr. However on its return journey it got stuck in traffic and covered the same distance at the speed of 40 km/hr. and took 2 hours more to reach its destination. What is the distance covered between village A and B ?
- (1) 240 km.                        (2) 260 km.  
(3) 200 km.  
(4) Cannot be determined  
(5) None of these

**(Indian Bank Rural Marketing  
Officer Exam. 03.01.2010)**

178. A train speeds past a pole in 20 seconds and speeds past a platform 100 metres in length in 30 seconds. What is the length of the train ?
- (1) 100 metre                      (2) 150 metre  
(3) 180 metre                      (4) 200 metre  
(5) None of these

**(Indian Bank Rural Marketing  
Officer Exam. 03.01.2010)**

179. A 320 metre long train takes 80 seconds more to cross a platform twice its length than it takes to cross a pole at the same speed. What is the speed of the train in metre/second ?
- (1) 16                                (2) 10  
(3) 6  
(4) Cannot be determined  
(5) None of these

**(Bank Of India Banking Officer  
Exam. 24.01.2010)**

180. A 180-metre long train crosses another 270-metre long train running in the opposite direction in 10.8 seconds. If the speed of the first train is 60 kmph., what is the speed of the second train in kmph ?
- (1) 80                                (2) 90  
(3) 150  
(4) Cannot be determined  
(5) None of these

**(Allahabad Bank PO  
Exam. 21.02.2010)**

181. The respective ratio between the speed of a car, a train and a bus is 5 : 9 : 4. The average speed of the car, the bus and the train is 72 kmph together. What is the average speed of the car and the train together ?
- 1) 82 kmph  
2) 78 kmph  
3) 84 kmph  
4) Cannot be determined  
5) None of these

**(Punjab & Sind Bank PO  
Exam. 16.05.2010)**

182. The ratio between the speed of a train and a car is 16 : 15 respectively. Also, a bus covered a distance of 480 kms. in 8 hours. The

speed of the bus is three-fourth the speed of the train. How much distance will the car cover in 6 hours ?

- (1) 450 km                      (2) 480 km  
 (3) 360 km  
 (4) Cannot be determined  
 (5) None of these

**(Bank Of Baroda PO  
 Exam. 30.05.2010)**

**183.** A man crosses a stationary train in 12 minutes. The same train crosses a man in 54 seconds. What is the respective ratio between the speed of the train and the man ?

- (1) 40 : 7                      (2) 400 : 3  
 (3) 40 : 3  
 (4) Cannot be determined  
 (5) None of these

**(Bank Of Baroda PO  
 Exam. 30.05.2010)**

**184.** Train –A crosses a stationary train –B in 50 seconds and a pole in 20 seconds with the same speed. The length of the train –A is 240 metres. What is the length of the stationary Train–B?

- 1) 360 metres  
 2) 260 metres  
 3) 300 metres  
 4) Cannot be determined  
 5) None of these

**(Central Bank Of India PO  
 Exam. 25.07.2010)**

**185.** The respective ratio between the speed of a car, a jeep and tractor is 3 : 5 : 2. The speed of the jeep is 250 percent of the speed of the tractor which covers 360 km in 12 hours. What is the average speed of car and jeep together ?

- (1) 60 km/hr.                      (2) 75 km/hr.  
 (3) 40 km/hr.  
 (4) Cannot be determined  
 (5) None of these

**(Central Bank Of India PO  
 Exam. 25.07.2010)**

**186.** A man crosses a stationary bus in 18 seconds. The same bus crosses a pole in 4 seconds. What is the

respective ratio between the speed of the bus and the speed of the man?

- (1) 9 : 2                      (2) 9 : 4  
 (3) 18 : 5  
 (4) Cannot be determined  
 (5) None of these

**(Syndicate Bank PO  
 Exam. 29.08.2010)**

**187.** The speed of a car is 1.5 times the speed of a bus. If the car travels at the speed of 60 km/hr., what will be the difference in the time taken by the bus and the time taken by the car to cover 720 km ?

- (1) 5 hours                      (2) 6 hours  
 (3) 4 hours                      (4) 8 hours  
 (5) None of these

**(Punjab National Bank  
 Specialist Officer Exam.  
 24.10.2010)**

**188.** A 320 metre long train crosses a platform thrice its length in 40 seconds. What is the speed of the train in km/hour ?

- (1) 120.6                      (2) 115.2  
 (3) 108.4  
 (4) Cannot be determined  
 (5) None of these

**(United Bank Of India PO  
 Exam. 14.11.2010)**

**189.** A bike covers a certain distance at the speed of 64 km/hr. in 8 hours. If the bike was to cover the same distance in approximately 6 hours, at what **approximate** speed should the bike travel?

- (1) 80 kmph                      (2) 85 kmph  
 (3) 90 kmph                      (4) 75 kmph  
 (5) 70 kmph

**(PNB Management Trainee  
 Exam. 28.11.2010)**

**190.** The ratio between the speed of a train and a car is 18 : 13 respectively. Also, a bus covered a distance of 480 kms. in 12 hours. The speed of the bus is five-ninth the speed of the train. How much distance will the car cover in 5 hours ?

- 1) 250 kms.  
 2) 280 kms.

- 3) 260 kms.  
4) Cannot be determined  
5) None of these

**(Bank Of Maharashtra  
Exam. 19.12.2010)**

**191.** A 300 metre long train moving with an average speed of 126 km/hr. crosses a platform in 24 seconds. A man crosses the same platform in 5 minutes. What is the speed of man in metre/second ?

- 1) 1.8 metre/second  
2) 1.2 metre/second  
3) 1.5 metre/second  
4) Cannot be determined  
5) None of these

**(Bank Of Maharashtra  
Exam. 19.12.2010)**

**192.** Train-A crosses a stationary train B in 35 seconds and a pole in 14 seconds with the same speed. The length of the train-A is 280 metres. What is the length of the stationary train-B?

- (1) 360 metres  
(2) 480 metres  
(3) 400 metres  
(4) Cannot be determined  
(5) None of these

**(Bank Of Maharashtra  
Exam. 19.12.2010)**

**193.** A car covers a distance of 540 km in 9 hours. Speed of a train is **double** the speed of the car. Two-third of the speed of the train is equal of a bike. How much distance will the bike cover in 5 hours ?

- (1) 450 km (2) 360 km  
(3) 400 km (4) 500 km  
(5) None of these

**(Oriental Bank Of Commerce  
PO Exam. 26.12.2010 (Ist  
Sitting))**

**194.** Train-A crosses a pole in 25 seconds and another Train-B crosses a pole in 1 minute and 15 seconds. Length of train-A is half length of train-B. What is the respective ratio between the speed of Train-A and Train-B ?

- (1) 3 : 2 (2) 3 : 4

- (3) 4 : 3  
(4) Cannot be determined  
(5) None of these

**(Union Bank Of India PO  
Exam. 09.01.2001)**

**195.** The average speed of a car is times the average speed of a bus. A tractor covers 575km in 23 hours. How much distance will the car cover in 4 hours if the speed of the bus is twice the speed of the tractor ?

- (1) 340 km (2) 480 km  
(3) 360 km (4) 450 km  
(5) None of these

**(Corporation Bank PO  
Exam. 16.01.2011)**

**196.** A car covers the first 39 km. of it's journey in 45 minutes and covers the remaining 25 km. in 35 minutes. What is the average speed of the car ?

- (1) 40 kmph (2) 64 kmph  
(3) 49 kmph (4) 48 kmph  
(5) None of these

**(Punjab & Sind Bank PO  
Exam. 23.01.2011)**

**197.** An aeroplane flies with an average speed of 756 km/hr. A helicopter takes 48 hours to cover **twice** the distance covered by aeroplane in 9 hours. How much distance will the helicopter cover in 18 hours? **(assuming that flights are non-stop and moving with uniform speed)**

- (1) 5014 km (2) 5140 km  
(3) 5130 km (4) 5103 km  
(5) None of these

**(UCO Bank PO Exam.  
30.01.2011)**

**198.** A 320 metre long train moving with an average speed of 120 km/hr crosses a platform in 24 seconds. A man crosses the same platform in 4 minutes. What is the speed of man in metre/second?

- (1) 2.4 (2) 1.5  
(3) 1.6 (4) 2.0  
(5) None of these

**(Bank Of Baroda PO  
Exam. 13.03.2011)**

**199.** The ratio between the speed of a bus and train is 15 : 27 respectively. Also, a car covered a distance of 720 km. in 9 hours. The speed of the bus is three-fourth of the speed of the car. How much distance will the train cover in 7 hours ?

- (1) 760 km.           (2) 756 km.  
 (3) 740 km.  
 (4) Cannot be determined  
 (5) None of these

**(Allahabad Bank PO Exam.  
 17.04.2011)**

**200.** A 280 metre long train moving with an average speed of 108 km/hr crosses a platform in 12 seconds. A man crosses the same platform in 10 seconds. What is the speed of the man in metre/second ?

- 1) 5 m/s  
 2) 8 m/s  
 3) 12 m/s  
 4) Cannot be determined  
 5) None of these

**(Allahabad Bank PO Exam.  
 17.04.2011)**

**201.** The average speed of a train is 1 times the average speed of a car. The car covers a distance of 588 km in 6 hours. How much distance will the train cover in 13 hours ?

- (1) 1750 km           (2) 1760 km  
 (3) 1720 km           (4) 1850 km  
 (5) None of these

**(Indian Overseas Bank PO  
 Exam. 22.05.2011)**

**202.** Amit, Sucheta and Neeti start running around a circular track and complete one round in 18, 24 and 32 seconds respectively. In how many seconds will the three meet again at the starting point if they all have started running at the same time ?

- (1) 196 sec           (2) 288 sec  
 (3) 324 sec  
 (4) Cannot be determined  
 (5) None of these

**(Bank Of India Banking Officer  
 Exam. 24.01.2010)**

**203.** Philip, Tom and Brad start jogging around a circular field and complete

a single round in 18, 22 and 30 seconds respectively. In how much time will they meet again at the starting point ?

- 1) 8 mins. 15 secs.  
 2) 21 mins.  
 3) 16 mins. 30 secs.  
 4) 12 mins.  
 5) None of these

**(Indian Bank PO Exam.  
 02.01.2011)**

**204.** A 320 metre long train crosses a pole in 50 seconds. What is the speed of train ?

- (1) 4.6 m/sec           (2) 7.2 m/sec  
 (3) 5.4 m/sec           (4) 6.4 m/sec  
 (5) Cannot be determined

**(IBPS Specialist Officer  
 CWE 17.03.2013)**

**205.** A car covers a distance of 528 km. in a certain time at a speed of 66 km./hr. How much distance would a truck cover at an average speed which is 24 km./hr. less than that of the speed of the car in time which is 7 hours more than that taken by the car ?

- (1) 336 km.           (2) 682 km.  
 (3) 598 km.           (4) 630 km.  
 (5) None of these

**(IBPS RRBs Office Assistant  
 CWE**

**Exam. 09.09.2012)**

**206.** A person travels from P to Q at a speed of 40 kmph and returns to Q by increasing his speed by 50%. What is his average speed for both the trips?

- (1) 36 kmph           (2) 45 kmph  
 (3) 48 kmph           (4) 50 kmph  
 (5) None of these

**(IBPS Bank PO/MT  
 CWE-III 26.10.2013)**

**207.** A 320 metre long train crosses a pole in 16 seconds. It stops five times of duration 18 minutes each. What time will it take in covering a distance of 576 km ?

- (1) 9 hours           (2) hours  
 (3) hours           (4) hours  
 (5) None of these

**(Corporation Bank Specialist  
Officer (Marketing)  
Exam. 22.02.2014)**

**208.** The speed of a boat in still water is 6 kmph and that of current is 3 kmph. The boat starts from point A and rows to point B and comes back to point A. It takes 12 hours during this journey. How far is point A from point B ?

- (1) 27 km                      (2) 25 km  
(3) 20 km                      (4) 30 km  
(5) None of these

**(Bank of Baroda PO  
Exam. 14.08.2014)**

**209.** A 360 metre long train runs at the speed of 80 kmph. In what time will the train cross a man running at 8 kmph in the same direction of train ?

- 1) 16 seconds  
2) 18 seconds  
3) 20 seconds  
4) 15 seconds  
5) None of these

**(IDBI Officer Grade Exam.  
22.08.2014)**

**210.** The speed of a boat in still water is 9.5 kmph while that of current is 2.5 kmph. If the boat takes 114 minutes in rowing from point A to B and coming back to point A, what is the distance between A and B ?

- (1) 8.4 km.                      (2) 4.8 km.  
(3) 8.8 km.                      (4) 7.4 km.  
(5) None of these

**(SIDBI Bank Officer Exam.  
09.09.2014)**

**211.** A boat running downstream covers a distance of 16 km in 2 hours while for covering the same distance upstream, it takes 4 hours. What is the speed of the boat in still water ?

- (1) 4 kmph                      (2) 6 kmph  
(3) 8 kmph                      (4) 3.5 kmph  
(5) None of these

**212.** A car starts at 11 am from point A towards point B at 36 kmph while another car starts at 1 pm from point B towards A at 44 kmph. They cover

a distance of 592 km till meeting. At what time will they meet each other ?

- (1) 8 pm                              (2) 6 : 30 pm  
(3) 7 : 30 pm                      (4) 5 : 30 pm  
(5) None of these

**(IBPS Bank PO/MT CWE-IV  
18.10.2014)**

**213.** A man takes times as long to row a distance upstream as to row the same distance downstream. What is the speed of the boat in still water if it takes 3 hours to travel 38.4 km downstream ? (in km/h)

- (1) 11                                  (2) 10  
(3) 12.4                              (4) 12  
(5) None of these

**(BOB Junior Management  
Grade/Scale-I Exam.  
18.04.2015)**

**214.** Prem and Shyam decide to go on a trip to point Y on a particular day from point X. Prem leaves for point Y at 11 : 00 am, at speed of 72 km/hour. Shyam leaves for point Y at 11: 30 same day as Prem left. At what speed should Shyam travel to catch up with Prem in 4 hours ? (in km/hour)

- (1) 85                                  (2) 81  
(3) 80                                  (4) 82  
(5) 86

**(BOB Junior Management  
Grade/Scale-I Exam.  
18.04.2015)**

**215.** 6 men and 8 boys can do a piece of work in 10 days while 26 men and 48 boys can do the same work in 2 days, How much time taken by 15 men and 20 boys in doing the same type of work ?

- (1) 4 days                              (2) 5 days  
(3) 6 days                              (4) 7 days  
(5) 8 days

**(BOB Junior Management  
Grade/Scale-I Exam.  
18.04.2015)**

**216.** A person has to travel from point B in certain time. Travelling at a speed of 5 kmph he reaches 48 minutes late and while travelling at a speed of 8 kmph he reaches 15

minutes early. What is the distance from point A to point B ?

- (1) 15 kms (2) 9 kms  
(3) 12 kms (4) 18 kms  
(5) 14 kms

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 03.10.2015)**

**217.** Ram and Shyam are travelling from point A to B, which are 60km apart. Travelling at a certain speed Ram takes one hour more than Shyam to reach point B. If Ram doubles his speed he will take 30 minutes less than Shyam to reach point B. At what speed was Ram driving from point A to B ?

- (1) 15 kmph (2) 35 kmph  
(3) 30 kmph (4) 25 kmph  
(5) 20 kmph

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 04.10.2015)**

**218.** To reach a point B at 10 am from point A, Abhinav travels at an average speed of 15 kmph. He reaches the point B at 12 noon, if he travels at an average speed of 10 kmph. Find the average speed of Abhinav if he intends to reach the point B at 9 am ? (in kmph)

- (1) 10 KMPH  
(2) 15 KMPH  
(4) 20 KMPH  
(5) None of these

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015  
Ist Sitting)**

**219.** To reach point B from point A, at 4pm, Sara will have to travel at an average speed of 18 kmph. She will reach point B at 3 pm if she travels at an average speed of 24 kmph. At what average speed should Sara travel to reach point B at 2 pm ?

- (1) 36 kmph (2) 28 kmph  
(3) 25 kmph (4) 30 kmph  
(5) 32 kmph

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015)**

**220.** Train A which is 320m long can cross a pole in 16 seconds. If it halts 5 times each time for exactly 18

minutes, how many hours will it take to cover a distance of 576 kms? (in hours)

- (1) 8 (2) 9.5  
(3) 10 (4) 9  
(5) NONE

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**221.** On walking at of his usual speed a man reaches his office 20 minutes late. What is the usual time taken by him in reaching his office?

- (1) 75 minutes (2) 60 minutes  
(3) 40 minutes (4) 30 minutes  
(5) None of these

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

**222.** The distance between two places A and B is 140kms. The first scooter departs from place A to B, at a speed of 50kmph at 10 am. The second scooter departs from place B to A at a speed of 30 kmph at 12 pm. At what time will both the scooters meet each other ?

- (1) 12 : 30 pm (2) 01 : 50 pm  
(3) 1 : 00 pm (4) 12 : 50 pm  
(5) 1 : 30 pm

**(IBPS Specialist Officer (IT)  
CWE 14.02.2016)**

**223.** A 260 metre long train crosses a 120 metre long wall in 19 seconds. What is the speed of the train?

- (1) 27 km/hr (2) 49 km/hr  
(3) 72 km/hr (4) 70 km/hr  
(5) None of these

**(SBI Associate Banks PO  
Exam. 14.02.1999)**

**224.** Two cars starts at the same time from A and B which is 120 km apart. If the two cars travel in opposite direction they meet after one hour and if they travel in same direction (from A towards B) then A meet B after 6 hours. What is the speed of car starting from A?

- (1) 70 kmph (2) 120 kmph.  
(3) 60 kmph  
(4) Data inadequate  
(5) None of these



(SBI Associate Banks PO  
Exam. 14.02.1999)

225. Find the speed of train in km/hr whose length is 200 m and crosses a platform of length 240 m in 22 seconds?

- (1) 60 (2) 48  
(3) 53  
(4) Data inadequate  
(5) None of these

(SBI Associate Banks PO  
Exam. 14.02.1999)

226. A man starts going for morning walk every day. The distance walked by him on the first day was 2 kms. Everyday he walks half of the distance walked on the previous day. What can be the **maximum** total distance walked by him in his life time ?

- (1) 4 kms. (2) 120 kms.  
(3) 18 kms.  
(4) Data inadequate  
(5) None of these

(SBI Banks PO Exam.  
11.02.2001)

227. A car covers its journey at the speed of 80 km/hour in 10 hours. If the same distance is to be covered in 4 hours, by how much the speed of car will have to increase ?

- (1) 8 km/hr (2) 10 km/hr  
(3) 12 km/hr (4) 16 km/hr  
(5) None of these

(SBI PO Exam. 26.11.2006)

228. Raman drove from home to a neighbouring town at the speed of 50 km./hr. and on his returning journey, he drove at the speed of 45 km./hr. and also took an hour longer to reach home. What distance did he cover each way?

- (1) 450 kms. (2) 225 kms.  
(3) 900 kms. (4) 500 kms.  
(5) None of these

(SBI PO Preliminary (Tier-I)  
Exam. 27.04.2008)

229. A 350 metre long train crosses a pole in 30 seconds. What is the speed of train (in kmph) ?

- (1) 430 (2) 425

- (3) 385 (4) 420  
(5) None of these

(SBI Specialist (IT)  
Officer Exam. 19.04.2014)

230. Two stations, A and B are 850 km apart from each other. One train starts from station A at 5 am and travels towards station B at 62 kmph. Another train starts from station B at 7 am and travels towards station A at 59 kmph. At what time will they meet ?

- (1) 1 pm (2) 11 : 45 am  
(3) 12 : 30 pm (4) 1 : 30 pm  
(5) None of these

(SBI PO Phase-I (Preliminary)  
Online Exam. 27.06.2015)

231. Nitin rides a bicycle at the speed of 15 km/hr., but stops for 10 minutes to take rest every 20 kms. How much time will he take to cover a distance of 150 kms. ?

- 1) 12 hours 30 minutes  
2) 11 hours 10 minutes  
3) 10 hours 20 minutes  
4) 12 hours 10 minutes  
5) None of these

(RBI Grade-B Officer  
Exam. 2008)

232. A 280 metres long train, travelling at a uniform speed, crosses a platform in 60 seconds and a man standing on the platform in 20 seconds. What is the length of the platform ?

- (1) 640 metres  
(2) 420 metres  
(3) 280 metres  
(4) Cannot be determined  
(5) None of these

(RBI Grade-B Officer  
Exam.06.02.2011)

233. Train A crosses a pole and platform in 18 seconds and 39 seconds respectively. The length of platform is 157.5 metre. What will be the length of train B if it is equal to the sum of half of the length of train A and twice the length of the platform?

- 1) 382.5 metre
- 2) 328.5 metre
- 3) 238.5 metre
- 4) 315 metre
- 5) None of these

**(RBI Officer Grade 'B'  
Online Exam. 25.08.2013)**

**234.** The distance between two points is 36 km. A boat rows in still water at 6 kmph. It takes 8 hours less to cover this distance in downstream in comparison to that in upstream. The rate of stream is

- (1) 3 kmph
- (2) 2 kmph
- (3) 2.5 kmph
- (4) 4 kmph
- None of these

**(RBI Officer Grade 'B' Phase-I,  
Exam. 03.08.2014)**

**235.** Anna left for city A from city B at 5 : 20 am. She travelled at the speed of 80 kmph for 2 hours 15 minutes. After that speed was reduced to 60 kmph. If the distance between two cities be 350 km, at what time did Anna reach city A ?

- (1) 9 : 20am
- (2) 9 : 25 am
- (2) 9 : 35 am
- (2) 10 : 05 am
- (2) None of these

**(NABARD Officer Grade 'A'  
Online Exam. 03.08.2014)**

**236.** Rohan covers rd of a certain distance in 2 hours 30 minutes at the rate of  $x$  kmph. He covers the remaining distance at the rate of  $(x + 2)$  kmph in 50 minutes. What is the total distance?

- (1) 21 km
- (2) 18 km
- (3) 16 km
- (4) 15 km
- (5) 20 km

**(RBI Officer Grade 'B' Phase-I  
Online Exam. 22.11.2015)**

**237.** A and B started towards each other at the same time from places 114 kms. apart and met in 8 hours. If A's rate was 6 kms. an hour, what was B's?

- 1) 14.25 km/hr.
- (2) 7 km./hr
- (3) km./hr
- (4) km/hr.
- (5) km/hr.

**(United India Insurance Co.  
AAO Exam. 21.04.2002)**

**238.** Sunil left for city 'x' from city 'y' at 5.50a.m. He travelled at the speed of 80 km/hr. for 2 hours 15 minutes. After that the speed was reduced to 60 km/hour. If the distance between two cities is 350 kms., at what time did Sunil reach the city 'Y'?

- (1) 10.05 a.m.
- (2) 10.35 a.m.
- (3) 9.50 a.m.
- (4) 9.55 a.m.
- (5) None of these

**(LIC Assistant Administrative  
Officer  
(AAO) Exam. 24.04.2005)**

**239.** Two trains A and B of equal length of 200 metres running in opposite direction cross each other in 16 seconds. What is the speed of train A?

- (1) 90 km/hr.
- (2) 40 km/hr.
- (2) 80 km/hr.
- (3) Data inadequate
- (4) None of these

**(LIC Assistant Administrative  
Officer (AAO) Exam.  
24.04.2005)**

**240.** An employee may claim 7.00 for each km when he travels by taxi and 6.00 for each km if he drives his own car. If in one week he claimed 675 for travelling 90 km, how many kms did he travel by taxi ?

- (1) 135
- (2) 155
- (3) 162
- (4) 170

**(United India Insurance Co.  
(AAO) Exam. 11.03.2007)**

**241.** A train B speeding with 120 kmph crosses another train C running in the same direction, in 2 minutes. If the lengths of the trains B and C be 100m and 200m respectively, what is the speed (in kmph) of the train C ?

- (1) 111
- (2) 123
- (3) 127
- (4) 129

**(United India Insurance Co.  
(AAO) Exam. 11.03.2007)**

**242.** A train crosses a 300 metre long platform in 38 seconds while it crosses a signal pole in 18 seconds.

What is the speed of the train in kmph ?

- (1) Cannot be determined  
 (2) 72 (3) 48  
 (4) 54 (5) None of these

**(LIC Assistant Administrative Officer Exam. 2008)**

**243.** A man goes uphill with an average speed of 24 kmph. and comes down with an average speed of 36 kmph. The distance travelled in both the cases being the same. The average speed (in kmph) for the entire journey is:

- (1) 30 (2) 28.8  
 (3) 32.6 (4) 30.8

**(LIC Assistant Administrative Officer (AAO) Exam. 07.06.2009)**

**244.** A train overtakes two persons who are walking in the same direction in which the train is going, at the rate of 2 kmph and 4 kmph, and passes them completely in 9 and 10 seconds respectively. The length of the train (in metres) is :

- (1) 72 (2) 54  
 (3) 50 (4) 45

**(LIC Assistant Administrative Officer (AAO) Exam. 07.06.2009)**

**245.** Train-A crosses a pole in 33 seconds and another Train-B crosses a pole in 55 seconds. Length of Train-A is three-fourth of Train-B. What is the respective ratio between the speed of Train-A and Train-B ?

- (1) 5 : 11 (2) 5 : 4  
 (3) 11 : 3  
 (4) Cannot be determined  
 (5) None of these

**(United India Insurance AO Exam. 27.03.2011)**

**246.** There is a hill behind a person's house. He walks up the top of the hill at a speed of km/hour, but walks down it at km/hour. If it takes him 6 hours for the entire journey, the distance, in km, from his house to the top of the hill is

- (1) (2) 6

- (3) (4) 9

**(New India Insurance AAO Exam. 22.05.2011)**

**Directions (11-13) :** The cost of fuel running the engine of an army tank is proportional to the square of the speed and 64 per hour for a speed of 16 kmph. Other costs amount to 400 per hour. The tank has to make a journey of 400 km at a constant speed.

**(General Insurance Corporation AAO Exam. 11.12.2011)**

**247.** The most economical speed for this journey is :

- (1) 20 kmph (2) 30 kmph  
 (3) 35 kmph (4) 40 kmph

**248.** The total cost for the journey at this most economical speed is :

- (1) 6000 (2) 8000  
 (3) 10000 (4) 11000

**249.** Ravi can walk a certain distance in 40 days when he rests 9 hours a day. How long will he take to walk twice the distance, twice as fast and rest twice as long each day ?

- (1) 40 days (2) 80 days  
 (3) 50 days (4) 100 days

**(New India Assurance AO Exam. 25.10.2009)**

**250.** A can walk a certain distance in 20 days when he rests 8 hours a day. How long will he take to walk twice the distance, twice as fast and rests twice as long each day ?

- (1) 40 days (2) 60 days  
 (3) 80 days (4) 100 days

**(Oriental Insurance Company AAO Exam. 08.04.2012)**

**251.** A person leaves a place A to place B at 6 a.m. and reaches place B at 10 a.m. Another person leaves B at 7.30 a.m. and reaches A at 11 a.m. They will meet each other at

- (1) 7.40 a.m. (2) 8.20 a.m.  
 (3) 8.40 a.m. (4) 9.20 a.m.

**(Oriental Insurance Company AAO Exam. 08.04.2012)**

**252.** A can walk a certain distance in 10 days when he rests 9 hours a day. How long will he take to walk twice

the distance, twice as fast and rests twice as long each day ?

- (1) 4 days                      (2) 10 days  
(3) 15 days                    (4) 25 days

**(United India Insurance AAO**

**Exam. 03.06.2012)**

**253.** A 222 metre long train crosses a pole in 6 seconds. The same train crosses a man running in the same direction in 10 seconds. What will be the speed of man ?

- (1) 15 m/sec                  (2) 17 m/sec  
(3) 18 m/sec                  (4) 14 m/sec  
(5) None of these

**(LIC Assistant Administrative Officer (AAO) Exam.**

**2.05.2013)**

**254.** How long (time in seconds) will a 450 metre long train takes to cross a girl walking with a speed of 5 km/hr in the direction of the moving train ? The speed of the train is 65km/hr.

- (1) 27                              (2) 28  
(3) 30                              (4) 29

**(NICL (GIC) AO (Finance)**

**Exam. 08.09.2013 (Paper-I)**

**255.** An express train travelled at an average speed of 100 km/hr, stopping for 3 minutes after 75 km. A local train travelled at a speed of 50 km/hr, stopping for 1 minute after every 25 km. If the trains began travelling at the same time, how many kms did the local train travel in the time it took the express train to travel 600 km?

- (1) 307.5 km                  (2) 900 km  
(3) 1000 km                  (4) 1200 km

**(NICL (GIC) Administrative**

**Officer Exam. 15.12.2013)**

**256.** If a student walks from his house to school at 5 km/hr, he is late by 30 minutes. However, if he walks at 6 km/hr, he is late by 5 minutes only. The distance of his school from his house is.

- (1) 2.5 km                      (2) 3.6 km  
(3) 5.5 km                      (4) 12.5 km

**(NICL (GIC) Administrative**

**Officer Exam. 15.12.2013)**

**257.** A plane left 30 minutes later than the scheduled time and in order to reach the destination 1500 km away in time, it had to increase the speed by 250 km/hr from the usual speed.

Its usual speed is:

- (1) 720km/hr                  (2) 730 km/hr  
(3) 740 km/hr                  (4) 750km/hr

**(NICL (GIC) AO (Finance)**

**Exam. 15.12.2013)**

**258.** The speed of a boat in still water is 17-5 kmph and that of current is 2.5 kmph. The boat goes from X to Y in downstream and returns to point Z. The whole journey takes 429 minutes. The distance between Z and Y is th of the distance between X and Y. Find the total distance covered by the boat. (Approximated to the nearest integer).

- (1) 130 km.                      (2) 140 km.  
(3) 160 km.                      (4) 120 km.  
(5) None of these

**(NIACL Administrative**

**Officer (AO) Exam.**

**11.01.2015)**

**259.** The ratio between the rates of travelling of A and B is 2 : 3 and therefore A takes 10 minutes more than the time taken by B to reach a destination. If A had walked at double the speed, he would have covered the distance in

- (1) 30 min                      (2) 25 min  
(3) 20 min                      (4) 15 min

**(NICL (GIC) Administrative**

**Officer Exam. 15.12.2013)**

**260.** Two trains running in opposite directions cross a man standing on the platform in 27 seconds and 17 seconds respectively and they cross each other in 23 seconds. The ratio of their speed is:

- (1) 1 : 3                      (2) 3 : 2  
(3) 3 : 4                      (4) None of these

**(NICL (GIC) AO (Finance)**

**Exam. 15.12.2013)**

**261.** The speed of the boat in still water is 16 kmph and speed of the current is 2 kmph. It takes a total of 6.5 hours to row upstream from point A

to point B and downstream from point B to point C. If the distance from point A to point B is two-third the distance between point B and C, what is the total distance travelled by the boat (both upstream and downstream) ?

- (1) 112 km                      (2) 98 km  
(3) 124 km                      (4) 90 km  
(5) 105 km

**(NIACL Administrative Officer  
(AO) Exam. 10.01.2015)**

**262.** Train A travelling at 126 km/hour speed, completely crosses Train B in 9 seconds. Train B is half the length of Train A and is travelling at a speed of 90 km/hour in the opposite direction (towards Train A). How much will Train A take to cross a platform of length 690 metres?

- (1) 28 seconds  
(2) 32 seconds  
(3) 25 seconds  
(4) 30 seconds  
(5) 35 seconds

**(OICL Specialist Officer  
(Finance)  
Exam. 03.05.2015)**

## 12. TIME AND WORK

1. A and B together can do a job in 12 days. B alone can finish it in 28 days. In how many days can A alone finish the work?  
 (a) 21 days (b) 19 days  
 (c) 20 days (d) None of these
2. A can do  $\frac{3}{4}$  of a work in 12 days. In how many days can he finish  $\frac{1}{8}$  of the work?  
 (a) 6 days (b) 5 days  
 (c) 3 days (d) 2 days
3. A can finish a work in 18 days and B can do the same work in half the time taken by A. Then, working together, What part of the same work they can finish in a day?  
 (a)  $\frac{1}{6}$  (b)  $\frac{1}{9}$   
 (c)  $\frac{2}{5}$  (d)  $\frac{2}{7}$
4. A man is twice as fast as a woman. Together the man and the woman do the piece of work in 8 days. In how many days each will do the work if engaged alone?  
 (a) man-14 days, woman-28 days  
 (b) man-12 days, woman-24 days  
 (c) man-10 days, woman-20 days  
 (d) None of these
5. A is 30% more efficient than B. How much time will they, working together, take to complete a job which A alone could have done in 23 days?  
 (a) 11 days (b) 13 days  
 (c)  $20\frac{3}{17}$  days (d) None of these
6. A contractor undertakes to build a wall in 50 days. He employs 50 people for the same. However after 25 days he finds that only 40% of the work is complete. How many more men need to be employed to complete the work in time?  
 (a) 25 (b) 30  
 (c) 35 (d) 20
7. 12 men complete a work in 18 days. Six days after they had started working, 4 men joined them. How many days will all of them take to complete the remaining work?  
 (a) 10 days (b) 12 days  
 (c) 15 days (d) 9 days
8. A man, a woman or a boy can do a job in 20 days, 30 days or 60 days respectively. How many boys must assist 2 men and 8 women to do the work in 2 days?  
 (a) 15 boys (b) 8 boys  
 (c) 10 boys (d) None of these
9. 10 men can complete a piece of work in 15 days and 15 women can complete the same work in 12 days. If all the 10 men and 15 women work together, in how many days will the work get completed?  
 (a) 6 (b)  $6\frac{1}{3}$   
 (c)  $6\frac{2}{3}$  (d)  $7\frac{2}{3}$
10. After working for 8 days, Anil finds that only  $\frac{1}{3}$  of the work has been done. He employs Rakesh who is 60% efficient as Anil. How many more days will Anil take to complete the job?  
 (a) 15 days (b) 12 days  
 (c) 10 days (d) 8 days
11. A can knit a pair of socks in 3 days. B can knit the same thing in 6 days. If they are knitting together, in how many days will they knit two pairs of socks?  
 (a) 4 days (b) 2 days  
 (c)  $4\frac{1}{2}$  days (d) 3 days

- 12.** A can build up a wall in 8 days while B can break it in 3 days. A has worked for 4 days and then B joined to work with A for another 2 days only. In how many days will A alone build up the remaining part of wall?  
 (a)  $13\frac{1}{3}$  days (b)  $7\frac{1}{3}$  days  
 (c)  $6\frac{1}{3}$  days (d) 7 days
- 13.** Sakshi can do a piece of work in 20 days. Tanya is 25% more efficient than Sakshi. The number of days taken by Tanya to do the same piece of work is  
 (a) 15 (b) 16  
 (c) 18 (d) 25
- 14.** Three men, four women and six children can complete a work in seven days. A woman does double the work a man does and a child does half the work a man does. How many women alone can complete this work in 7 days?  
 (a) 7 (b) 8  
 (c) 12 (d) cannot be determined
- 15.** Sunil and Pradeep can complete a work in 5 days and 15 days respectively. They both work for one day and then Sunil leaves. In how many days in the remaining work completed by Pradeep?  
 (a) 11 days (b) 12 days  
 (c) 15 days (d) 8 days
- 16.** Suresh can finish a piece of work by himself in 42 days. Mahesh, who is  $\frac{1}{5}$  times more efficient as Suresh, Requires X days to finish the work by working all by himself. Then what is the value of X?  
 (a) 25 days (b) 30 days  
 (c) 35 days (d) 20 days
- 17.** If 6 BSF or 10 CRPF companies can demolish a terrorist outfit in Kashmir in 2 days, find how long will 4 BSF and 9 CRPF companies take to do the same?  
 (a) 1.27 days (b) 2.27 days  
 (c) 3.27 days (d) 4.27 days
- 18.** 2 men and 3 boys can do a piece of work in 10 days while 3 men and 2 boys can do the same work in 8 days. In how many days can 2 men and 1 boy do the work?  
 (a)  $12\frac{1}{2}$  days (b)  $11\frac{1}{2}$  days  
 (c)  $15\frac{1}{2}$  days (d)  $13\frac{1}{2}$  days
- 19.** Three pumps working 8 hours a day can empty a tank in 2 days. How many hours a day must 4 pumps work to empty the tank in 1 day.  
 (a) 10 hours (b) 12 hours  
 (c) 8 hours (d) None of these
- 20.** If 18 binders bind 900 books in 10 days, how many binders will be required to bind 660 books in 12 days?  
 (a) 14 (b) 13  
 (c) 22 (d) 11
- 21.** If 27 men take 15 days to mow 225 hectares of grass, How long will 33 men take to mow 165 hectares?  
 (a) 9 days (b) 18 days  
 (c) 6 days (d) 12 days
- 22.** X and Y can do a piece of work in 72 days. Y and Z can do it in 120 days. X and Z can do it in 90 days. In how many days all the three together can do the work?  
 (a) 100 days (b) 150 days  
 (c) 60 days (d) 80 days
- 23.** If 6 men and 8 boys can do a piece of work in 10 days and 26 men and 48 boys can do the same work in 2 days, The time taken by 15 men and 20 boys to do the same type of work will be  
 (a) 6 days (b) 4 days  
 (c) 8 days (d) 7 days
- 24.** The work done by man, a woman and a boy are in the Ratio 3 : 2 : 1. There are 24 men, 20 women and 16

boys in a factory whose weekly wages amount to Rs. 224. What will be the yearly wages of 27 men, 40 women and 15 boys?

- (a) Rs. 16366 (b) Rs. 16466  
(c) Rs. 16066 (d) Rs. 16016

**25.** Two pipes can fill a cistern in 6 minutes and 7 minutes respectively. Both the pipes are opened alternatively for 1 minute each. In what time will they fill the cistern.

- (a) 6 minutes (b)  $6\frac{2}{3}$  minutes  
(c)  $6\frac{3}{7}$  minutes (d)  $3\frac{1}{2}$  minutes

**26.** Three pipes A, B and C can fill a tank from empty to full In 30 minutes, 20 minutes and 10 minutes respectively. When the tank is empty, all the three pipes are opened. A, B and C discharge chemical solutions P, Q and R respectively. What is the proportion of solution R in the liquid in the tank after 3 minutes?

- (a)  $\frac{3}{11}$  (b)  $\frac{6}{11}$   
(c)  $\frac{4}{11}$  (d)  $\frac{7}{11}$

**27.** A and B can finish a work in 10 days while B and C can Do it in 18 days. A started the work, worked for 5 days, then B worked for 10 days and the remaining work was finished by C in 15 days. In how many days could C alone have finished the whole work ?

- (a) 30 days (b) 15 days  
(c) 45 days (d) 24 days

**28.** A certain number of men can do a work in 60 days. If There were 8 men more it could be finished in 10 days less. How many men are there ?

- (a) 75 men (b) 40 men  
(c) 48 men (d) 45 men

**29.** A and B can do a job in 16 days and 12 days respectively. B has started the work alone 4 days

before finishing the job, A joins B. How many days has B worked alone?

- (a) 6 days (b) 4 days  
(c) 5 days (d) 7 days

**30.** Two pipes A and B when working alone can fill a tank in 36 min. and 45 min. respectively. A waste pipe C can Empty the tank in 30 min. First A and B are opened. After 7 min., C is also opened. In how much time will the tank be full ?

- (a)  $\frac{1}{60}$  (b)  $\frac{1}{30}$   
(c)  $\frac{7}{20}$  (d)  $\frac{13}{20}$

**31.** A can do a piece of work in 25 days and B in 20 days. They work together for 5 days and then A goes away. In How many days will B finish the remaining work ?

- (a) 17 days (b) 11 days  
(c) 10 days (d) 15 days

**32.** 12 men complete a work in 18 days. Six days after they Had started working, 4 men joined them. How many days will all of them take to complete the remaining work ?

- (a) 10 days (b) 12 days  
(c) 15 days (d) 9 days

**33.** A can do a piece of work in 10 days, while B alone can do it in 15 days. They work together for 5 days and the rest of the work is done by C in 2 days. If they get Rs. 450 for the whole work, how should they divide the money ?

- (a) Rs. 225, Rs. 150, Rs. 75  
(b) Rs. 250, Rs. 100, Rs. 100  
(c) Rs. 200, Rs. 150, Rs. 100  
(d) Rs. 175, Rs. 175, Rs. 100

**34.** Raju can do a piece of work in 10 days, Vicky in 12 days and Tinku in 15 days. They all start the work together, but Raju leaves after 2 days and Vicky leaves 3 days before the work is completed. In how many days is the work completed?

- (a) 5 days (b) 6 days



(c) 7 days (d) 8 days

**35.** A can do some work in 24 days, B can do it in 32 days And C can do it in 60 days. They start working together. A left after 6 days and B left after working for 8 days. How many more days are required to complete the whole work?

(a) 30 (b) 25  
(c) 22 (d) 20

**36.** Mayank can do 50% more work than Shishu in the sametime. Shishu alone can do a piece of work in 30 hours. Shishu starts working and he had already worked for 12 hours when Mayank joins him. How many hours should Shishu and Mayank work together to complete the remaining work?

(a) 6 (b) 12  
(c) 4.8 (d) 9.6

**37.** Anand got an order from a boutique for 480 shirts. He brought 12 sewing machines and appointed some expert tailors to do the job. However, many did not report to duty. As a result, each of those who reported had to stitch 32 more shirts than was originally planned by Anand, with equal distribution of work. How many tailors had been appointed earlier and how many had not reported to work?

(a) 12, 4 (b) 10, 3  
(c) 10, 4 (d) None of these

**38.** In a fort there was sufficient food for 200 soldiers for 31 days. After 27 days 120 soldiers left the fort. For how many extra days will the rest of the food last for the remaining soldiers?

(a) 12 days (b) 10 days  
(c) 8 days (d) 6 days

**39.** Sambhu can do  $\frac{1}{2}$  of the work in 8 days while Kalu can do  $\frac{1}{3}$  of the work in 6 days. How long will it

take for both of them to finish the work?

(a)  $\frac{88}{17}$  days (b)  $\frac{144}{17}$  days  
(c)  $\frac{72}{17}$  days (d) 8 days

**40.** A tank holds 100 gallons of water. Its inlet is 7 inches in diameter and fills the tank at 5 gallons/min. The outlet of the tank is twice the diameter of the inlet. How many minutes will it take to empty the tank if the inlet is shut off, when the tank is full and the outlet is opened? (*Hint* : Rate of filling or emptying is directly proportional to the diameter)

(a) 7.14 min (b) 10.0 min  
(c) 0.7 min (d) 5.0 min

**41.** Three diggers dug a ditch of 324 m deep in six days working simultaneously. During one shift, the third digger digs as many metres more than the second as the second digs more than the first. The third digger's work in 10 days is equal to the first digger's work in 14 days. How many metres does the first digger dig per shift?

(a) 15 m (b) 18 m  
(c) 21 m (d) 27 m

**42.** A can do a piece of work in 90 days, B in 40 days and C in 12 days. They work for a day each in turn, i.e., first day A does it alone, second day B does it alone and 3rd day C does it alone. After that the cycle is repeated till the work is finished. They get Rs. 240 for this job. If the wages are divided in proportion to the work each had done. Find the amount A will get?

(a) 14 (b) 24  
(c) 34 (d) 36

**43.** Two forest officials in their respective divisions were involved in the harvesting of *tendu* leaves. One division had an average output of 21 tons from a hectare and the other

division, which had 12 hectares of land less, dedicated to *tendu* leaves, got 25 tons of *tendu* from a hectare. As a result, the second division harvested 300 tons of *tendu* leaves more than the first. How many tons of *tendu* leaves did the first division harvest?

- (a) 3150 (b) 3450  
(c) 3500 (d) 3600

**44.** A and B can do a piece of work in 45 and 40 days respectively. They began the work together, but A leaves after some days and B finished the remaining work in 23 days. After how many days did A leave

- (a) 7 days (b) 8 days  
(c) 9 days (d) 11 days

**45.** There is sufficient food for 400 men for 31 days. After 28 days, 280 men leave the place. For how many days will the rest of the food last for the rest of the men?

- (a) 10 days (b) 12 days  
(c) 16 days (d) 20 days

**46.** A tyre has two punctures. The first puncture alone would have made the tyre flat in 9 minutes and the second alone would have done it in 6 minutes. If air leaks out at a constant rate, how long does it take both the punctures together to make it flat?

- (a)  $1\frac{1}{2}$  minutes (b)  $3\frac{1}{2}$  minutes  
(c)  $3\frac{3}{5}$  minutes (d)  $4\frac{1}{4}$  minutes

**47.** 12 men and 16 boys can do a piece of work in 5 days, 13 men and 24 boys can do it in 4 days. Then the ratio of daily work done by a man to that of a boy is

- (a) 2 : 1 (b) 3 : 1  
(c) 3 : 2 (d) 5 : 4

**48.** Two taps can fill a tank in 12 and 18 minutes respectively. Both are

kept open for 2 minutes and the first is turned off. In how many minutes more will the tank be filled ?

- (a) 15 min. (b) 20 min.  
(c) 11 min. (d) 13 min.

**49.** A cistern normally takes 6 hours to be filled by a tap but because of a leak, 2 hours more. In how many hours will the leak empty a full cistern ?

- (a) 20 hrs (b) 24 hrs  
(c) 26 hrs (d) None of these

**50.** If 3 men or 4 women can reap a field in 43 days, how long will 7 men and 5 women take to reap it?

- (a) 7 days (b) 11 days  
(c) 12 days (d) 16 days

**51.** A pipe can fill a tank in 15 minutes and another one in 10 minutes. A third pipe can empty the tank in 5 minutes. The first two pipes are kept open for 4 minutes in the beginning and then the third pipe is also opened. In what time will the tank be emptied ?

- (a) 35 min (b) 15 min  
(c) 20 min (d) Cannot be emptied

**52.** Filling pipe, if opened alone, takes 5 minutes to fill a cistern. Suddenly, during the course of filling, the waste pipe (which is of similar size and flow as of fill pipe) is opened for 2 minutes, then the cistern will be filled in

- (a)  $3\frac{1}{7}$  min (b)  $3\frac{1}{3}$  min  
(c) 5 min (d) 7 min

**53.** Three taps A, B and C can fill a tank in 12, 15 and 20 hours respectively. If A is open all the time and B and C are open for one hour each alternately, then the tank will be full in :

- (a) 6 hrs. (b)  $6\frac{2}{3}$  hrs.  
(c) 7 hrs. (d)  $7\frac{1}{2}$  hrs.

- 54.** 1 man or 2 women or 3 boys can do a work in 44 days. Then, in how many days will 1 man, 1 woman and 1 boy do the work?  
(a) 12 days (b) 24 days  
(c) 18 days (d) 36 days
- 55.** A, B and C can do a work in 8, 16 and 24 days respectively. They all begin together. A continues to work till it is finished, C leaving off 2 days and B one day before its completion. In what time is the work finished?  
(a) 3 days (b) 4 days  
(c) 5 days (d) 8 days
- 56.** Two pipes A and B can fill a tank in 24 minutes and 32 minutes respectively. If both the pipes are opened simultaneously, after how much time should B be closed so that the tank is full in 18 minutes?  
(a) 6 min. (b) 8 min.  
(c) 12 min. (d) 14 min.
- 57.** A contractor undertook to do a piece of work in 9 days. He employed certain number of labourers but 6 of them were absent from the very first day and the rest could finish the work in only 15 days. Find the number of men originally employed.  
(a) 15 (b) 6  
(c) 13 (d) 9
- 58.** After working for 8 days, Anil finds that only  $\frac{1}{3}$  of the work has been done. He employs Rakesh who is 60% efficient as Anil. How many more days will Anil take to complete the job?  
(a) 15 days (b) 12 days  
(c) 10 days (d) 8 days
- 59.** A can build up a wall in 8 days while B can break it in 3 days. A has worked for 4 days and then B joined to work with A for another 2 days only. In how many days will A alone build up the remaining part of wall?  
(a)  $13\frac{1}{3}$  days (b)  $7\frac{1}{3}$  days  
(c)  $6\frac{1}{3}$  days (d) 7 days
- 60.** A cistern has two taps which fill it in 12 minutes and 15 minutes respectively. There is also a waste pipe in the cistern. When all the three are opened, the empty cistern is full in 20 minutes. How long will the waste pipe take to empty the full cistern?  
(a) 10 min (b) 12 min  
(c) 15 min (d) None of these
- 61.** A and B together can do a piece of work in 12 days which B and C together can do in 16 days. After A has been working at it for 5 days, and B for 7 days, C takes up and finishes it alone in 13 days. In how many days could each do the work by himself?  
(a) 8, 16, 24 (b) 16, 24, 48  
(c) 16, 48, 24 (d) 8, 24, 48
- 62.** A pump can be operated both for filling a tank and for emptying it. The capacity of tank is 2400 m<sup>3</sup>. The emptying capacity of the pump is 10 m<sup>3</sup> per minute higher than its filling capacity. Consequently, the pump needs 8 minutes less to empty the tank to fill it. Find the filling capacity of pump.  
(a) 50 m<sup>3</sup>/min (b) 60 m<sup>3</sup>/min  
(c) 58 m<sup>3</sup>/min (d) None of these
- 63.** A tank is filled in 5 hours by three pipes A, B and C. The pipe C is twice as fast as B and B is twice as fast as A. How much time will pipe A alone take to fill the tank?  
(a) 20 hrs (b) 25 hrs  
(c) 35 hrs (d) Cannot be determined
- 64.** Two pipes A and B can fill a tank in 15 hours and 20 hours respectively while a third pipe C can empty the full tank in 25 hours. All the three pipes are opened in the

beginning. After 10 hours, C is closed. In how much time, will the tank be full?

- (a) 12 hrs (b) 13 hrs  
(c) 16 hrs (d) 18 hrs

**65.** 4 men and 6 women finish a job in 8 days, while 3 men And 7 women finish in 10 days. In how many days will 10 women finish it?

- (a) 20 days (b) 30 days  
(c) 40 days (d) 50 days

**66.** A can do a work in 25 days and B can do the same work In 20 days. They work together for 5 days and then A Goes away. In how many days will B finish the work?

- (a) 9 days (b) 11 days  
(c) 15 days (d) 20 days

**67.** One man can do as much work in one day as a woman Can do in 2 days. A child does one third the work in a day as a woman. If an estate-owner hires 39 pairs of hands, men, women and children in the ratio 6 : 5 : 2 and pays them in all Rs. 1113 at the end of the days work. What must be the daily wage of a child, if the wages are proportional to the amount of work done?

- (a) Rs. 14 (b) Rs. 5  
(c) Rs. 20 (d) Rs. 7

**68.** There is leak in the bottom of a tank. This leak can empty a full tank in 8 hours. When the tank is full, a tap is opened into the tank which admits 6 litres per hour and the tank is now emptied in 12 hours. What is the capacity of the tank?

- (a) 28.8 litres (b) 36 litres  
(c) 144 litres (d) Can't be determined

**69.** A company has a job to prepare certain no. of cans and there are three machines A, B & C for this job. A can complete the job in 3 days, B can complete the job in 4 days and C can complete the job in 6 days. How

many days the company will take to complete job if all the machines are used simultaneously?

- (a) 4 days (b) 4/3 days  
(c) 3 days (d) 12 days

**70.** 3 small pumps and a large pump are filling a tank. Each Of the three small pumps works at 2/3rd the rate of the Large pump. If all 4 pumps work at the same time, they should fill the tank in what fraction of the time that it would have taken the large pump alone?

- (a) 4/7 (b) 1/3  
(c) 2/3 (d) 3/4

**71.** A and B can do a job in 15 days and 10 days, respectively. They began the work together but A leaves after some days and B finished the remaining job in 5 days. After how many days did A leave?

- (a) 2 days (b) 3 days  
(c) 1 day (d) None of these

**72.** A contract is to be completed in 46 days and 117 men Were set to work, each working 8 hours a day. After 33 days, 4/7 of the work is completed. How many additional men may be employed so that the work may be completed in time, each man now working 9 hours a day ?

- (a) 80 (b) 81  
(c) 82 (d) 83

**73.** If 12 men or 15 women or 18 boys can do a piece of Work in 15 days of 8 hours each, find how many men assisted by 5 women and 6 boys will finish the same work in 16 days of 9 hours each.

- (a) 6 men (b) 2 men  
(c) 8 men (d) 4 men

**74.** The work done by a man, a woman and a child is in theratio of 3 : 2 : 1. There are 20 men, 30 women and 36 children in a factory. Their weekly wages amount to Rs. 780, which is divided in the ratio of work

done by the men, women and children. What will be the wages of 15 men, 21 women and 30 children for 2 weeks?

- (a) Rs. 585 (b) Rs. 292.5  
(c) Rs. 1170 (d) Rs. 900

- 75.** The diameter of three pipes are 1cm,  $1\frac{1}{3}$ cm and 2 cm respectively. The quantity of water flowing through a pipe varies directly as the square of its diameter. If the pipe with 2 cm diameter can fill a tank in 61 minutes, in what time will all the three pipes together fill the tank?  
(a) 36 min (b) 32 min  
(c) 28 min (d) 40 min

- 76.**  $x$  is 3 times as faster as  $y$  and is able to complete the work in 40 days less than  $y$ . Then the time in which they can complete the work together?  
(a) 15 days (b) 10 days  
(c)  $7\frac{1}{2}$  days (d) 5 days

- 77.** The Bubna dam has four inlets. Through the first three inlets, the dam can be filled in 12 minutes; through the second, the third and the fourth inlet, it can be filled in 15 minutes; and through the first and the fourth inlet, in 20 minutes. How much time will it take all the four inlets to fill up the dam?  
(a) 8 min (b) 10 min  
(c) 12 min (d) None of these

- 78.** Two pipes  $A$  and  $B$  can fill up a half full tank in 1.2 hours. The tank was initially empty. Pipe  $B$  was kept open for half the time required by pipe  $A$  to fill the tank by itself. Then, pipe  $A$  was kept open for as much time as was required by pipe  $B$  to fill up  $\frac{1}{3}$  of the tank by itself. It was then found that the tank was  $\frac{5}{6}$  full. The least time in which any of the pipes can fill the tank fully is  
(a) 4.8 hours (b) 4 hours

- (c) 3.6 hours (d) 6 hours

- 79.** Two pipes can fill a cistern in 14 and 16 hours respectively. The pipes are opened simultaneously and it is found that due to leakage in the bottom of the cistern, it takes 32 minutes extra for the cistern to be filled up. When the cistern is full, in what time will the leak empty it?  
(a) 114 h (b) 112 h  
(c) 100 h (d) 80 h

- 80.** Each of  $A$ ,  $B$  and  $C$  need a certain unique time to do a Certain work.  $C$  needs 1 hour less than  $A$  to complete the work. Working together, they require 30 minutes to complete 50% of the job. The work also gets completed if  $A$  and  $B$  start working together and  $A$  leaves after 1 hour and  $B$  works for a further 3 hours. How much work does  $C$  do per hour?  
(a) 16.66% (b) 33.33%  
(c) 50% (d) 66.66%

- 81.** All the three taps were open and the emptying pipe is closed. At the time when the tank was supposed to be full, it was found that only  $\frac{2}{5}$  th of the tank was full. It was discovered that all the residents had kept their water taps open during this period. At what rate were the residents of each house getting water? (Consider that each house has only one tap).  
(a) 1.1 litres/h (b) 2.22 litres/h  
(c) 2.85 litres/h (d) 4.46 litres/h

- 82.** A student studying the weather for  $d$  days observed that  
I] it rained on 7 days. morning or afternoon;  
II] when it rained in the afternoon, it was clear in the morning;  
III] there were five clear afternoons and  
IV] there were six clear morning.  
Then  $d$  equals  
(a) 3 (b) 7

(c) 11

(d) 9

**83.** If 6 BSF or 10 CRPF companies can demolish a terrorist outfit in Kashmir in 2 days, find how long will 4 BSF and 9 CRPF companies take to do the same ?

(a) 1.27 days

(b) 2.27 days

(c) 3.27 days

(d) 4.27 days

**84.** Three pumps working 8 hours a day can empty a tank in 2 day. How many hours a day must 4 pumps work to Empty the tank in 1 day.

(a) 10 hours

(b) 12 hours

(c) 8 hours

(d) None of these

**85.** A group of men decided to do a job in 4 days. But since 20 men dropped out every day, the job completed at the end of the 7th day. How many men were there at the beginning?

(a) 240

(b) 140

(c) 280

(d) 150

**86.** The total number of men, women and children working in a factory is 18. They earn Rs. 4000 in a day. If the sum of the wages of all men, all women and all children is in the ratio of 18 : 10 : 12 and if the wages of an individual man, woman and child is in the ratio 6 : 5 : 3, then how much a woman earn in a day?

(a) Rs. 400

(b) Rs. 250

(c) Rs. 150

(d) Rs. 120

**87.** One man and six women working together can do a job in 10 days. The same job is done by two men in 'p' days and by eight women in  $p + 5$  days. By what percentage is the efficiency of a man greater than that of a woman?

(a) 300%

(b) 500%

(c) 600%

(d) 700%

**88.** The work done by 4 men in 12 days is equal to the work done by 6

women in 10 days and is also equal to the work done by 8 children in 9 days. A man, a woman and a child working together take 10 days to complete a particular job. In how many days will the same job be completed by 2 women and 5 children working together?

(a) 5

(b) 6

(c) 4

(d) 7

**89.** C is twice efficient as A, B takes thrice as many days as C. A takes 12 days to finish the work alone. If they work in Pairs (i.e., AB, BC, CA) starting with AB on the first day then BC on the second day and AC on the third day and so on, then how many days are required to finish the work?

(a)  $6\frac{1}{5}$  days

(b) 4.5 days

(c)  $5\frac{1}{9}$  days

(d) 8 days

**90.** There was a leakage in the container of the refined oil. If 11 kg oil is leaked out per day then it would have lasted for 50 days, if the leakage was 15 kg per day, then it would have lasted for only 45 days. For how many days would the oil have lasted, if there was no leakage and it was completely used for eating purpose?

(a) 80 days

(b) 72 days

(c) 100 days

(d) 120 days

**91.** According to a plan, a drilling team had to drill to a depth of 270 metres below the ground level. For the first three days the team drilled as per the plan. However, subsequently finding that their resources were getting underutilised according to the plan, it started to drill 8 metres more than the plan every day. Therefore, a day before the planned date they had drilled to a depth of 280 metres. How many metres of drilling was the plan for each day.

(a) 38 metres

(b) 30 metres

(c) 27 metres

(d) 28 metres

- 92.** Aman, Baman and Chaman can finish a job working Alone in 15, 20 and 25 days respectively. However, while Working with somebody the efficiency of Aman, Baman and Chaman reduces by 30%, 20% and 50% respectively. If none of them is allowed to work for three consecutive days, then what is the maximum possible fraction of the job that they can complete in four days?
- (a)  $\frac{21}{50}$  (b)  $\frac{17}{50}$   
 (c)  $\frac{8}{25}$  (d)  $\frac{1}{3}$
- 93.** B and C are equally efficient, but the efficiency of A is Half of each B and C. A and B started a work and 3 days later C joined them. If A alone can do the work in 14 days, then in how many more days the work will be completed?
- (a) 1 (b) 2  
 (c) 3 (d) 4.5
- 94.** 4 men and 2 boys can finish a piece of work in 5 days. 3 women and 4 boys can finish the same work in 5 days. Also 2 men and 3 women can finish the same work in 5 days. In how many days 1 man, 1 woman and 1 boy can finish the work, at their double efficiency?
- (a)  $4\frac{8}{13}$  (b)  $4\frac{7}{13}$   
 (c)  $3\frac{7}{13}$  (d) None of these
- 95.** The work done by 2 men in a day is equal to the work Done by 3 children in a day. The work done by 3 men in a day is equal to the work done by 5 women in a day. It takes 10 days for a man, a woman and a child to complete a job working together. How many days will 2 children working together take to complete the same job?
- (a) 30 (b) 15  
 (c) 17 (d) 34
- 96.** It takes 30 hours for an inlet pipe to fill an empty tank completely. When 5 identical inlet pipes and 4 identical outlet pipes operate together, the same empty tank get filled completely in 10 hours. How much time (in hours) will an outlet pipe take to empty the same tank when it's filled upto half its volume?
- (a) 15 (b) 20  
 (c) 24 (d) 30
- 97.** A tank of capacity 25 litres has an inlet and an outlet tap. If both are opened simultaneously, the tank is filled in 5 minutes. But if the outlet flow rate is doubled and tap opened the tank never gets filled up. Which of the following can be outlet flow rate in liters/min?
- (a) 2 (b) 6  
 (c) 4 (d) 3
- 98.** Ashish, Binay and Joseph can do a job in 20, 30 and 40 days respectively. The three started the job together; Ashish left the job 4 days before it was completed and Binay left the job 3 days before it was completed. In how many days was the job completed?
- (a) 14 (b) 12  
 (c) 16 (d) 15
- 99.** Pawan and Qureshi working together can do a piece of work in 10 days whereas Qureshi and Rohit working together can do the same work in 12 days. All three work together to do a job for which they are paid Rs. 300. If Qureshi's share is Rs. 140, then what is Pawan's share?
- (a) Rs. 100 (b) Rs. 60  
 (c) Rs. 80 (d) cannot be determined
- 100.** Three cooks have to make 80 idlis. They are known to Make 20 pieces every minute working together. The first cook began working alone and made 20 pieces

having worked for sometime more than three minutes. The remaining part of the work was done by the second and the third cook working together. It took a total of 8 minutes to complete the 80 idlis. How many minutes would it take the first cook alone to cook 160 idlis for a marriage party the next day?

- (a) 16 minutes                      (b) 24 minutes  
(c) 32 minutes                      (d) 40 minutes

**101.** A cistern has a leak which would empty it in 6 hours. A Tap is turned on which fills the cistern @ 10 liters per hour and then it is emptied in 15 hours. What is the capacity of the cistern?

- (a) 100 litres                      (b) 166.66 litres  
(c) 60.66 litres                      (d) None of these

**102.** Tap A can fill a tank in 20 hours, B in 25 hours but tap C Can empty a full tank in 30 hours. Starting with A, followed by B and C each tap opens alternatively for one hour period till the tank gets filled up completely. In how many hour the tank will be filled up completely?

- (a)  $51 \frac{11}{15}$                       (b)  $52 \frac{2}{3}$   
(c)  $24 \frac{4}{11}$                       (d) None of these

**103.** Each of A, B and C need a certain unique time to do a Certain work. C needs 1 hour less than A to complete the work. Working together, they require 30 minutes to complete 50% of the job. The work also gets completed if A and B start working together and A leaves after 1 hour and B works for a further 3 hours. How much work does C do per hour?

- (a) 16.66%                      (b) 33.33%  
(c) 50%                      (d) 66.66%

**104.** Two pipes A and B can fill a cistern in 15 hours and 10hours respectively. A tap C can empty the full cistern in 30 hours. All the three

taps were open for 2 hours, when it was remembered that the emptying tap had been left open. It was then closed. How many hours more would it take for the cistern to be filled?

- (a) 30 min.                      (b) 1.2 hours  
(c) 24 min.                      (d) 35 min.

**105.** Working together B and C take 50% more number of Days than A, B and C together take and A and B working together, take  $\frac{8}{3}$  more number of days than A, B and C take together. If A, B and C all have worked together till the completion of the work and B has received Rs. 120 out of the total earning of Rs. 450, then in how many days did A, B and C together complete the whole work?

- (a) 10                      (b) 6  
(c) 4                      (d) 2

**106.** Eklavya can do the 6 times the actual work in 36 days While Faizal can do the one-fourth of the original work in 3 days. In how many days will both working together complete the 3 times of the original work?

- (a) 6                      (b) 10  
(c) 12                      (d) 15

**107.** Sixty-four men working 8 h a day plan to complete a Piece of work in 9 days. However, 5 days later they found that they had completed only 40% of the work. They now wanted to finish the remaining portion of the work in 4 more days. How many hours per day should they need to work in order to achieve the target?

- (a) 11                      (b) 12  
(c) 13                      (d) 15

**108.** 4 pipes each of 3 cm diameter are to be replaced by a Single pipe discharging the same quantity of water. What should be the diameter of the single pipe, if the speed of water is the same.

- (a) 2 cm                      (b) 4 cm  
(c) 6 cm                      (d) 8 cm



**109.** A can do a job in 3 days less time than B. A works at it Alone for 4 days and then B takes over and completes it. If altogether 14 days were required to finish the job, then In how many days would each of them take alone to finish it?

- (a) 17 days, 20 days  
(b) 12 days, 15 days  
(c) 13 days, 16 days  
(d) None of these

**110.** 12 men can complete a piece of work in 36 days. 18 women can complete the same piece of work in 60 days. 8 men and 20 women work together for 20 days. If only women were to complete the remaining piece of work in 4 days, how many women would be required ?

- (1) 70 (2) 28  
(3) 66 (4) 40  
(5) None of these

**(Union Bank of India PO Exam. 27.11.2005)**

**111.** 9 children can complete a piece of work in 360 days. 18 men can complete the same piece of work in 72 days and 12 women can complete the piece of work in 162 days. In how many days can 4 men, 12 women and 10 children together complete the piece of work ?

- (1) 124 days (2) 81 days  
(3) 68 days (4) 96 days  
(5) None of these

**(Corporation Bank PO Exam. 29.07.2006)**

**112.** Fifty six men can complete a piece of work in 24 days. In how many days can 42 men complete the same piece of work ?

- (1) 18 days (2) 32 days  
(3) 98 days (4) 48 days  
(5) None of these

**(Bank Of Maharashtra PO Exam. 25.05.2008)**

**113.** 42 women can do a piece of work in 18 days. How many women would

be required to do the same work in 21 days ?

- (1) 36 (2) 24  
(3) 30 (4) 44  
(5) None of these

**(Andhra Bank PO Exam. 14.09.2008)**

**114.** 30 men can do a piece of work in 16 days. How many men would be required to do the same work in 20 days ?

- (1) 12 (2) 36  
(3) 48 (4) 24  
(5) None of these

**(Oriental Bank of Commerce PO Exam. 21.12.2008)**

**115.** 8 men can complete a piece of work in 4 days. 12 women can complete the same piece of work in 4 days whereas 8 children can complete the same piece of work in 8 days. 2 men, 8 children and 3 women work together for 2 days. If only women were to finish the remaining work in 2 days, how many total women would be required?

- (1) 12 (2) 18  
(3) 24 (4) 20  
(5) None of these

**(PNB Agriculture Officer Exam. 04.01.2009)**

**116.** 18 children can do a piece of work in 12 days. How many children would be required to do the same work in 8 days ?

- (1) 12 (2) 18  
(3) 24 (4) 27  
(5) None of these

**(Canara Bank PO Exam. 15.03.2009)**

**117.** 8 men and 4 women together can complete a piece of work in 6 days. Work done by a man in one day is double the work done by a woman in one day. If 8 men and 4 women started working and after 2 days, 4 men left and 4 new women joined, in how many more days will the work be completed?

- (1) 5 days (2) 8 days

- (3) 6 days (4) 4 days  
(5) 9 days

**(United Bank of India PO  
Exam. 21.06.2009)**

**118.** B and C together can complete a work in 8 days, A and B together can complete the same work in 12 days and A and C together can complete the same work in 16 days. In how many days can A, B and C together complete the same work ?

- (1) 7 days (2) 5 days  
(3)  $7\frac{5}{13}$  days (4)  $5\frac{7}{13}$  days  
(5) None of these

**(Andhra Bank PO Exam.  
05.07.2009)**

**119.** 10 men can complete a piece of work in 8 days. 20 women can complete the same piece of work in 6 days. In how many days 16 men and 18 women together can complete the same piece of work?

- (1)  $5\frac{7}{13}$  days (2)  $2\frac{6}{7}$  days  
(3) 3 days (4)  $3\frac{7}{13}$  days  
(5) None of these

**(PNB Specialist Officer's  
Exam. 16.08.2009)**

**120.** Ayesha can complete a piece of work in 16 days. Amita can complete the same piece of work in 8 days. If both of them work together in how many days can they complete the same piece of work ?

- (1) 6 days (2) 4 days  
(3) 8 days (4) 12 days  
(5) None of these

**(Indian Bank Rural Marketing  
Officer Exam. 03.01.2010)**

**121.** 6 men can complete a piece of work in 12 days. 8 women can complete the same piece of work in 18 days whereas 18 children can complete the piece of work in 10 days. 4 men, 12 women and 20 children work together for 2 days. If only men were to complete the remaining work in 1 day how many men would be required totally ?

- (1) 36  
(2) 24  
(3) 18  
(4) Cannot be determined  
(5) None of these

**(Bank Of India Banking Officer  
Exam. 24.01.2010)**

**122.** 3 men can complete a piece of work in 6 days. 5 women can complete the same work in 18 days. In how many days will 4 men and 10 women together complete the same work ?

- (1) 3 days (2) 5 days  
(3) 2 days (4) 4 days  
(5) None of these

**(Bank Of Baroda PO Exam.  
30.05.2010)**

**123.** 8 men can complete a piece of work in 20 days. 8 women can complete the same work in 32 days. In how many days will 5 men and 8 women together complete the same work ?

- (1) 16 days (2) 12 days  
(3) 14 days (4) 10 days  
(5) None of these

**(Central Bank Of India PO  
Exam. 25.07.2010)**

**124.** 2 men can complete a piece of work in 6 days. 2 women can complete the same piece of work in 9 days, whereas 3 children can complete the same piece of work in 8 days. 3 women and 4 children worked together for 1 day. If only men were to finish the remaining work in 1 day, how many total men would be required ?

- (1) 4 (2) 8  
(3) 6  
(4) Cannot be determined  
(5) None of these

**(United Bank Of India PO  
Exam. 14.11.2010)**

**125.** Vikas gets 350 for every day that he works. If he earns 9,800 in a month of 31 days, for how many days did he work?

- (1) 25 days                      (2) 30 days  
 (3) 24 days                      (4) 28 days  
 (5) None of these

**(PNB Management Trainee  
 Exam. 28.11.2010)**

**126.** A water tank has three taps A, B and C. Tap A, when opened, can fill the water tank alone in 4 hours. Tap B, when opened, can fill the water tank alone in 6 hours and tap C, when opened, can empty the water tank alone in 3 hours. If taps A, B and C are opened simultaneously how long will it take to fill the tank completely ?

- (1) 10 hours                      (2) 8 hours  
 (3) 18 hours                      (4) 12 hours  
 (5) None of these

**(Indian Bank PO Exam.  
 02.01.2011)**

**127.** 4 girls can do a piece of work in 8 days, 3 boys can do the same piece of work in 9 days, 7 men do the same piece of work in 2 days and 5 women can do the same piece of work in 4 days. Who is least efficient ?

- (1) Boys                          (2) Girls  
 (3) Women                      (4) Men  
 (5) Boys and Men both

**(Union Bank Of India PO  
 Exam. 09.01.2001)**

**128.** Two men alone or three women alone can complete a piece of work in 4 days. In how many days can 1 woman and one man together complete the same piece of work ?

- (1) 6 days                      (2)  $5\frac{5}{23}$  days  
 (3)  $6\frac{5}{23}$  days  
 (4) Cannot be determined  
 (5) None of these

**(Corporation Bank PO  
 Exam. 16.01.2011)**

**129.** Four examiners can examine a certain number of answer papers in 10 days by working for 5 hours a day. For how many hours in a day would 2 examiners have to work in

order to examine twice the number of answerpapers in 20 days ?

- (1) 8 hours                      (2) 5 hours  
 (3) 10 hours                      (4) 7 hours  
 (5) None of these

**(Punjab & Sind Bank PO  
 Exam. 23.01.2011)**

**130.** 6 women and 6 men together can complete a piece of work in 6 days. In how many days can 15 men alone complete the piece of work if 9 women alone can complete the work in 10 days?

- (1) 6 days                      (2) 5 days  
 (3) 7.2 days  
 (4) Cannot be determined  
 (5) None of these

**(Punjab & Sind Bank PO  
 Exam. 23.01.2011)**

**131.** A and B together can complete a task in 20 days. B and C together can complete the same task in 30 days. A and C together can complete the same task in 40 days. What is the respective ratio of the number of days taken by A when completing the same task alone to the number of days taken by C when completing the same task alone?

- (1) 2 : 5                          (2) 2 : 7  
 (3) 3 : 7                          (4) 1 : 5  
 (5) 3 : 5

**(IBPS Bank PO/MT CWE 17.06.2012)**

**132.** 3 men can do a work in 12 days, 5 women can do the same work in 8 days and 20 children in 3 days. If all the men, women and children work together, in how many days will the work be completed ?

- (1)  $1\frac{11}{13}$  DAYS                      (2)  $1\frac{13}{11}$  DAYS  
 (3) 8 DAYS                      (4) 3 DAYS  
 (5) None of these

**(Bank of Baroda PO  
 Exam. 14.08.2014)**

**133.** The part of work done by 9 boys and 3 men together in one day is four times the work done by a boy and a man together. What is the respective

ratio of work done by a boy and a man ?

- (1) 5 : 1                      (2) 1 : 5  
 (3) 4 : 1                      (4) 1 : 4  
 (5) None of these

**134.** 24 workers working 13 hours daily make a wall of dimensions 224 m × 16 m × 52 m in 32 days. In how many days will 36 workers working 18 hours daily make a wall of dimensions 432 m × 21 m × 64 m ?

- (1) 58 days                      (2) 42 days  
 (3) 48 days                      (4) 60 days  
 (5) None of these

**135.** Two pipes A and B can fill an empty tank in 18 minutes and 27 minutes respectively. There is a leakage in the bottom of the tank, due to which 14.4 minutes more time is taken by both the pipes in filling the tank. What time will the leak take in emptying the completely full tank ?

- (1) 16.9 minutes              (2) 20 minutes  
 (3) 17.9 minutes              (4) 18.9 minutes  
 (5) None of these

**(SIDBI Bank Officer Exam.  
09.09.2014)**

**136.** Sixteen men and twelve women can complete a work in 8 days, if 20 men can complete the same work in 16 days, in how many days 16 women can complete the same piece of work ?

- (1) 12                              (2) 8  
 (3) 10                              (4) 15  
 (5) 20

**(IBPS RRBs Officer Scale-I  
CWE, 06.09.2014)**

**137.** If 36 persons are engaged on a piece of work, the work can be completed in 40 days. After 32 days, only  $\frac{1}{4}$  of the work was completed. How many more persons are required to complete the work on time ?

- (1) 10                              (2) 8  
 (3) 9                                (4) 12  
 (5) None of these

**(IBPS Bank PO/MT  
CWE-IV 18.10.2014)**

**138.** 12 men can finish a project in 20 days. 18 women can finish the same project in 16 days and 24 children can finish it in 18 days. 8 women and 16 children worked for 9 days and then left. In how many days will 10 men complete the remaining project ?

- (1) 10                              (2) 10  
 (3) 9                                (4) 11  
 (5) 9

**(IBPS RRBs Officer Scale-I & II  
CWE 12.09.2015)**

**139.** 28 men can complete a piece of work in 15 days and 15 women can complete the same piece of work in 24 days. What is the respective ratio between the amount of work done by 30 men in 1 day and the amount of work done by 18 women in 1 day ?

- (1) 10 : 7                        (2) 3 : 5  
 (3) 5 : 4                        (4) 9 : 5  
 (5) None of these

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 03.10.2015)**

**140.** 24 men can complete a piece of work in 18 days while 12 women can complete the same piece of work in 28 days. 27 men start working and are replaced by 14 women after 8 days. In how many days will 14 women finish the remaining work ?

- (1) 12 days                      (2) 14 days  
 (3) 13 days                      (4) NONE OF THESE  
 (5) 15 days

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015  
Ist Sitting)**

**141.** 18 men can complete a project in 30 days and 16 women can complete the same project in 36 days. 15 men start working and after 9 days they are replaced by 18 women. In how many days will 18 women complete the remaining work ?

- (1) 20                              (2) 30  
 (3) 26                              (4) 28  
 (5) 24

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015)**

**142.** A project requires 12 women to complete it in 16 days. 12 women started working and after a few days from the start of the project, 4 women left. If the remaining project was completed in 18 days, in how many days the whole project was completed ?

- (1) 24 (2) 26  
(3) 22 (4) 21  
(5) 20

**(IBPS RRBs Officer Scale-I & II  
CWE 13.09.2015)**

**143.** 15 men and 16 women together can complete a piece of work in 6 days. If 12 women can complete the same project in 32 days, in how many days will 10 men complete the same project ?

- (1) 12 (2) 20  
(3) 16 (4) 8  
(5) 14

**(IBPS Specialist Officer (IT)  
CWE 14.02.2016)**

**145.** Three men, four women and six children can complete a work in 7 days. A woman does double the work a man does and a child does half the work a man does. How many women alone can complete this work in 7 days ?

- (1) 8 (2) 7  
(3) 12  
(4) Cannot be determined  
(5) None of these

**(SBI Banks PO Exam. 18.05.2003)**

**146.** 12 men take 36 days to do a work while 12 women complete of the same work in 36 days. In how many days 10 men and 8 women together will complete the same work?

- (1) 6 days (2) 27 days  
(3) 12 days  
(4) Data inadequate  
(5) None of these

**(SBI PO Exam. 26.11.2006)**

**147.** 'A' can complete a piece of work in 12 days. 'A' and 'B' together can

complete the same piece of work in 8 days. In how many days can 'B' alone complete the same piece of work?

- (1) 15 days (2) 18 days  
(3) 24 days (4) 28 days  
(5) None of these

**(SBI PO Preliminary (Tier-I)  
Exam. 27.04.2008)**

**148.** 12 men can do a piece of work in 10 days. How many men would be required to do the same work in 8 days ?

- (1) 14 (2) 18  
(3) 16 (4) 12  
(5) None of these

**(SBI PO Preliminary (Tier-I)  
Exam. 27.07.2008)**

**149.** A and B together complete a piece of work in T days. If A alone completes the work in T + 3 days and B alone completes the piece of work in T + 12 days, what is T?

- (1) 3 days (2) 12 days  
(3) 9 days  
(4) Cannot be determined  
(5) None of these

**(SBI PO Preliminary (Tier-I)  
Exam. 27.07.2008)**

**150.** 4 men can complete a piece of work in 2 days. 4 women can complete the same piece of work in 4 days whereas 5 children can complete the same piece of work in 4 days. If, 2 men, 4 women and 10 children work together, in how many days can the work be completed ?

- (1) 1 day (2) 3 days  
(3) 2 days (4) 4 days  
(5) None of these

**(SBI & Rural Business PO  
Exam. 18.04.2010)**

**151.** Amit and Sujit together can complete an assignment of data entry in 5 days. Sujit's speed is 80% of Amit's speed and the total key depressions in the assignment are 5,76,000. What is Amit's speed

in key depressions per hour if they work for 8 hours a day ?

- (1) 4800 (2) 6400  
(3) 8000 (4) 7200  
(5) None of these

**(SBI Associate Banks PO  
Exam. 07.08.2011)**

**152.** Shruti takes 10 days to finish a piece of work while Shankar takes 15 days to finish the same piece of work. Harish works twice as fast as Shruti. How many days will all three of them together take to finish the same piece of work ?

- (1)  $2\frac{8}{11}$  days (2) 3 days  
(3)  $3\frac{8}{11}$  days (4)  $2\frac{11}{8}$  days  
(5) None of these

**(SBI Specialist (IT)  
Officer Exam. 19.04.2014)**

**153.** A and B together can complete a piece of work in 10 days while B and C together can complete the same work in 13 days. B is 25% more efficient than C. In how many days will A and C together complete the same work ?

- (1) 11 (2) 12  
(3) 11 (4) 12  
(5) None of these

**(SBI PO Phase-I (Preliminary)  
Online Exam. 20.06.2015)**

**154.** 10 men can finish a piece of work in 15 days. 8 women can finish the same piece of work in 25 days. Only 10 women started working and in few days completed certain amount of work. After that 3 men joined them. The remaining work was completed by 10 women and 3 men together in 5 days. After how many days 3 men joined 10 women ?

- (1) 11 (2) 13  
(3) 15 (4) 10  
(5) 12

**(SBI PO Phase-I (Preliminary)  
Online Exam. 21.06.2015)**

**155.** A project manager hired 16 men to complete a project in 38 days.

However, after 30 days, he realized that only  $\frac{1}{3}$  of the work is complete. How many more men does he need to hire to complete the project on time ?

- (1) 48 (2) 24  
(3) 32 (4) 16  
(5) 36

**(SBI PO Phase-I (Preliminary)  
Online Exam. 27.06.2015)**

**156.** 9 Men working for 7 hours a day can complete a piece of work in 15 days. In how many days can 6 men working for 9 hours a day, complete the same piece of work ?

- (1) 17.5 days (2) 16.5 days  
(3) 16 days (4) 20 days  
(5) None of these

**(RBI Grade-B Officer  
Exam. 2008)**

**157.** If 12 boys or 15 girls can do a work in 48 days. In what time will 24 boys and 6 girls do twice the work?

- (1) 42 days (2) 40 days  
(3) 45 days (4) 30 days  
(5) None of these

**(RBI Officer Grade 'B'  
Online Exam. 25.08.2013)**

**158.** Three typists P, Q and R have to type 368 pages. P types one page in 8 minutes, Q in 18 minutes and R in 24 minutes. In what time will these pages be typed if they work together?

- (1) 25 hours (2) 27.6 hours  
(3) 27 hours (4) 28 hours  
(4) None of these

**(RBI Officer Grade 'B' Phase-I,  
Exam. 03.08.2014)**

**159.** 18 men can complete a piece of work in 10 days. 16 women can complete the same piece of work in 12 days. Only 8 men started working and they worked for few days. As such they could complete certain amount of work. The remaining work was completed by 8 women and 6 men together in 5 days. For how many days did only 8 men work ?

- (1) 8 (2) 6

(3) 8  
(5) 7

(4) 10

**(NABARD Officer Grade 'A'  
Online Exam. 03.08.2014)**

**160.** 6 men can complete a piece of work in 12 days. 8 women can complete the same piece of work in 18 days and 18 children can do it in 10 days. 4 men, 12 women and 20 children do the work for 2 days. If the remaining work be completed by men only in 1 day, how many men will be required?

- (1) 36 (2) 24  
(3) 18  
(4) Cannot be determined  
(5) None of these

**(RBI Officer Grade 'B' Phase-I  
Online Exam. 22.11.2015)**

**161.** If it takes A four days to dig a certain ditch, whereas B can dig it in 8 days and A, B, C together can dig it in days, how long C alone would take to dig it?

- (1) 8 days (2) 4 days  
(3) 6 days (4) 12 days  
(5) 16 days

**(United India Insurance Co.  
AAO Exam. 21.04.2002)**

**162.** P can complete a work in 12 days working 8 hours a day. Q can complete the same work in 8 days working 10 hours a day. If P and Q work together, working 8 hours a day, in how many days can they complete the work?

- (1)  $5\frac{5}{11}$  days (2)  $6\frac{4}{5}$  days  
(3) 5 days (4) 6 days  
(5) None of these

**(LIC Assistant Administrative  
Officer (AAO) Exam. 24.04.2005)**

**163.** A man's basic pay for a 40 hours' week is 200. Overtime is paid at 25% above the basic rate. In a certain week, he worked overtime and his total was 300. He therefore, worked for a total of (in hours) :

- (1) 52 (2) 56

(3) 58

(4) 62

**(United India Insurance Co.  
(AAO) Exam. 11.03.2007)**

**164.** If 9 men working 7 hours a day can finish a piece of work in 20 days, then how many days will be taken by 12 men, working 6 hours a day to finish the work ? It is being given that 2 men of latter type work as much as 3 men of the former type ?

- (1) 9days (2) 11 days  
(3) 12days (4) 13 days

**(United India Insurance Co.  
(AAO) Exam. 11.03.2007)**

**165.** Seven men, five women and eight children were given an assignment of distributing 2000 books to students in a school over a period of three days. All of them distributed books on the first day. On the second day two women and three children remained absent and on the third day three men and five children remained absent. If the ratio of the number of books distributed in a day by a man, a woman and a child was 5 : 4 : 2 respectively, a total of **approximately** how many books were distributed on the second day ?

- (1) 1000 (2) 800  
(3) 650 (4) 900  
(5) Cannot be determined

**(LIC Assistant Administrative  
Officer Exam. 2008)**

**166.** 15 men take 21 days of 8 hours each to do a piece of work. How many days of 6 hours each would 21 women take, if 3 women do as much work as 2 men?

- (1) 18 days (2) 20 days  
(3) 25 days (4) 30 days

**(LIC Assistant Administrative Officer  
(AAO) Exam. 07.06.2009)**

**167.** A is thrice as good a workman as B and so takes 60 days less than B for doing a job. The time in which they can do the job together is

- (1) 30 days (2) 60 days  
(3) 22.5 days (4) 45 days

**(New India Assurance AO)**

**Exam. 25.10.2009)**

**168.** A certain number of persons can complete a work in 100 days. If there be 10 persons less, it would have taken 10 days more for the work to be completed. The number of persons in the beginning was

- (1) 90 (2) 105  
(3) 110 (4) 20

**(New India Insurance AAO**

**Exam. 22.05.2011)**

**169.** A is twice as good a workman as B and together they finish a piece of work in 14 days. The number of days taken by A alone to finish the work is :

- (1) 11 days (2) 21 days  
(3) 28 days (4) 42 days

**(General Insurance Corporation**

**AAO Exam. 11.12.2011)**

**170.** M and N can do a work in 10 days and 15 days respectively. If M starts on the work and both work alternately day after day, in how many days will the work be completed ?

- (1) 10 days (2) 12 days  
(3) 8 days (4) 9 days  
(5) None of these

**(LIC Assistant Administrative**

**Officer (AAO) Exam. 12.05.2013)**

**171.** 30 men can do a piece of work in 16 days. How many men would be required to do the same work in 20 days ?

- (1) 12 (2) 36  
(3) 48 (4) 24  
(5) None of these

**(United India Insurance AO**

**Exam. 26.05.2013**

**172.** A work can be completed by P and Q in 12 days, Q and R in 15 days, R and P in 20 days. In how many days P alone can finish the work ?

- (1) 10 days (2) 20 days  
(3) 30 days (4) 60 days

**(NICL (GIC) AO**

**Exam. 08.09.2013 (Paper-I))**

**173.** 'x' number of men can finish a piece of work in 30 days. If there

were 6 men more, the work could be finished in 10 days less. The original number of men is

- (1) 6 (2) 10  
(3) 12 (4) 15

**(NICL (GIC) AO**

**Exam. 08.09.2013 (Paper-I)**

**174.** A man, a woman and a boy together complete a piece of work in 3 days. If a man alone can do it in 6 days and a boy alone in 18 days, how long will a woman take to complete the work?

- (1) 9 days (2) 21 days  
(3) 24 days (4) 27 days

**(NICL (GIC) Administrative**

**Officer Exam. 15.12.2013)**

**175.** 8 men can finish a piece of work in 40 days. If 2 more men join with them, then the work will be completed in

- (1) 30 days (2) 32 days  
(3) 36 days (4) 25 days

**(NICL (GIC) Administrative**

**Officer Exam. 15.12.2013)**

**176.** 10 women can complete a work in 7 days and 10 children take 14 days to complete the work. How many days will 5 women and 10 children take to complete the work?

- (1) 3 days (2) 5 days  
(3) 7 days  
(4) Cannot be determined

**(NICL (GIC) Administrative**

**Officer Exam. 15.12.2013)**

**177.** 9 children can complete a piece of work in 360 days, 18 men can complete the same piece of work in 72 days and 12 women can complete it in 162 days. In how many days can 4 men, 12 women and 10 children together complete the piece of work?

- (1) 68 days (2) 81 days  
(3) 96 days (4) 124 days

**(NICL (GIC) Administrative**

**Officer Exam. 15.12.2013)**

**178.** 24 men can complete a piece of work in 14 days. 2 days after they started working, 4 more men joined them and after 2 more days 6 men



left. How many more days will they now take to complete the remaining work ?

- (1) (2)  
(3) (4)  
(5)

**(NIACL Administrative Officer  
(AO) Exam. 10.01.2015)**

**179.** 20 men can complete a piece of work in 16 days. After 5 days from the start of the work, some men left. If the remaining work was completed by the remaining men in 18 days, how many men left after 5 days from the start of the work?

- (1) 4 (2) 10  
(3) 8 (4) 5  
(5) 6

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 22.03.2015)**

**180.** 12 men can finish a piece of work in 20 days. 8 men started working and after 10 days they were replaced by 18 women. These 18 women finished the remaining work in 16 days. In how many days can 18 women finish the whole work ?

- (1) 32 (2) 18  
(3) 28 (4) 24  
(5) 21

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 05.03.2016)**

**181.** 8 men can finish a piece of work in 21 days. 14 men started working and after 3 days were replaced by 9 women. These 9 women finished the remaining work in 24 days. In how

many days 9 women can finish the whole work?

- (1) 24 (2) 26  
(3) 36 (4) 32  
(5) 30

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 06.03.2016)**

**13. MENSURATION**

1. The side and the height of a rhombus are 13 and 20 cms respectively. Find the area.  
(a)  $260 \text{ cm}^2$  (b)  $275 \text{ cm}^2$   
(c)  $290 \text{ cm}^2$  (d) None of these
2. The circumference of a circle is 44 metres. Find the area of the circle.  
(a)  $154 \text{ m}^2$  (b)  $160 \text{ m}^2$   
(c)  $175 \text{ m}^2$  (d)  $168 \text{ m}^2$
3. The length and breadth of a rectangle are in the ratio 9 : 5. If its area is  $720 \text{ m}^2$ , find its perimeter.  
(a) 112 metre (b) 115 metre  
(c) 110 metre (d) 118 metre
4. How many squares are there in a 5 inch by 5 inch square grid, if the grid is made up one inch by one inch squares?  
(a) 50 (b) 150  
(c) 55 (d) 25
5. If the ratio of areas of two squares is 9 : 1, the ratio of their perimeter is :  
(a) 9 : 1 (b) 3 : 4  
(c) 3 : 1 (d) 1 : 3
6. A circle and a rectangle have the same perimeter. The sides of the rectangle are 18 cm and 26 cm. What is the area of the circle ?  
(a)  $88 \text{ cm}^2$  (b)  $154 \text{ cm}^2$   
(c)  $1250 \text{ cm}^2$  (d)  $616 \text{ cm}^2$
7. If the perimeter and diagonal of a rectangle are 14 and 5 cms respectively, find its area.  
(a)  $12 \text{ cm}^2$  (b)  $16 \text{ cm}^2$   
(c)  $20 \text{ cm}^2$  (d)  $24 \text{ cm}^2$
8. When the circumference and area of a circle are Numerically equal, then the diameter is numerically equal to  
(a) area (b) circumference  
(c) 4 (d)  $2\pi$
9. In a parallelogram, the length of one diagonal and the perpendicular dropped on that diagonal are 30 and 20 metres respectively. Find its area.  
(a)  $600 \text{ m}^2$  (b)  $540 \text{ m}^2$   
(c)  $680 \text{ m}^2$  (d)  $574 \text{ m}^2$
10. The area of a triangle is  $615 \text{ m}^2$ . If one of its sides is 123 metre, find the length of the perpendicular dropped on that side from opposite vertex.  
(a) 15 metres (b) 12 metres  
(c) 10 metres (d) None of these
11. How many plants will be there in a circular bed whose outer edge measure 30 cms, allowing  $4 \text{ cm}^2$  for each plant ?  
(a) 18 (b) 750  
(c) 24 (d) 120
12. A square carpet with an area  $169 \text{ m}^2$  must have 2 metres cut-off one of its edges in order to be a perfect fit for a rectangular room. What is the area of rectangular room?  
(a)  $180 \text{ m}^2$  (b)  $164 \text{ m}^2$   
(c)  $152 \text{ m}^2$  (d)  $143 \text{ m}^2$
13. If the area of a circle decreases by 36%, then the radius of a circle decreases by  
(a) 20% (b) 18%  
(c) 36% (d) 64%
14. The altitude drawn to the base of an isosceles triangle is 8 cm and the perimeter is 32 cm. The area of the triangle is  
(a)  $72 \text{ cm}^2$  (b)  $60 \text{ cm}^2$   
(c)  $66 \text{ cm}^2$  (d) None of these
15. The area of a square field is  $576 \text{ km}^2$ . How long will it take for a horse to run around at the speed of 12 km/h ?  
(a) 12 h (b) 10 h  
(c) 8 h (d) 6 h

- 16.** Four equal circles are described about the four corners of a square so that each touches two of the others. If a side of the square is 14 cm, then the area enclosed between the circumferences of the circles is :  
(a)  $24 \text{ cm}^2$  (b)  $42 \text{ cm}^2$   
(c)  $154 \text{ cm}^2$  (d)  $196 \text{ cm}^2$
- 17.** The ratio between the length and the breadth of a rectangular park is 3 : 2. If a man cycling along the boundary of the park at the speed of 12km / hr completes one round in 8 minutes, then the area of the park (in sq. m) is:  
(a) 15360 (b) 153600  
(c) 30720 (d) 307200
- 18.** A wire can be bent in the form of a circle of radius 56 cm. If it is bent in the form of a square, then its area will be:  
(a)  $3520 \text{ cm}^2$  (b)  $6400 \text{ cm}^2$   
(c)  $7744 \text{ cm}^2$  (d)  $8800 \text{ cm}^2$
- 19.** The length of a room is double its breadth. The cost of colouring the ceiling at Rs. 25 per sq. m is Rs. 5,000 and the cost of painting the four walls at Rs. 240 per sq. m is Rs. 64,800. Find the height of the room.  
(a) 4.5 m (b) 4 m  
(c) 3.5 m (d) 5 m
- 20.** A metal cube of edge 12 cm is melted and formed into three smaller cubes. If the edges of two smaller cubes are 6 cm and 8 cm, then find the edge of the third smaller cube.  
(a) 10 cm (b) 14 cm  
(c) 12 cm (d) 16 cm
- 21.** A well 22.5 deep and of diameter 7 m has to be dug out. Find the cost of plastering its inner curved surface at Rs. 3 per sq. metre.  
(a) Rs. 1465 (b) Rs. 1485  
(c) Rs. 1475 (d) Rs. 1495
- 22.** The length, breadth and height of a cuboids are in the ratio 1 : 2 : 3. The length, breadth and height of the cuboids are increased by 100%, 200% and 200%, respectively. Then, the increase in the volume of the cuboids will be  
(a) 5 times (b) 6 times  
(c) 12 times (d) 17 times
- 23.** The surface area of a cube is 150  $\text{m}^2$ . The length of its diagonal is  
(a)  $5\sqrt{3} \text{ m}$  (b) 5 m  
(c)  $\frac{10}{\sqrt{3}} \text{ m}$  (d) 15 m
- 24.** The length of the longest rod that can be placed in a room which is 12 m long, 9 m broad and 8 m high is  
(a) 27 m (b) 19 m  
(c) 17 m (d) 13 m
- 25.** If the volume of a sphere is divided by its surface area, the result is 27 cms. The radius of the sphere is  
(a) 9 cms (b) 27 cms  
(c) 81 cms (d) 243 cms
- 26.** The volume of water measured on a rectangular Field 500 m  $\times$  300 m is 3000  $\text{m}^3$ . Find the depth (amount) of rain that has fallen.  
(a) 2 cms (b) 3 cms  
(c) 4 cms (d) 3.5 cms
- 27.** How many spherical bullets can be made out of a lead cylinder 28 cm high and with base radius 6 cm, each bullet being 1.5 cm in diameter?  
(a) 1845 (b) 1824  
(c) 1792 (d) 1752
- 28.** Water flows out through a circular pipe whose Internal diameter is 2 cm, at the rate of 6 metres per second into a cylindrical tank, the radius of whose base is 60 cm. By how much will the level of water rise in 30 minutes?  
(a) 2 m (b) 4 m  
(c) 3 m (d) 5 m

- 29.** A spherical ball of lead, 3 cm in diameter, is melted and recast into three spherical balls. The diameter of two of these balls are 1.5 cm and 2 cm respectively. The diameter of the third ball is  
(a) 2.5 cm (b) 2.66 cm  
(c) 3 cm (d) 3.5 cm
- 30.** A cube of 384 cm<sup>2</sup> surface area is melt to make x number of small cubes each of 96 mm<sup>2</sup> surface area. The value of x is  
(a) 80,000 (b) 8  
(c) 8,000 (d) 800
- 31.** The capacity of a cylindrical tank is 246.4 litres. If the height is 4 metres, what is the diameter of the base?  
(a) 1.4 m (b) 2.8 m  
(c) 14 m (d) None of these
- 32.** A conical cavity is drilled in a circular cylinder of 15 cm height and 16 cm base diameter. The height and the base diameter of the cone are same as those of the cylinder. Determine the total surface area of the remaining solid.  
(a)  $440 \pi \text{ cm}^2$  (b)  $215\pi \text{ cm}^2$   
(c)  $542 \pi \text{ cm}^2$  (d)  $376 \pi \text{ cm}^2$
- 33.** If the radius of a sphere is increased by 2 cm, then its surface area increases by 352 cm<sup>2</sup>. The radius of the sphere before the increase was:  
(a) 3 cm (b) 4 cm  
(c) 5 cm (d) 6 cm
- 34.** A hollow sphere of internal and external diameters 4 cm and 8 cm respectively is melted into a cone of base diameter 8 cm. The height of the cone is:  
(a) 12 cm (b) 14 cm  
(c) 15 cm (d) 18 cm
- 35.** The length and breadth of a playground are 36m and 21 m respectively. Poles are required to be fixed all along the boundary at a distance 3m apart. The number of poles required will be  
(a) 39 (b) 38  
(c) 37 (d) 40
- 36.** A rectangular plate is of 6 m breadth and 12 m length. Two apertures of 2 m diameter each and one apertures of 1 m diameter have been made with the help of a gas cutter. What is the area of the remaining portion of the plate?  
(a) 68.5 sq. m. (b) 62.5 sq m  
(c) 64.5 sq. m (d) None of these
- 37.** Four sheets 50 cm × 5 cm are arranged without Overlapping to form a square having side 55 cm. What is the area of inner square so formed?  
(a) 2500 cm<sup>2</sup> (b) 2025 cm<sup>2</sup>  
(c) 1600 cm<sup>2</sup> (d) None of these
- 38.** A garden is 24 m long and 14 m wide. There is a path 1 m wide outside the garden along its sides. If the path is to be constructed with square marble tiles 20 cm × 20 cm, the number of tiles required to cover the path is  
(a) 1800 (b) 200  
(c) 2000 (d) 2150
- 39.** The length of a rectangular field is double its width. Inside the field there is a square-shaped pond 8 m long. If the area of the pond is 1/8 of the area of the field, what is the length of the field?  
(a) 32 m (b) 16 m  
(c) 64 m (d) 20 m
- 40.** A horse is tethered to one corner of a rectangular grassy field 40 m by 24 m with a rope 14 m long. Over how much area of the field can it graze?  
(a) 154 cm<sup>2</sup> (b) 308 m<sup>2</sup>  
(c) 150 m<sup>2</sup> (d) None of these

41. The length of a cold storage is double its breadth. Its height is 3 metres. The area of its four walls (including the doors) is  $108 \text{ m}^2$ . Find its volume.

- (a)  $215 \text{ m}^3$  (b)  $216 \text{ m}^3$   
(c)  $217 \text{ m}^3$  (d)  $218 \text{ m}^3$

42. The cost of the paint is Rs. 36.50 per kg. If 1 kg of paint covers 16 square feet, how much will it cost to paint outside of a cube having 8 feet each side?

- (a) Rs. 692 (b) Rs. 768  
(c) Rs. 876 (d) Rs. 972

43. A cuboidal block of  $6 \text{ cm} \times 9 \text{ cm} \times 12 \text{ cm}$  is cut up into an exact number of equal cubes. The least possible number of cubes will be:

- (a) 6 (b) 9  
(c) 24 (d) 30

44. A semicircular sheet of paper of diameter 28 cm is bent to cover the exterior surface of an open conical ice-cream cup. The depth of the ice-cream cup is

- (a) 10.12 cm (b) 8.12 cm  
(c) 12.12 cm (d) 13.27 cm

45. How many squares are there in a 5 inch by 5 inch square grid, if the grid is made up one inch by one inch squares?

- (a) 50 (b) 150  
(c) 55 (d) 25

46. A conical vessel of base radius 2 cm and height 3 cm is filled with kerosene. This liquid leak through a hole in the bottom and collects in a cylindrical jar of radius 2 cm. The kerosene level in the jar is

- (a)  $\pi \text{ cm}$  (b) 1.5 cm  
(c) 1 cm (d) 3 cm

47. A square contains four times the area of another square. If one side of the larger square be 4 cm greater than that of smaller square, then the

perimeter of smaller square will be equal to

- (a) 8 cm (b) 16 cm  
(c) 24 cm (d) 32 cm

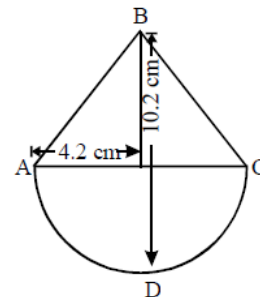
48. The length, breadth and height of a room are X, Y and Z feet respectively. The cost of whitewashing the four walls of this room is Rs.2500. Find the cost of preparing another room whose length, breadth and height are double that of the previous room.

- (a) 5000 (b) 12,500  
(c) 10,000 (d) 20,000

49. The altitude of a triangular billboard is one third of the base. If the cost of preparing this billboard is Rs. 11000, find the height of the triangle if the cost per sq dm is Rs. 10.

- (a) 285.5 m (b) 296.4 m  
(c) 270.8 m (d) 264.7 m

50. A solid wooden toy in the shape of a right circular cone is mounted on a hemisphere. If the radius of the hemisphere is 4.2 cm and the total height of the toy is 10.2 cm, find the volume of the wooden toy.



- (a)  $104 \text{ cm}^3$  (b)  $162 \text{ cm}^3$   
(c)  $427 \text{ cm}^3$  (d)  $266 \text{ cm}^3$

51. The dimensions of a field are 20 m by 9 m. A pit 10 m long, 4.5 m wide and 3 m deep is dug in one corner of the field and the earth removed has been evenly spread over the remaining area of the field. What will be the rise in the height of field as a result of this operation?

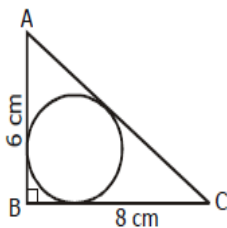
- (a) 1 m (b) 2 m  
(c) 3 m (d) 4 m

52. In a triangle  $ABC$ , points  $P$ ,  $Q$  and  $R$  are the mid-points of the sides  $AB$ ,  $BC$  and  $CA$  respectively. If the area of the triangle  $ABC$  is 20 sq. units, find the area of the triangle  $PQR$
- (a) 10 sq. units                      (b) 5.3 sq. units  
(c) 5 sq. units                        (d) None of these

53. From a circular sheet of paper with a radius of 20 cm, four circles of radius 5 cm each are cut out. What is the ratio of the areas of uncut to the cut portion?
- (a) 1 : 3                                      (b) 4 : 1  
(c) 3 : 1                                      (d) 4 : 3

54. One diagonal of a rhombus is 24 cm whose side is 13 cm. Find the area of the rhombus.
- (a) 25 sq. cm                              (b) 312 sq. cm.  
(c) 125 sq. cm.                            (d) 120 sq. cm.

55. The radius of the in circle in the given diagram Will be



- (a) 1.8 cm                                      (b) 2 cm  
(c) 2.5 cm                                      (d) 3.6 cm
56. A beam 9m long, 50 cm wide and 20 cm deep is made of wood which weighs 30 kg per  $m^3$ , find the weight of the beam.
- (a) 36 kg                                      (b) 63 kg  
(c) 40 kg                                      (d) 39 kg
57. A square field of 2 sq. kilometres is to be divided into two equal parts by a fence which coincides with a diagonal. Find the length of the fence.
- (a) 2 km                                      (b) 4 km  
(c) 6 km                                      (d) 8 km
58. If a rectangular paper of length 6 cm. and width 3 cm. Is rolled to form

a cylinder with height equal to the width of the paper, then its base radius is –

- (a)  $\frac{6}{\pi}$  cm                                      (b)  $\frac{3}{\pi}$  cm  
(c)  $\frac{3}{2\pi}$  cm                                      (d)  $\frac{9}{2\pi}$  cm
59. A hollow spherical shell is made of metal of Density 4.8 g/cm<sup>3</sup>, If its internal and external radii are 10 cm and 12 cm respectively, find the weight of the shell
- (a) 15.24 kg                                      (b) 12.84 kg  
(c) 14.64 kg                                      (d) None of these
60. If the sum of the circumferences of two circles with radii  $R_1$  and  $R_2$  is equal to the circumference of a circle of radius  $R$ , then
- (a)  $R_1 + R_2 = R$                               (b)  $R_1 + R_2 > R$   
(c)  $R_1 + R_2 < R$   
(d) Nothing definite can be said about the relation among  $R_1, R_2$  and  $R$

61. The radius of a circle whose circumference is equal to the sum of the circumferences of the two circles of diameters 36 cm and 20 cm is
- (a) 56 cm                                      (b) 42 cm  
(c) 28 cm                                      (d) 16 cm

62. The area of the circle that can be inscribed in a square of side 6 cm is
- (a)  $36\pi$  cm<sup>2</sup>                                      (b)  $18\pi$  cm<sup>2</sup>  
(c)  $12\pi$  cm<sup>2</sup>                                      (d)  $9\pi$  cm<sup>2</sup>

63. 2 cm of rain has fallen on a sq. km of land. Assuming that 50% of the raindrops could have been collected and contained in a pool having a 100 m  $\times$  10 m base, by what level would the water level in the pool have increased?

- (a) 15 m                                      (b) 20 m  
(c) 10 m                                      (d) 25 m

64. The area of a right angled isosceles triangle Whose hypotenuse is equal to 270 m is
- (a) 19000 m<sup>2</sup>                                      (b) 18225 m<sup>2</sup>  
(c) 17256 m<sup>2</sup>                                      (d) 18325 m<sup>2</sup>

65. A right circular solid cylinder of base radius 4 cm and vertical height 22.5 cm is melted to form 8 equal solid spheres. If there is a process loss of 20% during such formation, then what is the radius of each of the solid sphere so formed?

- (a) 2 cm (b) 3 cm  
(c) 2.5 cm (d) 3.5 cm

66. The volume of a sphere is changing @ 100 cc/min. The rate at which the surface area of the sphere is changing when the radius of the sphere = 10 cm, is

- (a)  $30 \text{ cm}^2 / \text{min}$  (b)  $20 \text{ cm}^2 / \text{min}$   
(c)  $20\pi \text{ cm}^2 / \text{min}$  (d)  $30\pi \text{ cm}^2 / \text{min}$

67. There is an error of + 1.5% while measuring the radius of a sphere. What is the percentage error in calculating the volume of the sphere?

- (a) 4.6% (b) 3.2%  
(c) 9.5% (d) 4.3%

68. If the radius of a circle is diminished by 10%, the area is diminished by

- (a) 36% (b) 20%  
(c) 19% (d) 10%

69. A landowner increased the length and breadth of A rectangular plot by 10% and 20% respectively. Find the percentage change in the cost of the plot.

- (a) 35% (b) 33%  
(c) 22.22% (d) 32%

70. In measuring the side of a square, an error of 5% in excess is made. The error % in the calculated area is,

- (a)  $10 \frac{1}{4} \%$  (b)  $10 \frac{3}{4} \%$   
(c)  $1 \frac{3}{4} \%$  (d) 25%

71. The area of a rectangular field is 460 square metres. If the length is 15 per cent more than the breadth, what is breadth of the rectangular field ?

- (1) 15 metres

- (2) 26 metres  
(3) 34.5 metres  
(4) Cannot be determined  
(5) None of these

**(Canara Bank PO Exam.  
09.02.2003)**

72. What will be the cost of gardening 1 metre broad boundary around a rectangular plot having perimeter of 340 metres at the rate of 10 per square metre ?

- (1) 3,400/- (2) 1,700/-  
(3) 3,440/-  
(4) Cannot be determined  
(5) None of these

**(Canara Bank PO Exam.  
09.02.2003)**

73. What would be the cost of building a 7 metres wide garden around a circular field with diameter equal to 280 metres if the cost per sq. metre for building the garden is 21 ?

- (1) 1,56,242 (2) 2,48,521  
(3) 1,11,624 (4) 2,06,118  
(5) None of these

**(Corporation Bank PO  
Exam. 29.07.2006)**

74. The ratio of length and breadth of a rectangular plot is 8 : 5 respectively. If the breadth is 60 metre less than the length, what is the perimeter of the rectangular plot ?

- (1) 260 metres (2) 1600 metres  
(3) 500 metres  
(4) Cannot be determined  
(5) None of these

**(Bank Of Maharashtra PO  
Exam. 25.05.2008)**

75. What will be the area (in square metres) of 1.5 metre wide garden developed around all the four sides of a rectangular field having area equal to 300 square metres and breadth equal to three-fourth of the length ?

- (1) 96 (2) 105  
(3) 114  
(4) Cannot be determined  
(5) None of these

**(Indian Overseas Bank PO  
Exam. 15.06.2008)**

76. The circumference of a circle is equal to the side of a square whose area measures 407044 sq. cm. What is the area of the circle?

- (1) 22583.2 sq. cms.  
(2) 32378.5 sq. cms.  
(3) 41263.5 sq. cms.  
(4) 39483.4 sq. cms.  
(5) Can not be determined

**(PNB Agriculture Officer  
Exam. 04.01.2009)**

77. What is the area of a circle whose circumference is 1047.2 metres ?

- (1) 87231.76 sq. metres  
(2) 85142.28 sq. metres  
(3) 79943.82 sq. metres  
(4) 78621.47 sq. metres  
(5) 69843.23 sq. metres

**(UCO Bank PO Exam. 22.03.2009)**

78. An order was placed for supply of carpet of breadth 3 metres. The length of carpet was 1.44 times of breadth. Subsequently, the breadth and length were increased by 25 and 40 per cent respectively. At the rate of 45 per square metre, what would be the increase in the cost of the carpet?

- (1) 1020.6                      (2) 398.8  
(3) 437.4                      (4) 583.2  
(5) None of these

**(Indian Overseas Bank PO  
Exam. 05.04.2009)**

79. The length of a rectangular plot is thrice its breadth. If the area of the rectangular plot is 7803 sq. metre, what is the breadth of the rectangular plot ?

- (1) 51 metres                      (2) 153 metres  
(3) 104 metres                      (4) 88 metres  
(5) None of these

**(Indian Overseas Bank PO  
Exam. 05.04.2009)**

80. The cost of fencing a circular plot at the rate of 15 per metre is 3,300. What will be the cost of flooring the plot at the rate of Rs. 100 per square metre ?

- (1) 3,85,000  
(2) 2,20,000  
(3) 3,50,000  
(4) Cannot be determined  
(5) None of these

**(United Bank of India PO  
Exam. 21.06.2009)**

81. If the area of a circle is 616 cm.<sup>2</sup>, what is its circumference?

- (1) 76 cm.                      (2) 84 cm.  
(3) 96 cm.                      (4) 80 cm.  
(5) None of these

**(Andhra Bank PO  
Exam. 05.07.2009)**

82. The length of a rectangular floor is twice its breadth. If 256 is required to paint the floor at the rate of 2 per square metre, then what would be the length of floor ?

- (1) 16 metres                      (2) 8 metres  
(3) 12 metres                      (4) 32 metres  
(5) 20 metres

**(Corporation Bank PO  
Exam. 22.11.2009)**

83. The circumference of two circles is 132 metres and 176 metres respectively. What is the difference between the area of the larger circle and the smaller circle ?

- (1) 1048 sq. metres  
(2) 1076 sq. metres  
(3) 1078 sq. metres  
(4) 1090 sq. metres  
(5) None of these

**(Indian Bank PO  
Exam. 17.10.2010)**

84. What would be the cost of building a fence around a circular field with area equal to 32378.5 sq. metres, if the price per metre for building the fence was 154 ?

- (1) 84,683                      (2) 86,495  
(3) 79,326                      (4) 98,252  
(5) None of these

**(Bank Of India Banking Officer  
Exam. 24.01.2010)**

85. The perimeter of a square is equal to twice the perimeter of a rectangle of



length 8 cms. and breadth 7 cms. What is the circumference of a semicircle whose diameter is equal to the side of the square ? (Rounded off to the two decimal places)

- (1) 38.57 cms.                      (2) 23.57 cms.  
 (3) 42.46 cms.                      (4) 47.47 cms.  
 (5) None of these

**(Punjab & Sind Bank PO  
Exam. 16.05.2010)**

**86.** The perimeter of a square is double the perimeter of a rectangle. The area of the rectangle is 240 sq. cm. What is the area of the square ?

- (1) 100 sq. cm.  
 (2) 36 sq. cm.  
 (3) 81 sq. cm.  
 (4) Cannot be determined  
 (5) None of these

**(Punjab & Sind Bank PO  
Exam. 16.05.2010)**

**87.** The total area of a circle and a square is equal to 5450 sq.cm. The diameter of the circle is 70 cm. What is the sum of the circumference of the circle and the perimeter of the square ?

- (1) 360 cm  
 (2) 380 cm  
 (3) 270 cm  
 (4) Cannot be determined  
 (5) None of these

**(Bank Of Baroda PO  
Exam. 30.05.2010)**

**88.** The area of a square is 1024 sq. cm. What is the respective ratio between the length and the breadth of a rectangle whose length is twice the side of the square and breadth is 12 cm. less than the side of the square ?

- (1) 5 : 18                              (2) 16 : 7  
 (3) 14 : 5                              (4) 32 : 5  
 (5) None of these

**(Central Bank Of India PO  
Exam. 25.07.2010)**

**89.** There are two circles of different radii. The area of a square is 196 sq.cm, whose side is half the radius of the larger circle. The radius of the smaller

circle is three-seventh that of the larger circle. What is the circumference of the smaller circle ?

- (1)  $12\pi$  cm                              (2)  $16\pi$  cm  
 (3)  $24\pi$  cm                              (4)  $32\pi$  cm  
 (5) None of these

**(Syndicate Bank PO  
Exam. 29.08.2010)**

**90.** The cost of building a fence around a circular field is 7, 700 at the rate of 14 per foot. What is the area of the circular field ?

- (1) 24062.5 sq.ft.  
 (2) 23864.4 sq.ft.  
 (3) 24644.5 sq.ft.  
 (4) Cannot be determined  
 (5) None of these

**(United Bank Of India PO  
Exam. 14.11.2010)**

**91.** The total area of a circle and a square is equal to 2611 sq.cm. The diameter of the circle is 42 cms. What is the sum of the circumference of the circle and the perimeter of the square ?

- (1) 272 cms.  
 (2) 380 cms.  
 (3) 280 cms.  
 (4) Cannot be determined  
 (5) None of these

**(Bank Of Maharashtra  
Exam. 19.12.2010)**

**92.** The area of a square is 196 sq. cm. whose side is **half** the radius of a circle. The circumference of the circle is equal to breadth of a rectangle. If perimeter of the rectangle is 712 cm, what is the length of the rectangle ?

- (1) 196 cm                              (2) 186 cm  
 (3) 180 cm                              (4) 190 cm  
 (5) None of these

**(Oriental Bank Of Commerce PO  
Exam. 26.12.2010 (Ist Sitting))**

**93.** What would be the cost of building a fence around a square plot with area 462.25 sq. ft. at the rate of 34 per foot ?

- (1) 2,924                                      (2) 2,682  
 (3) 2,846

- (4) Cannot be determined  
(5) None of these

**(Indian Bank PO  
Exam. 02.01.2011)**

**94.** The length of a rectangle is twice the diameter of a circle. The circumference of the circle is equal to the area of a square of side 22 cm. What is the breadth of the rectangle if its perimeter is 668 cm ?

- (1) 24 cm                      (2) 26 cm  
(3) 52 cm  
(4) Cannot be determined  
(5) None of these

**(Union Bank Of India PO  
Exam. 09.01.2001)**

**95.** The circumference of two circles is 88 metres and 220 metres respectively. What is the difference between the area of the larger circle and the smaller circle ?

- (1) 3422 sq. metre  
(2) 3242 sq. metre  
(3) 3244 sq. metre  
(4) 3424 sq. metre  
(5) None of these

**(Corporation Bank PO  
Exam. 16.01.2011)**

**96.** What is the area of a circle whose radius is equal to the side of a square whose perimeter is 112 metres?

- (1) 176 sq. m.                      (2) 2504 sq. m.  
(3) 284 sq. m.                      (4) 1956 sq. m.  
(5) None of these

**(Punjab & Sind Bank PO  
Exam. 23.01.2011)**

**97.** The circumference of a semicircle of area 1925 sq. cm is equal to the breadth of a rectangle. If the length of the rectangle is equal to the perimeter of a square of side 48 cm. What is the perimeter of the rectangle?

- (1) 734 cm                      (2) 754 cm  
(3) 745 cm  
(4) Cannot be determined  
(5) None of these

**(UCO Bank PO Exam. 30.01.2011)**

**98.** The total area of a circle and a rectangle is equal to 1166 sq.cm. The diameter of the circle is 28 cm. What is the sum of the circumference of the circle and the perimeter of the rectangle if the length of the rectangle is 25 cm?

- (1) 186 cm                      (2) 182 cm  
(3) 184 cm  
(4) Cannot be determined  
(5) None of these

**(Bank Of Baroda PO  
Exam. 13.03.2011)**

**99.** The sum of the circumference of a circle and the perimeter of a square is equal to 272 cm. The diameter of the circle is 56 cm. What is the sum of area of the circle and the area of square ?

- (1) 2464 sq. cm.  
(2) 2644 sq. cm.  
(3) 3040 sq. cm.  
(4) Cannot be determined  
(5) None of these

**(Allahabad Bank PO  
Exam. 17.04.2011)**

**100.** The length of a rectangle is three-fifth of the side of a square. The radius of a circle is equal to side of the square. The circumference of the circle is 132 cm. What is the area of the rectangle if the breadth of the rectangle is 8 cm ?

- (1) 112.4 sq. cm.  
(2) 104.2 sq. cm.  
(3) 100.8 sq. cm.  
(4) Cannot be determined  
(5) None of these

**(Indian Overseas Bank PO  
Exam. 22.05.2011)**

**101.** Smallest side of a right angled triangle is 8 cm less than the side of a square of perimeter 56 cm. Second largest side of the right angled triangle is 4 cm less than the length of rectangle of area 96 sq. cm. and breadth 8 cm. What is the largest side of the right angled triangle?

- (1) 20 cm                      (2) 12cm

- (3) 10cm (4) 15cm  
(5) None of these

**(Indian Overseas Bank PO  
Exam. 22.05.2011)**

**102.** The area of a square is 1444 square metre. The breadth of a rectangle is  $\frac{1}{4}$ th of the side of the square and the length of the rectangle is thrice the breadth. What is the difference between the area of the square and the area of the rectangle?

- (1) 1152.38 sq.m.  
(2) 1169.33 sq.m.  
(3) 1181.21 sq.m.  
(4) 1173.25 sq.m.  
(5) None of these

**(IBPS Bank PO/MT  
CWE 17.06.2012)**

**103.** Circumference of a circle-A is times perimeter of a square. Area of the square is 784 sq cm. What is the area of another circle-B whose diameter is half the radius of the circle-A ?

- (1) 38.5 sq.cm (2) 156 sq.cm  
(3) 35.8 sq.cm (4) 616 sq.cm  
(5) None of these

**(IDBI Bank Officer  
Exam. 16.09.2012)**

**104.** A horse is tethered to a peg with a 14 metre long rope at the corner of a 40 metre long and 24 metre wide rectangular grass-field. What area of the field will the horse graze ?

- (1) 154 m<sup>2</sup> (2) 308 m<sup>2</sup>  
(3) 240 m<sup>2</sup> (4) 480 m<sup>2</sup>  
(5) None of these

**(IBPS Specialist Officer  
CWE 17.03.2013)**

**105.** The area of circle is seven times the numerical value of its circumference. What is the circumference of the circle ?

- (1) 616 units (2) 132 units  
(3) 88 units  
(4) Cannot be determined  
(5) None of these

**(IBPS Specialist Officer  
CWE 17.03.2013)**

**106.** Length of the floor of a rectangular auditorium is 6 metre more than the radius of a circle with a circumference of 572 m. The perimeter of the floor of the rectangular auditorium is 356 m. What will be cost of flooring the auditorium (only the floor of the auditorium), if the cost of flooring is 12/m<sup>2</sup> ?

- (1) 87,954 (2) 91,236  
(3) 94,284 (4) 75,490  
(5) None of these

**(IBPS RRBs Office Assistant CWE  
Exam. 09.09.2012)**

**107.** The circumference of a circular playground is 308 metre. There is 7 metre wide path around the ground. The area of the path is

- (1) 2130 sq. metre  
(2) 2410 sq. metre  
(3) 2510 sq. metre  
(4) 2310 sq. metre  
(5) None of these

**(Indian Overseas Bank PO  
Online Exam. 01.09.2013)**

**108.** The edge of an ice cube is 14 cm. The volume of the largest cylindrical ice cube that can be formed out of it is

- (1) 2200 cu.cm  
(2) 2000 cu.cm  
(3) 2156 cu.cm  
(4) 2400 cu.cm  
(5) None of these

**(IBPS Bank PO/MT  
CWE-III 26.10.2013)**

**Directions (109–110) :** Study the following diagram to answer the questions.

**(IBPS Bank PO/MT  
CWE-III 26.10.2013)**

**109.** If the diameter of each circle is 14cm and DC = CE, the area of  $\square$ BDE is

- (1) 784 sq.cm (2) 748 sq.cm

- (3) 874 sq.cm (4) 441 sq.cm  
(5) None of these

**110.** The area of the shaded region of square ABCD is

- (1) 186 sq. cm (2) 168 sq. cm  
(3) 188 sq. cm (4) 198 sq. cm  
(5) None of these

**111.** The area of a rectangular park is 1050 sq.m. and its perimeter is 130 metre. There is a 2.5 m wide path inside the park all around. The cost of construction of path is 40 per sq. metre. Find the total cost of construction of whole path.

- (1) 10000 (2) 12000  
(3) 12500 (4) 8500  
(5) None of these

**(Bank of Baroda PO  
Exam. 14.08.2014)**

**112.** The area of a square is equal to that of a rectangle. The length of rectangle is 4 cm more than the side of square and the breadth is 3 cm less than that of the square. What is the perimeter of the rectangle?

- (1) 40 cm (2) 60 cm  
(3) 75 cm (4) 50 cm  
(5) None of these

**(IDBI Officer Grade Exam.  
22.08.2014)**

**113.** The area of a right angled triangle is 80 sq. cm. The ratio of the base and the height of the triangle is 4 : 5. Find the length of hypotenuse.

- (1)  $2\sqrt{41}$  cm (2)  $3\sqrt{41}$  cm  
(3)  $2\sqrt{31}$  cm (4)  $5\sqrt{41}$  cm  
(5) None of these

**114.** The perimeter of a rectangular field is 240 metre. The ratio between the length and breadth of the field is 8 : 7. Find the area of the field.

- (1) 3854 sq. m. (2) 3584 sq. m.  
(3) 3684 sq. m. (4) 3666 sq. m.  
(5) None of these

**(IBPS RRBs Officer Scale-I  
CWE, 06.09.2014)**

**115.** In the following figure, ABCD is a square whose each side is 10cm long.

Triangles AEC and  $\square$ EFC are congruent. Point 'B' is the mid-point of side EC. Find the area of  $\square$ EFC (in sq. cm).

- (1) 100 (2) 80  
(3) 60 (4) 120  
(5) None of these

**(IBPS Bank PO/MT CWE-IV  
18.10.2014)**

**116.** In the following figure,  $\square$ ABC is an equilateral triangle and BCDE is a square whose each side is 8 cm long. Find the area of pentagon ABDEC in square cm.

- (1)  $18(4 + )$  (2)  $16(4 + )$   
(3)  $8(4 + )$  (4)  $16(2 + )$   
(5) None of these

**(IBPS Bank PO/MT CWE-IV  
18.10.2014)**

**117.** There is a rectangular plot whose length is 36 metre and breadth is 28 metre. There are two paths parallel to length and breadth of plot as is shown shaded in the following figure. The remaining part is lawn whose area is 825 square metre. What is the area of paths ?

- (1) 183 sq. metre  
(2) 185 sq. metre  
(3) 190 sq. metre  
(4) 163 sq. metre  
(5) None of these

**(IBPS Bank PO/MT CWE-IV  
18.10.2014)**

**118.** There are two garbage disposal rectangular tanks, A and B with lengths 12m and 15m respectively in a square field. If the total area of the square field excluding the rectangular tanks is 360 sq. m. and the breadth of both the rectangular tanks is of the side of the square field, what is the perimeter of the square field ? (in metre)

- (1) 92 (2) 84  
(3) 96 (4) 78

(5) 72

**(BOB Junior Management  
Grade/Scale-I Exam.  
18.04.2015)**

**119.** Four circles having equal radii are drawn with centres at the four corners of a square. Each circle touches the other two adjacent circle. If remaining area of the square is  $168 \text{ cm}^2$ , what is the size of the radius of the radius of the circle ? (in centimetres)

- (1) 14 (2) 1.4  
(3) 35 (4) 21  
(5) 3.5

**(IBPS RRBs Officer Scale-I & II  
CWE 12.09.2015)**

**120.** A playground is built on th of the area of a rectangular plot. The area of the playground is 1260 square metre and the length of the plot is seven times the breadth of the plot. What is the perimeter of the plot ?

- (1) 400 metre (2) 380 metre  
(3) 480 metre (4) 440 metre  
(5) 420 metre

**(IBPS RRBs Officer Assistant  
CWE-IV 13.09.2015)**

**121.** The respective ratio of curved surface area and total surface area of a cylinder is 4 : 5. If the curved surface area of the cylinder is  $1232 \text{ cm}^2$ , what is the height ? (in cm)

- (1) 28 cm (2) 24 cm  
(3) 26 cm (4) 30 cm  
(5) None of these

**(IBPS Bank PO/MT CWE-V  
Preliminary) 03.10.2015)**

**122.** The sum of the radius and height of a cylinder is 18 metre. The total surface area of the cylinder is 792 sq. metre, what is the volume of the cylinder ? (in cubic metre)

- (1) 1848 (2) 1440  
(3) 1716 (4) 1724  
(5) 1694

**(IBPS Bank PO/MT CWE-V  
Preliminary) 04.10.2015)**

**123.** The volume and curved surface area of a right circular cylinder are 462 cu. metre and 264 sq. metre respectively. What is the total surface area of the cylinder? (In sq. metre)

- (1) 332 (2) 341  
(3) 336 (4) 431  
(5) None of these

**(IBPS Bank PO/MT CWE-V  
Preliminary) 10.10.2015  
1st Sitting)**

**124.** If the volume and curved surface area of a cylinder are  $616 \text{ m}^3$  and  $352 \text{ m}^2$  respectively, what is the total surface area of the cylinder (in  $\text{m}^2$ )

- (1) 429 (2) 419  
(3) 435 (4) 421  
(5) 417

**(IBPS Bank PO/MT CWE-V  
Preliminary) 10.10.2015)**

**125.** Two equal circles are drawn in square in such a way that a side of the square forms diameter of each circle. If the remaining area of the square is  $42 \text{ cm}^2$ , how much will the diameter of the circle measure ? (in centimetre)

- (1) 3.5 (2) 4  
(3) 14 (4) 7.5  
(5) 21

**(IBPS RRBs Officer Scale-I & II  
CWE 13.09.2015)**

**126.** If the height of a triangle is decreased 20% and its base is increased by 20% what will be the effect on its area?

- (1) No change  
(2) 8% increase  
(3) 12% decrease  
(4) 16% increase  
(5) None of these

**(SBI Associate Banks PO  
Exam. 14.02.1999)**

**127.** A circular ground whose diameter is 35 metres, has a 1.4 metre broad

garden around it. What is the area of the garden in square metres?

- (1) 160.16 (2) 6.16  
 (3) 1122.66  
 (4) Data inadequate  
 (5) None of these

**(SBI Associate Banks PO  
 Exam. 14.02.1999)**

**128.** 2 metres broad pathway is to be constructed around a rectangular plot. The area of the plot is 96 sq.m. The cost of construction is 50 per sq. metre. Then find the total cost of production.

- (1) 4,800 (2) 4,000  
 (3) 2400  
 (4) Data inadequate  
 (5) None of these

**(SBI Associate Banks PO  
 Exam. 16.07.2000)**

**129.** If length of the rectangle is increased by 50% and breadth is decreased by 20%. Then what is the per centage change in the area?

- (1) decrease 20%  
 (2) 20% increase  
 (3) 80% increase  
 (4) 30% decrease  
 (5) None of these

**(SBI Associate Banks PO  
 Exam. 16.07.2000)**

**130.** The length and breadth of the floor of a room are 20 feet and 10 feet respectively. Square tiles of 2 feet length of three different colours are to be laid on the floor. Black tiles are laid in the first row on all sides. If white tiles are laid in the one-third of the remaining and blue tiles in the rest, how many blue tiles will be there?

- (1) 16 (2) 32  
 (3) 48 (4) 24  
 (5) None of these

**(SBI Banks PO Exam. 20.08.2000)**

**131.** The area of a rectangular field is 460 square metres. If the length is 15 per cent more than the breadth, what is breadth of the rectangular field ?

- (1) 15 metres  
 (2) 26 metres  
 (3) 34.5 metres  
 (4) Cannot be determined  
 (5) None of these

**(SBI Associate Banks PO  
 Exam. 07.01.2007)**

**132.** What will be the cost of gardening 1 metre broad boundary around a rectangular plot having perimeter of 340 metres at the rate of 10 per square metre ?

- (1) 3,400/- (2) 1,700/-  
 (3) 3,440/-  
 (4) Cannot be determined  
 (5) None of these

**(SBI Associate Banks PO  
 Exam. 07.01.2007)**

**133.** The ratio of the length and the breadth of a rectangular plot is 6:5 respectively. If the breadth of the plot is 34 metres less than the length, what is the perimeter of the rectangular plot?

- (1) 374 metres (2) 408 metres  
 (3) 814 metres (4) 748 metres  
 (5) None of these

**(SBI PO Preliminary (Tier-I)  
 Exam. 27.04.2008)**

**134.** The diameter of a circle is equal to the perimeter of a square whose area is 3136 sq. cm. What is the circumference of the circle ?

- (1) 352 cm.  
 (2) 704 cm.  
 (3) 39424 cm.  
 (4) Cannot be determined  
 (5) None of these

**(SBI PO Preliminary (Tier-I)  
 Exam. 27.07.2008)**

**135.** If the length of a rectangular field is increased by 20% and the breadth is reduced by 20%, the area of the rectangle will be 192 m<sup>2</sup>. What is the area of the original rectangle ?

- (1) 184 m<sup>2</sup> (2) 196 m<sup>2</sup>  
 (3) 204 m<sup>2</sup> (4) 225 m<sup>2</sup>  
 (5) None of these

**(SBI Associate Banks PO  
Exam. 07.08.2011)**

**136.** Inside a square plot, a circular garden is developed which exactly fits in the square plot and the diameter of the garden is equal to the side of the square plot which is 28 metres. What is the area of the space left out in the square plot after developing the garden ?

- (1) 98 m<sup>2</sup>                      (2) 146 m<sup>2</sup>  
 (3) 84 m<sup>2</sup>                      (4) 168 m<sup>2</sup>  
 (5) None of these

**(SBI Associate Banks PO  
Exam. 07.08.2011)**

**137.** The cost of tiling the floor of a rectangular room at the rate of 85 per square foot is 7480. The length of rectangular room is equal to the length of a square room whose area is 256 square foot. What is the breadth of the rectangular room ?

- (1) 5.2 feet                      (2) 5.5 feet  
 (3) 4.5 feet                      (4) 4.8 feet  
 (5) None of these

**(SBI Specialist (IT)  
Officer Exam. 19.04.2014)**

**138.** The area of circle is nine times the numerical value of its circumference. What is the circumference of the circle ?

- (1) 24 □ units                      (2) 36 □ units  
 (3) 28 □ units                      (4) 32 □ units  
 (5) None of these

**(SBI Specialist (IT)  
Officer Exam. 19.04.2014)**

**139.** The radius of the cylinder is half of its height and area of the inner part is 616sq. metres. **Approximately** how many litres of milk can it contains ?

- (1) 1.4                              (2) 1.5  
 (3) 1.9                              (4) 1.7  
 (5) 2.2

**(SBI Associate Banks PO  
Exam. 16.07.2000)**

**140.** The area of a rectangle is equal to the area of a square whose diagonal is 12 metre. The difference between the

length and the breadth of the rectangle is 6 metre. What is the perimeter of rectangle ? (in metre).

- (1) 160 metre                      (2) 80 metre  
 (3) 82 metre                      (4) 84 metre  
 (5) None of these

**(SBI PO Phase-I (Preliminary)  
Online Exam. 20.06.2015)**

**141.** The length of a rectangle is 4m more than the side of a square and the breadth of the rectangle is 4m less than side of the same square. The area of the square is 567 square metre, what is the area of the rectangle ? (in square metre)

- (1) 549                              (2) 545  
 (3) 557                              (4) 559  
 (5) 551

**(SBI PO Phase-I (Preliminary)  
Online Exam. 21.06.2015)**

**142.** A rectangular plot 55 m long and 45 m broad, has two concrete crossroads (of equal width) running in the middle of it – one parallel to the length and the other parallel to the breadth. The rest of the plot is used as a lawn. If the area of the lawn is 1911 m<sup>2</sup>, what is the width of each of the crossroads ? (in m)

- (1) 5                                  (2) 5.5  
 (3) 6                                  (4) 4  
 (5) 4.5

**(SBI PO Phase-I (Preliminary)  
Online Exam. 27.06.2015)**

**143.** The length of rectangular plot is thrice its breadth. If the area of the rectangular plot is 6075 sq. metres, what is its length ?

- (1) 145 metres                      (2) 130 metres  
 (3) 75 metres                      (4) 45 metres  
 (5) None of these

**(RBI Grade-B Officer  
Exam. 2007)**

**144.** A triangle has two of its angles in the ratio of 1 : 2. If the measure of one of its angles is 30 degrees, what is the measure of the largest angle of the triangle in degrees ?

- (1) 100                              (2) 90

- (3) 135  
 (4) Cannot be determined  
 (5) None of these

**(RBI Grade-B Officer  
 Exam.06.02.2011)**

**145.** The sum of the radius and height of a cylinder is 42 cm. Its total surface area is 3696 cm<sup>2</sup>. What is the volume of cylinder ?

- (1) 17428 cubic cm  
 (2) 17248 cubic cm  
 (3) 17244 cubic cm  
 (4) 17444 cubic cm  
 (5) None of these

**(RBI Officer Grade 'B' Phase-I,  
 Exam. 03.08.2014)**

**146.** Each dimension in metres of a rectangular solid is an integer less than 17, the volume of the solid is 176 cubic metre. if the height of the solid is 16m, what is the surface area (in sq. metre) of the solid?

- (1) 448  
 (2) 384  
 (3) 395  
 (4) 424  
 (5) 406

**(NABARD Officer Grade 'A'  
 Online Exam. 03.08.2014)**

**147.** The sum of the radius and height of a cylinder is 42 cm. Its total surface area is 3696 cm<sup>2</sup>. What is the volume of cylinder ?

- (1) 17428 cubic cm  
 (2) 17248 cubic cm  
 (3) 17244 cubic cm  
 (4) 17444 cubic cm  
 (5) None of these

**(RBI Officer Grade 'B' Phase-I  
 Exam. 03.08.2014)**

**148.** Area of a rectangle is 96 square metre. When the length of the same rectangle is increased by 6 metres and the breadth is decreased by 3 metres, then the area of the rectangle decreases by 30 square metres. What is the perimeter of a square whose sides are equal to the length of rectangle?

- (1) 48 m  
 (2) 60 m  
 (3) 80 m  
 (4) 64 m

- (5) 52 m

**(RBI Officer Grade 'B' Phase-I  
 Exam. 21.11.2015)**

**149.** The area of a rectangle is 150 sq. metre. On increasing its breadth by 2 metre and decreasing its length by 5 metre, the area is decreased by 30 sq. metre. What will be the perimeter of a square whose side is equal to the length of the rectangle? (in metre).

- (1) 60  
 (2) 55  
 (3) 45  
 (4) 55  
 (5) 52

**(RBI Officer Grade 'B' Phase-I  
 Online Exam. 22.11.2015)**

**150.** A wall 3m × 2.7m × 0.2m of concrete weight 320 kg per cubic metre. What will be the total weight of the wall in kg.?

- (1) 5184.0  
 (2) 51.84  
 (3) 518.4  
 (4) 51840.

**(United India Insurance Co.  
 AAO Exam. 21.04.2002)**

**151.** The area of a square is 2.25 cm<sup>2</sup>. What is its perimeter?

- (1) 9.0 cms  
 (2) 6.0 cms.  
 (3) 1.5 cms  
 (4) 4.5 cms.

**(United India Insurance Co.  
 AAO Exam. 21.04.2002)**

**152.** The length of a rectangle is 20% more than its breadth. What will be the ratio of the area of this rectangle to the area of a square whose side is equal to the breadth of the rectangle?

- (1) 5:6  
 (2) 6:5  
 (3) 2:1  
 (4) Data inadequate  
 (5) None of these

**(LIC Assistant Administrative  
 Officer (AAO) Exam. 24.04.2005)**

**153.** A well with 14m inside diameter is dug 10m deep. Earth taken out of it, has been evenly spread all around it to a width of 21m to form an embankment. The height (in metres) of the embankment is :

- (1) (2)  
 (3) (4)



**(United India Insurance Co.  
(AAO) Exam. 11.03.2007)**

**154.** A rectangular carpet has an area of 120sq. metres and a perimeter of 46 metres. The length of its diagonal (in metres) is :

- (1) 11 (2) 13  
(3) 15 (4) 17

**(United India Insurance Co.  
(AAO) Exam. 11.03.2007)**

**155.** The area of a square of side 8 cm is equal to a rectangle. Which of the following statement/s is/are definitely true about the rectangle ?

- (1) The length of rectangle is 16 times its breadth  
(2) The length of rectangle is 32 times its breadth  
(3) The breadth of rectangle is of its length  
(4) The breadth of rectangle is of its length  
(5) None of these

**(LIC Assistant Administrative  
Officer Exam. 2008)**

**156.** An equilateral triangle and a regular hexagon have equal perimeters. If the area of the triangle is  $2 \text{ cm}^2$ , then the area of the hexagon is

- (1)  $2 \text{ cm}^2$  (2)  $3 \text{ cm}^2$   
(3)  $4 \text{ cm}^2$  (4)  $6 \text{ cm}^2$

**(New India Assurance AO  
Exam. 25.10.2009)**

**157.** A solid is in the form of a right circular cylinder with hemispherical ends. The total length of the solid is 35 cm. The diameter of the cylinder is  $\frac{1}{4}$  of its height. The surface area of the solid is

(Take )

- (1)  $462 \text{ cm}^2$  (2)  $693 \text{ cm}^2$   
(3)  $750 \text{ cm}^2$  (4)  $770 \text{ cm}^2$

**(New India Assurance AO  
Exam. 25.10.2009)**

**158.** The radius of a circle is twice the side of a square of area  $196 \text{ sq.cm}$ .

Length of a rectangle is twice the diameter of the circle. What is the perimeter of the rectangle if its breadth is half the length of the rectangle ?

- (1) 244 cm (2) 168 cm  
(3) 336 cm  
(4) Cannot be determined  
(5) None of these

**(United India Insurance AO  
Exam. 27.03.2011)**

**159.** The smallest side of a right angled triangle is 6 cm. and second largest side is 8 cm. Side of a square is thrice the largest side of the triangle. What is the diagonal of the square ?

- (1) 30 cm (2) 60cm  
(3) 30 cm.  
(4) Cannot be determined  
(5) None of these

**(United India Insurance AO  
Exam. 27.03.2011)**

**160.** In the figure there are two rectangles ABCD and DEBG, each of length 7 cm and width 3 cm. The area of shaded region, in  $\text{cm}^2$ , is approximately

- (1) 12 (2) 10  
(3) 8 (4) 4

**(New India Insurance AAO  
Exam. 22.05.2011)**

**161.** If the area of a square inscribed in a circle is  $15 \text{ cm}^2$ , then the area of the square inscribed in a semicircle of the same circle, in  $\text{cm}^2$ , is

- (1) 5 (2) 6  
(3) 7.5 (4)

**(New India Insurance AAO  
Exam. 22.05.2011)**

**162.** Diameter of a cylindrical jar is increased by 25%. By what percent must the height be decreased so that there is no change in its volume ?

- (1) 18% (2) 25%  
(3) 32% (4) 36%

**(New India Insurance AAO  
Exam. 22.05.2011)**

**163.** The area of a rectangle gets reduced by 9 sq. metre if its length is reduced by 5m and breadth is increased by 3m. If we increase the length by 2m and breadth by 3m, the area is increased by 67sq. metre. The length of the rectangle is:

- (1) 9m (2) 15.6m  
(3) 17m (4) 18.5m

**(General Insurance Corporation  
AAO Exam. 11.12.2011)**

**164.** Height of a cylindrical jar is decreased by 36%. By what percent must the radius be increased so that there is no change in its volume ?

- (1) 25% (2) 35%  
(3) 36% (4) 40%

**(Oriental Insurance Company  
AAO Exam. 08.04.2012)**

**165.** Surface area of a cuboid is  $22 \text{ cm}^2$  and the sum of the length of all its edges is 24 cm. Length of each diagonal of the cuboid (in cm) is

- (1) (2)  
(3) (4)

**(Oriental Insurance Company  
AAO Exam. 08.04.2012)**

**166.** An equilateral triangle and a regular hexagon have equal perimeters. The ratio of the area of the triangle and that of the hexagon is

- (1) 1 : 1 (2) 2 : 3  
(3) 3 : 2 (4) 3 : 4

**(Oriental Insurance Company  
AAO Exam. 08.04.2012)**

**167.** In the figure, ABCD is a parallelogram with area  $120 \text{ cm}^2$ , and  $BX : XC = 3 : 2$ ,  $CY : YD = 2 : 1$  and  $AZ : ZD = 3 : 1$ .

Area (in  $\text{cm}^2$ ) of pentagon AXCYZ is

- (1) 47 (2) 63  
(3) 73 (4) 79

**(United India Insurance AAO  
Exam. 03.06.2012)**

**168.** A and B travel around a circular path at uniform speed in opposite directions, starting from diametrically opposite points, at the same time. They meet each other first after B has

travelled 100 metres and meet again 60 metres before A completed one round. The circumference of the park is

- (1) 240 m (2) 300 m  
(3) 320 m (4) 480 m

**(United India Insurance AAO  
Exam. 03.06.2012)**

**169.** The perimeters of a square and a regular hexagon are equal. The ratio of the area of the hexagon to the area of the square is

- (1) 2 : 3 (2) : 1  
(3) 3 : 2 (4) : 3

**(United India Insurance AAO  
Exam. 03.06.2012)**

**170.** The surface of water in a swimming pool forms a rectangle with length 40 m and breadth 15 m. The depth of water increases uniformly from 1.2 m to 2.4 m at the other end. The volume (in  $\text{m}^3$ ) of water in the pool is

- (1) 500 (2) 540  
(3) 720 (4) 1080

**(United India Insurance AAO  
Exam. 03.06.2012)**

**171.** The circumference of a park is 750 m. A and B start walking from the same point in the same direction at 6.75 kmph and 4.75 kmph. In what time will they meet each other again?

- (1) 3 hours (2) 2.5 hours  
(3) 3.5 hours (4) 4 hours  
(5) None of these

**(LIC Assistant Administrative  
Officer (AAO) Exam. 12.05.2013)**

**172.** A hollow spherical silver ball has an external diameter 4 cm and internal diameter 2 cm thick. Then the volume of the silver used in the ball is :

- (1)  $\text{cm}^3$  (2)  $1 \text{ cm}^3$   
(3)  $\text{cm}^3$  (4)  $7 \text{ cm}^3$

**(NICL (GIC) AO (Finance)**

**Exam. 08.09.2013 (Paper-I)**

**173.** The area of three consecutive faces of a cuboid are  $12\text{cm}^2$ ,  $20\text{cm}^2$  and 15

$\text{cm}^2$ , then the volume (in  $\text{cm}^3$ ) of the cuboid is

- (1) 3600 (2) 100  
(3) 80 (4) 60

**(NICL (GIC) AO**

**Exam. 08.09.2013 (Paper-I)**

**174.** The wheel of a motor car makes 1000 revolutions in moving 440 m. The diameter (in metre) of the wheel is

- (1) 0.44 (2) 0.14  
(3) 0.24 (4) 0.34

**(NICL (GIC) AO**

**Exam. 08.09.2013 (Paper-I)**

**175.** The perimeter of a circular and a square field are equal. What is the diameter of the circular field, if the area of the square field is 484  $\text{metre}^2$ ?

- (1) 14 metre (2) 21 metre  
(3) 28 metre (4) None of these

**(NICL (GIC) Administrative Officer Exam. 15.12.2013)**

**176.** For a sphere of radius 10 cm, the numerical value of the surface area is how many per cent of the numerical value of its volume?

- (1) 24% (2) 26.5%  
(3) 30% (4) 45%

**(NICL (GIC) AO (Finance)**

**Exam. 15.12.2013)**

**177.** A circle and a rectangle have the same perimeter. The sides of the rectangle are 18 cm and 26 cm. What is the area of the circle?

- (1)  $88 \text{ cm}^2$  (2)  $154 \text{ cm}^2$   
(3)  $616 \text{ cm}^2$  (4)  $1250 \text{ cm}^2$

**(NICL (GIC) AO (Finance)**

**Exam. 15.12.2013)**

**178.** A rectangular courtyard 3.78 m long and 5.25 m broad is to be paved exactly with square tiles, all of the same size. The minimum number of such tiles is:

- (1) 430 (2) 440  
(3) 450 (4) 460

**(NICL (GIC) AO (Finance)**

**Exam. 15.12.2013)**

**179.** The length of a rectangular park is 11 metre more than its breadth. The

area of park is 242 square metre. There is a 5 metre wide path around the park. Find the area of the path.

- (1) 405 square metre  
(2) 430 square metre  
(3) 425 square metre  
(4) 435 square metre  
(5) None of these

**(NIACL Administrative**

**Officer (AO) Exam. 11.01.2015)**

**180.** A rectangular plot has a concrete path running in the middle of the plot parallel to the length of the plot. The rest of the plot is used as a lawn, which has an area of 2013 sq. m. If the width of the path is 4 m and the length of the plot is greater than its breadth by 8 m, what is the area of the plot? (in sq. metre)

- (1) 896 (2) 345  
(3) 432 (4) 354  
(5) 682

**(NIACL Administrative Officer**

**(AO) Exam. 10.01.2015)**

**181.** A rectangular plot has a concrete path running in the middle of the plot parallel to the breadth of the plot. The rest of the plot is used as a lawn, which has an area of 240 sq. m. If the width of the path is 3m and the length of the plot is greater than its breadth by 2m, what is the area of the rectangular plot? (in sq. m.)

- (1) 255 (2) 168  
(3) 288 (4) 360  
(5) 224

**(LIC Assistant Administrative Officer**

**(AAO) Online Exam. 22.03.2015)**

**182.** The radius of a circular field is equal to the side of a square field. If the difference between the perimeter of the circular field and that of the square field is 32m, what is the perimeter of the square field? (in metre)

- (1) 84 (2) 95  
(3) 56 (4) 28  
(5) 112

**(LIC Assistant Administrative Officer**

**(AAO) Online Exam. 05.03.2016)**

**183.** The radius of the circular field is equal to the side of a square field. If the difference between the area of the circular field and area of the square field is 105 sq.m, what is the perimeter of the circular field? (in metres)

(1) 132

(2) 80

(3) 44

(4) 176

(5) 112

**(LIC Assistant Administrative Officer  
(AAO) Online Exam. 06.03.2016)**

## 14. MIXTURE AND ALLIGATION

1. A vessel is filled with liquid, which is 3 parts water and 5 parts milk. How much of the liquid should be drawn off and replaced by water to make it half water and half milk?  
A)  $\frac{1}{8}$                       B)  $\frac{1}{5}$   
C)  $\frac{2}{3}$                         D)  $\frac{2}{7}$   
E) None
2. A vessel is filled with liquid, which is 3 parts water and 5 parts milk. How much of the liquid should be drawn off and replaced by water to make it half water and half milk?  
A)  $\frac{1}{8}$                         B)  $\frac{1}{5}$   
C)  $\frac{2}{3}$                         D)  $\frac{2}{7}$   
E) None
3. A mixture contains alcohol and water in the ratio 3:2. If it contains 3 liters more alcohol than water, the quantity of alcohol in the mixture  
A) 6                            B) 8  
C) 9                            D) 5  
E) None
4. Three types of Rice of Rs. 1.27, Rs. 1.29 and Rs. 1.32 per kg are mixed together to be sold at Rs. 1.30 per kg. In what ratio should this rice be mixed?  
A) 4:1:3                      B) 2:3:1  
C) 1:1:2                      D) 1:2:1  
E) None
5. A dishonest milkman professes to sell his milk at cost price but he mixes it with water and thereby gains 25%. The percentage of water in the mixture is:  
A) 35%                        B) 15%  
C) 25%                        D) 20%  
E) None
6. A container contains 50 litres of milk. From this container 5 litres of milk was taken out and replaced by water. This process was repeated further two times. How much milk is now contained by the container?  
A) 28.50                      B) 36.45  
C) 25.5                        D) 32.25  
E) None
7. An alloy of gold and copper weights 50 g. It contains 80% gold. How much gold should be added to the alloy so that percentage of gold is increased to 90?  
A) 50 gm                      B) 60 gm  
C) 45 gm                      D) 35 gm  
E) None
8. A trader sells total 315 TV sets. He sells black and white TV sets at a loss of 6% and color TV sets at a profit of 15% thus he gains 9% on the whole. What are the no. of black and white sets which he has sold?  
A) 100                        B) 105  
C) 90                          D) 85  
E) None
9. 4 kg of a metal contains  $\frac{1}{5}$  copper and rest in Zinc. Another 5 kg of metal contains  $\frac{1}{6}$  copper and rest in Zinc. The ratio of Copper and Zinc into the mixture of these two metals:  
A) 54:181                      B) 39:231  
C) 62:121                      D) 49 : 221  
E) None
10. Rs. 69 were divided among 115 students so that each girl gets 50 paise less than a boy. Thus each boy received twice the paise as each girl received. The no. of girls in the class is:  
A) 47                          B) 23  
C) 92                          D) 25  
E) None
11. A shopkeeper purchase two quantities of rice at the rate of Rs. 280/kg and Rs. 260/kg . In 52 kg of the second quantity, how much rice of the first quantity should be mixed so that by selling the resulting mixture at Rs.300/ kg , he gains a profit of 25%.  
A) 20 kg                      B) 26kg  
C) 33 kg                      D) 30kg  
E) 18kg
12. If the average weight of the whole

class is 50 kg. And the average weight of boys in the class is 30 kg and the average weight of girls in the same class is 22 kg. What could be the possible strength of boys and girls in the class respectively?

- A) 5 : 8                      B) 5 : 3  
C) 7 : 5                      D) 7 : 6  
E) 9 : 5

13. A woman travels 200 km in 5 hours in two parts. In the first part of the journey, she travels by car at the speed of 50 km/hr . In the second part of the journey , she travels by bus at the speed of 30 km/hr . How much distance did she travel by bus?  
A) 75 km                      B) 55 km  
C) 40 km                      D) 95 km  
E) 20 km
14. Somnath bought two different kinds of oil, one is soya oil and another is olive oil. There are two mixtures of these two oils  
. In the first mixture the ratio of the soya and olive oil is in the ratio of 3 : 4 and in the second mixture the ratio of the soya and olive oil is 5 : 6 . If he mixes these two mixtures and makes a third mixture of 36 litres in which the ratio of the soya oil and olive oil is 4 : 5. Find the quantity of the second mixture that is needed to make 36 litres of third type of mixture.  
A) 25 L                      B) 22 L  
C) 34 L                      D) 18 L  
E) 27 L
15. A vessel which contains 100 litres of salt and sugar solution in the ratio of 22 : 3 . From the vessel 40 litres of mixture is taken out and 4.8 litres of pure salt solution and pure sugar solution , both are added to the mixture . What is the percentage of the quantity of sugar solution in the final mixture less than the quantity of salt solution?  
A)  $72\frac{1}{4}\%$                       B)  $78\frac{1}{2}\%$   
C)  $70\frac{1}{5}\%$                       D)  $74\frac{1}{3}\%$   
E)  $79\frac{1}{6}\%$
16. The average marks of the students

in four sections P, Q ,R and S together is 60% . The average marks of the students of P, Q, R and S separately are 45% , 50%, 72% and 80% respectively. If the average marks of the students of P and Q together is 48% and that of the students of Q and R is 60%. What is the ratio of number of students in sections A and D ?

- A) 7 : 5                      B) 4 : 3  
C) 2 : 1                      D) 3 : 2  
E) 5 : 3
17. A shopkeeper has two types of wheat . The percentage of first type of wheat is 80% and the percentage of second type of wheat is 60%. If he mixes 28kg of first type of wheat to the 32 kg of second type of wheat, then find the percentage of resultant wheat in the mixture.  
A) 66                      B) 60.15  
C) 75.12                      D) 69.33  
E) 58.05
18. From a container of wine , 8 litres of wine is drawn and replace the same quantity with water. This is performed three more times, now the ratio of the quantity of wine to that of water in the container becomes 16 : 65. What is the initial quantity of wine in the container?  
A) 26 L                      B) 28 L  
C) 24 L                      D) 22 L  
E) 20 L
19. The price of the diesel is Rs. 70 per litre and the price of the petrol is Rs. 40 per litre. If the profit after selling the mixture at Rs. 75 per litre be 25 % . Find the ratio of the diesel and petrol in the mixture.  
A) 5 : 4                      B) 4 : 3  
C) 3 : 2                      D) 2 : 1  
E) 1 : 3
20. There are two factories, one in India and another in US. Mr. Anish purchased these two factories for total 80 crores. Later on, he sold the Indian factory at the rate of 16% profit and the US factory at 32% profit, thereby he gained 20%. What is the selling price of the

- factory?  
A) 84 cr.            B) 75 cr.  
C) 69.6 cr.        D) 68.5 cr.  
E) 70 cr.
21. A bottle contains  $(3/4)$  of milk and the rest water. How much of the mixture must be taken away and replaced by an equal quantity of water so that the mixture has half milk and half water?  
A)  $42(1/4)\%$             B)  $33(1/3)\%$   
C)  $22(1/3)\%$             D)  $18(1/2)\%$   
E)  $21(1/2)\%$
22. P and Q are two alloys of gold and copper prepared by mixing metals in the ratio  $7 : 2$  and  $7 : 11$  resp. If equal quantities of the alloys are melted to form a third alloy R, Find the ratio of gold and copper.  
A)  $6 : 7$             B)  $7 : 5$   
C)  $4 : 3$             D)  $5 : 6$   
E)  $3 : 2$
23. A container has 30 L of water. If 3 L of water is replaced by 3 L of spirit and this operation is repeated twice, what will be the quantity of water in the new mixture?  
A) 27.1 L            B) 25.5 L  
C) 14.4 L            D) 24.3 L  
E) 22 L
24. Two barrels contain a mixture of ethanol and gasoline. The content of the ethanol is 60% in the first barrel and 30% in the second barrel. In what ratio must the mixtures from the first and the second barrels be taken to form a mixture containing 50% ethanol?  
A)  $2 : 1$             B)  $2 : 5$   
C)  $1 : 3$             D)  $3 : 2$   
E)  $4 : 5$
25. A solution of sugar syrup has 15% sugar. Another solution has 5% sugar. How many litres of the second solution must be added to 20 L of the first solution to make a solution of 20% sugar.  
A) 60 L            B) 45 L  
C) 50 L            D) 30 L  
E) 20 L
26. A person has a chemical of Rs. 25 per litre. In what ratio should water be mixed in that chemical, so that after selling the mixture at Rs. 20 per litre he may get a profit of 25%?  
A)  $9 : 15$             B)  $10 : 13$   
C)  $16 : 9$             D)  $15 : 22$   
E)  $21 : 17$
27. Three containers X, Y and Z are having mixtures of milk and water in the ratio  $1 : 5$ ,  $3 : 5$  and  $5 : 7$  resp. If the capacities of the containers are in the ratio  $5 : 4 : 5$ , then find the ratio of the milk to the water, if the mixtures of all the three containers are mixed together.  
A)  $44 : 119$             B)  $24 : 111$   
C)  $46 : 143$             D)  $53 : 115$   
E)  $55 : 157$
28. How many kg of sugar costing Rs. 5.75 per kg should be mixed with 75 kg of cheaper sugar costing Rs. 4.50 per kg so that the mixture is worth Rs. 5.50 per kg?  
A) 440 kg            B) 300 kg  
C) 112 kg            D) 225 kg  
E) 320 kg
29. One test tube contains some acid and another test tube contains an equal quantity of water. To prepare a solution, 20 g of the acid is poured into the second test tube. Then, two-thirds of the so formed solution is poured from the second test tube into the first. If the fluid in the first test tube is four times that in second, what quantity of water was taken initially.  
A) 150 g            B) 120 g  
C) 90 g            D) 100 g  
E) 150 g
30. A shopkeeper sells two types of books national books and international books. He sells national books at Rs. 18 / book and incurs at loss of 10% whereas on selling the international books at Rs. 30 / book, he gains 20%. Find the ratio of the national and international books such that he can gain a profit of 25% by selling the combined books at 27.5 / book?  
A)  $5:6$             B)  $5:2$   
C)  $4:5$             D)  $2:3$   
E)  $4:7$
31. One test tube contains some acid and another test tube contains an

equal quantity of water .To prepare a solution , 20 g of the acid is poured into the second test tube

.Then , two -third of the so- formed solution is poured from the second tube into the first .If the fluid in the first test tube is four times that in the second ,what quantity of water was taken initially ?

- A) 90 g                      B) 70 g  
C) 154 g                    D) 100g  
E) 180 g

32. Two brands of detergents are to be combined . Detergent A contains 40 % bleach and 60 % soap . While detergent B contains 25 % bleach and 75% soap . If the combined mixture is to be 35 % bleach

.What % of the final mixture should be detergent A?

- A) 30%                      B) 45.64%  
C) 20%                      D) 32.5%  
E) 66.67%

33. A thief has stolen 15 L of beer from a container and replaced with the same quantity of water .He again repeated this process 3 times .Thus the ratio of the beer become 343 :169 .Find the initial amount of beer in the container .

- A) 90 L                      B) 120 L  
C) 140 L                    D) 110 L  
E) 80 L

34. A tank which contains a mixture of syrup and water in ratio 15:6. 25.5 litres of mixture is taken out from the tank and 2.5 litres of pure water and 5 litres of syrup is added to the mixture. If resultant mixture contains 25% water, what was the initial quantity of mixture in the tank before the replacement in litres?

- A) 77.7                      B) 70.78  
C) 75.6                      D) 80.5  
E) 76

35. Ram covered a distance of 200km in 10 hrs . The first part of his journey is covered by auto ,then he hired a car .The speed of the auto and car is 15 km/hr and 30 km /hr resp. Find the ratio of

distance covered by auto and car.

- A) 3:4                      B) 2:1  
C) 1:1                      D) 2:3  
E) None

36. 9 L are drawn from a cask full of water and it is then filled with milk , 9 L of mixture are drawn and the cask is again filled with milk .The quantity of water now left in the cask to that of the milk in it is 16

: 9 .How much does the cask hold ?

- A) 30 L                      B) 45 L  
C) 35 L                      D) 50 L  
E) 42 L

37. If 2 kg metal , of which  $(1/3)$  is zinc and the rest is copper , be mixed with 3 kg of metal , of which  $(1/4)$  is zinc and the rest is copper . What is the ratio of zinc to copper in the mixture ?

- A) 11 : 43                    B) 15 : 37  
C) 17 : 43                    D) 23 : 74  
E) 18 : 52

38. Vessels A and B contain mixtures of milk and water in the ratios 4 : 5 and 5 : 1 resp.In what ratio should quantities of mixture be taken from A and B to form a mixture in which milk to water is in the ratio 5 : 4 ?

- A) 5 : 2                      B) 7 : 5  
C) 6 : 11                    D) 8 : 5  
E) 9 : 4

39. Two barrels contain a mixture of ethanol and gasoline is 60% in the first barrel and 30% in the second barrel .In what ratio must the mixtures from the first and the second barrels be taken to form a mixture containing 50% alcohol ?

- A) 3:4                      B) 5:8  
C) 1:2                      D) 5:4  
E) 2 : 1

40. A mixture of a certain quantity of milk with 15ltr of water is sold at 100 paisa per ltr. If pure milk be worth Rs 1.15ltr, then how much milk is there in the mixture?

- A) 80ltr                      B) 90ltr  
C) 100ltr                    D) 110ltr  
E) 120ltr



41. In a mixture of 75ltr the ratio of milk to water is 2 : 1. The amount of water to be further added to the mixture so as to make the ratio of milk to water 1 : 2 will be?  
A) 45                      B) 60  
C) 70                      D) 75  
E) 80
42. A container contained 60ltr milk. Out of this 6ltr of milk was taken out and replaced with water. This process was further repeated two times. How much milk is now in container?  
A) 42.74                  B) 43.74  
C) 44.74                  D) 45.74  
E) 41.74
43. In an alloy zinc & copper are in the ratio of 1 :1. In the second alloy the same element are in the ratio 3 : 5. If these two alloys be mixed to form a new alloy in which two elements are in the ratio 2 : 3, find the ratio of these two alloys in the new alloy?  
A) 2:3                      B) 3:2  
C) 1:4                      D) 4:1  
E) 3:1
44. In a class of 20 students the average of their marks is 59. If one student left the class then average become 60. Find the marks of that student?  
A) 78                      B) 59  
C) 40                      D) 30  
E) 45
45. A can contain a mixture of two liquids P & Q in proportion 3 :5. When 8ltr of mixture are drawn off and the can is filled with Q, the proportion of P & Q becomes 3:7. How many ltr of liquid P was contained in the can initially?  
A) 15ltr                    B) 12ltr  
C) 16ltr                    D) 20ltr  
E) 25ltr
46. 300 ltr of mixture contains 20% water in it and rest is milk. The amount of milk that must be added so that the resulting mixture contains 90% milk is?  
A) 200ltr                  B) 300ltr  
C) 250ltr                  D) 350ltr
- E) 400ltr
47. 8kg of tea consisting Rs240 per kg is mixed with 9kg of tea costing Rs250 per kg. The average price per kg of the mixed tea is ?  
A) 245.29                  B) 246.29  
C) 244.29                  D) 247.29  
E) 248.29
48. The ratio of A & B in a mixture is 8:1, 15ltr of mixture is taken out and same amount of B is added, now ratio become 4:3. Find the initial amount of A in the mixture (approx)?  
A) 24                      B) 37  
C) 34                      D) 40  
E) 28
49. A shopkeeper sells his milk at cost price but he add some water and earn  $16\frac{2}{3}\%$  profit. Find the ratio of milk and water?  
A) 6:1                      B) 1:6  
C) 5:1                      D) 1:5  
E) 5:6
50. There is 70ltr milk in a container. From this 7ltr of milk is taken out and added some quantity of water. This process is repeated two more times. Find the remaining milk in container?  
A) 45ltr                    B) 48.03ltr  
C) 50ltr                    D) 51.03ltr  
E) 56.22ltr
51. A man has to distribute Rs65 in a class of 50 students. He gives 1.5 rupee to boys and 1 rupee to girls each. Find how many girls are there in the class?  
A) 30                      B) 20  
C) 15                      D) 25  
E) 22
52. In an alloy the ratio of copper and aluminum is 4:5 and in other alloy the ratio of copper and aluminum is 6:7. In what ratio these alloy should be taken to make ratio of copper and aluminum is 5:6?  
A) 5 : 11                    B) 11 : 5  
C) 13 : 9                    D) 9 : 13





find the initial quantity of milk in the container.

- A) 26 l                      B) 29 l  
C) 30 l                      D) 20 l  
E) None of these

76. In what ratio do the three varieties of rice costing Rs 6, Rs 8 and Rs 9 per 100 grams should be mixed in order to obtain a mixture costing Rs 84 per kg?

- A) 2 : 3 : 4                      B) 1 : 3 : 6  
C) 1 : 2 : 5                      D) 3 : 4 : 2  
E) None of these

77. A container filled of milk-water mixture contains 75% milk. 5 litres of this mixture is replaced by water. Next, 10 l of the mixture is replaced by water. If the final percentage of milk in the container is 54%, find the initial quantity of mixture in the container.

- A) 50 l                      B) 40 l  
C) 60 l                      D) 70 l  
E) 55 l

78. 12 litres of water is drawn out from a container full of water and replaced by milk. Again 12 litres of mixture are drawn and the container is again filled with milk. The ratio of final quantity of water to milk in the container is 11 : 25. How much did the container hold?

- A) 60 litres                      B) 65 litres  
C) 72 litres                      D) 39 litres  
E) None of these

79. In a mixture of milk and water the proportion of water by weight was 75%. If in the 60 gms mixture 15 gms. water was added, what would be the percentage of water in the new mixture ?

- (1) 75%                      (2) 88%  
(3) 90%                      (4) 100%  
(5) None of these

**(Indian Overseas Bank  
PO Exam. 05.04.2009)**

80. Sri Ganesh bought 40kgs of wheat at 12.50 per kg and 25 kgs of it at 15.10 per kg. He mixed them

together. At what rate should he sell the mixture to earn 10% profit ?

- (1) 13.50                      (2) 13.25  
(3) 14.75                      (4) 14.85  
(5) None of these

**(Syndicate Bank PO  
Exam. 10.10.2004)**

81. Manish bought 25 kg of rice at 32 per kg and 15 kg of rice at 36 per kg. What profit did he get when he mixed the two varieties together and sold it at 40.20 per kg ?

- (1) 25%                      (2) 40%  
(3) 30%                      (4) 20%  
(5) None of these

**(IBPS Bank PO/MT  
CWE-III 26.10.2013)**

82. A vessel contains 100 litres mixture of milk and water in the respective ratio of 22 : 3. 40 litres of the mixture is taken out from the vessel and 4.8 litres of pure milk and pure water each is added to the mixture. By what percent is the quantity of water in the final mixture less than the quantity of milk ?

- (1)  $78\frac{1}{2}$                       (2)  $79\frac{1}{6}$   
(3)  $72\frac{5}{6}$                       (4) 76  
(5)  $77\frac{1}{2}$

**(IBPS RRBs Officer Scale-I & II  
CWE 13.09.2015)**

83. There was 120 litres of pure milk in a vessel. Some quantity of milk was taken out and replaced with 23 litres of water in such a way that the resultant ratio between the quantities of milk and water in the mixture was 4:1 respectively. Again 23 litres of the mixture was taken out and replaced with 27 litres of water. What is the respective ratio of milk and water in the resultant mixture ?

- (1) 58 : 37                      (2) 116 : 69  
(3) 69 : 43                      (4) 101 : 37  
(5) 368 : 227

**(BOB Junior Management  
Grade/Scale-I Exam.  
18.04.2015)**

84. 18 litres of pure water was added to a vessel containing 80 litres of pure milk. 49 litres of the resultant mixture was then sold and some more quantity of pure milk and pure water was added to the vessel in the respective ratio of 2:1. If the resultant respective ratio of milk and water in the vessel was 4:1, what was the quantity of pure milk added in the vessel ? (in litres)

- (1) 4 (2) 8  
(3) 10 (4) 12  
(5) 2

**(IBPS Bank PO/MT CWE-V  
Preliminary) 03.10.2015)**

85. In a vessel, there is a mixture of apple, orange and mango juices in the ratio of 3 : 5 : 4 respectively. A quantity of 12 litres from the mixture is replaced by 8 litres of apple juice. Thereafter the quantities of apple and orange juices in the resultant mixture become same. Find out the initial quantity of mixture in the vessel.

- (1) 76 litres (2) 65 litres  
(3) 60 litres (4) 80 litres  
(5) None of these

**(IBPS Bank PO/MT CWE-V  
Preliminary) 10.10.2015  
Ist Sitting)**

86. A vessel contains a mixture of Grape, Pineapple and Banana juices in the respective ratio of 4 : 6 : 5. 15 litres of this mixture is taken out and 8 litres of grape juice and 2 litres of pineapple juice is added to the vessel. If the resultant quantity of grape juice is 10 litres less than the resultant quantity of pineapple juice, what was the initial quantity of mixture in the vessel ? (in litres)

- (1) 120 (2) 150  
(3) 105 (4) 135  
(5) 90

**(IBPS Bank PO/MT CWE-V  
Preliminary) 10.10.2015)**

87. A 20 litre mixture contains milk and water in the respective ratio of 3 : 2. Then 10 litres of the mixture is removed and replaced with pure milk

and the operation is repeated once more. At the end of the two removals and replacements, what is the ratio of milk and water in the resultant mixture respectively?

- (1) 17 : 3 (2) 9 : 1  
(3) 4 : 17 (4) 5 : 3  
(5) 3 : 14

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

88. A jar has 60 litres of milk. From the jar, 12 litres of milk was taken out and replaced by an equal amount of water. If 12 litres of the newly formed mixture is taken out of the jar, what is the final quantity of milk left in the jar?

- (1) 38.4 litres (2) 40 litres  
(3) 36 litres (4) 28.6 litres  
(5) 36.5 litres

**(IBPS Specialist Officer (IT)  
CWE 14.02.2016)**

89. In 1kg mixture of sand and iron, 20% is iron. How much sand should be added, so that the proportion of iron becomes 5%?

- (1) 3 kg (2) 4 gms  
(3) 5 gms (4) 6 kg  
(5) None of these

**(SBI Associate Banks PO  
Exam. 14.02.1999)**

90. The wheat sold by a grocer contained 10% low quality wheat. What quantity of good quality wheat should be added to 150 kgs of wheat so that the percentage of low quality wheat becomes 5% ?

- (1) 150 kgs (2) 135 kgs  
(3) 50 kgs (4) 85 kgs  
(5) None of these

**(SBI Associate Banks PO  
Exam. 21.07.2002 &  
LIC Assistant Administrative  
Officer (AAO) Exam. 2006)**

91. A grocer purchased 2 kg. of rice at the rate of 15 per kg. and 3 kg. of rice at the rate of 13 per kg. At what price per kg. should he sell the mixture to earn profit on the cost price ?

- (1) 28.00                      (2) 20.00  
 (3) 18.40                      (4) 17.40  
 (5) None of these

**(SBI PO Exam. 26.11.2006)**

92. From a container of milk, 5 litres of milk is replaced with 5 litres of water. This process is repeated again. Thus in two attempts the ratio of milk and water became 81 : 19. The initial amount of milk in the container was

- (1) 50 litres                      (2) 45 litres  
 (3) 40 litres                      (4) 25 litres  
 (5) None of these

**(RBI Officer Grade 'B' Phase-I, Exam. 03.08.2014)**

93. A vessel contains a mixture of milk and water in the respective ratio of 3:1. 32 litres of mixture was taken out and replaced with the same quantity of milk so that the resultant ratio between the quantities of milk and water in the mixture was 4:1 respectively. If 10 litres of mixture is again taken out from the vessel, what is the resultant quantity of water in the mixture? (in litres)

- (1) 24                                  (2) 30  
 (3) 20                                  (4) 36  
 (5) 32

**(RBI Officer Grade 'B' Phase-I Exam. 21.11.2015)**

94. In a vessel there is a certain quantity of mixture of milk and water in the ratio 5 : 1 respectively. 24 litres of mixture is taken out and same quantity of milk is added to the vessel. The ratio of milk and water now becomes 13 : 2 respectively. Again 15 litres of mixture is taken out. What is the quantity of milk in the resulting mixture? (in litres)

- (1) 85 litres                      (2) 80 litres  
 (3) 81 litres                      (4) 91 litres  
 (5) None of these

**(RBI Officer Grade 'B' Phase-I Online Exam. 22.11.2015)**

95. A container has 30 litres of water. If 3 litres of water is replaced by 3 litres

of spirit and this operation is repeated twice, what will be the quantity of water in the new mixture ?

- (1) 24 litres                      (2) 23 litres  
 (3) 24.3 litres                      (4) 23.3 litres  
 (5) None of these

**(LIC Assistant Administrative Officer (AAO) Exam. 12.05.2013)**

96. A man purchased 35 kg of rice at the rate of 9.50 per kg and 30 kg at the rate of 10.50 per kg. He mixed the two. Approximately, at what price (in Rupees) per kg should he sell the mixture to make 35 per cent profit in the transaction?

- (1) 12                                  (2) 12.50  
 (3) 13                                  (4) 13.50

**(LIC Assistant Administrative Officer (AAO) Exam. 07.06.2009)**

97. To  $m$  litres of a  $m\%$  solution of acid,  $x$  litres of water is mixed to yield  $(m - 10)\%$  solution of acid. If  $m > 25$ , then  $x$  equals

- (1)  $\frac{10m}{m-10}$                       (2)  $\frac{5m}{m-10}$   
 (3)  $\frac{2m}{m-10}$                       (4)  $\frac{m}{m-10}$

**(New India Assurance AO Exam. 25.10.2009)**

98. When one litre of water is added to a mixture of acid and water, the new mixture contains 20% acid. When one litre of acid is added to the new mixture, then the resulting mixture contains acid. The percentage of acid in the original mixture was

- (1) 20%                                  (2) 22%  
 (3) 24%                                  (4) 25%

**(New India Insurance AAO Exam. 22.05.2011)**

99. Two barrels contain a mixture of ethanol and gasoline. The content of the ethanol is 60% in the first barrel and 30% in the second barrel. In what ratio must the mixtures from the first and the second barrels be taken to form a mixture containing 50% ethanol?

- (1) 1:2                                  (2) 2:1  
 (3) 2:3                                  (4) 3:2

**(General Insurance Corporation  
AAO Exam. 11.12.2011)**

100. To  $x$  litres of an  $x\%$  solution of acid,  $y$  litres of water is added to get  $(x-10)\%$  solution of acid. If  $x > 20$ , then value of  $y$  is

- (1)  $\frac{x^2}{100}$                       (2)  $\frac{10x}{x-10}$   
(3)  $\frac{10x}{x+10}$                     (4)  $\frac{10x^2}{x-10}$

**(Oriental Insurance Company  
AAO Exam. 08.04.2012)**

101. A and B are two alloys of gold and copper prepared by mixing metals in the ratio 7 : 2 and 7:11 respectively. If equal quantities of the alloy are melted to form a third alloy C, the ratio of gold and copper in C will be :

- (1) 5 : 7                              (2) 5 : 9  
(3) 7 : 5                              (4) 9 : 5

**(Oriental Insurance Company  
AAO Exam. 08.04.2012)**

102. In two vessels A and B, there is mixture of milk and water. The ratio of milk and water in these vessels is 5 : 2 and 8 : 5 respectively. In what ratio these mixtures be mixed together so that the ratio of milk and water in the new mixture becomes 9 : 4 ?

- (1) 7 : 2                              (2) 2 : 7  
(3) 3 : 5                              (4) 5 : 3  
(5) 7 : 9

**(Indian Overseas Bank PO  
Online Exam. 01.09.2013)**

103. A merchant has 1000 kg of sugar, part of which he sells at 8% profit and the rest at 18% profit. He gains 14% on the whole. The quantity (in kg.) sold at 18% profit is :

- (1) 560                              (2) 600  
(3) 400                              (4) 640

**(United India Insurance Co.  
(AAO) Exam. 11.03.2007)**

## 15. PERMUTATION AND COMBINATION

1. In how many different ways can letters of the word SOFTWARE be arranged in such a way that the vowels always come together?  
 (1) 13440 (2) 1440  
 (3) 360 (4) 120  
 (5) None of these  
**(Canara Bank PO Exam. 09.02.2003 & SBI Associate Banks PO Exam. 07.01.2007)**
2. In how many different ways a group of 4 men and 4 women be formed out of 7 men and 8 women ?  
 (1) 2450 (2) 105  
 (3) 1170  
 (4) Cannot be determined  
 (5) None of these  
**(Canara Bank PO Exam. 09.02.2003 & SBI Associate Banks PO Exam. 07.01.2007)**
3. A team of 5 children is to be selected out of 4 girls and 5 boys such that it contains at least 2 girls. In how many different ways the selection can be made ?  
 (1) 105 (2) 60  
 (3) 100 (4) 120  
 (5) None of these  
**(Syndicate Bank PO Exam. 10.10.2004)**
4. In how many different ways can the letters of the word 'PADDLED' be arranged ?  
 (1) 910 (2) 2520  
 (3) 5040 (4) 840  
 (5) None of these  
**(Corporation Bank PO Exam. 29.07.2006)**
5. In how many different ways can the letters of the word 'BLOATING' be arranged ?  
 (1) 40320 (2) 5040  
 (3) 2520 (4) 20160  
 (5) None of these  
**(Bank Of Maharashtra PO Exam. 25.05.2008)**
6. In how many different ways can the letters of the word 'CREATE' be arranged ?  
 (1) 25 (2) 36  
 (3) 710 (4) 360  
 (5) None of these  
**(PNB Agriculture Officer Exam. 04.01.2009)**
7. In how many different ways can the letters of the word 'INCREASE' be arranged ?  
 (1) 40320 (2) 10080  
 (3) 64 (4) 20160  
 (5) None of these  
**(UCO Bank PO Exam. 22.03.2009)**
8. In how many different ways can the letters of the word 'SMART' be arranged ?  
 (1) 25 (2) 60  
 (3) 180 (4) 200  
 (5) None of these  
**(Indian Overseas Bank PO Exam. 05.04.2009)**
9. Out of 5 men and 3 women, a committee of 3 members is to be formed so that it has 1 woman and 2 men. In how many different ways can it be done ?  
 (1) 20 (2) 10  
 (3) 23 (4) 30  
 (5) None of these  
**(United Bank of India PO Exam. 21.06.2009)**
10. In how many different ways can the letters of the word DESIGN be arranged so that the vowels are at the two ends?  
 (1) 48 (2) 72  
 (3) 36 (4) 24  
 (5) None of these  
**(United Bank of India PO Exam. 21.06.2009)**
11. Out of 5 women and 4 men a committee of three members is to be formed in such a way that at least one



member is a woman. In how many different ways can it be done ?

- (1) 80 (2) 84  
(3) 76 (4) 96  
(5) None of these

**(Andhra Bank PO Exam.  
05.07.2009)**

12. In how many different ways can the letters of the word TOTAL be arranged ?

- (1) 120 (2) 60  
(3) 48 (4) 72  
(5) None of these

**(Andhra Bank PO Exam.  
05.07.2009)**

13. A school team has eight volleyball players. A five-member team will be selected out of these eight players. How many different selections can be made ?

- (1) 224 (2) 112  
(3) 56 (4) 88  
(5) None of these

**(Corporation Bank PO  
Exam. 22.11.2009)**

14. In how many different ways can the letters of the word 'AWARE' be arranged ?

- (1) 150 (2) 120  
(3) 40 (4) 60  
(5) None of these

**(Indian Bank Rural Marketing  
Officer Exam. 03.01.2010)**

15. In how many different ways can the letters of the word 'OFFICES' be arranged ?

- (1) 2520 (2) 5040  
(3) 1850 (4) 1680  
(5) None of these

**(Indian Bank PO Exam. 17.10.2010)**

16. In how many different ways can the letters of the word 'TRUST' be arranged ?

- (1) 60 (2) 240  
(3) 120 (4) 25  
(5) None of these

**(Bank Of India Banking Officer  
Exam. 24.01.2010)**

17. In how many different ways can the letters of the word ATTEND be arranged ?

- (1) 60 (2) 120  
(3) 240 (4) 80  
(5) None of these

**(Allahabad Bank PO  
Exam. 21.02.2010)**

18. In how many different ways can the letters of the word 'BANKING' be arranged ?

- (1) 5040 (2) 2540  
(3) 5080 (4) 2520  
(5) None of these

**(Corporation Bank PO  
Exam. 09.05.2010)**

19. In how many different ways can the letters of the word 'PEANUT' be arranged ?

- (1) 720 (2) 360  
(3) 650 (4) 700  
(5) None of these

**(Punjab National Bank Specialist  
Officer Exam. 24.10.2010)**

**Directions (20-21) :** Study the following information carefully to answer the questions that follow :

A committee of five members is to be formed out of 4 students, 3 teachers and 2 sports coaches. In how many ways can the committee be formed if -

**(United Bank Of India PO  
Exam. 14.11.2010)**

20. the Committee should consist of 2 students, 2 teachers and 1 sports coach ?

- (1) 25 (2) 64  
(3) 9 (4) 36  
(5) None of these

21. any five people can be selected ?

- (1) 126 (2) 45  
(3) 120 (4) 24  
(5) None of these

22. In how many different ways can the letters of the word 'LEASE' be arranged?

- (1) 240 (2) 120

- (3) 25 (4) 60  
(5) None of these

**(United Bank Of India PO  
Exam. 14.11.2010)**

**23.** In how many different ways can the letters of the word 'CYCLE' be arranged?

- (1) 120 (2) 240  
(3) 30 (4) 80  
(5) None of these

**(PNB Management Trainee  
Exam. 28.11.2010)**

**Directions (24–26) :** Study the given information carefully to answer the questions that follow.

A committee of 6 teachers is to be formed out of 4 science teachers, 5 art teachers and 3 commerce teachers. In how many different ways can the committee be formed if

**(Indian Bank PO Exam. 02.01.2011)**

**24.** two teachers from each stream are to be included ?

- (1) 210 (2) 180  
(3) 145 (4) 96  
(5) None of these

**25.** no teacher from the commerce stream is to be included ?

- (1) 81 (2) 62  
(3) 46 (4) 84  
(5) None of these

**26.** any teacher can be included in the committee ?

- (1) 626 (2) 718  
(3) 924 (4) 844  
(5) None of these

**27.** In how many different ways can the letters of the word 'PRAISE' be arranged ?

- (1) 720 (2) 610  
(3) 360 (4) 210  
(5) None of these

**(Punjab & Sind Bank PO  
Exam. 23.01.2011)**

**28.** On a shelf there are 4 books on Economics, 3 books on Management and 4 books on Statistics. In how

many different ways can the books be arranged so that the books on Economics are kept together?

- (1) 967680 (2) 120960  
(3) 5040 (4) 40320  
(5) None of these

**(Punjab & Sind Bank PO  
Exam. 23.01.2011)**

**29.** In how many different ways can the letters of the word 'THERAPY' be arranged so that the vowels **never** come together?

- (1) 720 (2) 1440  
(3) 5040 (4) 3600  
(5) 4800

**(IBPS Bank PO/MT  
CWE 17.06.2012)**

**30.** In how many ways the letters of the word VISITING can be rearranged ?

- (1) 6720 (2) 5720  
(3) 720 (4) 7620  
(5) None of these

**(IBPS Specialist Officer  
CWE 17.03.2013)**

**31.** In how many different ways can the letters of the word 'REPLACE' be arranged ?

- (1) 2630 (2) 5040  
(3) 1680 (4) 2580  
(5) None of these

**(IBPS RRBs Office Assistant CWE  
Exam. 09.09.2012)**

**32.** In how many ways the letters of the word SACRED can be arranged so that vowels come together ?

- (1) 240 (2) 120  
(3) 320 (4) 720  
(5) None of these

**(Indian Overseas Bank PO  
Online Exam. 01.09.2013)**

**33.** In how many different ways can the letters of the word RUMOUR be arranged ?

- (1) 180 (2) 720  
(3) 30 (4) 90  
(5) None of these

**(Corporation Bank Specialist Officer  
(Marketing) Exam. 22.02.2014)**

34. In how many different ways can the letters of the word 'CANDIDATE' be arranged in such a way that the vowels always come together?

- (1) 4320 (2) 1440  
(3) 720 (4) 840  
(5) 1560

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

35. A committee of five members is to be formed out of 3 trainees, 4 professors and 6 research associates. In how many different ways this can be done if the committee should have all the 4 professors and 1 research associate or all 3 trainees and 2 professors?

- (1) 15 (2) 18  
(3) 25 (4) 12  
(5) Other than those given as options

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

36. Arrange the letters of word AUCTION in such a way that the vowels always occur together. Find the number of ways?

- (1) 576 (2) 48  
(3) 144 (4) 30  
(5) None of these

**(SBI Associate Banks PO  
Exam. 16.07.2000)**

37. In a group of 6 boys and 4 girls 4 children are to be selected. In how many different ways can they be selected such that at least one boy should be there?

- (1) 159 (2) 205  
(3) 194 (4) 209  
(5) None of these

**(SBI Associate Banks PO  
Exam. 16.07.2000)**

38. Out of 11 members of a family 4 are males and rest females. The family hired three taxis on rent to see a museum. The members have to sit in the cars in such a way that not more than 4 members are in any one car and each car has at least one male member. In how many different ways the members can travel ?

- (1) 658 (2) 126

- (3) 140 (4) 532  
(5) None of these

**(SBI Banks PO Exam. 20.08.2000)**

39. In how many different ways can the letters of the word JUDGE be arranged in such a way that the vowels always come together ?

- (1) 48 (2) 124  
(3) 120 (4) 160  
(5) None of these

**(SBI Banks PO Exam. 11.02.2001)**

40. Two girls and 4 boys are to be seated in a row in such a way that the girls do not sit together. In how many different ways can it be done ?

- (1) 720 (2) 480  
(3) 360 (4) 240  
(5) None of these

**(SBI Associate Banks PO  
Exam. 21.07.2002)**

41. In how many ways can a group of 5 men and 2 women be made out of total of 7 men and 3 women ?

- (1) 63 (2) 45  
(3) 126 (4) 90  
(5) None of these

**(SBI Banks PO Exam. 18.05.2003)**

42. In how many different ways can the letters of the word CORPORATION be arranged in such a way that the vowels always come together ?

- (1) 840 (2) 86400  
(3) 8400 (4) 1440  
(5) None of these

**(SBI Banks PO Exam. 18.05.2003)**

43. A committee of 3 members is to be formed out of 3 men and 4 women. In how many different ways can it be done so that at least one member is a woman ?

- (1) 34 (2) 12  
(3) 30 (4) 36  
(5) None of these

**(SBI PO Exam. 09.01.2005)**

44. 4 boys and three girls are to be seated in a row in such a way that no two boys sit adjacent to each other. In

how many different ways can it be done ?

- (1) 5040 (2) 30  
(3) 144 (4) 72  
(5) None of these

**(SBI PO Exam. 09.01.2005)**

**45.** How many different words can be formed with the letters of the word 'ALLAHABAD' ?

- (1) 7500 (2) 7560  
(3) 7510 (4) 7580  
(5) None of these

**(SBI PO Exam. 26.11.2006)**

**Directions (11-12) :** Study the given information carefully and answer the questions that follow :

A committee of five members is to be formed out of 3 trainees, 4 professors and 6 research associates. In how many different ways can this be done if :

**(SBI Associates Bank Po Exam. 07.03.2010)**

**46.** The committee should have all 4 professors and 1 research associate or all 3 trainees and 2 professors ?

- (1) 12 (2) 13  
(3) 24 (4) 52  
(5) None of these

**47.** The committee should have 2 trainees and 3 research associates ?

- (1) 15 (2) 45  
(3) 60 (4) 9  
(5) None of these

**48.** In how many different ways can the letters of the word 'MIRACLE' be arranged?

- (1) 720 (2) 5040  
(3) 2520 (4) 40320  
(5) None of these

**(SBI PO Preliminary (Tier-I) Exam. 27.04.2008)**

**49.** In how many different ways can the letters of the word 'PUNCTUAL' be arranged ?

- (1) 64 (2) 40320  
(3) 960 (4) 20160  
(5) None of these

**(SBI PO Preliminary (Tier-I) Exam. 27.07.2008)**

**Directions (15-16) :** Answer these questions on the basis of the information given below :

From a group of 6 men and 4 women a Committee of 4 persons is to be formed.

**(SBI Banks PO Exam. 11.02.2001)**

**50.** In how many different ways can it be done so that the committee has at least one woman ?

- (1) 210 (2) 225  
(3) 195 (4) 185  
(5) None of these

**51.** In how many different ways can it be done, so that the committee has at least 2 men ?

- (1) 210 (2) 225  
(3) 195 (4) 185  
(5) None of these

**Directions (17-19) :** Read the following statement carefully to answer the given questions.

A committee of 12 persons is to be formed from 9 women and 8 men.

**(SBI PO Exam. 26.11.2006)**

**52.** In how many ways this can be done if atleast 5 women have to be included in a committee ?

- (1) 6000 (2) 6010  
(3) 6062 (4) 6005  
(5) None of these

**53.** In how many of these committees the women are in majority ?

- (1) 2000 (2) 2700  
(3) 2705 (4) 2702  
(5) None of these

**54.** In how many of these committees, the men are in majority ?

- (1) 1008 (2) 1100  
(3) 1200 (4) 1225  
(5) None of these

**55.** In how many different ways can the letters of the word 'PRIDE' be arranged ?

- (1) 60 (2) 120  
 (3) 15 (4) 360  
 (5) None of these

**(RBI Grade-B Officer  
Exam. 2007)**

**56.** In how many different ways can the numbers '256974' be arranged, using each digit only once in each arrangement, such that the digits 6 and 5 are at the extreme ends in each arrangement?

- (1) 48 (2) 720  
 (3) 36 (4) 360  
 (5) None of these

**(RBI Grade-B Officer  
Exam.06.02.2011)**

**57.** On a shelf three are 4 books on Economics, 3 books on Management and 4 books on Statistics. In how many different ways can the books be arranged so that the books on Economics are kept together?

- (1) 967680 (2) 120960  
 (3) 5040 (4) 40320  
 (5) None of these

**(RBI Officer Grade 'B' Phase-I  
Exam. 21.11.2015)**

**58.** In how many different ways can be letters of the word SOFTWARE be arranged in such a way that the vowels always come together?

- (1) 13440 (2) 1440  
 (3) 360 (4) 120  
 (5) None of these

**(RBI Officer Grade 'B' Phase-I  
Exam. 21.11.2015)**

**59.** Two girls and 4 boys are to be seated in a row in such a way that the girls do not sit together. In how many different ways can it be done?

- (1) 720 (2) 480  
 (3) 360 (4) 240  
 (5) None of these

**(LIC Assistant Administrative  
Officer (AAO) Exam. 2006)**

**60.** In how many different ways can the letters of the word **DRASTIC** be

arranged in such a way that the vowels always come together ?

- (1) 720 (2) 360  
 (3) 1440 (4) 540  
 (5) None of these

**(LIC Assistant Administrative  
Officer Exam. 2008)**

**61.** In how many different ways can the letters of the word 'CASUAL' be arranged ?

- (1) 36 (2) 720  
 (3) 240 (4) 360  
 (5) None of these

**(New India Assurance AO  
Exam. 25.10.2009)**

**62.** A dinner party is to be fixed for a group of 100 persons. In this party, 50 persons do not prefer fish, 60 prefer chicken and 10 do not prefer either chicken or fish. Find the number of people who prefer both fish and chicken.

- (1) 20 (2) 30  
 (3) 40 (4) 10

**(General Insurance Corporation  
AAO Exam. 11.12.2011)**

**63.** In how many different ways the letters of the word RECTITUDE can be arranged so that vowels come together ?

- (1) 4302 (2) 7200  
 (3) 4320 (4) 4430  
 (5) None of these

**(LIC Assistant Administrative Officer  
(AAO) Exam. 12.05.2013)**

## 16. PROBABILITY

1. Two dice are thrown simultaneously. The probability of obtaining a total score of seven is  
 (a)  $\frac{1}{6}$  (b)  $\frac{1}{3}$   
 (c)  $\frac{2}{7}$  (d)  $\frac{5}{6}$
2. Four balls are drawn at random from a bag containing 5 white, 4 green and 3 black balls. The probability that exactly two of them are white is  
 (a)  $\frac{14}{33}$  (b)  $\frac{7}{16}$   
 (c)  $\frac{18}{33}$  (d)  $\frac{9}{16}$
3. Two dice are tossed. The probability that the total score is a prime number is :  
 (a)  $\frac{1}{6}$  (b)  $\frac{5}{12}$   
 (c)  $\frac{1}{2}$  (d)  $\frac{7}{9}$
4. Anil can kill a bird once in 3 shots. On the assumption that he fires 3 shots, find the probability that the bird is killed.  
 (a)  $\frac{1}{3}$  (b)  $(\frac{1}{3})^3$   
 (c)  $\frac{19}{26}$  (d)  $\frac{8}{9}$
5. If  $A$  and  $B$  are two independent events with  $P(A) = 0.6$ ,  $P(B) = 0.3$ , then  $P(A \cap B)$  is equal to :  
 (a) 0.18 (b) 0.28  
 (c) 0.82 (d) 0.72
6. The probabilities that  $A$  and  $B$  will die within a year are  $p$  and  $q$  respectively, then the probability that only one of them will be alive at the end of the year is -  
 (a)  $p + q$  (b)  $p + q - pq$   
 (c)  $p + q + pq$  (d)  $p + q - 2pq$
7. A pair of dice is thrown thrice. The probability of throwing doublets at least once is  
 (a)  $\frac{1}{36}$  (b)  $\frac{25}{216}$
- (c)  $\frac{125}{216}$  (d) None of these
8. The probability of getting number 5 in throwing a dice is  
 (a) 1 (b)  $\frac{1}{3}$   
 (c)  $\frac{1}{6}$  (d)  $\frac{5}{6}$
9. The probability of getting head and tail alternately in three throws of a coin (or a throw of three coins), is  
 (a)  $\frac{1}{8}$  (b)  $\frac{1}{4}$   
 (c)  $\frac{1}{3}$  (d)  $\frac{3}{8}$
10. A die is thrown once. What is the probability of Occurrence of an odd number on the upper face?  
 (a)  $\frac{2}{3}$  (b)  $\frac{1}{2}$   
 (c)  $\frac{1}{4}$  (d)  $\frac{1}{8}$
11. A die is thrown once. Find the probability that 3 or greater than 3 turns up.  
 (a)  $\frac{1}{2}$  (b)  $\frac{1}{3}$   
 (c)  $\frac{1}{4}$  (d)  $\frac{2}{3}$
12. Find the probability of getting a multiple of 2 in the throw of a die.  
 (a)  $1/2$  (b)  $1/4$   
 (c)  $1/3$  (d)  $1/6$
13. India and Pakistan play a 5 match test series of hockey, the probability that India wins at least three matches is  
 (a)  $\frac{1}{2}$  (b)  $\frac{3}{5}$   
 (c)  $\frac{4}{5}$  (d) None of these
14. The probability that a man can hit a target is  $3/4$ . He tries 5 times. The probability that he will hit the target at least three times is  
 (a)  $\frac{291}{364}$  (b)  $\frac{371}{461}$

(c)  $\frac{471}{502}$

(d)  $\frac{459}{512}$

15. From eighty cards numbered 1 to 80, two cards are selected randomly. The probability that both the cards have the numbers divisible by 4 is given by

(a)  $\frac{21}{316}$

(b)  $\frac{19}{316}$

(c)  $\frac{1}{4}$

(d) None of these

16. The probability of getting sum more than 7 when a pair of dice are thrown is

(a)  $\frac{7}{36}$

(b)  $\frac{5}{12}$

(c)  $\frac{7}{12}$

(d) None of these

17. Two dice are thrown simultaneously then the probability of obtaining a total score of 5 is

(a)  $\frac{1}{18}$

(b)  $\frac{1}{12}$

(c)  $\frac{1}{9}$

(d) None of these

18. The probability that the two digit number formed by digits 1, 2, 3, 4, 5 is divisible by 4 is

(a)  $\frac{1}{30}$

(b)  $\frac{1}{20}$

(c)  $\frac{1}{5}$

(d) None of these

19. Probability of throwing 16 in one throw with three dice is

(a)  $\frac{1}{36}$

(b)  $\frac{1}{18}$

(c)  $\frac{1}{72}$

(d)  $\frac{1}{9}$

20. Of a total of 600 bolts, 20% are too large and 10% are too small. The remainder are considered to be suitable. If a bolt is selected at random, the probability that it will be suitable is

(a)  $\left(\frac{1}{5}\right)$

(b)  $\left(\frac{7}{10}\right)$

(c)  $\left(\frac{1}{10}\right)$

(d)  $\left(\frac{3}{10}\right)$

21. The probability that in the toss of two dice we obtain the sum 7 or 11 is

(a)  $\frac{1}{6}$

(b)  $\frac{1}{18}$

(c)  $\frac{2}{9}$

(d)  $\frac{23}{108}$

22. A card is drawn at random from a pack of 100 Cards numbered 1 to 100. The probability of drawing a number which is a square, is

(a)  $\frac{1}{10}$

(b)  $\frac{1}{100}$

(c)  $\frac{9}{10}$

(d)  $\frac{90}{100}$

23. The alphabets of word ALLAHABAD are arranged at random. The probability that in the words so formed, all identical alphabets are found together, is

(a)  $1/63$

(b)  $16/17$

(c)  $5!/9!$

(d) None of these

24. 3 integers are chosen at random from the set of first 20 natural numbers. The chance that their product is a multiple of 3, is.

(a)  $\frac{194}{285}$

(b)  $\frac{1}{57}$

(c)  $\frac{13}{19}$

(d)  $\frac{3}{4}$

25. The probability that Krishna will be alive 10 years hence, is  $\frac{7}{15}$  and that Hari will be alive is  $\frac{7}{10}$ . What is the probability that both Krishna and Hari will be dead 10 years hence ?

(a)  $\frac{21}{150}$

(b)  $\frac{24}{150}$

(c)  $\frac{49}{150}$

(d)  $\frac{56}{150}$

26. The probability that in the random arrangement of the letters of the word 'UNIVERSITY', the two I's does not come together is

(a)  $\frac{4}{5}$

(b)  $1/5$

(c)  $1/10$

(d)  $9/10$

27. Among 15 players, 8 are batsmen and 7 are bowlers. Find the probability that a team is hosen of 6 batsmen and 5 bowlers:

(a)  $\frac{{}^8C_6 \times {}^7C_5}{{}^{15}C_{11}}$

(b)  $\frac{28}{15}$

(c)  $\frac{15}{28}$

(d) None of these

- 28.** A four digit number is formed by the digits 1, 2, 3, 4 with no repetition. The probability that the number is odd is
- (a) zero (b)  $\frac{1}{3}$   
(c)  $\frac{1}{4}$  (d) None of these
- 29.** X speaks truth in 60% and Y in 50% of the cases. The probability that they contradict each other narrating the same incident is
- (a)  $\frac{1}{4}$  (b)  $\frac{1}{3}$   
(c)  $\frac{1}{2}$  (d)  $\frac{2}{3}$
- 30.** An integer is chosen at random from the numbers 1, 2, ....., 25. The probability that the chosen number is divisible by 3 or 4, is
- (a)  $\frac{2}{25}$  (b)  $\frac{11}{25}$   
(c)  $\frac{12}{25}$  (d)  $\frac{14}{25}$
- 31.** The probability that a leap year will have 53 Friday or 53 Saturday, is
- (a)  $\frac{2}{7}$  (b)  $\frac{3}{7}$   
(c)  $\frac{4}{7}$  (d)  $\frac{1}{7}$
- 32.** An experiment yields 3 mutually exclusive and Exhaustive events A, B, C. If  $P(A) = 2P(B) = 3P(C)$ , then  $P(A)$  is equal to
- (a)  $\frac{1}{11}$  (b)  $\frac{2}{11}$   
(c)  $\frac{3}{11}$  (d)  $\frac{6}{11}$
- 33.** If  $P(A \cup B) = 0.8$  and  $P(A \cap B) = 0.3$ , then  $P(A^c) + P(B^c)$  equals to
- (a) 0.3 (b) 0.5  
(c) 0.7 (d) 0.9
- 34.** Five coins whose faces are marked 2, 3 are thrown. What is the probability of obtaining a total of 12 ?
- (a)  $\frac{1}{16}$  (b)  $\frac{3}{16}$   
(c)  $\frac{5}{16}$  (d)  $\frac{7}{16}$
- 35.** An aircraft has three engines A, B and C. The aircraft crashes if all the three engines fail. The probabilities of failure are 0.03, 0.02 and 0.05 for engines A, B and C respectively. What is the probability that the aircraft will not crash?
- (a) 0.00003 (b) 0.90  
(c) 0.99997 (d) 0.90307
- 36.** A coin is tossed three times. What is the probability of getting head and tail (HTH) or tail and head (THT) alternatively ?
- (a)  $\frac{1}{4}$  (b)  $\frac{1}{5}$   
(c)  $\frac{1}{6}$  (d)  $\frac{1}{8}$
- 37.** The probability that a student passes in mathematics is  $\frac{4}{9}$  and that he passes in physics is  $\frac{2}{5}$ . Assuming that passing in mathematics and physics are independent of each other, what is the probability that he passes in mathematics but fails in physics?
- (a)  $\frac{4}{15}$  (b)  $\frac{8}{45}$   
(c)  $\frac{26}{45}$  (d)  $\frac{19}{55}$
- 38.** From a pack of 52 cards, two cards are drawn, the first being replaced before the second is drawn. What is the probability that the first is a diamond and the second is a king?
- (a)  $\frac{1}{4}$  (b)  $\frac{4}{13}$   
(c)  $\frac{1}{52}$  (d)  $\frac{15}{4}$
- 39.** In throwing of two dice, what is the number of Exhaustive events ?
- (a) 6 (b) 12  
(c) 36 (d) 18
- 40.** In a lottery, 16 tickets are sold and 4 prizes are awarded. If a person buys 4 tickets, what is the probability of his winning a prize?
- (a)  $\frac{4}{16^4}$  (b)  $\frac{175}{256}$   
(c)  $\frac{1}{4}$  (d)  $\frac{81}{256}$
- 41.** A card is drawn from a pack of 52 cards and a gambler bets that it is a



spade or an ace. Which one of the following are the odds against his winning this bet?

- (a) 13 to 4                      (b) 4 to 13  
(c) 9 to 4                        (d) 4 to 9

**42.** Each of  $A$  and  $B$  tosses two coins. What is the Probability that they get equal number of heads?

- (a)  $\frac{3}{16}$                               (b)  $\frac{5}{16}$   
(c)  $\frac{4}{16}$                               (d)  $\frac{6}{16}$

**43.** What is the probability that in a family of 4 children there will be at least one boy?

- (a)  $\frac{15}{16}$                               (b)  $\frac{3}{8}$   
(c)  $\frac{1}{16}$                                 (d)  $\frac{7}{8}$

**44.** The chance of winning the race of the horse  $A$  is  $\frac{1}{5}$  and that of horse  $B$  is  $\frac{1}{6}$ . What is the probability that the race will be won by  $A$  or  $B$ ?

- (a)  $\frac{1}{30}$                               (b)  $\frac{1}{3}$   
(c)  $\frac{11}{30}$                               (d)  $\frac{1}{15}$

**45.** What is the probability of two persons being born on the same day (ignoring date)?

- (a)  $\frac{1}{49}$                               (b)  $\frac{1}{365}$   
(c)  $\frac{1}{7}$                                  (d)  $\frac{2}{7}$

**46.** If  $A$  and  $B$  are two mutually exclusive and exhaustive events with  $P(B) = 3P(A)$ , then what is the value of  $P(\bar{B})$ ?

- (a)  $\frac{3}{4}$                                 (b)  $\frac{1}{4}$   
(c)  $\frac{1}{3}$                                 (d)  $\frac{2}{3}$

**47.** The probabilities of two events  $A$  and  $B$  are given as  $P(A) = 0.8$  and  $P(B) = 0.7$ . What is the minimum value of  $P(A \cap B)$ ?

- (a) 0                                 (b) 0.1  
(c) 0.5                               (d) 1

**48.** In tossing three coins at a time, what is the probability of getting at most one head?

- (a)  $\frac{3}{8}$                                 (b)  $\frac{7}{8}$

- (c)  $\frac{1}{2}$                                 (d)  $\frac{1}{8}$

**49.** Two balls are selected from a box containing 2 blue and 7 red balls. What is the probability that at least one ball is blue?

- (a)  $\frac{2}{9}$                                 (b)  $\frac{7}{9}$   
(c)  $\frac{5}{12}$                                (d)  $\frac{7}{12}$

**50.** The probability of guessing a correct answer is  $\frac{x}{12}$ . If the probability of not guessing the correct answer is  $\frac{2}{3}$ , then what is  $x$  equal to?

- (a) 2                                 (b) 3  
(c) 4                                 (d) 6

**51.** If  $A$  and  $B$  are two mutually exclusive events, then what is  $P(AB)$  equal to?

- (a) 0                                 (b)  $P(A) + P(B)$   
(c)  $P(A) P(B)$                     (d)  $P(A) P\left(\frac{B}{A}\right)$

**52.** If  $P(E)$  denotes the probability of an event  $E$ , then  $E$  is called certain event if :

- (a)  $P(E) = 0$                     (b)  $P(E) = 1$   
(c)  $P(E)$  is either 0 or 1  
(d)  $P(E) = \frac{1}{2}$

**53.** A programmer noted the results of attempting to run 20 programs. The results showed that 2 programs ran correctly in the first attempt, 7 ran correctly in the second attempt, 5 ran correctly in the third attempt, 4 ran correctly in the fourth attempt and 2 ran correctly in the fifth attempt. What is the probability that his next programme will run correctly on the third run?

- (a)  $\frac{1}{4}$                                 (b)  $\frac{1}{3}$   
(c)  $\frac{1}{6}$                                 (d)  $\frac{1}{5}$

**54.** The digits 1, 2, 3, 4, 5, 6, 7, 8, 9 are written in random order to form a nine digit number. Find the probability that this number is divisible by 4:

- (a)  $\frac{4}{9}$  (b)  $\frac{2}{9}$   
 (c)  $\frac{17}{81}$  (d) None of these

55. Two cards are drawn from a pack of 52 cards. The probability that either both are red or both are kings is

- (a)  $\frac{1}{2}$  (b)  $\frac{1}{321}$   
 (c)  $\frac{325}{1326}$  (d) None of these

56. A man and his wife appear for an interview for two posts. The probability of the husband's selection is  $\frac{1}{7}$  and that of the wife's selection is  $\frac{1}{5}$ . The probability that only one of them will be selected is

- (a)  $\frac{6}{7}$  (b)  $\frac{4}{35}$   
 (c)  $\frac{6}{35}$  (d)  $\frac{2}{7}$

57. The probability that a person will hit a target in Shooting practice is 0.3. If he shoots 10 times, the probability that he hits the target is

- (a) 1 (b)  $1 - (0.7)^{10}$   
 (c)  $(0.7)^{10}$  (d)  $(0.3)^{10}$

58. Suppose six coins are tossed simultaneously. Then the probability of getting at least one tail is

- (a)  $\frac{71}{72}$  (b)  $\frac{53}{54}$   
 (c)  $\frac{63}{64}$  (d)  $\frac{1}{12}$

59. In a given race the odds in favour of three horses A, B, C are 1 : 3; 1 : 4; 1 : 5 respectively. Assuming that dead head is impossible the probability that one of them wins is

- (a)  $\frac{7}{60}$  (b)  $\frac{37}{60}$   
 (c)  $\frac{1}{5}$  (d)  $\frac{1}{8}$

60. The probability that the 13th day of a randomly Chosen month is a Friday, is

- (a)  $\frac{1}{12}$  (b)  $\frac{1}{7}$   
 (c)  $\frac{1}{84}$  (d)  $\frac{1}{13}$

61. In a single throw with four dice, the probability of throwing seven is

- (a)  $\frac{4}{6^4}$  (b)  $\frac{8}{6^4}$   
 (c)  $\frac{16}{6^4}$  (d)  $\frac{20}{6^4}$

62. Six dice are thrown. The probability that different number will turn up is

- (a)  $\frac{129}{1296}$  (b)  $\frac{1}{54}$   
 (c)  $\frac{5}{324}$  (d)  $\frac{5}{54}$

63. A basket contains 6 red, 5 green and 8 blue balls. If four balls are picked at random, what is the probability that all four of them are either red or any two out of the four are green ?

- (1)  $\frac{5}{1292}$  (2)  $\frac{925}{3876}$   
 (3)  $\frac{359}{1938}$  (4)  $\frac{11}{3876}$

(5) None of these

**(Union Bank of India PO  
Exam. 27.11.2005)**

**Directions (64–68) :** Study the given information carefully to answer the questions that follow.

A basket contains 6 blue, 2 red, 4 green and 3 yellow balls.

**(PNB Agriculture Officer  
Exam. 04.01.2009)**

64. If 2 balls are picked at random, what is the probability that either both are green or both are yellow?

- (1)  $\frac{2}{5}$  (2)  $\frac{3}{35}$   
 (3)  $\frac{1}{3}$  (4)  $\frac{3}{91}$

(5) None of these

65. If 5 balls are picked at random, what is the probability that at least one is blue ?

- (1)  $\frac{137}{143}$  (2)  $\frac{9}{91}$   
 (3)  $\frac{18}{455}$  (4)  $\frac{2}{5}$

(5) None of these

66. If 2 balls are picked at random, what is the probability that both are blue ?

- (1)  $\frac{1}{5}$  (2)  $\frac{8}{91}$

(3)  $\frac{2}{15}$  (4)  $\frac{7}{27}$

(5) None of these

67. If 4 balls are picked at random, what is the probability that 2 are red and 2 are green?

(1)  $\frac{4}{15}$  (2)  $\frac{5}{27}$

(3)  $\frac{1}{3}$  (4)  $\frac{2}{455}$

(5) None of these

68. If 3 balls are picked at random, what is the probability that none is yellow?

(1)  $\frac{3}{455}$  (2)  $\frac{1}{5}$

(3)  $\frac{44}{91}$  (4)  $\frac{4}{5}$

(5) None of these

69. A basket contains three blue and four red balls. If three balls are drawn at random from the basket, what is the probability that all the three are either blue or red?

(1) 1 (2)  $\frac{1}{7}$

(3)  $\frac{3}{14}$  (4)  $\frac{3}{28}$

(5) None of these

**(Bank Of India Banking Officer Exam. 24.01.2010)**

**Directions (70-74) :** Study the given information carefully to answer the questions that follow.

An urn contains 4 green, 5 blue, 2 red and 3 yellow marbles.

**(IBPS Bank PO/MT CWE Exam. 8.09.2011)**

70. If two marbles are drawn at random, what is the probability that both are red or at least one is red?

(1)  $\frac{26}{93}$  (2)  $\frac{2}{7}$

(3)  $\frac{199}{366}$  (4)  $\frac{135}{193}$

(5) None of these

71. If three marbles are drawn at random, what is the probability that at least one is yellow?

(1)  $\frac{1}{5}$  (2)  $\frac{199}{364}$

(3)  $\frac{135}{324}$  (4)  $\frac{5}{9}$

(5) None of these

72. If eight marbles are drawn at random, what is the probability that there are equal number of marbles of each colour?

(1)  $\frac{3}{8}$  (2)  $\frac{351}{738}$

(3)  $\frac{60}{1001}$  (4)  $\frac{1}{1011}$

(5) None of these

73. If three marbles are drawn at random, what is the probability that none is green?

(1)  $\frac{3}{8}$  (2)  $\frac{273}{748}$

(3)  $\frac{30}{91}$  (4)  $\frac{41}{91}$

(5) None of these

74. If four marbles are drawn at random, what is the probability that two are blue and two are red?

(1)  $\frac{10}{1001}$  (2)  $\frac{7}{17}$

(3)  $\frac{15}{384}$  (4)  $\frac{3}{5}$

(5) None of these

75. A bag contains 13 white and 7 black balls. Two balls are drawn at random. What is the probability that they are of the same colour?

(1)  $\frac{41}{190}$  (2)  $\frac{21}{190}$

(3)  $\frac{59}{190}$  (4)  $\frac{99}{190}$

(5)  $\frac{77}{190}$

**(IBPS Bank PO/MT CWE 17.06.2012)**

76. From a well-shuffled pack of 52 playing cards, one card is drawn at random. What is the probability that the card drawn will be a black king?

(1)  $\frac{1}{26}$  (2)  $\frac{7}{13}$

(3)  $\frac{3}{13}$  (4)  $\frac{9}{13}$

(5)  $\frac{1}{13}$

**(IBPS Specialist Officer CWE 17.03.2013)**

**Directions (77-78) :** Read the following information to answer these questions.

There are 9 red, 7 white and 4 black balls in an urn.

**(Corporation Bank Specialist Officer (Marketing) Exam 22.02.2014)**

77. Two balls are drawn at random from the urn. What will be the probability that both the balls are red ?

- (1)  $\frac{18}{95}$  (2)  $\frac{9}{95}$   
 (3)  $\frac{9}{10}$  (4)  $\frac{8}{95}$   
 (5)  $\frac{5}{19}$

78. If two balls are selected at random what is the probability that one ball is white and the other ball is red ?

- (1)  $\frac{91}{190}$  (2)  $\frac{63}{190}$   
 (3)  $\frac{5}{19}$  (4)  $\frac{4}{95}$   
 (5)  $\frac{71}{190}$

79. A bag contains 3 red balls, 5 yellow balls and 7 pink balls. If one ball is drawn at random from the bag, what is the probability that it is either pink or red ?

- (1)  $\frac{1}{3}$  (2)  $\frac{2}{3}$   
 (3)  $\frac{1}{4}$  (4)  $\frac{1}{5}$   
 (5) None of these

**(IBPS Bank PO/MT CWE-V  
 Preliminary) 03.10.2015)**

80. A bag contains 5 red balls, 7 yellow balls and 3 pink balls. If two balls are drawn at random from the bag, one after another, what is the probability that the first ball is red and the second ball is yellow ?

- (1)  $\frac{5}{12}$  (2)  $\frac{3}{8}$   
 (3)  $\frac{1}{4}$  (4)  $\frac{1}{8}$   
 (5)  $\frac{1}{6}$

**(IBPS Bank PO/MT CWE-V  
 Preliminary) 04.10.2015)**

81. There are 6 red balls, 5 yellow and 3 pink balls in an urn. Two balls are drawn at random. What is the probability that none of the drawn balls is of red colour ?

- (1)  $\frac{8}{13}$  (2)  $\frac{7}{13}$   
 (3)  $\frac{6}{13}$  (4)  $\frac{5}{13}$   
 (5)  $\frac{4}{13}$

**(IBPS Bank PO/MT CWE-V  
 Preliminary) 10.10.2015  
 Ist Sitting)**

82. A bag contains 4 red, 5 yellow and 6 pink balls. Two balls are drawn at random. What is the probability that none of the balls drawn are yellow in colour ?

- (1)  $\frac{1}{7}$  (2)  $\frac{3}{7}$   
 (3)  $\frac{2}{7}$  (4)  $\frac{5}{14}$   
 (5)  $\frac{9}{14}$

**(IBPS Bank PO/MT CWE-V  
 Preliminary) 10.10.2015)**

83. A bag contains 6 black and 8 white balls. One ball is drawn at random. What is the probability that the ball drawn is white?

- (1)  $\frac{3}{4}$  (2)  $\frac{4}{7}$   
 (3)  $\frac{1}{8}$  (4)  $\frac{3}{7}$   
 (5)  $\frac{1}{4}$

**(IBPS Bank PO/MT CWE-V  
 Main Exam. 31.10.2015)**

84. What is the probability that a number selected from numbers 1, 2, 3, ....., 30, is prime number, when each of the given numbers is equally likely to be selected?

- (1)  $\frac{9}{30}$  (2)  $\frac{8}{30}$   
 (3)  $\frac{10}{30}$  (4)  $\frac{11}{30}$   
 (5)  $\frac{21}{30}$

**(IBPS Bank PO/MT CWE-V  
 Main Exam. 31.10.2015)**

85. An urn contains 9 red, 7 white and 4 black balls. If two balls are drawn at random, find the probability that both the balls are red.

- (1)  $\frac{17}{95}$  (2)  $\frac{18}{95}$   
 (3)  $\frac{1}{12}$  (4)  $\frac{91}{190}$   
 (5) None of these

**(SBI PO Exam. 26.11.2006)**

86. Out of 5 girls and 3 boys, 4 children are to be randomly selected for a quiz contest. What is the probability that all are girls ?

- (1)  $\frac{1}{14}$  (2)  $\frac{1}{7}$   
 (3)  $\frac{5}{17}$  (4)  $\frac{2}{17}$   
 (5) None of these

**(SBI Associate Banks PO  
Exam. 07.08.2011)**

**Directions (87–89) :** Study the given information carefully and answer the questions that follow :

A basket contains 4 red, 5 blue and 3 green marbles.

**(SBI Associates Bank Po  
Exam. 07.03.2010)**

- 87.** If three marbles are picked at random, what is the probability that either all are green or all are red ?

- (1)  $\frac{7}{44}$  (2)  $\frac{7}{12}$   
 (3)  $\frac{5}{12}$  (4)  $\frac{1}{44}$   
 (5) None of these

- 88.** If two marbles are picked at random, what is the probability that both are red ?

- (1)  $\frac{3}{7}$  (2)  $\frac{1}{2}$   
 (3)  $\frac{2}{11}$  (4)  $\frac{1}{6}$   
 (5) None of these

- 89.** If three marbles are picked at random, what is the probability that at least one is blue ?

- (1)  $\frac{7}{12}$  (2)  $\frac{37}{44}$   
 (3)  $\frac{5}{12}$  (4)  $\frac{7}{44}$   
 (5) None of these

**Directions (90–94) :** Study the given information carefully and answer the questions that follow :

An urn contains 6 red, 4 blue, 2 green and 3 yellow marbles.

**(SBI & Rural Business PO  
Exam. 18.04.2010)**

- 90.** If four marbles are picked at random, what is the probability that at least one is blue ?

- (1)  $\frac{4}{15}$  (2)  $\frac{69}{91}$   
 (3)  $\frac{11}{15}$  (4)  $\frac{22}{91}$   
 (5) None of these

- 91.** If two marbles are picked at random, what is the probability that both are red ?

- (1)  $\frac{1}{6}$  (2)  $\frac{1}{3}$   
 (3)  $\frac{2}{15}$  (4)  $\frac{2}{5}$   
 (5) None of these

- 92.** If three marbles are picked at random, what is the probability that two are blue and one is yellow ?

- (1)  $\frac{3}{91}$  (2)  $\frac{1}{5}$   
 (3)  $\frac{18}{455}$  (4)  $\frac{7}{15}$   
 (5) None of these

- 93.** If four marbles are picked at random, what is the probability that one is green, two are blue and one is red ?

- (1)  $\frac{24}{255}$  (2)  $\frac{13}{35}$   
 (3)  $\frac{11}{15}$  (4)  $\frac{1}{3}$   
 (5) None of these

- 94.** If two marbles are picked at random, what is the probability that either both are green or both are yellow ?

- (1)  $\frac{5}{91}$  (2)  $\frac{1}{35}$   
 (3)  $\frac{1}{3}$  (4)  $\frac{4}{105}$   
 (5) None of these

- 95.** A bag contains 9 white and 5 black balls. Two balls are drawn at random. What is the probability that they are of the same colour ?

- (1)  $\frac{47}{91}$  (2)  $\frac{46}{91}$   
 (3)  $\frac{45}{91}$  (4)  $\frac{2}{3}$   
 (5) None of these

- 96.** A dice is thrown twice. What is the probability of getting a sum 9 from both the throws ?

- (1)  $\frac{1}{9}$  (2)  $\frac{2}{9}$   
 (3)  $\frac{1}{3}$  (4)  $\frac{3}{4}$   
 (5) None of these

**(SBI Specialist (IT)  
Officer Exam. 19.04.2014)**

**Directions (97–99) :** Read the following information carefully to answer the given questions.

In a bag there are 6 red balls, 4 green balls and 8 yellow balls.

97. Three balls are drawn at random from the bag. What is the probability that 2 balls will be red and 1 ball will be green?

- (1)  $\frac{5}{68}$  (2)  $\frac{3}{68}$   
 (3)  $\frac{7}{68}$  (4)  $\frac{9}{68}$   
 (5) None of these

98. What is the probability of drawing one ball that will be neither red nor green ?

- (1)  $\frac{1}{3}$  (2)  $\frac{4}{9}$   
 (3)  $\frac{5}{9}$  (4)  $\frac{2}{3}$   
 (5) None of these

99. What is the probability of drawing two balls of same colour ?

- (1)  $\frac{53}{153}$  (2)  $\frac{48}{153}$   
 (3)  $\frac{49}{153}$  (4)  $\frac{46}{153}$   
 (5) None of these

**(SBI Management Executive  
Exam. 19.09.2014)**

100. A bag contains 7 blue balls and 5 yellow balls. If two balls are selected at random, what is the probability that none is yellow ?

- (1)  $\frac{5}{33}$  (2)  $\frac{5}{22}$   
 (3)  $\frac{7}{22}$  (4)  $\frac{7}{33}$   
 (5)  $\frac{7}{66}$

101. A die is thrown twice. What is the probability of getting a sum 7 from both the throws ?

- (1)  $\frac{5}{18}$  (2)  $\frac{1}{18}$   
 (3)  $\frac{1}{9}$  (4)  $\frac{1}{6}$   
 (5)  $\frac{5}{36}$

**Directions (102-104) :** Study the information carefully to answer these questions.

**(SBI Probationary Officer  
Exam 28.04.2013)**

In a team there are 240 members (males and females). Two-third of

them are males. Fifteen percent of males are graduates. Remaining males are non-graduates. Three-fourth of the females are graduates. Remaining females are non-graduates

102. What is the difference between the number of females who are non-graduates and the number of males who are graduates ?

- (1) 2 (2) 24  
 (3) 4 (4) 116  
 (5) 36

103. What is the sum of the number of females who are graduates and the number of males who are non-graduates ?

- (1) 184 (2) 96  
 (3) 156 (4) 84  
 (5) 196

104. What is the ratio between the total number of males and the number of females who are non-graduates ?

- (1) 6 : 1 (2) 8 : 1  
 (3) 8 : 3 (4) 5 : 2  
 (5) 7 : 2

**Directions (105-107) :** Read the following information carefully to answer the given questions.

**(SBI Management Executive  
Exam. 19.09.2014)**

In a bag there are 6 red balls, 4 green balls and 8 yellow balls.

105. Three balls are drawn at random from the bag. What is the probability that 2 balls will be red and 1 ball will be green?

- (1)  $\frac{5}{68}$  (2)  $\frac{3}{68}$   
 (3)  $\frac{7}{68}$  (4)  $\frac{9}{68}$   
 (5) None of these

106. What is the probability of drawing one ball that will be neither red nor green ?

- (1)  $\frac{1}{3}$  (2)  $\frac{4}{9}$   
 (3)  $\frac{5}{9}$  (4)  $\frac{2}{3}$   
 (5) None of these

107. What is the probability of drawing two balls of same colour ?

- (1)  $\frac{53}{153}$  (2)  $\frac{48}{153}$   
 (3)  $\frac{49}{153}$  (4)  $\frac{46}{153}$   
 (5) None of these

**Directions (108 – 110) :** Study the following information carefully and answer the given questions.

**(SBI Associates PO Online Exam. 30.11.2014)**

A bag contains four blue shirts, five red shirts and six yellow shirts.

**108.** Three shirts are drawn randomly. What is the probability that exactly one of them is blue ?

- (1)  $\frac{36}{91}$  (2)  $\frac{40}{91}$   
 (3)  $\frac{44}{91}$  (4)  $\frac{48}{91}$   
 (5)  $\frac{31}{91}$

**109.** One shirt is drawn randomly. What is the probability that it is either red or yellow ?

- (1)  $\frac{4}{15}$  (2)  $\frac{7}{15}$   
 (3)  $\frac{11}{15}$  (4)  $\frac{8}{15}$   
 (5)  $\frac{13}{15}$

**110.** Two shirts are drawn randomly. What is the probability that both of them are blue ?

- (1)  $\frac{3}{35}$  (2)  $\frac{1}{35}$   
 (3)  $\frac{2}{35}$  (4)  $\frac{4}{35}$   
 (5)  $\frac{6}{35}$

**111.** In a bag there are 4 white, 4 red and 2 green balls. Two balls are drawn at random. What is the probability that at least one ball is of green colour ?

- (1)  $\frac{4}{5}$  (2)  $\frac{3}{5}$   
 (3)  $\frac{1}{5}$  (4)  $\frac{2}{5}$   
 (5) None of these

**(SBI PO Phase-I (Preliminary) Online Exam. 20.06.2015)**

**112.** A bag contains 5 red balls, 6 yellow and 3 green balls. If two balls are picked at random, what is the probability that both are red or both are green in colour ?

- (1)  $\frac{3}{7}$  (2)  $\frac{5}{14}$   
 (3)  $\frac{1}{7}$  (4)  $\frac{2}{7}$   
 (5)  $\frac{3}{14}$

**(SBI PO Phase-I (Preliminary) Online Exam. 21.06.2015)**

**113.** A bag contains 4 red balls, 6 green balls and 5 blue balls. If three balls are picked at random, what is the probability that two of them are green and one of them is blue in colour ?

- (1)  $\frac{20}{91}$  (2)  $\frac{10}{91}$   
 (3)  $\frac{15}{91}$  (4)  $\frac{5}{91}$   
 (5)  $\frac{25}{91}$

**(SBI PO Phase-I (Preliminary) Online Exam. 27.06.2015)**

**114.** A bag contains 2 red, 3 green and 2 blue balls. 2 balls are to be drawn randomly. What is the probability that the balls drawn contain no blue ball ?

- (1)  $\frac{5}{7}$  (2)  $\frac{10}{21}$   
 (3)  $\frac{2}{7}$  (4)  $\frac{11}{91}$   
 (5) None of these

**(RBI Grade-B Officer Exam. 17.11.2002 &**

**LIC Assistant Administrative Officer Exam. 2008)**

**Directions (115-119) :** Study the given information carefully and answer the questions that follow:

An urn contains 3 red, 6 blue, 2 green and 4 yellow marbles.

**(RBI Grade-B Officer Exam. 06.02.2011)**

**115.** If two marbles are picked at random, what is the probability that both are green ?

- (1)  $\frac{2}{15}$  (2)  $\frac{1}{15}$   
 (3)  $\frac{2}{7}$  (4) 1  
 (5) None of these

**116.** If three marbles are picked at random, what is the probability that two are blue and one is yellow ?

- (1)  $\frac{2}{15}$  (2)  $\frac{6}{91}$   
 (3)  $\frac{12}{91}$  (4)  $\frac{3}{15}$   
 (5) None of these

**117.** If four marbles are picked at random, what is the probability that at least one is yellow ?

- (1)  $\frac{91}{123}$  (2)  $\frac{69}{91}$   
 (3)  $\frac{125}{143}$  (4)  $\frac{1}{4}$   
 (5) None of these

**118.** If two marbles are picked at random, what is the probability that either both are red or both are green ?

- (1)  $\frac{3}{5}$  (2)  $\frac{4}{105}$   
 (3)  $\frac{2}{7}$  (4)  $\frac{5}{91}$   
 (5) None of these

**119.** If four marbles are picked at random, what is the probability that one is green, two are blue and one is red ?

- (1)  $\frac{4}{15}$  (2)  $\frac{17}{280}$   
 (3)  $\frac{6}{91}$  (4)  $\frac{11}{15}$   
 (5) None of these

**120.** There are 8 brown balls, 4 orange balls and 5 black balls in a bag. Five balls are chosen at random. What is the probability of their being 2 brown balls, 1 orange ball and 2 black balls ?

- (1)  $\frac{191}{1547}$  (2)  $\frac{180}{1547}$   
 (3)  $\frac{280}{1547}$  (4)  $\frac{189}{1547}$   
 (5) None of these

**(RBI Officer Grade 'B'  
 Online Exam. 25.08.2013)**

**121.** A bag A contains 4 green and 6 red balls. Another bag B contains 3 green and 4 red balls. If one ball is drawn from each bag, find the probability that both are green.

- (1)  $\frac{13}{70}$  (2)  $\frac{1}{4}$   
 (3)  $\frac{6}{35}$  (4)  $\frac{8}{35}$   
 (5) None of these

**(RBI Officer Grade 'B' Phase-I,  
 Exam. 03.08.2014)**

**122.** A box contains 14 eggs out of which 8 are rotten. Two eggs are chosen at random. What is the probability that none of the chosen eggs is rotten ?

- (1)  $\frac{5}{23}$  (2)  $\frac{10}{23}$   
 (3)  $\frac{12}{91}$  (4)  $\frac{15}{91}$   
 (5)  $\frac{8}{91}$

**(NABARD Officer Grade 'A'  
 Online Exam. 03.08.2014)**

**123.** A bag A contains 4 green and 6 red balls. Another bag B contains 3 green and 4 red balls. If one ball is drawn from each bag, find the probability that both are green.

- (1)  $\frac{13}{70}$  (2)  $\frac{1}{4}$   
 (3)  $\frac{6}{35}$  (4)  $\frac{8}{35}$   
 (5) None of these

**(RBI Officer Grade 'B' Phase-I  
 Exam. 03.08.2014)**

**124.** A bag contains 13 white and 7 black balls. Two balls are drawn at random. What is the probability that they are of the same colour?

- (1)  $\frac{41}{190}$  (2)  $\frac{21}{190}$   
 (3)  $\frac{59}{190}$  (4)  $\frac{99}{190}$   
 (5)  $\frac{77}{190}$

**(RBI Officer Grade 'B' Phase-I  
 Exam. 21.11.2015)**

**125.** A box contains 4 black balls, 3 red balls and 5 green balls. 2 balls are drawn from the box at random. What is the probability that both the balls are of the same colour?

- (1)  $\frac{47}{68}$  (2)  $\frac{1}{6}$   
 (3)  $\frac{19}{66}$  (4)  $\frac{2}{11}$   
 (5) None of these

**(LIC Assistant Administrative Officer  
 (AAO) Exam. 24.04.2005)**

**Direction :** Read the following information carefully to answer the questions given below it.

An urn contain 5 red balls, 6 green balls and 7 blue balls.



126. Three balls are drawn from the urn. What is the probability that two balls are red and 1 ball is blue ?

- (1)  $\frac{11}{408}$  (2)  $\frac{37}{408}$   
 (3)  $\frac{35}{408}$  (4)  $\frac{1}{102}$   
 (5) None of these

**(NIACL Administrative Officer (AO) Exam. 11.01.2015)**

127. An urn contains 3 red and 4 green marbles. If three marbles are picked at random, what is the probability that two are green and one is red ?

- (1)  $\frac{3}{7}$  (2)  $\frac{18}{35}$   
 (3)  $\frac{5}{14}$  (4)  $\frac{4}{21}$   
 (5) None of these

**(New India Assurance AO Exam. 25.10.2009)**

128. A property tax increase was proposed by a municipal corporation and it was observed that 40% of the property owners favoured it while 80% of the non-owners of property favoured it. If 70% of voters are property owners, what is the probability that a voter selected at random would be the one favouring the increase?

- (1) 0.80 (2) 0.52  
 (3) 0.40 (4) Data Inadequate

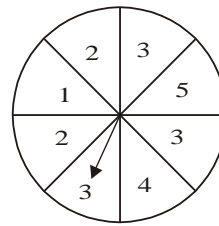
**(General Insurance Corporation AAO Exam. 11.12.2011)**

129. In a container there are 28 eggs out of which 8 eggs are rotten. If two eggs are chosen at random, what will be the probability that atleast one egg is rotten ?

- (1)  $\frac{94}{189}$  (2)  $\frac{95}{187}$   
 (3)  $\frac{93}{189}$  (4)  $\frac{97}{189}$   
 (5) None of these

**(LIC Assistant Administrative Officer (AAO) Exam. 12.05.2013)**

130. The circle given below is divided into eight sectors of equal area. What is the probability that the spinner will land on an even-numbered region in each of two consecutive spins?



- (1)  $\frac{25}{10}$  (2)  $\frac{3}{8}$   
 (3)  $\frac{1}{4}$  (4)  $\frac{9}{64}$

**(NICL (GIC) Administrative Officer Exam. 15.12.2013)**

**17. DATA INTERPRETATION**

**Directions (1–5): This data is regarding total number of employees working in Administration (admin), Operations (Ops.) and other departments of corporate divisions of Companies A and B.**

The total number of employees working in both the companies together is 4800. The respective ratio of number of employees in Companies A and B is 5 : 7. Each employee works in only one of the 3 Departments i.e. “ops”, “Admin” and “others”. In company A, 70% of the total employees are males. 60% of the total male employees work in ‘Ops’ out of the remaining male employees,  $\frac{1}{8}$ th work in ‘Admin’. Out of the total female employees, 24% work in ‘Admin’ and  $\frac{5}{8}$ th of the remaining female employees work in ‘Ops’.

In company B, 80% of the total employees are males. 65% of the total male employees work in ‘Ops’. Number of male employees who work in other departments in Company B is 20% more than the male employees who work in ‘Other Departments’ in company A. Number of female employees who work in Ops in Company B are less than the number of male employees who work for ‘Ops’ in the same company by 75%. Out of the remaining female employees,  $\frac{1}{4}$  work in ‘Admin’.

1. What per cent of the total number of male employees in company A work in ‘other’ departments?  
(a) 45                      (b) 25                      (c) 30                      (d) 35                      (e) 40
2. What per cent the total number of female employees in company B work in administration department?  
(a) 18.5                      (b) 8.75                      (c) 14                      (d) 16                      (e) 19
3. What is the total number of female employees who work on Ops in Company A and B together?  
(a) 681                      (b) 781                      (c) 689                      (d) 649                      (e) 788
4. What is the difference between the average number of males working in ‘Admin’ in both the companies together and average number of females working ‘Other Departments’ in both the companies together?  
(a) 26                      (b) 36                      (c) 16                      (d) 24                      (e) 14
5. In company B, what is the respective ratio between the total number of employees (both male and female) who work in ‘Admin’ and the total number of employees (both male and female) who work in ‘Other Department’ in the same company?  
(a) 2 : 3                      (b) 1 : 3                      (c) 1 : 4                      (d) 3 : 5                      (e) 1 : 5

**Directions (6-10): The following information is about performance of Akhilesh in SBI PO mains exam. Read the information carefully and answer the following question.**

The exam consists of 200 marks, with 5 sections i.e. Reasoning, quant, English, G.A., Computers. Akhilesh attempted 22 questions in Reasoning with an accuracy of  $77\frac{1}{3}\%$ . Each question of reasoning consists of 2 marks with a negative marking of 25%. (if right question is of 2 mark, then 0.5 mark will be deducted for each wrong answer). Each section of the exam have the 25% of negative marking for each wrong question. The total number of questions in

reasoning is 30. Each question of computer consists of 1/2marks and maximum marks in computer are 10. Total 16 questions are attempted by Akhilesh in computer with the ratio of right questions to wrong questions 3 : 1. The number of questions in English is equal to maximum marks of English. Akhilesh attempted 26 questions with 50% accuracy. The number of questions attempted in English is 65% of the total number of questions in English.

GA section consists of 40 questions with each question 0.75 marks. Akhilesh attempted 23 questions out of which 8 are wrong. Quant section contains 40 questions out of which Akhilesh attempted 35 questions and got 52.5 marks.

6. Another student arunoday attempted 70% questions in the same exam, then find the number of questions left by arunoday.  
(a) 119 (b) 68 (c) 51 (d) 65 (e) None of these
7. Find the marks obtained by Akhilesh in GA.  
(a) 8.75 (b) 9.25 (c) 9.75 (d) 10.75 (e) None of these
8. The number of correct questions in reasoning is how much more than the number of incorrect questions in the same subject?  
(a) 12 (b) 7 (c) 18 (d) 9 (e) None of these
9. Find the total marks obtained by Akhilesh in the exam.  
(a) 101 (b) 105 (c) 109 (d) 102 (e) None of these
10. Find the total number of incorrect questions attempted by Akhilesh in the exam.  
(a) 27 (b) 15 (c) 28 (d) 18 (e) None of these

**Directions(11-15): Study the given information carefully to answer the questions that follow:**

An organization consists of 2400 employees working in different departments, viz HR, Marketing, IT, Production and Accounts. The ratio of male to female employees in the organization is 5 : 3. Twelve percent of the males work in the HR department. Twenty four percent of the females work in the Accounts department. The ratio of males to females working in the HR department is 6:11. One-ninth of the females work in the IT department. Forty two percent of the males work in the Production department. The number of females working in the production department is 10 percent of the males working in the same. The remaining females work in the marketing department. The total number of employees working in the IT department is 285. Twenty two percent of the males work in the Marketing and the remaining work in the Accounts department.

11. The number of males working in the IT department forms approximately what percent of the total number of males in the organization?  
(a) 5 (b) 12 (c) 21 (d) 4 (e) 18
12. What is the difference between males in Accounts department and Males in IT department?

- (a) 10 of these (b) 15 (c) 18 (d) 16 (e) None

**13.** The total number of employees working in the Accounts department forms what percent of the total number of employees in the organization?

- (a) 19.34 (b) 16.29 (c) 11.47 (d) 23.15 (e) None of these

**14.** The number of females working in the Production department forms what percent of the total number of females in the organization?

- (a) 7 (b) 2 (c) 4 (d) 15 (e) None of these

**15.** What is the total number of females working in the HR and Marketing departments together?

- (a) 363 (b) 433 (c) 545 (d) 521 (e) None of these

**Directions (16-20): Study the table and answer the given questions.**

Data related to Human Resource Dept. of a multinational company (X) which has 145 offices across 8 countries.

Countries	Offices	Total Employees	Respective Ratio of male & female employees	% of post graduate
A	16	2568	5:7	75
B	18	2880	11:5	65
C	14	1310	10:11	40
D	22	3575	3:2	60
E	13	2054	7:6	50
F	17	2788	20:21	75
G	24	3720	8:7	55
H	21	3360	8:6	80

**16.** The number of male post graduate employees in country H is 1800. If number of female post graduates increase by 50% in the next year, what % of female employees in that particular country is post graduate? (Given that all other data remain same)

- (a) 76.8% (b) 74% (c) 92.5% (d) 90% (e) 80%

**17.** In which country, is the percentage of women employees to number of employees (both male & female) is ranked third lowest?

- (a) E (b) B (c) H (d) F (e) A

**18.** What is the ratio between total number of male employees in countries B and H together and total number of post graduate employees in same countries?

- (a) 76 : 65 (b) 86 : 85 (c) 75 : 76 (d) 65 : 76 (e) 12 : 33

**19.** What is the difference between average number of post graduate employees in countries A, B and D together and average number of post graduate employees in countries F, G and H together?

- (a) 294 (b) 282 (c) 284 (d) 280 (e) 200

20. Which country has the 2nd highest number of average employees per office ?  
 (a) D (b) H (c) G (d) A (e) F

**Directions (21-25): Study the following table carefully and answer the questions given below:**

**Number of Cars (in thousands) of different Models and colours sold in two Metro Cities in a year**

Type	Metro M					Metro H				
	Colour					Colour				
	Black	Red	Blue	White	Silver	Black	Red	Blue	White	Silver
A	40	25	55	75	15	45	32	40	60	20
B	20	35	60	80	20	30	37	39	81	35
C	35	30	50	90	35	40	42	41	6	37
D	45	40	45	85	40	35	39	37	90	42
E	50	35	35	60	30	50	44	43	77	22
F	55	42	40	65	52	47	34	45	87	17

21. The difference between the white-coloured cars sold in the two metros of which of the following models is the minimum?  
 (a) A (b) C (c) D (d) F (e) None of these
22. The total number of blue-coloured cars of Model E and D sold in metro H is exactly equal to the number of white-coloured cars of which model in Metro M?  
 (a) B (b) F (c) C (d) A (e) None of these
23. What is the difference between the number of blue-colours cars of model 'C' sold in Metro M and number of red-colour cars of Model 'F' sold in Metro H?  
 (a) 8,000 (b) 10,000 (c) 12,000 (d) 15,000 (e) None of these
24. The total number of silver-coloured cars sold in Metro H is approximately what percentage of that in Metro M?  
 (a) 130 (b) 140 (c) 90 (d) 100 (e) 110
25. In metro M the number of cars sold was maximum for which of the colour-model combinations?  
 (a) White-C (b) Blue-B (c) Silver-B (d) White-D (e) Silver-F

**Direction (26–30): Study the following table carefully to answer the questions that follow:**

Number of Orders cancelled by five different e-commerce companies in six different

e-Com Years	P	Q	R	S	T
2011	240	405	305	365	640
2012	420	600	470	446	258
2013	600	680	546	430	610
2014	160	208	708	550	586
2015	140	640	656	250	654
2016	290	363	880	195	483

years

- 26.** What was the difference between the highest number of Order cancelled by Company - Q and the lowest number of Order cancelled by Company-T out of all the six years?  
 (a) 325 (b) 422 (c) 596 (d) 416  
 (e) None of these
- 27.** What was the approximate percentage increase in number of Order cancelled by Company-S in the year 2014 as compared to previous year?  
 (a) 57 (b) 44 (c) 125 (d) 28  
 (e) 95
- 28.** What was the average number of Order cancelled by the Companies P,R, S and T in the year 2014?  
 (a) 405 (b) 551.5 (c) 501 (d) 488  
 (e) None of these
- 29.** In 2016, 40% Order are cancelled by Company-R due to bad weather and others by packaging fault. How many orders are cancelled by Company-R due to packaging fault?  
 (a) 548 (b) 468 (c) 568 (d) 528  
 (e) None of these
- 30.** What is the approximate percentage of cancelled Order by Companies P and R in 2013 as compared to cancelled orders by Company-S in 2011?  
 (a) 340 (b) 314 (c) 280 (d) 265  
 (e) 384

**Directions (31-35): The table given below shows the monthly salary of six employees working in a leading manufacturing firm.**

Years→ Employees↓	2011	2012	2013	2014	2015	2016
Richali	19200	20500	23400	25000	26600	28200
Piyush	28500	30100	31800	33000	34900	36000
Ritesh	22600	24000	26400	28100	29800	31000
Aditi	23000	24500	26100	27000	29300	31200
Krishna	24800	26000	27900	29100	30800	33000
Raksha	31500	35800	36600	40200	44000	45800

- 31.** What is the difference between average monthly income of Aditi all over the years and monthly income of Raksha in 2015?  
 (a) Rs. 17250      (b) Rs. 18150      (c) Rs. 17510      (d) Rs. 17150  
 (e) None of these
- 32.** Monthly salary of Ritesh in 2016 contributes for what percent in total monthly salary of Richali, Piyush and Krishna together in 2016? (approximately)  
 (a) 30%      (b) 32%      (c) 38%      (d) 42%      (e) 28%
- 33.** Find the ratio of annual salary of Aditi in 2012 and Raksha in 2014 together to that of Piyush in 2013 and Richali in 2011 together?  
 (a) 6 : 7      (b) 7 : 6      (c) 5 : 4      (d) 3 : 2      (e) None of these
- 34.** Monthly salary of Piyush and Krishna together in 2013 is by what percent more or less than that of Aditi and Raksha together in 2015? (approximately)  
 (a) 19% more      (b) 16% less      (c) 19% less      (d) 16% more  
 (e) 29% less
- 35.** In 2015, Raksha donated 5% of her monthly salary, she then lent out 20% of remaining salary on CI at 5% for 3 years. Find the interest (approx.) earned by her after 3 years?  
 (a) Rs. 1381      (b) Rs. 1318      (c) Rs. 1418      (d) Rs. 1315  
 (e) Rs. 1300

**Directions (36-40):** A team of 5 players participated in a tournament and played four matches (1 to 4). The following table gives partial information about their individual scores and the total runs scored by the team in each match.

Each column has two values missing. These are the runs scored by the two lowest scorers in that match. None of the two missing values is more than 10% of the total runs scored in that match.

		Match-1	Match-2	Match-3	Match-4
Runs scored by player	Ajinkya		100		53
	Pandya	88	65		52
	Cheteswar			100	
	Dhawan	72	75	20	56
	Virat	60		78	
Total		270	300	240	200

- 36.** What is the maximum possible percentage contribution of Ajinkya in the total runs scored in the four matches (approximately)?  
 (a) 20%                      (b) 22%                      (c) 17%                      (d) 23%  
 (e) Cannot be determined
- 37.** What is the maximum possible percentage contribution of Virat in the total runs scored in the four matches?  
 (a) 18%                      (b) 19.9%                      (c) 18.6%                      (d) 20.2%  
 (e) Cannot be determined
- 38.** If the absolute difference between the total runs scored by Ajinkya and Cheteswar in the Four matches is minimum possible then what is the ratio of Ajinkya and Cheteswar's total runs scored by them in the four matches.  
 (a) 187:189                      (b) 189:187                      (c) 183:187                      (d) 189:188  
 (e) Cannot be determined
- 39.** If the absolute difference between the total runs scored by Ajinkya and Cheteswar in the four matches is minimum possible then what is the absolute difference between total runs scored by Pandya and Virat in the four matches?  
 (a) 32                      (b) 37                      (c) 35                      (d) 27  
 (e) Cannot be determined
- 40.** The players are ranked 1 to 5 on the basis of the total runs scored by them in the four matches, with the highest scorer getting Rank 1. If it is known that no two players scored the same number of total runs, how many players are there whose ranks can be exactly determined?  
 (a) 0                      (b) 1                      (c) 3                      (d) 5  
 (e) Cannot be determined



**Directions (41-45): The table below shows production of five types of Trucks by a company in the years 2009 to 2014. Study the table and answer questions.**

Production of trucks by a company

Year → Type ↓	2009	2010	2011	2012	2013	2014	Total
Minivan	8	20	16	17	21	6	88
Pickup	16	10	14	12	12	14	18
Canopy	21	17	16	15	13	8	90
Panel	4	6	10	16	20	31	87
Cab	25	18	19	30	14	27	133
Total	74	71	75	90	80	86	476

- 41.** In which year the production of trucks of all types taken together was approximately equal to the average of the total production during the period?  
 (a) 2009 (b) 2011 (c) 2013 (d) 2014 (e) None of these
- 42.** In which year, the total production of trucks of types of Minivan and Pickup together was equal to the total production of trucks of types Canopy and Panel together.  
 (a) 2010 (b) 2011 (c) 2014 (d) 2013 (e) None of these
- 43.** During the period 2009-14, in which type of trucks was a continuous increase in production?  
 (a) Minivan (b) Pickup (c) Canopy (d) Panel (e) None of these
- 44.** The production of which type of trucks was 25% of the total production of all types of trucks during 2013?  
 (a) Panel (b) Canopy (c) Pickup (d) Minivan (e) None of these
- 45.** The per cent increase in total production of all types of trucks in 2012 to that in 2011 was?  
 (a) 15 (b) 20 (c) 25 (d) 30 (e) None of these

**Directions (46-50): In the following table, the Investment and profit of three Companies in different countries is given.**

State	Investment (in mn \$.)			Profit (in mn \$.)		
	TCS	Infosys	Accenture	TCS	Infosys	Accenture
Singapore	15000	—	25000	—	8000	12500
UK	—	7000	8000	—	—	14000
UAE	4000	5000	4500	—	—	—
Qatar	9000	10000	—	4500	6000	—
Malaysia	—	—	17000	20000	30000	40000

**Note:** Some values are missing. You have to calculate these values as per data given in the questions:-

46. If TCS invested his amount in SINGAPORE state for 9 years and Accenture invested his amount in the same country for 10 years then find the total profit made by all of them from SINGAPORE?  
 (a) mn \$ 29250 (b) mn \$ 24250 (c) mn \$ 27250 (d) mn \$ 31200 (e) None of these
47. If the total profit earned from UK by all of them is mn \$ 32375 and each invested for 9 years then find the ratio of investment of TCS in UK to the profit of Infosys from SINGAPORE ?  
 (a) 16 : 7 (b) 7 : 16 (c) 8 : 13 (d) 13 : 8 (e) None of these
48. If TCS, Infosys and Accenture invested in UAE for 5 years, 8 years and 6 years respectively then profit earned by Accenture from UAE is what % of the profit earned by TCS and Infosys together from the same Country, if total profit earned by all of them from UAE state is 8700 mn \$.  
 (a) 45% (b) 50% (c) 55% (d) 40% (e) None of these
49. In Malaysia state total Investment of TCS and Infosys is 85000 mn \$, while TCS and Infosys invested their amount for 4 years and 6 years respectively in the same country, then find the number of years that accenture invested his amount ?  
 (a) 8 years (b) 9 years (c) 20 years (d) Can't be determined (e) None of these
50. Average Investment made by all of them in Qatar is \$ 10,000 mn and average profit earned by all of them from the same state is \$ 6000 mn, then profit earned by Accenture in the same country is what percent more/less than the amount invested by Accenture in the same state?  
 (a)  $35\frac{1}{3}\%$  (b)  $37\frac{6}{7}\%$  (c)  $32\frac{7}{11}\%$  (d)  $33\frac{7}{11}\%$  (e)  $31\frac{9}{11}\%$

**Directions (51-55): A person purchased 5 Gadgets from a shop and sold them online. Given below is the data showing cost price, selling price and profit/loss percentage.**

	C.P. (in Rs.)	Profit/Loss%	S.P. (in Rs.)
Smartphone	32445	—	40556.25
Laptop	—	Profit-15%	40940
Tablet	22150	Loss-12%	—
Digital camera	28295	—	31140
Smart Watch	—	Profit-25%	7075

51. Cost price of Laptop is what percent of selling price of Tablet? (approximate)  
 (a) 138% (b) 182% (c) 142% (d) 154% (e) 186%
52. If there has been a profit of 12% on Tablet instead of 12% loss. Then the new S.P. is how much more than the original S.P.?  
 (a) 5216 (b) 5396 (c) 5336 (d) 5316 (e) None of these

- 53.** Profit percentage on Digital camera is what percent more/less than profit percentage on Laptop?  
 (a) 50% more (b) 33.34% less (c) 33.67% more (d) 50% less (e) 150% less
- 54.** What is the ratio between profit percentage of Smart Watch to profit percentage of Smartphone?  
 (a) 5 : 3 (b) 3 : 2 (c) 3 : 5 (d) 2 : 5 (e) None of these
- 55.** What is the overall profit/loss percentage? (approximate)  
 (a) 22.12% profit (b) 12.12% profit (c) 14.14% profit (d) 33.12% loss (e) 15.15% loss

**Directions (56-60): Study the table and answer the given questions.**

Data related to the number of employees in five different companies in December 2012

Company	Total number of Employees	Out of total number of employees		
		Percentage Of Science graduates	Percentage of Commerce graduates	Percentage of Arts graduates
M	1050	32%	-	-
N	700	-	31%	40%
O	-	30%	30%	-
P	-	-	40%	20%
Q	-	35%	50%	-

**Note:**

- (I)** Employees of the given companies can be categorised only in three types: Science graduates, Commerce graduates and Arts graduates
- (II)** A few values are missing in the table (indicated -). A candidate is expected to calculate the missing value, if it is required to answer the given question, on the basis of the given data and information.
- 56.** What is the difference between the number of Arts graduate employees and Science graduate employees in Company N?  
 (a) 87 (b) 89 (c) 77 (d) 81 (e) 73
- 57.** The average number of Arts graduate employees and commerce graduate employees in Company Q was 312. What was the total number of employees in Company Q?  
 (a) 920 (b) 960 (c) 1120 (d) 1040 (e) 1080
- 58.** If the ratio of the number of Commerce graduate employees to that of Arts graduate employees in Company M was 10 : 7, what was the number of Arts graduate employees in M?  
 (a) 294 (b) 266 (c) 280 (d) 308 (e) 322

- 59.** The total number of employees in Company N increased by 20% from December 2012 to December 2013. If 20% of the total number of employees in Company N in December 2013 were Science graduates, what was the number of Science graduate employees in company N in December 2013?  
 (a) 224 (b) 266 (c) 294 (d) 252 (e) 168
- 60.** The total number of employees in Company P was 3 times the total number of employees in Company O. If the difference between the number of Arts graduate employees in Company P and that in Company O was 180, what was the total number of employees in Company O?  
 (a) 1200 (b) 1440 (c) 720 (d) 900 (e) 1080

**Directions (61-65): Study the table carefully and answer the given questions.**

Data related to number of candidates appeared and qualified in a competitive exam from 2 states during 5 years

Years	State P		State Q	
	Number of appeared candidates	Percentage of appeared candidates who qualified	Number of appeared candidates	Percentage of appeared candidates who qualified
2006	450	60%	-	30%
2007	600	43%	-	45%
2008	-	60%	280	60%
2009	480	70%	550	50%
2010	380	-	400	-

- 61.** Out of the number of qualified candidates from State P in 2008, the respective ratio of male and female candidates is 11 : 7. If the number of female qualified candidates from State P in 2008 is 126, what is the number of appeared candidates (both male and female) from State P in 2008?  
 (a) 630 (b) 510 (c) 570 (d) 690 (e) 540
- 62.** The number of appeared candidates from State Q increased by 100% from 2006 to 2007. If the total number of qualified candidates from State Q in 2006 and 2007 together is 408, what is the number of appeared candidates from State Q in 2006?  
 (a) 380 (b) 360 (c) 340 (d) 320 (e) 300
- 63.** What is the difference between the number of qualified candidates from State P in 2006 and that in 2007?  
 (a) 12 (b) 22 (c) 14 (d) 24 (e) 16
- 64.** If the average number of qualified candidates from State Q in 2008, 2009 and 2010 is 210, what is the number of qualified candidates from State Q in 2010?  
 (a) 191 (b) 195 (c) 183 (d) 187 (e) 179
- 65.** If the respective between the number of qualified candidates from State P in 2009 and 2010 is 14 : 9, what is the number of qualified candidates from State P in 2010?  
 (a) 252 (b) 207 (c) 216 (d) 234 (e) 198

**Directions (66-70):** In the following table, investments and profit of three persons is given for different years in a joint business.

Year	Investments (in Rs.)			Profit (in Rs.)		
	A	B	C	A	B	C
2012	25500	31500	34500	127500	—	172500
2013	—	7500	—	—	18750	138750
2014	—	10050	12000	—	—	21000
2015	—	—	13500	75000	66000	36000
2016	16500	45000	—	—	—	—

**Note:**

- Apart from year 2015, they invested the amounts for same period.
- Some values are missing. You have to calculate these value as per given data.

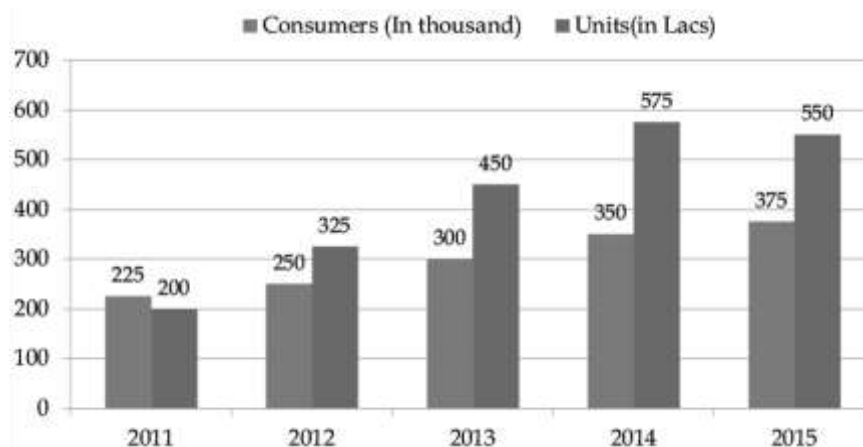
- 66.** If the total profit in 2014 is 59587.50Rs. , then find the ratio of the investment of B in 2013 to the investment of A in 2014.  
 (a) 5 : 8                      (b) 10 : 27                      (c) 5 : 7                      (d) 5 : 9                      (e) None of these
- 67.** In year 2015, A and B invested their amount for 6 months and 4 months respectively and B invested Rs.24750 then find the number of months that C invested his amount for?  
 (a) 3 months                      (b) 6 months                      (c) 2 months                      (d) 4 months                      (e) 1 month
- 68.** Total profit earned by B in year 2012 is how much less (in Rs.) than the profit earned by him in the year 2014?  
 (a) Rs. 176575.5                      (b) Rs. 139912.5                      (c) Rs. 193825                      (d) Rs. 185050                      (e) None of these
- 69.** Investment made by A in 2016 is approximately what % more/less than the investment made by C in 2013?  
 (a) 31%                      (b) 70%                      (c) 40%                      (d) 68%                      (e) 79%
- 70.** Total profit earned by all in 2016 is 578340Rs. and the ratio of investment made by A and B together and investment made by B and C together is 123 : 137. Then find the difference between the profit made by A and C in 2016 ?  
 (a) 47628                      (b) 59428                      (c) 69478                      (d) 45928  
 (e) None of these

**Directions (71-75):** There are five students who appeared for RBI Grade B exam. Paper consists of 100 questions with 1 mark for each correct answer and 0.25 marks for each wrong answer.

Students	Questions attempted	Right Questions	Wrong Questions	Marks obtained
Aditya	78	-	-	70.5
Puskar	92	76	-	-
Anshuman	98	-	36	-
Alka	-	30	-	27.25
Avanish	56	-	-	53.50

- 71.** Difference between total right number of questions of all students together and total wrong no. of questions of all students together is  
 (a) 141 (b) 161 (c) 223 (d) 156 (e) None of these
- 72.** Marks obtained by Aditya and Puskar together is what % of the marks obtained by Anshuman, Avanish and Alka together? (rounded off to 2 decimal places)  
 (a) 106.54% (b) 91.16% (c) 95.20% (d) 96.71% (e) 101.71%
- 73.** If the penalty of wrong answer is 0.33 then marks obtained by Aditya, Anshuman and Puskar together is  
 (a) 192.21 (b) 224.19 (c) 190.86 (d) 219.14 (e) 194.22
- 74.** If the passing % marks in the exam is 50 marks than at least how many questions has to be answered right by Puskar? (He attempted 92 questions)  
 (a) 58 (b) 56 (c) 59 (d) 55 (e) 60
- 75.** What is the percent of marks obtained by all of them together?  
 (a) 59.03% (b) 53.15% (c) 52.53% (d) 45.05% (e) 55.25%

**Directions (76–80):** The graph suggests the no. of consumers and consumption of electricity units in five years. Electricity units are given in Lacs while the no. of consumers are given in thousand. Read the graph and answer the question.



- 76.** What is the ratio of electricity consumption per consumer in 2012 to the same in 2015?

- (a) 39 : 44 (b) 77 : 79 (c) 11 : 19 (d) 9 : 7 (e) None of the above

77. If no of consumers in 2016 is 120% more than in 2011 while the consumption remain same as in 2015, then what will be the impact of no of units consumed by a consumer in 2016 when compared to electricity consumption per consumer in 2015?

- (a) + 42 units (b) + 36 Units (c) - 36units (d) - 42 units (e) None of the above

78. Electricity consumption in 2012 will be approximately how many times the total no. Of consumer all over the years?

- (a) 3 (b) 21.5 (c) 2.5 (d) 4 (e) None of the above

79. Total no of units in 2011 and 2013 are approximately what % more or less than Total units in 2012 & 2014 together?

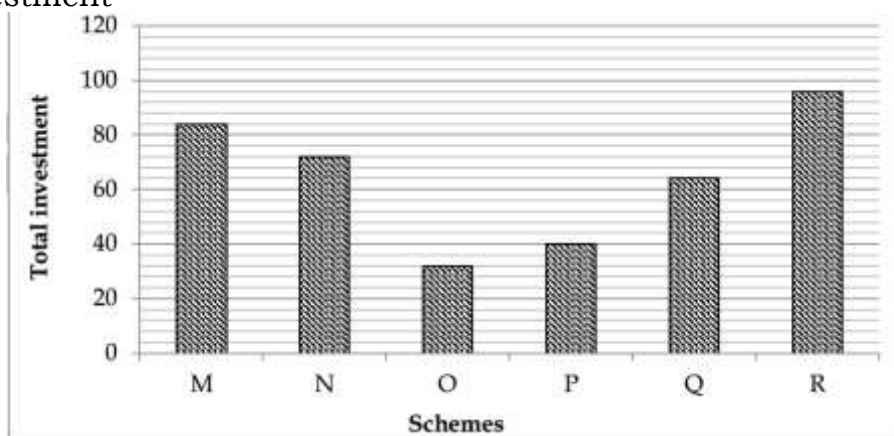
- (a) 20% more (b) 24% more (c) 29% less (d) 28% less (e) None of the above

80. In which of the following year, the ratio of unit consumption to the no. of consumers is maximum?

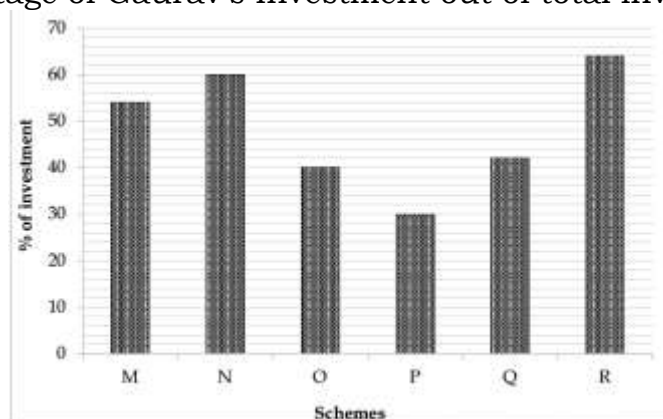
- (a) 2011 (b) 2015 (c) 2014 (d) 2013 (e) 2012

**Direction (81-85): Study the graph to answer the questions.**

Total investment (in Rs. thousand) of Gaurav and Rishabh in 6 schemes (M, N, O, P, Q and R) Investment

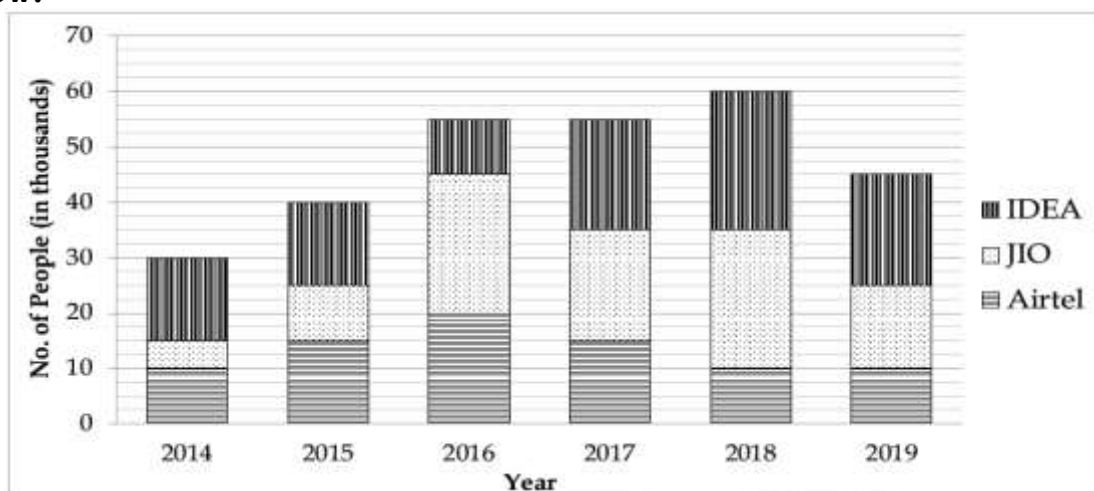


Percentage of Gaurav's Investment out of total investment



- 81.** Scheme M offers simple interest at a certain rate of interest (per cent per annum). If the difference between the interest earned by Gaurav and Rishabh from scheme M after 4 yr is Rs. 4435.20, what is the rate of interest (per cent per annum)?  
 (a) 17.5 (b) 18 (c) 16.5 (d) 20 (e) 15
- 82.** What is the respective ratio between total amount invested by Gaurav in schemes O and Q together and total amount invested by Rishabh in the same scheme together?  
 (a) 31 : 44 (b) 31 : 42 (c) 27 : 44 (d) 35 : 48 (e) 29 : 38
- 83.** If scheme O offers compound interest (compounded annually) at 12% per annum, then what is the difference between interest earned by Gaurav and Rishabh from scheme O after 2 yr?  
 (a) Rs. 1628.16 (b) Rs. 1584.38 (c) Rs. 1672.74 (d) Rs. 1536.58 (e) Rs. 1722.96
- 84.** Rishabh invested in scheme R for 4 yr. If scheme R offers simple interest at 7% per annum for the first two years and then compound interest at 10% per annum (compound annually) for the 3rd and 4th year, then what will be the interest earned by Rishabh after 4 yr?  
 (a) Rs. 13548.64 (b) Rs. 13112.064 (c) Rs. 12242.5 (d) Rs. 12364 (e) Rs. 11886
- 85.** Amount invested by Gaurav in scheme S is equal to the amount invested by him in scheme N. The rate of interest per annum of schemes S and N are same. The only difference is scheme S offers compound interest (compounded annually), whereas the scheme N offers simple interest. If the difference between the interest earned by Gaurav from both the schemes after 2 yr is Rs. 349.92, then what is the rate of interest?  
 (a) 9% (b) 5% (c) 13% (d) 11% (e) 7%

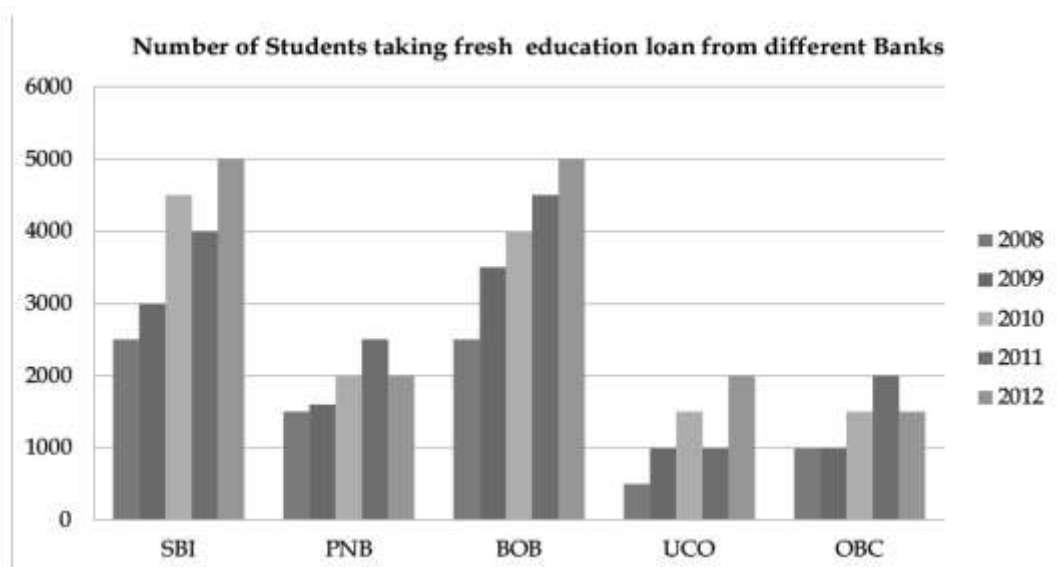
**Directions (86-90):** Study the given graph carefully to answer the questions that follow:





86. What is the average number of people using mobile service of JIO for all the years together?  
 (a)  $16\frac{2}{3}$  (b)  $14444\frac{1}{6}$  (c)  $16666\frac{2}{3}$  (d)  $14\frac{1}{6}$  (e) None of these
87. The total number of people using all the three mobile services in the year 2017 is what per cent of the total number of people using all the three mobile services in the year 2018?(rounded off to two digits after decimal)  
 (a) 89.72 (b) 93.46 (c) 88.18 (d) 91.67 (e) None of these
88. The number of people using mobile service of Idea in the year 2016 forms approximately what per cent of the total number of people using all the three mobile services in that year?  
 (a) 18 (b) 26 (c) 11 (d) 23 (e) 29
89. What is the ratio of the number of people using mobile service of AIRTEL in the year 2015 to that of those using the same service in the year 2014?  
 (a) 8 : 7 (b) 3 : 2 (c) 19 : 13 (d) 15 : 11 (e) None of these
90. What is the total number of people using mobile service of JIO in the years 2018 and 2019 together?  
 (a) 35,000 (b) 30,000 (c) 45,000 (d) 25,000 (e) None of these

**Directions (91-95): Read the given bar graph and answer the following questions.**



91. Approximately how many students taking a loan from UCO in 2009 and PNB in 2010 were defaulters if 23% from UCO in 2009 and 20% from PNB in 2010 have defaulted?  
 (a) 630 (b) 650 (c) 600 (d) 750 (e) 840
92. In 2007, no of defaulters in SBI was 5%. However each year no of defaulters increases by 10% in number. What will be the difference between the number of defaulters of SBI in the year 2009 and 2012?

- (a) 1500 (b) 2000 (c) 1325 (d) 1456 (e) Cannot be determined

93. In which of the following years, the difference in no. of students taking loan from Bank BOB from the previous year is highest?

- (a) 2008 (b) 2009 (c) 2010 (d) 2012 (e) None of these

94. If on average, Rs. 175000 per students education loan sanctioned by OBC bank all over the year. What will be total amount sanctioned by OBC in all given years?

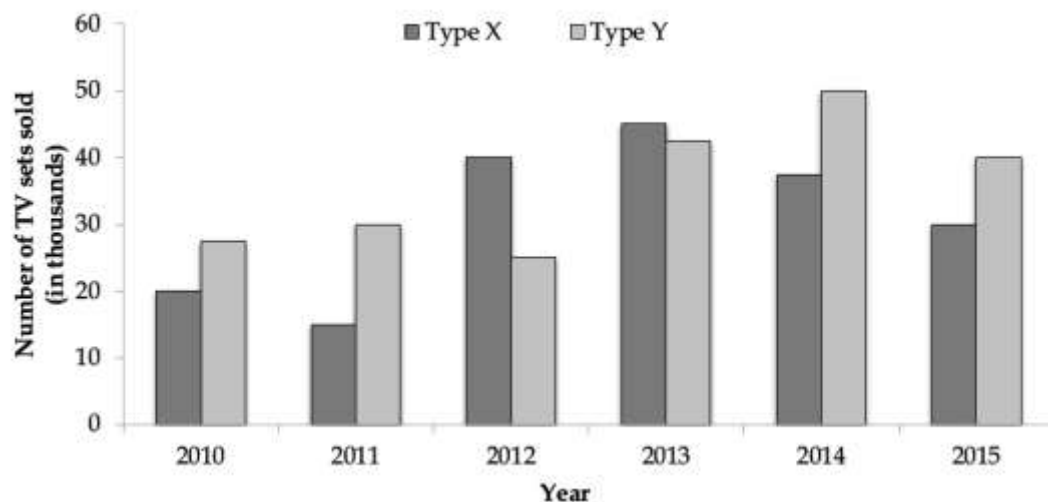
- (a) 1055600000 (b) 1055800000 (c) 1620000000 (d) 1050000000 (e) None of the above

95. What is the ratio of Number of students taking Education Loans from SBI and BOB together in all the years and the total no of students taking Education loans in 2010 and 2011 together?

- (a) 8 : 5 (b) 5 : 7 (c) 7 : 5 (d) 9 : 7 (e) None of these

**Directions (96-100): Study the following graph carefully and answer the questions given below.**

Number of TV sets sold over the years



96. What was the average number of Y-type TV sets sold by the company in 2011, 2012, 2014 and 2015 together?

- (a) 32869 (b) 36250 (c) 35600 (d) 39827 (e) 42686

97. The number of X-type TV sets sold in 2011 was exactly what percent of the number of Y-type TV sets sold in 2015?

- (a)  $33\frac{1}{2}\%$  (b)  $32\frac{1}{3}\%$  (c)  $37\frac{1}{2}\%$  (d)  $45\frac{1}{2}\%$  (e)  $53\frac{1}{2}\%$

98. What is the percentage increase in the sale of Y-type TV sets from 2011 to 2014?

- (a) 25% (b)  $62\frac{2}{3}\%$  (c)  $53\frac{1}{3}\%$  (d)  $66\frac{2}{3}\%$  (e) 49%

99. In which of the following years was the percentage increase/decrease of sale of X-type TV sets the maximum from the previous year?

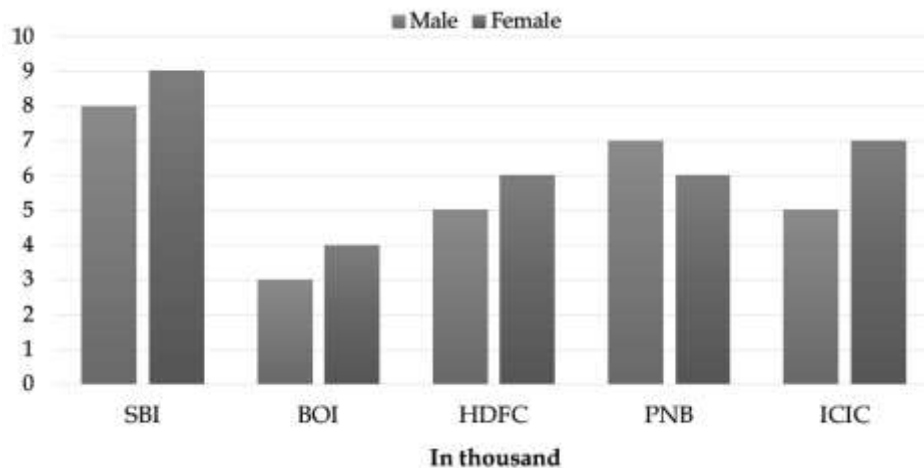
- (a) 2014 (b) 2012 (c) 2015 (d) 2011 (e) 2010

**100.** In which of the following years was the difference between the sales of X-type TV sets and Ytype TV sets the maximum?

- (a) 2010 and 2012 (b) 2013 and 2014 (c) 2011 and 2012  
 (d) 2014 and 2013 (e) 2012 and 2013

**Directions (101-105):** Study the bar graph carefully and answer the following questions.

**The number of male and female probationary officers in various banks**



**101.** What is the total number of employees in the given six banks?

- (a) 60000 (b) 56000 (c) 58000 (d) 62000 (e) 59000

**102.** What is the ratio of male to female probationary officers in all six banks?

- (a) 5 : 4 (b) 3 : 2 (c) 2 : 3 (d) 7 : 8 (e) 4 : 5

**103.** In HDFC 40% males and 30% females are unmarried, then what is the ratio of the married males to the married females in HDFC?

- (a) 7 : 5 (b) 5 : 7 (c) 12 : 13 (d) 2 : 3 (e) 3 : 5

**104.** If the number of married male probaionary officers in ICICI is euqual to that in PNB, which is 40% of the male probabtinary officers in PNB, then what is the percentage of married male probationary officers in ICIC with respect to the total number of probationary officers in ICIC?

- (a) 25.51% (b) 28% (c) 27.91% (d) 22% (e) 23.33%

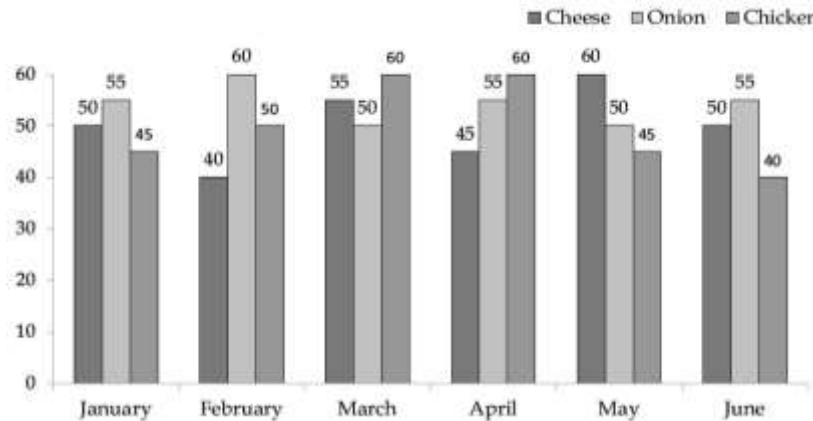
**105.** The male probationary officers in PNB is what per cent more than the female probationary officers in BOI?

- (a) 74.8% (b) 74% (c) 75% (d) 75.4% (e) 78%

**Directions (106-110): Dominos prepares Pizzas of three different types – Cheese, Onion and Chicken.**

The production of the three types over a period of six Months has been expressed in the bar-graph provided below. Study the graph and answer the questions based on it.

Order of three different types of Dominos Pizzas over the Months (in lakh orders)



**106.** For which of the following Months the percentage of rise/fall in Order from the previous Month is the maximum for the Onion flavor?

- (a) February      (b) March      (c) April      (d) May      (e) June

**107.** For which type was the average annual Order maximum in the given period?

- (a) Cheese only      (b) Onion only      (c) Chicken only      (d) Cheese and Onion  
(e) Cheese and Chicken

**108.** The total Order of Chicken type in March and April is what percentage of the total Order of Cheese type in January and February?

- (a) 96.67%      (b) 102.25%      (c) 115.57%      (d) 120%      (e) 133.33%

**109.** What is the difference between the average Order of Cheese type in January, February and March and the average Order of Onion type in April, May and June?

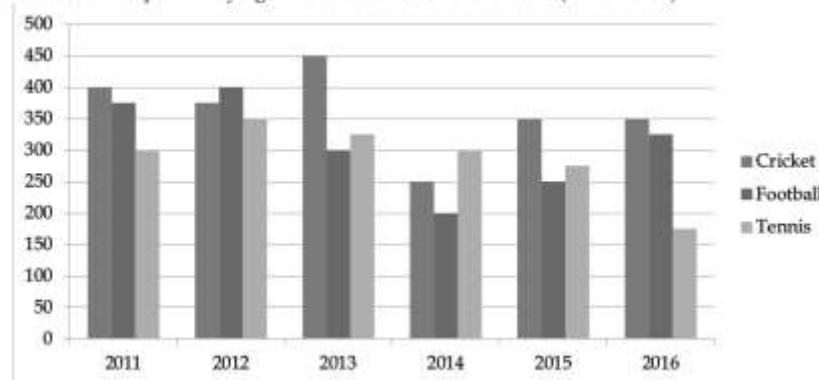
- (a) 50,000 orders      (b) 80,000 orders      (c) 2,40,000 orders      (d) 3,30,000 orders      (e) 5,00,000orders

**110.** What was the approximate decline in the Order of Chicken type in June as compared to the Order in April?

- (a) 50%      (b) 42%      (c) 33%      (d) 25%      (e) 22.5%

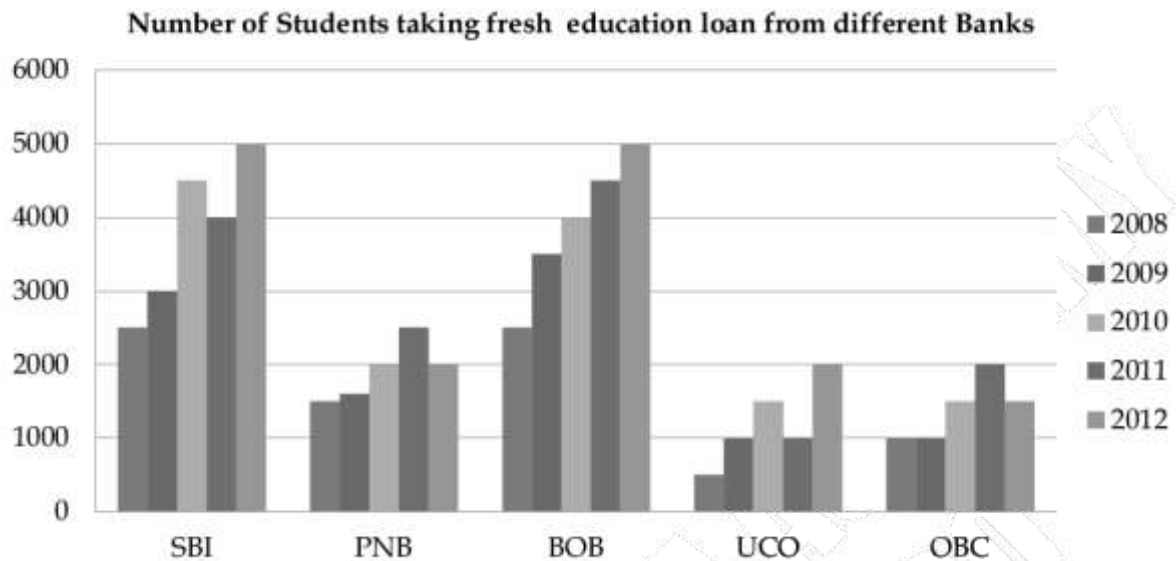
**Directions (111-115): Study the following Graph carefully and answer the questions given below:**

Preferences of People in Playing Different Games Over the Years (in Hundred)



- 111.** In the year 2016, the people preferring to play Tennis is what percent of the people prefer to play Cricket, Football and Tennis together in that year?  
 (a) 22.76% (b) 20.58% (c) 42.24% (d) 25% (e) None of these
- 112.** How many people have preferred to play Cricket in all the years together?  
 (a) 217500 (b) 224500 (c) 247500 (d) 175600 (e) None of these
- 113.** What is the respective ratio of the number of people prefer to play cricket in 2011, 2013 and 2015 to the number of people prefer to play Tennis in the year 2013, 2015 and 2016?  
 (a) 2 : 1 (b) 45 : 33 (c) 44 : 31 (d) 48 : 31 (e) None of these
- 114.** From 2011 to 2016, the total number of people who preferred to play Football was what percent more or less than the total number of people who preferred to play Tennis during same period?  
 (a) 5.24% (b) 6.24% (c) 7.24% (d) 8.24% (e) 10%
- 115.** The no. of people prefer to play tennis in 2016 is what percent fewer than the number of people preferring to play tennis in 2015?  
 (a)  $23\frac{4}{11}\%$  (b)  $36\frac{4}{11}\%$  (c)  $42\frac{7}{13}\%$  (d)  $33\frac{9}{13}\%$  (e) None of these

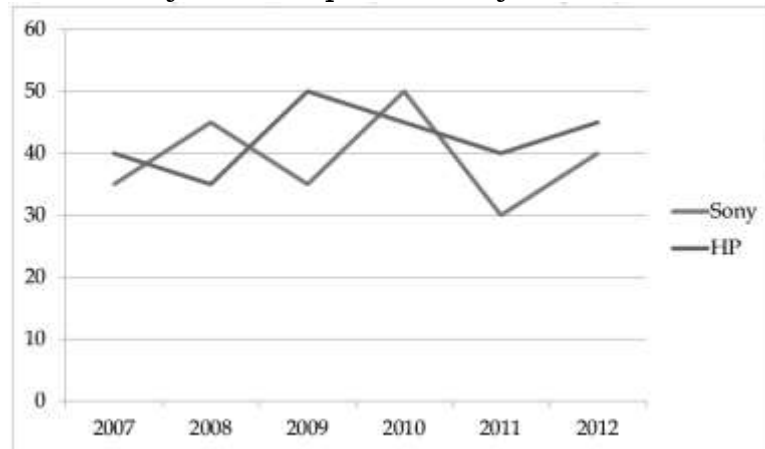
**Directions (116–120):** Read the given bar graph and answer the following questions.



- 116.** Approximately how many students taking a loan from UCO in 2009 and PNB in 2010 were defaulters if 23% from UCO in 2009 and 20% from PNB in 2010 have defaulted?  
 (a) 630 (b) 650 (c) 600 (d) 750 (e) 840
- 117.** In 2007, no of defaulters in SBI was 5%. However each year no of defaulters increases by 10% in number. What will be the difference between the number of defaulters of SBI in the Month 2009 and 2012?  
 (a) 1500 (b) 2000 (c) 1325 (d) 1456 (e) Cannot be determined
- 118.** In which of the following years, the difference in no. of students taking loan from Bank BOB from the previous year is highest?  
 (a) 2008 (b) 2009 (c) 2010 (d) 2012 (e) None of these
- 119.** If on average, Rs. 175000 per students education loan sanctioned by OBC bank all over the years. What will be total amount sanctioned by OBC in all given years?  
 (a) 1055600000 (b) 1055800000 (c) 1620000000 (d) 1050000000 (e) None of the above
- 120.** What is the ratio of Number of students taking Education Loans from SBI and BOB together in all the Years and the total no of students taking Education loans in 2010 and 2011 together?  
 (a) 8 : 5 (b) 5 : 7 (c) 7 : 5 (d) 9 : 7 (e) None of these

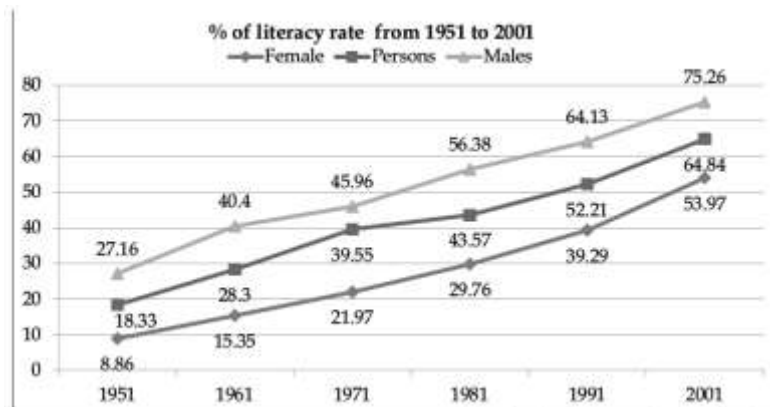
**Directions (121-125): Study the following graph carefully and answer the questions given below it.**

Percentage of profit earned by two companies Sony and H.P. over the given years



- 121.** Expenditure of Company HP in 2008 and 2009 are Rs. 12 lakhs and Rs. 14.5 lakh respectively. What was the total income of Company B in 2008 and 2009 together (in lakh rupees)?  
 (a) 35 lac (b) 37.65 lac (c) 40 lac (d) 37.95 lac (e) None of these
- 122.** Ratio of expenditure of companies Sony and HP in 2011 was 3 : 4 respectively. What was the respective ratio of their incomes in 2011?  
 (a) 2 : 3 (b) 23 : 37 (c) 43 : 56 (d) 29 : 46 (e) 39 : 56
- 123.** Total expenditure of Company Sony in all the years together was 82.5 lakhs. What was the total income of the Company in all the years together?  
 (a) 38 lac (b) 40 lac (c) 45 lac (d) Cannot determined (e) None of these
- 124.** If the expenditures of Companies Sony and HP in 2012 were equal and the total income of the two companies was Rs. 5.7 lakh, What was the total expenditure of the two companies in 2012?  
 (a) 4 lac (b) 5 lac (c) 6 lac (d) 8 lac (e) 10 lac
- 125.** If the income of Company HP in 2009 and 2010 were in the ratio of 2 : 3 respectively. What was the respective ratio of expenditure of that Company in these two years?  
 (a) 2 : 3 (b) 4 : 5 (c) 29 : 45 (d) 39 : 55 (e) None of these

**Directions (126-130): Study the following line graph carefully and answer the questions given below.**



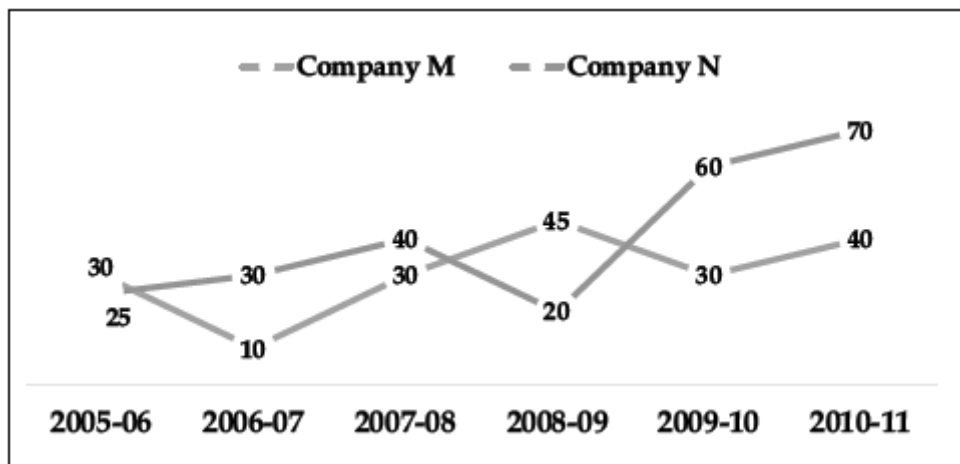
- 126.** What is the approx difference between the percentage literacy rate increased in male from 1951 to 1991 and percentage literacy rate increased in female from 1971 to 2001.  
 (a) 15% (b) 10% (c) 5% (d) 20% (e) 2%
- 127.** In which of the census years percentage increase given in male literacy rate was the highest with respect to previous census year?  
 (a) 1981 (b) 1991 (c) 2001 (d) 1961 (e) None of these
- 128.** In which of the given census years was the percentage increase in the literacy rate of females the lowest with respect to that of previous census year?  
 (a) 1981 (b) 1991 (c) 2001 (d) Data inadequate (e) None of these
- 129.** In which of the given census years was the percentage increase in the number of males the highest with respect to the previous census year?  
 (a) 1981 (b) 1991 (c) 2001 (d) Data inadequate (e) None of these
- 130.** What is the ratio of percentage literacy rate increased of male from (1961-1981) to literacy rate increased of person in 1971?  
 (a) 1 : 1 (b) 1 : 2 (c) 2 : 1 (d) 1 : 3 (e) 3 : 1



**Directions (131-135): Study the following graph to answer the given questions.**

Percent profit earned by two companies over the given years

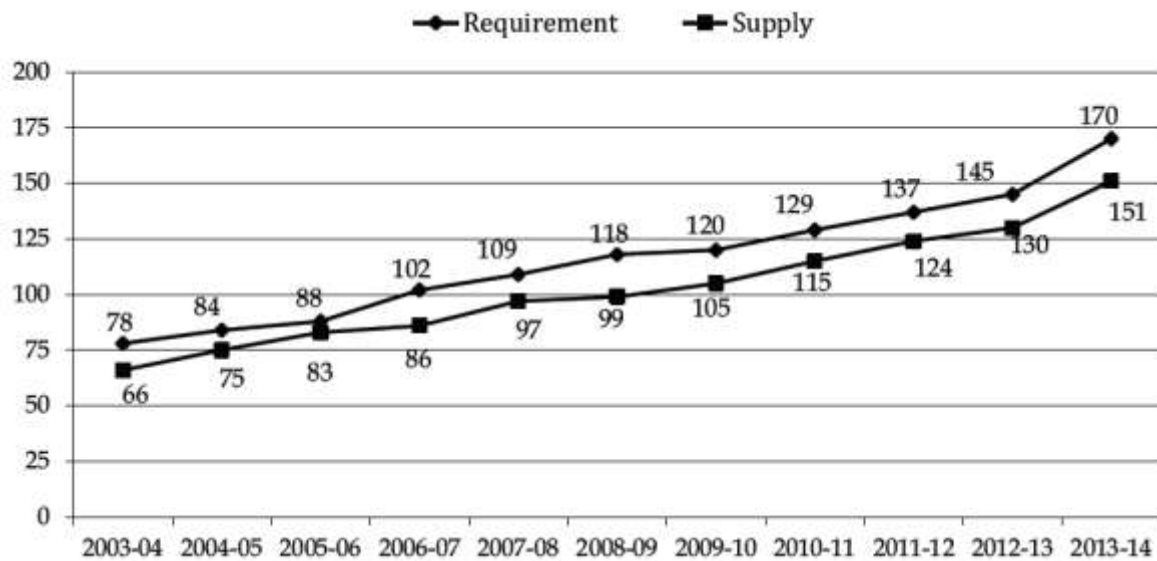
$$\% \text{ profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$



- 131.** For Company M, its income in 2009-10 was equal to its expenditure in 2010-11, what was the ratio of its respective incomes in these two years?  
 (a) 4:5 (b) 3:4 (c) 5:7 (d) Cannot be determined (e) None of these
- 132.** If the income of Company M in 2006-07 was equal to the expenditure of Company N in 2009-10 what was the ratio of their respective profits?  
 (a) 13:15 (b) 15:26 (c) 13:26 (d) Cannot be determined (e) None of these
- 133.** What was the difference in the expenditures of the two companies in 2007-08?  
 (a) 10 (b) 100 (c) 1000 (d) Cannot be determined (e) None of these
- 134.** In 2010-11 the income of Company N was Rs. 119 crores. What was its expenditure in that year?  
 (a) Rs. 76.8 crore (b) Rs. 64 crore (c) Rs. 70 crore  
 (d) Cannot be determined (e) None of these
- 135.** For Company N, in which year is the percent of increase in percent profit over that of previous year the highest?  
 (a) 2011-12 (b) 2007-08 (c) 2010-11 (d) Cannot be determined (e) None of these

**Directions (136-140): Study the graph and answer the following questions.**

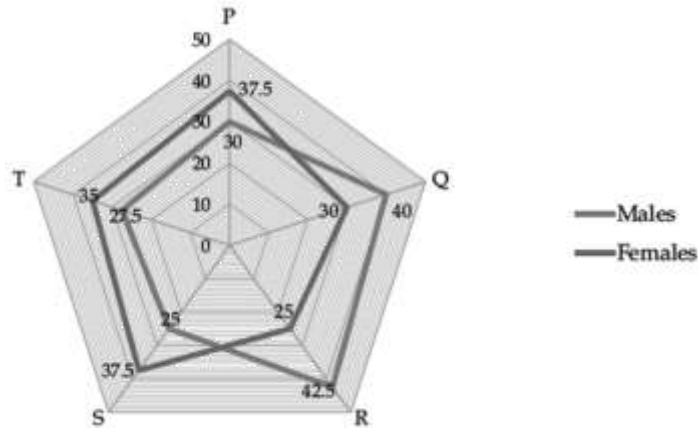
Power Supply Position in UP (in billion KWH)



- 136.** What was the approximate percentage increase in supply of power between 2009-10 and 2013-14?  
 (a) 56%                      (b) 145%                      (c) 43%                      (d) 85%                      (e) None of these
- 137.** The cumulative shortfall between requirement and supply from 2009 to the end of 2014 was (in billion)  
 (a) 56                      (b) 85                      (c) 45                      (d) 76                      (e) None of these
- 138.** The requirement of power in 2013-14 was approximately how many times the availability of supply in 2007-08?  
 (a) 2.6                      (b) 1.75                      (c) 2.75                      (d) 2.0                      (e) None of these
- 139.** The percentage of growth in power requirement from 2008-09 to 2013-14 was less than the percentage of growth in power requirement from 2003-04 to 2008-09 by what figure?  
 (a) 3                      (b) 4                      (c) 15                      (d) 7                      (e) None of these
- 140.** Between 2008-09 and 2012-13, the power generation has generally logged behind power demand by how many years?  
 (a) 1                      (b) 2                      (c) 3                      (d) 4                      (e) None of these

**Directions (141-145): Study the following Radar graph carefully and answer the questions given below.**

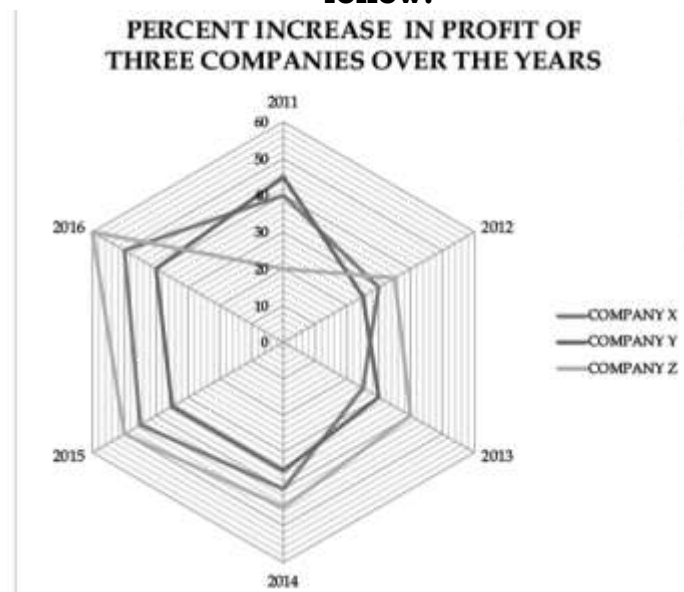
Number of students studying in different universities in a year (Numbers in Lac).



— Males  
— Females

- 141.** What is the average number of females in all the universities together?  
 (a) 3300000 (b) 350000 (c) 320000 (d) 3200000 (e) None of these
- 142.** What is the total number of students (males and females together) in University P and R together?  
 (a) 1300000 (b) 1350000 (c) 1400000 (d) 14500000 (e) None of these
- 143.** What is the respective ratio of the number of females from University P and Q together to the number of males in the Universities R and T together?  
 (a) 27 : 32 (b) 27 : 28 (c) 25 : 28 (d) 28 : 27 (e) None of these
- 144.** The number of males in University Q are what per cent of the total number of students (males and females together) in University S?  
 (a) 68 (b) 62 (c) 66 (d) 64 (e) None of these
- 145.** If the total number of males in University T increases by 50%, what would be the total number of students (males and females together) in that university?  
 (a) 7526000 (b) 76250000 (c) 7625000 (d) 75260000 (e) None of these

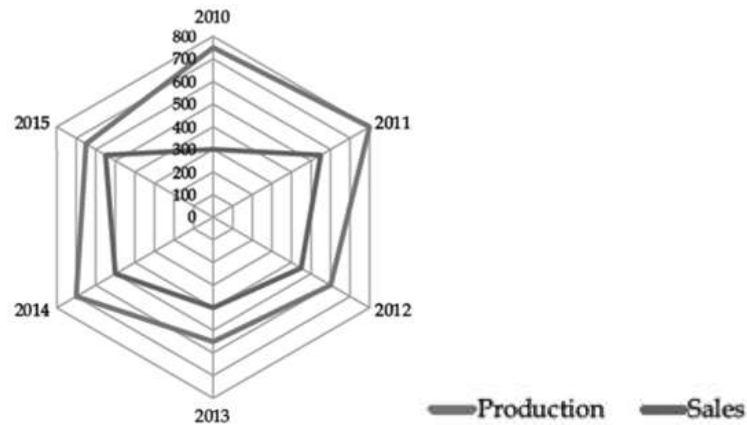
**Directions (146-150): Study the graph carefully to answer the questions that follow.**



- 146.** If profit for company Y in 2012 is 2000 and expenditure in 2013 for company Y is 50,000, then what is the total revenue in 2013 for Y? Give that total revenue = expenditure + profit.  
 (a) 52600      (b) 54200      (c) 53280      (d) 55800      (e) None of these
- 147.** If profit in year 2015 for company Z is 3000 and profit of company X in 2013 is equal to profit of company Z in 2014 then what is the profit of company X in 2013  
 (a) 1500      (b) 4000      (c) 3500      (d) 2000      (e) 2500
- 148.** What is the average percentage increase in profit for company Y over all the years.  
 (a) 49%      (b) 32%      (c) 23%      (d) 38%      (e) 35%
- 149.** What was the approximate percent increase in percent increase of profit of company X in the year 2014 from its previous year  
 (a) 60%      (b) 65%      (c) 55%      (d) 50%      (e) 70%
- 150.** If profit earned by company Y in 2014 is 27,000 and by company Z in 2014 is 43500 then what is the total profit earned by them in year 2013?  
 (a) 25,000      (b) 35,000      (c) 40,000      (d) 50,000      (e) None of these

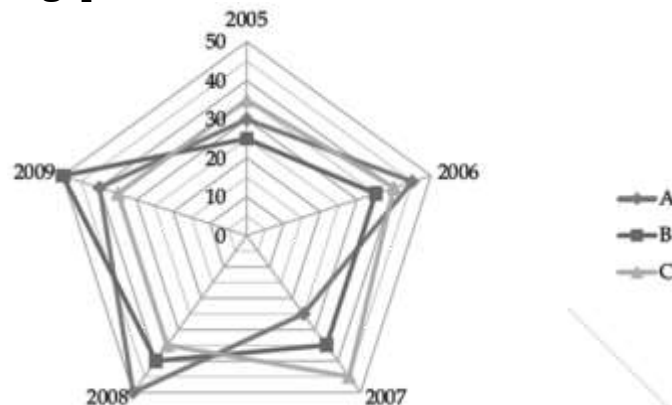
**Directions (151-155): Study the following graph carefully and answer the following question.**

The graph below represents the production (in tonnes) and sales (in tonnes) of a company X from 2010-2015



- 151.** If production of company X and another company Y is in the ratio 14 : 13 in year 2014 then production of company Y in 2014 is what percent more or less than production of company X in 2010.
- (a)  $13\frac{1}{3}\%$  (b)  $33\frac{1}{3}\%$  (c)  $66\frac{2}{3}\%$  (d)  $16\frac{2}{3}\%$  (e) None of these
- 152.** If production of company X in 2016 is 120% of its production in 2015 then what is the ratio of sales company X in 2010 to the production of company X in 2016.
- (a)  $\frac{7}{9}$  (b)  $\frac{13}{20}$  (c)  $\frac{20}{13}$  (d)  $\frac{5}{13}$  (e)  $\frac{7}{13}$
- 153.** If production cost is Rs. 1,500 per tonne and sale is at the rate of Rs. 2,800 per tonne over all years then what is the ratio of profit or loss of company X in 2013 to the profit or loss in year 2014. (Profit = Income through sales – Production cost)
- (a)  $\frac{59}{70}$  (b)  $\frac{20}{23}$  (c)  $\frac{53}{94}$  (d)  $\frac{27}{38}$  (e) None of these
- 154.** If production cost in year 2013 is 150 per tonne and production cost increases by 10% every year after 2013 then what is the average production cost of company X over all years after year 2013?
- (a) 12,20,239 (b) 1,16,737.5 (c) 2,22,467 (d) 1,33,647 (e) None of these
- 155.** If 35% of production of company X in 2010 is added to the sale of company X in 2012 then total sale of company X in 2012 is what percent of the total sale of company X over all the years now? (approximately)
- (a) 14% (b) 18% (c) 35% (d) 28% (e) 24%

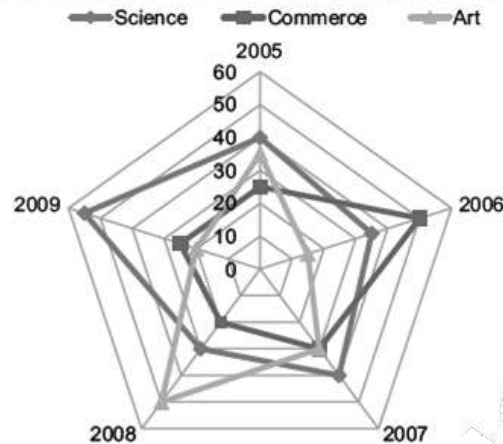
**Directions (156-160):** The following bar graph shows the production (in lakh tonnes) of 3 companies A, B and C in different years. Study the graph and answer the following questions:



- 156.** The average production (in lakh tonnes) of company A over the given years is:  
 (a) 32 (b) 36 (c) 38 (d) 35 (e) None of these
- 157.** The total production of all 3 companies together in 2008 is what percent more/less than that in 2006? (rounded off to two decimal points)  
 (a) 4.67% (b) 5.17% (c) 5.67% (d) 4.17% (e) 6.67%
- 158.** The total production of all 3 companies together is 2nd lowest in  
 (a) 2005 (b) 2006 (c) 2007 (d) 2008 (e) 2009
- 159.** What is the percentage decrease in total production of all 3 companies together in 2007 as compared to previous year?  
 (a) 10.5% (b) 11.5% (c) 9.5% (d) 12.5% (e) None of these
- 160.** What is the ratio of total production of company B to that of company C in all years together?  
 (a) 38 : 35 (b) 38 : 37 (c) 35 : 38 (d) 37 : 38 (e) None of these

**Directions (161-165):** Read the following graph and table carefully and answer the questions given below.

Percentage of admitted students in different discipline from 2005 to 2009



### Total number of admitted students in different years

Year	Total number of students
2005	12560
2006	14820
2007	13850
2008	16580
2009	11220

- 161.** What is the average number of students in Arts in 2008 and 2009 together?  
 (a) 5182      (b) 5475      (c) 5318      (d) 5267      (e) None of these
- 162.** The number of students in Science in 2008 is approximately what percent of the number of students in commerce in 2006?  
 (a) 67      (b) 72      (c) 63      (d) 58      (e) 78
- 163.** What is the difference between the number of students in Science in 2006 and number of students of Commerce in 2008?  
 (a) 1625      (b) 1546      (c) 1871      (d) 1781      (e) None of these
- 164.** What is the difference between the number of students in Arts in 2008 and number of students in Science in 2006?  
 (a) 3210      (b) 3103      (c) 3325      (d) 3014      (e) None of these
- 165.** What is the total number of students in Commerce in all the years?  
 (a) 28026      (b) 21642      (c) 22510      (d) 19441      (e) None of these

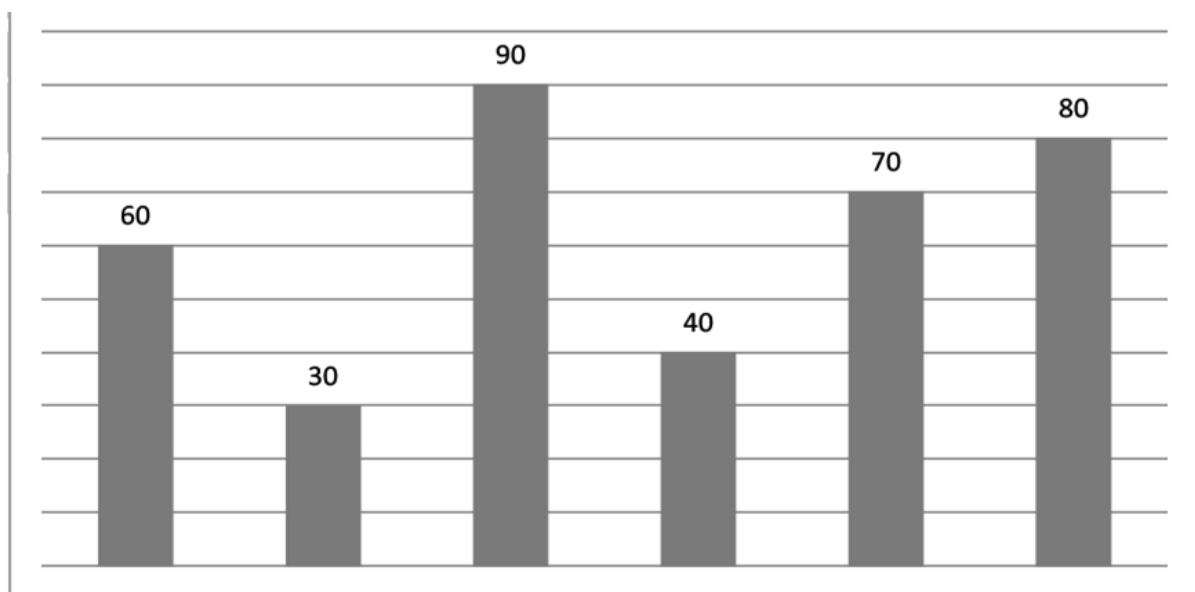
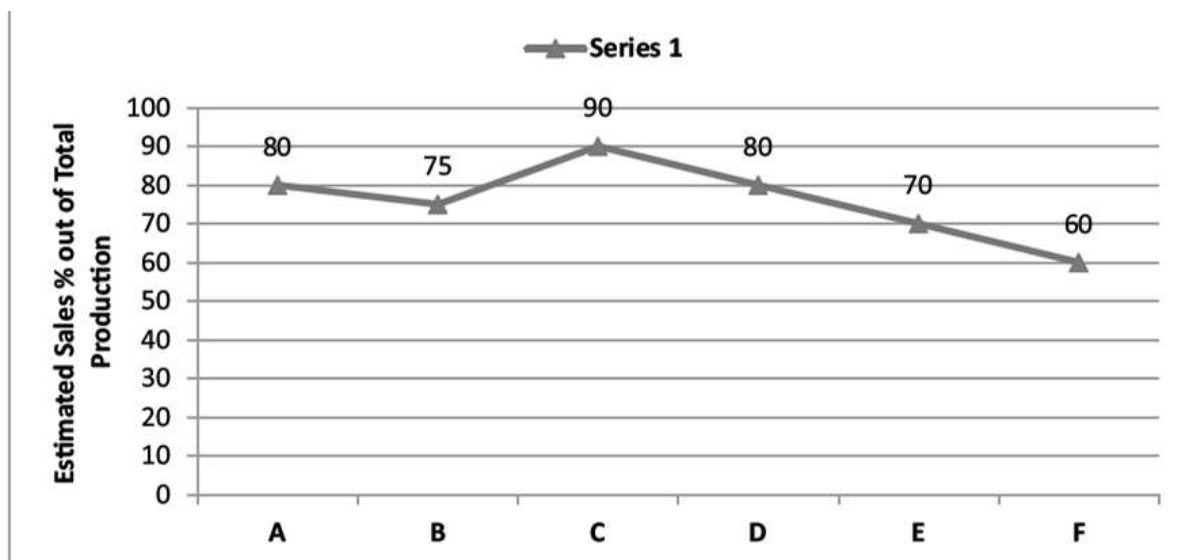
**Directions (166-170):** The table given below shows the no. of units produced of six different items by a company, the mark-up % on each unit and the discount offered on the marked-up price of each unit.

The cost price of all the items is same and fixed at Rs 100.

The line graph shows the estimated percentage of items sold by the company on the normal discounted price.

The bar graph shows the percentage of cost price at which the company sold the remaining no. Of items.( means the company sold the remaining no. of items at a price lower than the cost price)

	A	B	C	D	E	F
<b>ProductionUnit</b>	200	160	80	140	180	150
<b>Mark Up %</b>	50	60	80	40	60	45
<b>Discount %</b>	20	25	40	15	20	20

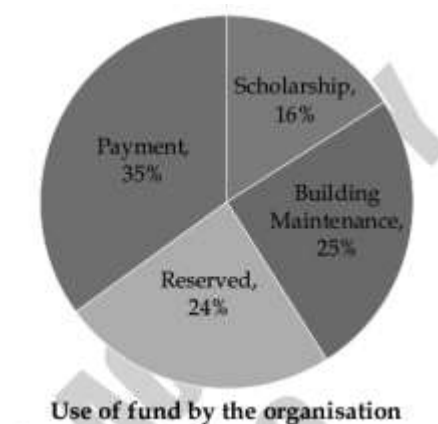
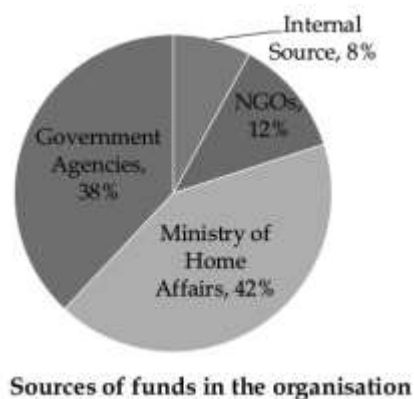




- 166.** Q11. Find profit % of A and B together in year 2015 if it is known that B sold only 90% of goods of what he actually estimated to sell in year 2015.  
 (a) 0.33% (b) 0.44% (c) 0.55% (d) 0.60% (e) None of these
- 167.** In year 2016 E has increased his discount % by 10 basis point and which lead to increase in its estimated sales by 20 basis point. Apart from that everything else remains same then what is the difference in profit in year 2015 to 2016.  
 (a) 504 (b) 508 (c) 512 (d) 516 (e) 520
- 168.** In year 2016 C decreased the discount % by 10 basis point due to which its sales reduced to 80% of total production of year 2015. By how much % profit will increase or decrease in 2016 compare to year 2015. (Approximately)  
 (a) Increased by 200% (b) Decreased by 210% (c) Increased by 203%  
 (d) Increased by 207% (e) Decreased by 207%
- 169.** What is the difference between the absolute profit of A, B and C together and D, E and F together in year 2015  
 (a) 750 (b) 800 (c) 900 (d) 1000 (e) None of these
- 170.** What is the profit % of all the companies together in year 2015. Approximately  
 (a) 4.9% (b) 4.6% (c) 5.1% (d) 4.7% (e) 5.4%

**Directions (171-175):** Study the following pie-charts carefully and answer the questions given below them.

The entire fund that an organization gets from different sources is equal to Rs. 16 crore.



- 171.** What is the difference between the fund acquired by the organization from NGOs and that from Government Agencies?  
 (a) Rs. 43268000 (b) Rs. 38650000 (c) Rs. 46800000 (d) Rs. 52860000 (e) None of the above

**172.** If the organization managed Building Maintenance from the Ministry of Home Affairs fund only, how much fund from the Ministry of Home Affairs would still be left for other use?

- (a) Rs. 2.72 crore (b) Rs. 7.23 crore (c) Rs. 5.20 crore (d) Rs. 3.06 crore (e) Rs. 8.03 crore

**173.** If the Scholarship has to be paid out of the fund from Government Agencies, find what is the approximate percentage of Government Agencies fund used for this purpose.

- (a) 42.11% (b) 38.6% (c) 31.23% (d) 48.3% (e) 52%

**174.** What is the total amount used by the organization for Payment?

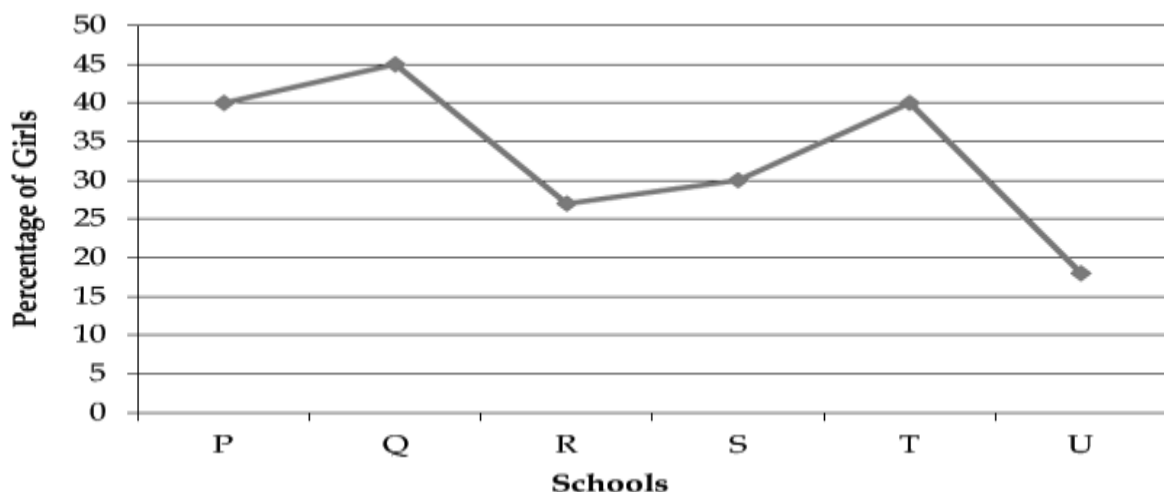
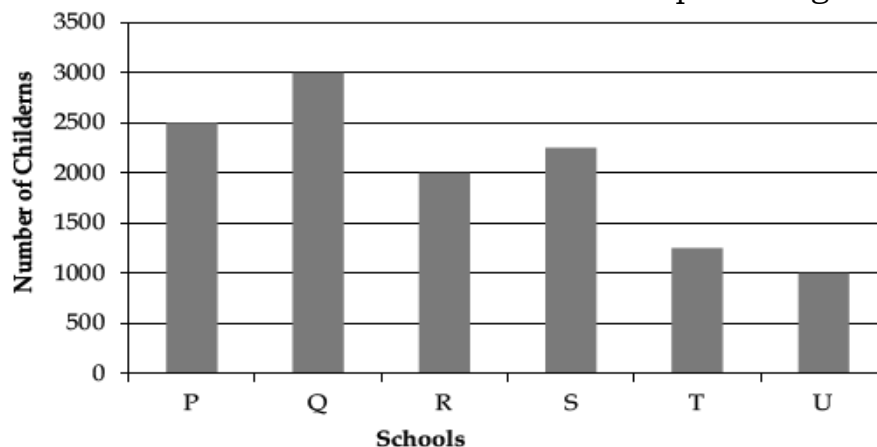
- (a) Rs. 4.8 crore (b) Rs. 6.3 crore (c) Rs. 5.6 crore (d) Rs. 9.73 crore (e) None of the above

**175.** What is the amount of fund acquired by the organization from Ministry of Home Affairs?

- (a) 6.25 crores (b) 6.2 crores (c) 6.72 crores (d) 9.25 crores (e) None of the above

**Directions (176-180):** Study the graphs carefully to answer the questions that follow.

Total number of children in 6 different schools and the percentage of girls in them



**176.** What is the total percentage of boys in schools R and U together? (rounded off to two digits after decimal)

- (a) 78.55      (b) 72.45      (c) 76.28      (d) 75.83      (e) None of these

**177.** What is the total number of boys in school T?

- (a) 500      (b) 600      (c) 750      (d) 850      (e) None of these

**178.** The total number of students in school R, is approximately what per cent of the total number of students in school S?

- (a) 89      (b) 75      (c) 78      (d) 82      (e) 94

**179.** What is the average number of boys in schools P and Q together?

- (a) 1425      (b) 1575      (c) 1450      (d) 1625      (e) None of these

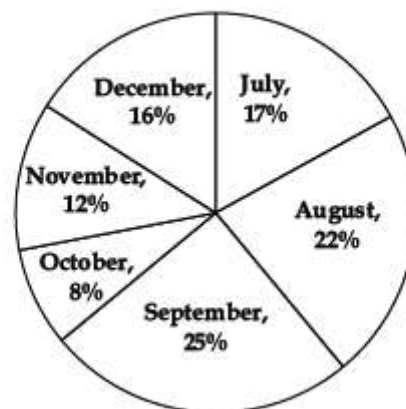
**180.** What is the respective ratio of the number of girls in schools P to the number of girls in school Q?

- (a) 27 : 20      (b) 17 : 21      (c) 20 : 27      (d) 21 : 17      (e) None of these

**Directions (181-185):** Study the following pie-chart and table carefully and answer the questions given below:

Percentage wise distribution of the number of mobile phones sold by a shopkeeper during six months

Total number of mobile phones sold = 45000



The ratio between the numbers of mobile phones sold of Company A and Company B during six Months

Month	Ratio
July	8 : 7
August	4 : 5
September	3 : 2
October	7 : 5
November	7 : 8
December	7 : 9

**181.** What is the ratio of the number of mobile phones sold of Company B during July to those sold during December of the same company?

- (a) 119 : 145      (b) 116 : 135      (c) 119 : 135      (d) 119 : 130      (e) None of these

**182.** If 35% of the mobile phones sold by Company A during November were sold at a discount, how many mobile phones of Company A during that month were sold without a discount?

- (a) 882      (b) 1635      (c) 1638      (d) 885      (e) None of these

**183.** If the shopkeeper earned a profit of Rs. 433 on each mobile phone sold of Company B during October, what was his total profit earned on the mobile phones of that company during the same month?

- (a) Rs. 6,49,900      (b) Rs. 6,45,900      (c) Rs. 6,49,400      (d) Rs. 6,49,500      (e) None of these

**184.** The number of mobile phones sold of Company A during July is approximately what percent of the number of mobile phones sold of Company A during December?

- (a) 110      (b) 140      (c) 150      (d) 105      (e) 130

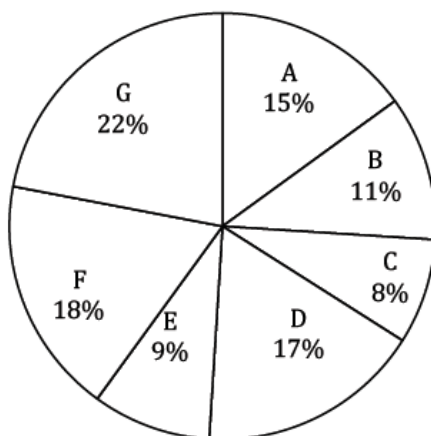
**185.** What is the total number of mobile phones sold of Company B during August and September together?

- (a) 10000      (b) 15000      (c) 10500      (d) 9500      (e) None of these

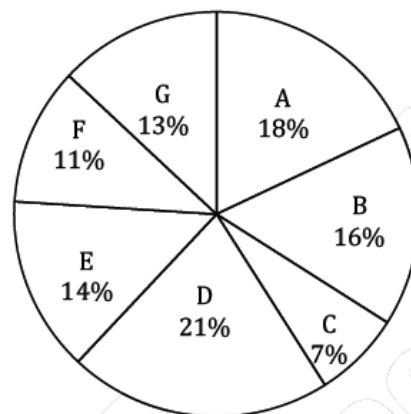
**Directions (186-190): These questions based on the following graphs**

Classification of appeared candidates in a competitive test from different states and qualified candidates from those states.

Appeared candidates = 45000.



Qualified candidates = 9000



**186.** What is the ratio of the number of appeared candidates from states C and E together to that of the appeared candidates from states A and F together?

- (a) 17 : 33      (b) 11 : 13      (c) 13 : 27      (d) 17 : 27      (e) None of these

**187.** In which state, the percentage of qualified candidates with respect to that of appeared candidates is minimum?

- (a) C      (b) F      (c) D      (d) E      (e) G

**188.** What is the difference between the number of qualified candidates of states D and those of G?

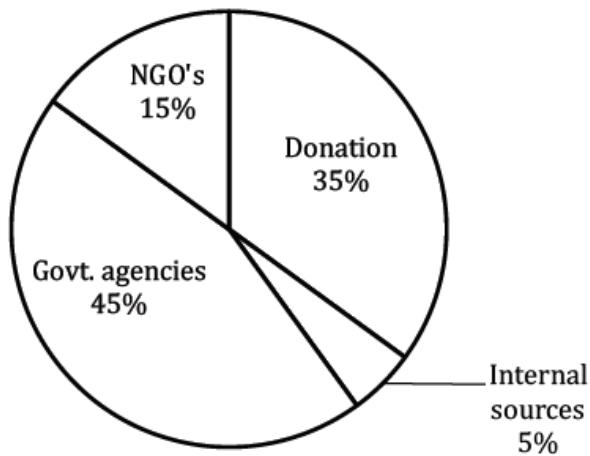
- (a) 690 these (b) 670 (c) 780 (d) 720 (e) None of these

- 189.** What is the percentage of qualified candidates with respect to appeared candidates from states B and C taken together? (rounded to two decimal places)  
 (a) 23.11 (b) 24.21 (c) 21.24 (d) 23 (e) None of these

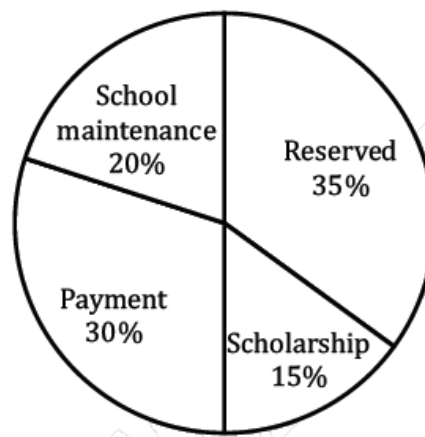
- 190.** What is the ratio between the number of candidates qualified from states B and D together to the number of candidates appeared from states 'C', respectively?  
 (a) 8 : 37 (b) 11 : 12 (c) 37 : 40 (d) 7 : 37 (e) None of these

**Directions (191-195): Study the following pie-charts carefully and answer the questions given below it.**

The entire fund that school gets from different sources in equal to Rs. 500 lakh



Sources of funds in school



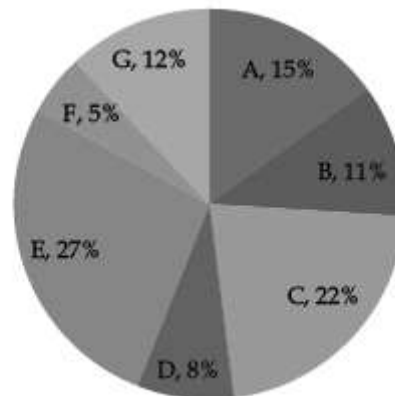
Uses of funds by school

- 191.** What is the difference between the funds acquired by school from NGO's and internal sources?  
 (a) Rs. 50 lakh (b) Rs. 45 lakh (c) Rs. 75 lakh (d) Rs. 25 lakh (e) None of these
- 192.** If the school managed school maintenance from the government agencies fund only, then how much fund from government agencies would still left for other use?  
 (a) Rs. 120 lakh (b) Rs. 150 lakh (c) Rs. 110 lakh (d) Rs. 95 lakh (e) None of these
- 193.** If scholarship has to be paid out of the donation fund, then what is the approximate per cent of donation fund used for his purpose?  
 (a) 43% (b) 53% (c) 37% (d) 45% (e) 32%
- 194.** What is the total amount used by the school for payment?  
 (a) Rs. 100 lakh (b) Rs. 110 lakh (c) Rs. 150 lakh (d) Rs. 140 lakh (e) None of these
- 195.** What amount of the fund is acquired by the school from government agencies?

- (a) Rs. 220 lakh (b) Rs. 310 lakh (c) Rs. 255 lakh (d) Rs. 225 lakh (e) None of these

**Directions (196-200):** Seven companies A, B, C, D, E, F and G are engaged in production of two items I and II. Comparative data about production of these items by the companies is given in the following graph and table. Study them carefully and answer the questions given below.

Percentage of the total production produced by the seven companies



Cost of the total production (both items together) by seven companies = Rs 25 crores  
Ratio of production between items I and II and the per cent profit earned for the two items

Company	Ratio of Production		Per cent profit earned	
	Item I	Item II	Item I	Item II
A	2	3	25	20
B	3	2	32	35
C	4	1	20	22
D	3	5	15	25
E	5	3	28	30
F	1	4	35	25
G	1	2	30	24

- 196.** What is the total cost of the production of item I by companies A and C together in Rs crore?  
(a) 9.25 (b) 5.9 (c) 4.1625 (d) 4.9 (e) None of these
- 197.** What is the amount of profit earned by company D on item II?  
(a) Rs 3.125cr (b) Rs 31.25 cr (c) Rs 3.125 lakhs (d) Rs 31.25 lakhs (e) None of these
- 198.** Cost of production of item I by company F is what per cent of the cost of production of item II by company D?  
(a) 16% (b) 33.33% (c) 66.67% (d) 20% (e) None of these

**199.** What is the ratio of the cost of production of item I by company A to the cost of production of item I by company D?

- (a) 3 : 5                      (b) 1 : 2                      (c) 2 : 1                      (d) 2 : 3                      (e) None of these

**200.** What is the total of the profit earned by company B on production of item I and the profit earned by company A on production of item II?

- (a) Rs 9.78 cr              (b) Rs 97.8 lakhs              (c) Rs 52.8 lakhs              (d) Rs 5.28 cr              (e) None of these

## 18. NUMBER SERIES

Directions: find the missing number in the following number series?

- 1.** 125, 152, 161, 169, 173, ?, 175 A) 180 B) 174  
C) 176 D) 184 E) 173
- 2.** 27, 54, 162, 648, ?, 19440  
A) 3274 B) 3280  
C) 3240 D) 3365 E) 3384
- 3.** 161, 320, 636, ?, 2512, 4992  
A) 1329 B) 1340  
C) 1264 D) 1380 E) 1348
- 4.** 4032, 4290, 4556, 4830, 5112, ? A) 5329 B) 5402  
C) 5302 D) 5529 E) 5482
- 5.** 16, ?, 296, 1192, 4776, 19112  
A) 90 B) 80  
C) 100 D) 75 E) 72
- 6.** 584, 559, 608, 527, ?, 479  
A) 627 B) 648  
C) 623 D) 608 E) 671
- 7.** 36, 90, ?, 1417.5, 7796.25, 50675.625  
A) 275 B) 517  
C) 364 D) 315 E) 385
- 8.** 28, 29, ?, 195, 796, 4005  
A) 62 B) 68  
C) 81 D) 83 E) 74
- 9.** 15, 40, 70, 150, ?, 590  
A) 310 B) 280  
C) 290 D) 300 E) 305
- 10.** 205, 989, 364, 848, 487, ?  
A) 748 B) 745  
C) 643 D) 648 E) 743

Directions: What will come in place of question mark (?) in the given number series?

- 11.** 3, 72, 129, 173, 203, ?  
A) 248 B) 227  
C) 254 D) 252 E) 218
- 12.** 4, 3, 5, 14, 55, ?  
A) 285 B) 274  
C) 319 D) 315 E) 265

- 13.** 3, 3, 12, 108, ?, 43200  
A) 2700 B) 1728  
C) 972 D) 432 E) 650
- 14.** 24, 12, 12, 18, 36, ?  
A) 92 B) 90  
C) 94.5 D) 81.5 E) 108
- 15.** 126, 64, 34, 20, ?, 12  
A) 18 B) 12  
C) 14 D) 16 E) 15
- 16.** 455, 212, 131, 104, 95, ?  
A) 84 B) 92  
C) 45 D) 61 E) 49
- 17.** 2, 3, 8, 27, 112, ?  
A) 565 B) 650  
C) 316 D) 290 E) 430
- 18.** 45, 57, 67, 75, 81, ?  
A) 89 B) 85  
C) 105 D) 91 E) 78
- 19.** 36, 37, 33, 42, 26, ?  
A) 51 B) 41  
C) 61 D) 45 E) 49
- 20.** 5, 7.5, 15, 37.5, ?, 393.75  
A) 80 B) 112.5  
C) 160 D) 48 E) 72

Directions: What will come in place of question mark (?) in the given number series?

- 21.** 10, 11, 15, 24, 40, ?  
A) 90 B) 87  
C) 114 D) 95 E) 65
- 22.** 25, 35, 49, 67, 89, ?  
A) 24 B) 81  
C) 115 D) 107 E) 93
- 23.** 11, 9, 15, 41, 159, ?  
A) 740 B) 607  
C) 751 D) 789 E) 785
- 24.** 8.5, 10.5, 16.5, 28.5, 48.5, ?  
A) 57.5 B) 78.5  
C) 93.5 D) 64.5 E) 85.5



25. 18, 9, 9, 18, 72, ?  
A) 460 B) 372  
C) 576 D) 484 E) 380
26. 68, ?, 77, 104, 168, 293  
A) 69 B) 70  
C) 68 D) 74 E) None of these
27. 18, 19.7, 16.3, 23.1, 9.5, ?  
A) 36.5 B) 36.8  
C) 36.7 D) 36.9 E) None of these
28. 2, 5, 12, 27, 58, ?  
A) 122 B) 121  
C) 123 D) 120 E) None of these
29. 16, 8, 12, 30, ?, 472.5  
A) 104 B) 103  
C) 106 D) 105 E) None of these
30. 334, ?, 226, 217, 214, 213  
A) 253 B) 251  
C) 252 D) 254 E) None of these

Directions: What will come in place of question mark (?) in the given number series?

31. 5, 9, 25, 89, ?, 1369  
A) 343 B) 355  
C) 349 D) 341 E) 345
32. 6, 17, 50, 149, ?, 1337  
A) 454 B) 446  
C) 442 D) 452 E) 432
33. 61, 62, 54, 81, 17, ?  
A) 142 B) 145  
C) 138 D) 144 E) 140
34. 6, 11, 18, 29, 46, ?  
A) 60 B) 75  
C) 69 D) 71 E) 79
35. 26, 13, 13, 19.5, ?, 97.5  
A) 39 B) 45  
C) 48 D) 41 E) 35
36. 82, 93, ?, 148, 192, 247  
A) 124 B) 122  
C) 117 D) 115 E) 120
37. 163, ?, 188, 216, 253, 298  
A) 175 B) 168  
C) 171 D) 170 E) 169
38. 224, 228, 219, 235, ?, 246

- A) 210 B) 209  
C) 220 D) 225 E) 215

39. 52, 102, 303, 1208, ?, 36204  
A) 6240 B) 6040  
C) 6035 D) 6020 E) 6340
40. 121, 128, 144, 168, 199, ?  
A) 237 B) 236  
C) 226 D) 216 E) 246

Directions : What should come in place of question mark in the following number series?

41. 5, ?, 41, 191, 941, 4691  
A) 12 B) 15  
C) 18 D) 21 E) 11
42. 5000, 2508, 1262, 639, ?, 71.75  
A) 329.6 B) 339  
C) 327.5 D) 326 E) 335.5
43. 9, 5, ?, 10.5, 23, 60  
A) 8 B) 7.5  
C) 9 D) 6 E) 5.5
44. 16, 18, 27, 55, 120, ?  
A) 232 B) 246  
C) 254 D) 242 E) 248
45. 13, 10.8, 5.4, 8.2, 17.8, ?  
A) 5.8 B) 5.6  
C) 6.2 D) 7.2 E) 6.8
46. 4, 19, 64, 139, ?, 379  
A) 254 B) 233  
C) 236 D) 244 E) 262
47. 7, 17, 37, 77, ?, 317  
A) 167 B) 160  
C) 157 D) 147 E) 151

Directions: Find out the missing number in place of question mark (?) in the following number series.

48. 3, 7, 29, 143, 779, ?  
A) 4997 B) 4649  
C) 4847 D) 4799 E) 4999
49. 4, 5, ?, 88, 620, 5585  
A) 16 B) 18  
C) 17 D) 20 E) 22
50. 11, 20, 42, ?, 166, 330

- A) 72                      B) 66  
C) 86                      D) 80                      E) 82

- 51.** 128, 64, 96, 240, ?, 3780  
A) 740                      B) 840  
C) 850                      D) 845                      E) 745
- 52.** 8484, ?, 8486, 8495, 8488, 8493  
A) 8485                      B) 8584  
C) 8684                      D) 8497                      E) 8496
- 53.** 68, 132, 268, ?, 1068, 2132  
A) 394                      B) 464  
C) 325                      D) 532                      E) 484
- 54.** 23, 12, 13, 21, ?, 112.5  
A) 33                      B) 44  
C) 55                      D) 66                      E) 65
- 55.** 8, 10, 18, 44, 124, ?  
A) 366                      B) 263  
C) 194                      D) 276                      E) 286
- 56.** 4, 4, 21, 68, ?, 2154  
A) 435                      B) 365  
C) 462                      D) 572                      E) 425
- 57.** 7, 20, 59, 176, ?, 1580  
A) 527                      B) 526  
C) 627                      D) 562                      E) 270

Directions: what should come in the place of question mark (?) in the given number series?

- 58.** 14, 8, 7, 11.5, 22, ?  
A) 54                      B) 64  
C) 62                      D) 58                      E) 56
- 59.** 8, 14, 25, 46, 82, ?  
A) 132                      B) 130  
C) 138                      D) 128                      E) 142
- 60.** 13, 14, 30, 93, ?, 1885  
A) 358                      B) 336  
C) 364                      D) 376                      E) 380
- 61.** 65, 70, 63, 74, 61, ?  
A) 78                      B) 58  
C) 72                      D) 46                      E) 68
- 62.** 9, 11, 16, 33, 98, ?  
A) 350                      B) 355  
C) 360                      D) 365                      E) 370
- 63.** 4, 11, 26, 57, 120, ?  
A) 247                      B) 251

- C) 187                      D) 236                      E) 215

- 64.** 50, 81, 121, 172, 236, ?  
A) 392                      B) 309  
C) 361                      D) 379                      E) 315
- 65.** 84, 82.4, 85.6, 80.8, ?, 79.2  
A) 72.8                      B) 86.4  
C) 88.8                      D) 87.2                      E) 85.7
- 66.** 900, 448, 220, 104, 44, ?  
A) 8                      B) 16  
C) 24                      D) 42                      E) 12
- 67.** 60, ?, 120, 80, 40, 16  
A) 90                      B) 110  
C) 120                      D) 70                      E) 100
- Directions: what should come in place of question mark (?) in the following questions?
- 68.** 2, 2, 4, 16, ?, 2048  
A) 138                      B) 128  
C) 256                      D) 124                      E) 40
- 69.** 2, ?, 27, 113, 561, 3369  
A) 11                      B) 13  
C) 9                      D) 15                      E) 18
- 70.** 4, 14, ?, 149, 295, 293  
A) 40                      B) 45  
C) 50                      D) 51                      E) 48
- 71.** 5, 12, 38, ?, 772, 4634  
A) 150                      B) 158  
C) 160                      D) 162                      E) 154
- 72.** 37, ?, 222, 666, 1332, 3996  
A) 120                      B) 110  
C) 111                      D) 119                      E) 118
- 73.** 14, 12.4, 15.6, ?, 17.2, 9.2  
A) 10.8                      B) 12  
C) 12.8                      D) 14.6                      E) 18.6
- 74.** 28, ?, 168, 672, 3360, 20160  
A) 60                      B) 84  
C) 72                      D) 56                      E) 40
- 75.** ?, 256, 3375, 196, 2197, 144  
A) 4319                      B) 4923  
C) 4913                      D) 4139                      E) 4096
- 76.** 987, ?, 945, 1071, 903, 1113  
A) 1040                      B) 1039  
C) 1030                      D) 1029                      E) 1027

- 77.** 480, 240, 160, ?, 96, 80  
 A) 100 B) 120  
 C) 136 D) 140 E) 135

Directions: What will come in place of question mark (?) in the given number series?

- 78.** 28 39 63 102 158 ?  
 A) 232 B) 242 C) 233  
 D) 244 E) None of these

- 79.** 7 16 141 190 919 ?  
 A) 1029 B) 1019 C) 1020  
 D) 1030 E) None of these

- 80.** 12 17 32 57 92 ?  
 A) 198 B) 195 C) 137  
 D) 205 E) None of these

- 81.** 19 25 45 87 159 ?  
 A) 254 B) 279 C) 284  
 D) 269 E) None of these

- 82.** 83 124 206 370 698 ?  
 A) 1344 B) 1324 C) 1364  
 D) 1334 E) None of these

Directions : In each of these questions a number series is given. In each series only one number is missing. Find out the number.

- 83.** 78 421 -91 ? -362 969  
 A) 645 B) 635 C) 640  
 D) 648 E) 638

- 84.** 584 662 1246 1908 ? 5062  
 A) 3155 B) 3164 C) 3154  
 D) 3162 E) 4654

- 85.** 51 74 143 350 971 ?  
 A) 2818 B) 2318 C) 2384  
 D) 2834 E) 2438

- 86.** 740 ? 181 86.5 38.25 13.125  
 A) 364 B) 368 C) 366  
 D) 378 E) 374

- 87.** 4 25 ? 511 1537 3079  
 A) 125 B) 129 C) 137  
 D) 127 E) 139

Directions: What should come in place of question mark (?) in the following number series?

- 88.** 6 -3 24 -57 186 ?  
 A) -582 B) 475 C) 627  
 D) 545 E) 543

- 89.** 4 8 14 23 36.5 ?  
 A) 124 B) 91.75 C) 108.5  
 D) 84.5 E) 56.75

- 90.** 9 5 6 10.5 23 ?  
 A) 60 B) 16 C) 18.5  
 D) 42.5 E) 32.5

- 91.** 1 19 55 112 193 ?  
 A) 301 B) 336 C) 330  
 D) 252 E) 636

- 92.** 3 7 15 31 63 ?  
 A) 95 B) 125 C) 128  
 D) 127 E) 98

- 93.** 13 27 56 ? 234 473  
 A) 110 B) 112 C) 115  
 D) 120 E) 80

- 94.** 48 144 288 864 1728 ?  
 A) 5164 B) 4185 C) 5284  
 D) 5184 E) 5418

- 95.** 46656 1156 32768 ? 21952 676  
 A) 861 B) 900 C) 2700  
 D) 961 E) 841

- 96.** 4 14 32 60 ? 154  
 A) 90 B) 80 C) 95  
 D) 100 E) 108

- 97.** 56 ? 80 102 128 161  
 A) 66 B) 67 C) 77  
 D) 75 E) 87

Direction: What value should come in the place of question mark (?) in the following number series:

- 98.** 3, 11, 54, 339, 2732, ?  
 A) 21650 B) 27345 C) 22852  
 D) 27356 E) 27375

- 99.** 358, 320, 284, 250, ?  
 A) 236 B) 258 C) 264  
 D) 218 E) 278

- 100.** 8, 22, 80, 364, ?  
 A) 4805 B) 2010 C) 2007  
 D) 2560 E) 2700

- 101.** 7, 22, 118, 1107, ?  
A) 24334 B) 17756 C) 17779  
D) 17772 E) 28986

- 102.** 8, 37, 104, 233, 454, ?  
A) 338 B) 837 C) 823  
D) 934 E) 803

Direction: What will come in place of the question mark :

- 103.** 15, 16, 10, 33, ?, 66.25  
A) 14.50 B) 12.50 C) 12.25  
D) 22.25 E) None of these

- 104.** 2, 9, 82, ?, 32801  
A) 13130 B) 13456 C) 1313  
D) 2675 E) None of these

- 105.** 32, 321, 682, 1123, ?, 2277  
A) 1702 B) 1652 C) 1834  
D) 1567 E) None of these

- 106.** 84, ?, 78, 109, 72, 113, 70  
A) 109 B) 124 C) 144  
D) 107 E) None of these

- 107.** 11, 15, ?, 71, 333  
A) 27 B) 36 C) 29  
D) 25 E) None of these

Direction: What value should come in the place of question mark (?) in the following number series :

- 108.** 6, 11, 32, 111, 464, ?  
A) 2165 B) 2205 C) 2285  
D) 2345 E) 2375

- 109.** 3, 14, 39, 84, 155, ?  
A) 236 B) 258 C) 264  
D) 272 E) 278

- 110.** 8, 12, 24, 60, 180, ?  
A) 480 B) 510 C) 630  
D) 720 E) 780

- 111.** 168, 171, 178, 191, 212, ?  
A) 243 B) 247 C) 251  
D) 254 E) 257

- 112.** 4, 7, 10, 11, 22, 19, 46, ?  
A) 33 B) 35 C) 37  
D) 39 E) 41

Direction: What will come in place of the

question mark :

- 113.** 124, 228, 436, ?, 1684, 3348  
A) 944 B) 852 C) 872  
D) 444 E) None of these

- 114.** 1, 3, 24, 360, 8640, ?, 14515200  
A) 282400 B) 292400 C) 302400 D) 25426  
E) None of these

- 115.** 10, 17, 48, 165, ?, 3475, 20892  
A) 688 B) 712 C) 848  
D) 918 E) None of these

- 116.** 15, 17, 38, 120, 488, ?, 14712  
A) 2450 B) 2650 C) 2850  
D) 2950 E) None of these

- 117.** 1, 6, 19, ?, 85, 146, 231  
A) 46 B) 44 C) 48  
D) 65 E) None of these

Directions: What should come in place of the question mark (?) in the following number series?

- 118.** 7 5 7 17 63 ?  
A) 308 B) 302 C) 309  
D) 409 E) 390

- 119.** 50 ? 61 89 154 280  
A) 52 B) 51 C) 60  
D) 62 E) 60

- 120.** 17 19 25 37 ? 87  
A) 47 B) 37 C) 57  
D) 67 E) 75

- 121.** 11 14 19 28 43 ?  
A) 55 B) 44 C) 77  
D) 88 E) 66

- 122.** 26 144 590 1164 ?  
A) 1296 B) 1182 C) 2059  
D) 1182 E) 1181

- 123.** 2916 972 ? 108 36 12  
A) 324 B) 234 C) 248  
D) 391 E) None of these

- 124.** 8, 27, 125, ?, 1331  
A) 512 B) 216 C) 81  
D) 343 E) 169

- 125.** 2 11 30 97 ? 1975  
A) 325 B) 360 C) 34  
D) 394 E) 376

- 126.** 8 47 234 935 ? 5607  
 A) 2804 B) 2802 C) 2808  
 D) 2801 E) 2800

- 127.** 6 9 15 27 51 ?  
 A) 84 B) 75 C) 99  
 D) 123 E) None of the above

Directions :What should come in place of question mark (?) in the following number series?

- 128.** 15, 21, 39, 77, 143, ?  
 A) 243 B) 240 C) 253  
 D) 245 E) None of these

- 129.** 33, 39, 57, 87, 129, ?  
 A) 183 B) 177 C) 189  
 D) 199 E) None of these

- 130.** 15, 19, 83, 119, 631, ?  
 A) 731 B) 693 C) 712  
 D) 683 E) None of these

- 131.** 19, 26, 40, 68, 124, ?  
 A) 246 B) 238 C) 236  
 D) 256 E) None of these

- 132.** 43, 69, 58, 84, 73, ?  
 A) 62 B) 98 C) 109  
 D) 63 E) None of these

- 133.** 1, 7, 49, 343, ?  
 A) 16807 B) 1227 C) 2058  
 D) 2401 E) None of these

- 134.** 13, 20, 39, 78, 145, ?  
 A) 234 B) 244 C) 236  
 D) 248 E) None of these

- 135.** 12, 35, 81, 173, 357, ?  
 A) 725 B) 715 C) 726  
 D) 736 E) None of these

- 136.** 3, 100, 297, 594, 991, ?  
 A) 1489 B) 1479 C) 1478  
 D) 1498 E) None of these

- 137.** 112, 119, 140, 175, 224, ?  
 A) 277 B) 276 C) 287  
 D) 266 E) None of these

- 138.** 1, 4, 9, 16, 25, ?  
 A) 49 B) 60 C) 30  
 D) 36 E) 48

- 139.** 2, 5, 11, 23, ?  
 A) 46 B) 52 C) 47  
 D) 57 E) 48

- 140.** 198, 194, 185, 169, ?  
 A) 92 B) 136 C) 144  
 D) 112 E) None of these

- 141.** 101, 100, ?, 87, 71, 46  
 A) 92 B) 88 C) 89  
 D) 96 E) None of these

- 142.** 100, 50, 52, 26, 28, ?, 16, 8  
 A) 30 B) 36 C) 14  
 D) 32 E) None of these

- 143.** 462, 420, 380, ?, 306  
 A) 322 B) 332 C) 342  
 D) 352 E) None of these

- 144.** 0, 6, 24, 60, 120, 210, ?  
 A) 290 B) 240 C) 336  
 D) 504 E) None of these

- 145.** 3, 15, 35, 63, ?, 143  
 A) 120 B) 110 C) 99  
 D) 91 E) None of these

- 146.** 4, 9, 19, 39, 79, ?  
 A) 159 B) 119 C) 139  
 D) 169 E) None of these

- 147.** 5, 10, 8, 12, 11, 14, ?, 16  
 A) 17 B) 13 C) 20  
 D) 14 E) None of these

- 148.** 3, 732, 1244, 1587, 1803, 1928, ?  
 A) 2144 B) 1999 C) 1995  
 D) 2053 E) None of these

- 149.** 16, 24, ?, 210, 945, 5197.5, 33783.76  
 A) 40 B) 36 C) 58  
 D) 60 E) None of these

- 150.** 5, 12, 36, 123, ?, 2555, 15342  
 A) 508 B) 381 C) 504  
 D) 635 E) None of these

- 151.** 8, 11, 17, ?, 65, 165.5, 498.5  
 A) 27.5 B) 32 C) 28  
 D) 30.5 E) None of these

- 152.** 9, 15, 27, 51, 99, ?  
 A) 165 B) 195 C) 180  
 D) 190 E) None of these

- 153.** 13, 21, 36, 58, 87, ?  
A) 122 B) 128 C) 133  
D) 123 E) None of these

- 154.** 7, 9, 19, 45, 95, ?  
A) 150 B) 160 C) 145  
D) 177 E) None of these

- 155.** 14, 15, 23, 32, 96, ?  
A) 121 B) 124 C) 152  
D) 111 E) None of these

- 156.** 20, 24, 36, 56, 84, ?  
A) 116 B) 124 C) 120  
D) 128 E) None of these

- 157.** 117, 389, 525, 593, 627, ?  
A) 654 B) 640 C) 6  
D) 630 E) None of these

Directions : What will come in place of question mark(?)in the given number series?

- 158.** 161). 264 262 271 243 308 ?  
A) 216 B) 163 C) 194  
D) 205 E) 182

- 159.** 1.5 2.5 7 24 100 ?  
A) 345 B) 460 C) 525  
D) 380 E) 505

- 160.** 71 78 92 120 ? 288  
A) 160 B) 176 C) 199  
D) 208 E) 164

- 161.** 17 9 10 16.5 35 ?  
A) 192 B) 80 C) 114  
D) 90 E) 76

- 162.** 79 39 19 9 4 ?  
A) 0.2 B) 1.5 C) 0.5  
D) 2 E) 1

Directions: What will come in place of question mark (?)in the following number series?

- 163.** 13 13 19 43 103 ?  
A) 221 B) 227 C) 223  
D) 217 E) 239

- 164.** 27 13 12 16.5 ? 75  
A) 31 B) 29 C) 37  
D) 33 E) 35

- 165.** 17 19 42 132 ? 2690  
A) 532 B) 544 C) 528  
D) 536 E) 512

- 166.** 25 29 67 217 ? 4501  
A) 927 B) 877 C) 885  
D) 911 E) 893

- 167.** 21 38 59 84 113 ?  
A) 138 B) 152  
C) 134 D) 146 E) 148

Directions : Find the missing number in the series given below.

- 168.** 16, 22, 34, 58, 106, ?, 394  
A) 178 B) 175  
C) 288 D) 202 E) 206

- 169.** 10, 33, 102, 309, ?  
A) 1030 B) 1050  
C) 928 D) 930 E) 935

- 170.** 121, 112, ?, 97, 91, 86  
A) 102 B) 108  
C) 99 D) 104 E) 106

- 171.** 975, 864, 753, 642, ?  
A) 431 B) 314  
C) 531 D) 532 E) 542

- 172.** 3, 4, 7, 11, 18, 29, ?  
A) 31 B) 39  
C) 43 D) 47 E) 32

- 173.** 26, 37, 50, 65, ?, 101  
A) 77 B) 80  
C) 81 D) 82 E) 83

- 174.** 758, 753, 748, 744, 740, 736, ?  
A) 732 B) 733  
C) 734 D) 735 E) 736

- 175.** 15, 17, 20, 22, 27, 29, ?, ?  
A) 31, 38 B) 36, 38  
C) 36, 43 D) 38, 45 E) 39, 46

- 176.** 90, 61, 52, 63, 94, ?, 18  
A) 72 B) 46  
C) 54 D) 81 E) 82

- 177.** 8, 24, 12, ?, 18, 54  
A) 28 B) 36  
C) 46 D) 38 E) 42

- 178.** 3, 6 18, 72, ?

- A) 144                      B) 216  
C) 288                      D) 360                      E) 152

- 179.** 24, 60, 120, 210, ?  
A) 300                      B) 336                      C) 420                      D) 525                      E) 250

- 180.** 5, 16, 51, 158, ?  
A) 1452                      B) 483                      C) 481                      D) 1454                      E) 1500

- 181.** 4, ?, 144, 400, 900, 1764  
A) 25                      B) 36                      C) 49                      D) 100                      E) 120

- 182.** 8, 3, 11, 14, 25  
A) 50                      B) 39                      C) 29                      D) 11                      E) 12

- 183.** 980, 392, 156.8, ?, 25.088, 10.0352  
A) 66.04                      B) 61.28                      C) 63.72                      D) 64.85                      E) None of these

- 184.** 77, 59, 55, 35, 25, ?  
A) 24                      B) 28                      C) 20                      D) 27                      E) 29

- 185.** 99, 82, 18, 11, ?  
A) 5                      B) 10                      C) 2                      D) 9                      E) 8

- 186.** 17, 36, 74, 150, ?, 606  
A) 250                      B) 303                      C) 300                      D) 302                      E) 305

- 187.** 51975, 9450, 2100, 600, 240, 160, ?  
A) 80                      B) 120                      C) 320                      D) 240                      E) None of these

Directions: Find the missing number (P) in the following series

- 188.** 126 158 174 P 186 188  
A) 180                      B) 182                      C) 184                      D) 178                      E) None of these

- 189.** 2.7 P 3.6 2.4 4.8 3.2  
A) 1.5                      B) 1.8 C) 2.1                      D) 2.4                      E) 2.5

- 190.**  $15\frac{2}{3}$   $13\frac{1}{3}$  ?  $8\frac{2}{3}$   $6\frac{1}{3}$  4  
A) 8                      B) 9                      C) 10                      D) 11                      E) None of these

- 191.** P 58 84 114 146 182 220  
A) 28                      B) 30                      C) 32

- D) 34                      E) 36

- 192.** 127 P 85 67 51 37 25  
A) 105                      B) 100                      C) 95                      D) 90                      E) None of these

Directions : What should come in place question mark (?) in the following number series?

- 193.** 262 234 206 178 150 122 ?  
A) 76                      B) 78                      C) 84                      D) 89                      E) 94

- 194.** 4762 4627 4494 4363 4234 ?  
A) 4147                      B) 4137                      C) 4127                      D) 4117                      E) 4107

- 195.** 672 560 448 336 224 ?  
A) 172                      B) 142                      C) 132                      D) 112                      E) 102

- 196.** 18 97 396 1197 2404 ?  
A) 2816                      B) 3215                      C) 3612                      D) 2415                      E) 3600

- 197.** 26 144 590 1164 ?  
A) 1864                      B) 1732                      C) 1460                      D) 1296                      E) 1182

Directions : What should come in place of question mark (?) in the following number series?

- 198.** 1 2 6 15 31 56 ?  
A) 96                      B) 94                      C) 98                      D) 92                      E) 99

- 199.** 41 39 43 37 45 ?  
A) 55                      B) 36                      C) 33                      D) 35                      E) 49

- 200.** 3 8 23 68 203 ?  
A) 607                      B) 608                      C) 604                      D) 606                      E) 610

- 201.** 12 6 6 9 18 ?  
A) 45                      B) 54                      C) 63                      D) 36                      E) 32

- 202.** 9 15 27 45 69 99 ?  
A) 137                      B) 133                      C) 135                      D) 139                      E) 149

- 203.** 2 51 87 112 ? 137  
A) 148                      B) 121                      C) 128

D) 118 E) None of these

**204.** 2 3 8 27 ? 565 3396

A) 34 B) 108 C) 110  
D) 112 E) 120

**205.** 8 5 ? 26.75 97.625 444.3125

A) 10.5 B) 9.5 C) 7.5  
D) 12.5 E) 11.25

**206.** 27 125 ? 729 1331 2197

A) 216 B) 343 C) 512  
D) 289 E) 256

**207.** 4 10 30 102 ? 2110

A) 610 B) 420 C) 121  
D) 120 E) 510

Directions : What should come in place of questions mark (?) in the following number series?

**208.** 7, 35, 105, 525, 1575, 7875, ?

A) 39375 B) 23625 C) 11815  
D) 15750 E) None of these

**209.** 0, 5, 24, 75, 152, ?

A) 153 B) 304 C) 308  
D) 312 E) None of these

**210.** 17, 19, 21, 22, 25, 25, 29, 28, ?

A) 31 B) 32 C) 33  
D) 34 E) None of these

**211.** 16, 48, 24, 72, 36, 108, ?

A) 148 B) 196 C) 216  
D) 224 E) None of these

**212.** 2/31, 5/17, 12.5/23, 31.25/19, 78.125/15, ?/11.

A) 156.25 B) 156.3125 C) 234.375 D) 312.5  
E) None of these

**213.** 11, 13, 17, 19, 23, 29, 31, 37, ?

A) 47 B) 43 C) 41  
D) 39 E) None of these

**214.** 165, 195, 255, 285, 345, ?

A) 375 B) 420 C) 435  
D) 390 E) None of these

**215.** 7, 26, 63, 124, 215, 342, ?

A) 481 B) 511 C) 391  
D) 421 E) 451

**216.** 2, 4, 12, 48, 240, ?

A) 1920 B) 960 C) 1080

D) 1440 E) None of these

**217.** 8, 7, 11, 12, 14, 17, 17, 22, ?

A) 20 B) 22 C) 24  
D) 27 E) None of these

Directions: What will come in place of question mark (?) in the following number series?

**218.** 13, 16, 22, 33, 51, ?

A) 89 B) 78 C) 102  
D) 69 E) None of these

**219.** 39, 52, 78, 117, 169, ?

A) 246 B) 182 C) 234  
D) 256 E) None of these

**220.** 656, 432, 320, 264, 236, ?

A) 222 B) 229 C) 232  
D) 223 E) None of these

**221.** 62, 87, 187, 412, 812, ?

A) 1012 B) 1437 C) 1337  
D) 1457 E) None of these

**222.** 7, 8, 24, 105, 361, ?

A) 986 B) 617 C) 486  
D) 1657 E) None of these

**223.** 9, 62, ?, 1854, 7415, 22244

A) 433 B) 309 C) 406  
D) 371 E) None of these

**224.** 4, 8, 24, 60, ?, 224

A) 178 B) 96 C) 109  
D) 141 E) None of these

**225.** 8000, 1600, 320, 64, 12.8, ?

A) 2.56 B) 3.5 C) 3.2  
D) 2.98 E) None of these

**226.** 6, 9, 15, 27, 51, ?

A) 84 B) 99 C) 123  
D) 75 E) None of these

**227.** 7, 8, 18, ?, 232, 1165

A) 84 B) 42 C) 57  
D) 36 E) None of these

Direction: Find out the number in place of question mark (?) in the following number series.

**228.** 529 841 961 1369 1681 1849 ?

A) 2809 B) 3249 C) 2208  
D) 6424 E) 2209



- 229.** 1108 1117 1142 1191 ? 1481  
A) 1312 B) 1272 C) 1300  
D) 1204 E) None of these
- 230.** 841 961 1089 1225 1369 1521 ?  
A) 1785 B) 1581 C) 1681  
D) 1881 E) 1781
- 231.** 12 14 32 102 416 2090 ?  
A) 15522 B) 12552 C) 13525  
D) 17552 E) None of these
- 232.** 384 381 372 345 264 ?  
A) 25 B) 27 C) 44  
D) 49 E) None of these
- 233.** 5 41 321 1921 7681 15361 ?  
A) 21381 B) 23710 C) 22173  
D) 23121 E) 1
- 234.** 1 3 7 13 22 34 51 71 96 124 ?  
A) 137 B) 147 C) 157  
D) 167 E) 177
- 235.** 664 334 85.5 16.25 4.03125 ?  
A) 2.73012 B) 3.17203 C) 2.403125  
D) 3.220175 E) 2.220175
- 236.** 33 110 453 2282 13711 ?  
A) 95673 B) 96747 C) 96312  
D) 951321 E) 96000
- 237.** 0.8 3.8 12.6 44.8 188.2 ?  
A) 758.6 B) 868.8 C) 952.00  
D) 1012.2 E) 1112.2
- Directions: What should come in place of question mark (?) in the following number series?
- 238.** 19 42 88 180 364 ? 1468  
A) 1046 B) 732 C) 472  
D) 630 E) 595
- 239.** 51 57 102 324 ? 6390 38304  
A) 1590 B) 1296 C) 1680  
D) 1250 E) 1272
- 240.** 1953.125 781.25 312.5 125 50 ?  
A) 20 B) 25 C) 45  
D) 15 E) 30
- 241.** 4 11 32 74 144 ? 396  
A) 289 B) 236 C) 205  
D) 249 E) 196

- 242.** 8 28 116 544 ? 13300  
A) 3589 B) 5482 C) 2672  
D) 7864 E) 9378

Directions: In each of the following questions, one number is missing in the series. You have to understand the pattern of the series and then insert the missing number.

- 243.** 35 31 40 24 49 13 62 ?  
A) 11 B) -7 C) 18  
D) -2 E) 5
- 244.** 25 27.5 22.5 30 20 32.5 ?  
A) 17.5 B) 7.5 C) 13.5  
D) 22.5 E) 18.5
- 245.** 11 12 26 81 328 ? 9876  
A) 986 B) 1132 C) 1645  
D) 1286 E) 1542
- 246.** 1284 644 324 164 84 44 24 ?  
A) 10 B) 19 C) 15  
D) 9 E) 14
- 247.** 4 5 18 81 388 ? 12606  
A) 2933 B) 2468 C) 2065  
D) 1979 E) 1732

Directions: What should come in place question mark (?) in the following number series?

- 248.** 18 99 682 5443 ?  
A) 48972 B) 48963 C) 48957  
D) 48948 E) 48682
- 249.** 1324 1721 2190 2737 3368 ?  
A) 3986 B) 4089 C) 4136  
D) 4290 E) 4068
- 250.** 363 234 141 78 39 18 ?  
A) 12 B) 11 C) 10  
D) 9 E) 8
- 251.** 665 463 307 191 109 ?  
A) 79 B) 69 C) 55  
D) 51 E) 47
- 252.** 210 336 504 720 990 1320 ?  
A) 1651 B) 1688 C) 1716  
D) 1794 E) 1720
- 253.** 3 81 ? 1029 2187 3993  
A) 375 B) 648 C) 192

D) 575 E) 243

**254.** 30 45 75 105 165 ?A) 185 B) 205 C) 215  
D) 195 E) 230**255.** 8 24 12 36 18 54 ?A) 64 B) 79 C) 34  
D) 37 E) 27**256.** 4320 720 144 ? 12 6 6A) 56 B) 60 C) 26  
D) 36 E) 16**257.** 26 63 124 215 342 ?A) 511 B) 509 C) 504  
D) 515 E) 525

Directions: What value should come in place of question mark (?) in the following number series?

**258.** 796 199 50 13 4 ?A) 4 B) 1 C) 5  
D) 2 E) 3**259.** 445 534 631 736 849 ?A) 961 B) 965 C) 970  
D) 958 E) 968**260.** 7 9.21 16.05 29.94 53.3 ?A) 88.55 B) 90.58 C) 92.48  
D) 91.68 E) 94.78**261.** 6 10 28 68 138 ?A) 246 B) 236 C) 238  
D) 232 E) 242**262.** 16 9 6 5 ? 5.5A) 5 B) 4 C) 3  
D) 1 E) 2**263.** 24 12 ? 18 36 90A) 15 B) 12 C) 10.5  
D) 11 E) 18**264.** 7 20 59 ? 215 332A) 120 B) 155 C) 165  
D) 124 E) None of these**265.** ? 17 29 59 115 205A) 14 B) 16 C) 15  
D) 13 E) 11**266.** 10 30 68 130 ? 350

A) 225 B) 250 C) 242

D) 222 E) None of these

**267.** 170 196 248 ? 560 976A) 350 B) 352 C) 452  
D) 380 E) None of these

Directions: In each of the following questions, one number is missing in the series. You have to understand the pattern of the series and then insert the missing number in place of question mark (?).

**268.** 5 10 30 105 ? 2225A) 860 B) 440 C) 1250  
D) 320 E) 1575**269.** 2 3 5 15 65 255 1265 ?A) 4295 B) 3405 C) 2560  
D) 3185 E) 5055**270.** 523 507 471 407 307 163 ?A) 105 B) 29 C) -33  
D) -17 E) None of these**271.** 276 140 68 36 16 ? 3A) 10 B) 15 C) 5  
D) 7 E) 11**272.** 105 185 247 293 ? 345 355A) 225 B) 286 C) 315  
D) 325 E) 338

Directions :What should come in place of question mark in the following questions ?

**273.** 7 10 26 87 360 1815 ?A) 13256 B) 12864 C) 10908  
D) 15069 E) 20185**274.** 11 5 -2 -24 -120 ? -3816A) -630 B) -600 C) -675  
D) -720 E) -913**275.** 4 6 18 81 486 ? 32805A) 2562 B) 3218 C) 3985  
D) 3645 E) 4286**276.** 4 10 33 136 ? 4116 28819A) 829 B) 972 C) 730  
D) 523 E) 685**277.** 175 174 173 169 161 152 ? 109A) 108 B) 119 C) 125  
D) 128 E) 135

Directions: What will come in place of question

mark (?) in the given number series?

- 278.** 8 11 20 47 128 ?  
A) 372 B) 371 C) 308  
D) 416 E) 364
- 279.** 13 27 44 ? 87 113  
A) 64 B) 63 C) 62  
D) 81 E) 69
- 280.** 2 11 38 119 362 ?  
A) 1052 B) 1091 C) 1152  
D) 1061 E) 1291
- 281.** 17 19 41 127 ? 2571  
A) 508 B) 506 C) 513  
D) 416 E) 516
- 282.** 108 113 103 ? 98 123  
A) 116 B) 109 C) 115  
D) 118 E) 123
- 283.** 511 733 1177 ? 2731 3841  
A) 1840 B) 1843 C) 1748  
D) 1943 E) 2040
- 284.** 3.5 8 36 225 1816 ?  
A) 12736 B) 18165 C) 12737  
D) 14737 E) 18185
- 285.** 7 21 105 735 ? 72765  
A) 6315 B) 6625 C) 6605  
D) 6615 E) 6251
- 286.** 63 64 132 405 ? 8205  
A) 1620 B) 1646 C) 1656  
D) 1426 E) 1636
- 287.** 79 88 106 142 214 ?  
A) 258 B) 352 C) 358  
D) 458 E) 268

Directions: What value should come in place of question mark (?) in the following questions?

- 288.** 5 3 3 5 15 ?  
A) 55 B) 5 C) 69  
D) 21 E) 3
- 289.** 18 19 42 135 556 ?  
A) 2910 B) 2805 C) 2530  
D) 2790 E) 2525
- 290.** 2 4 ? 18 64 330  
A) 12 B) 20 C) 28  
D) 10 E) 4

- 291.** 7 24 38 86 162 ?  
A) 259 B) 269 C) 324  
D) 334 E) 314
- 292.** 12 24 96 576 4608 ?  
A) 19536 B) 46080 C) 40680  
D) 27648 E) 34560
- 293.** 9 17 65 385 3073 ?  
A) 40704 B) 73251 C) 65506  
D) 38521 E) 30721
- 294.** 25 241 584 1096 1825 ?  
A) 2625 B) 2525 C) 2725  
D) 2825 E) 2025
- 295.** 50 25 37.5 93.75 328.125 ?  
A) 1656.6525 B) 1476.5625  
C) 1576.6225 D) 2025.5625  
E) None of these
- 296.** 468 516 984 1500 2484 ?  
A) 3984 B) 4884 C) 2784  
D) 2824 E) 3874
- 297.** 11 30 87 258 771 ?  
A) 2610 B) 2450 C) 2310  
D) 2730 E) 2510
- Directions : What should come in the place of question mark in the following number series?
- 298.** 1224 ? 3022 4221 5620 7219  
A) 2165 B) 1986 C) 1976  
D) 1875 E) 2023
- 299.** ? 208 501 986 1711 2724  
A) 59 B) 63 C) 78  
D) 54 E) 67
- 300.** ? 4 17 126 1297 16808  
A) 1 B) 2 C) 0  
D) -3 E) 3
- 301.** 11 29 ? 89 131 181  
A) 59 B) 55 C) 76  
D) 64 E) 68
- 302.** 974 1366 1754 2146 2534 ?  
A) 2926 B) 2929 C) 2976  
D) 2956 E) 2946
- 303.** 8835 9023 9213 9405 ? 9795  
A) 9899 B) 9599 C) 9539  
D) 9509 E) None of these

**304.** 5477 5626 5777 ? 6085 6242 6401

- A) 5830      B) 5960      C) 5840  
D) 5950      E) 5930

**305.** 1716 2184 2730 3360 4080 ? 5814

- A) 4896      B) 4876      C) 4796  
D) 4696      E) 5096

**306.** 137 247 411 548 ? 822 959

- A) 785      B) 635      C) 735  
D) 685      E) 695

**307.** 8 12 18 27 40.5 60.75 ?

- A) 81.125    B) 92.125    C) 91.125 D)  
94.125    E) 87.275

**308.** 2 12 36 80 150 ?

- A) 194      B) 210      C) 252  
D) 258

**309.** 1, 8, 9, 64, 25, 216, ?, ?

- A) 49, 64      B) 343, 64    C) 49, 512 D)  
343, 512

**310.** 3, 13, 53, 213, ?

- A) 553      B) 653      C) 753  
D) 853

**311.** 4, 16, 36, ?, 100, 144

- A) 72      B) 68      C) 81  
D) 64

**312.** 8, 15, 28, 53, ...?

- A) 98      B) 106      C) 100  
D) 102

**313.** 6, 12, 21, ?, 48

- A) 38      B) 40      C) 45  
D) 33

**314.** 1, 4, 27, 16, ?, 36, 343

- A) 87      B) 120      C) 25  
D) 125

**315.** 28, 33, 31, 36, ?, 39

- A) 32      B) 34      C) 38  
D) 40

**316.** 165, 195, 255, 285, 345, ?

- A) 375      B) 390      C) 420  
D) 435

**317.** 1, 5, 14, 30, 55, 91, ?

- A) 130      B) 140      C) 150  
D) 160

**318.** 2, 7, 10, 22, 18, 37, 26, ?

- A. 42      B. 52      C. 46  
D. 62      E. None of these

**319.** 279936, 46656, 7776, 1296, 216, ?

- A. 60      B. 46      C. 36  
D. 66      E. None of these

**320.** 12, 38, 116, 350, 1052, ?

- A. 1800      B. 2200      C. 2800  
D. 3158      E. None of these

**321.** 46080, 3840, 384, 48, 8, 2, ?

- A. 1      B. 1/64      C. 1/8  
D. 2      E. None of these

**322.** 5, 28, 57, 88, 125

- A. 156      B. 147    C. 166  
D. 186      E. None of these

**323.** 42, 40, 38, 35, 33, 31, 28, ?, ?

- A. 25, 22    B. 26, 23    C. 26, 24  
D. 25, 23    E. 26, 22

**324.** 8, 12, 9, 13, 10, 14, 11, ?, ?

- A. 14, 11    B. 15, 12    C. 8, 15  
D. 15, 19    E. 8, 5

**325.** 36, 31, 29, 24, 22, 17, 15, ?, ?

- A. 13, 11    B. 10, 5      C. 13, 8  
D. 12, 7      E. 10, 8

**326.** 3, 5, 35, 10, 12, 35, 17, ?, ?

- A. 22, 35    B. 35, 19    C. 19, 35  
D. 19, 24    E. 22, 24

**327.** 13, 29, 15, 26, 17, 23, 19, ?, ?

- A. 21, 23    B. 20, 21    C. 20, 17  
D. 25, 27    E. 22, 20

**328.** 14, 14, 26, 26, 38, 38, 50, ?, ?

- A. 60, 72    B. 50, 62    C. 50, 72  
D. 62, 62    E. 62, 80

**329.** 32, 31, 32, 29, 32, 27, 32, ?, ?

- A. 25, 32    B. 31, 32    C. 29, 32  
D. 25, 30    E. 29, 30

**330.** 83, 73, 93, 63, ?, 93, 43,

- A. 33      B. 53      C. 73  
D. 93

**331.** 15, ?, 27, 27, 39, 39

- A. 51      B. 39      C. 23  
D. 15

Find the missing number in the given series.

- 332.** 72, 76, 73, 77, 74, ?, 75  
A. 70                      B. 71                      C. 75  
D. 78
- 333.** F2, ?, D8, C16, B32  
A. A16                      B. G4                      C. E4  
D. E3
- 334.** 664, 332, 340, 170, ?, 89  
A. 85                      B. 97                      C. 109  
D. 178
- 335.** 70, 71, 76, ?, 81, 86, 70, 91  
A. 70                      B. 71                      C. 80  
D. 96
- 336.** 8, 43, 11, 41, ?, 39, 17  
A. 8                      B. 14                      C. 43  
D. 44
- 337.** 340) 10, 6, 12, 35, ?, 591.75  
(A) 130                      (B) 129.5                      (C) 127.25 (D) 133  
(E) None of these
- Directions :What will come in place of the question marks (?) in the following Number series?
- 338.** 341. 0, 6, 24, 60, 120, 210, ?  
A. 336                      B. 349                      C. 312  
D. 337                      E. None of these
- 339.** 342. 11, 14, 19, 22, 27, 30, ?  
A. 39                      B. 34                      C. 36  
D. 35                      E. None of these
- 340.** 343. 6, 12, 21, ?, 48  
A. 33                      B. 39                      C. 36  
D. 31                      E. None of these
- 341.** 344. 18, 22, 30, ?, 78, 142  
A. 44                      B. 35                      C. 46  
D. 48                      E. None of these
- 342.** 345. 73205, 6655, 605, 55, ?  
A. 9                      B. 5                      C. 13  
D. 11                      E. None of these
- 343.** 346. 25, 100, ?, 1600, 6400  
A. 400                      B. 300                      C. 360  
D. 420                      E. None of these
- 344.** 347. 125, ?, 343, 512, 729, 1000  
A. 216                      B. 215                      C. 256  
D. 225                      E. None of these

- 345.** 348. 1, 9, 125, 343, ?, 1331  
A. 730                      B. 729                      C. 512  
D. 772                      E. None of these
- 346.** 349. 121, 144, 169, ?, 225  
A. 180                      B. 172                      C. 186  
D. 196                      E. None of these
- 347.** 350. ?, 2116, 2209, 2304, 2401, 2500  
A. 2124                      B. 1972                      C. 1521  
D. 2025                      E. None of these

Directions: In each of these questions a number series is given, In each series only one number is wrong, Find out the wrong number.

- 348.** 531 5506 5425 5304 5135 4910 4621  
(1) 5531                      (2) 5425                      (3) 4621  
(5) 5506
- 349.** 6 7 9 13 26 37 69  
(1) 7                      (2) 26                      (3) 69  
(4) 37                      (5) 9
- 350.** 1 3 10 36 152 760 4632  
(1) 3                      (2) 36                      (3) 4632  
(4) 760                      (5) 152
- 351.** 4 5 13 40 105 229 445  
(1) 4                      (2) 13                      (3) 105  
(4) 445                      (5) 229
- 352.** 157.5 45 15 6 3 2 1  
(1) 1                      (2) 2                      (3) 6  
(4) 157.5                      (5) 45
- 353.** 7 12 40 222 1742 17390 28608  
(1) 222                      (2) 12                      (3) 40  
(4) 1742                      (5) 2508608
- 354.** 6 91 584 2935 11756 35277 70558  
(1) 6                      (2) 70558                      (3) 548  
(4) 2935                      (5) 35277
- 355.** 9050 5675 3478 2147 1418 1077 950  
(1) 950                      (2) 1418                      (3) 5675  
(4) 2147                      (5) 1077
- 356.** 1 4 25 256 3125 46656 823543  
(1) 4                      (2) 823543                      (3) 46656  
(4) 25                      (5) 256
- 357.** 8424 4212 2106 1051 526.5 263.25 131.625  
(1) 526.5                      (2) 1051                      (3) 4212  
(4) 8424                      (5) 263.25

Directions: In each of these questions a number series is given, In each series only one number is wrong, Find out the wrong number.

**358.** 3601 3602 1803 604 154 36 12

- (1) 3602 (2) 1803 (3) 604  
(4) 154 (5) 36

**359.** 4 12 42 196 1005 6066 42511

- (1) 12 (2) 42 (3) 1005  
(4) 196 (5) 6066

**360.** 2 8 12 20 30 42 56

- (1) 8 (2) 42 (3) 30  
(4) 20 (5) 12

**361.** 32 16 24 65 210 945  
5197.5

- (1) 945 (2) 16 (3) 24 (4) 210  
(5) 65

**362.** 7 13 25 49 97 194 385

- (1) 13 (2) 49 (3) 97  
(4) 194 (5) 25

**363.** 4 3 4.5 8.5 20 53 162.5

- (1) 3 (2) 4.5 (3) 8.5 (4) 20  
(5) 53

**364.** 12000 2395 472 89.8 12.96 -2.408 -  
5.4816

- (1) -5.4816 (2) 472 (3) 12.96 (4) -2.408  
(5) 2395

**365.** 1 8 28 99 412 2075 12460

- (1) 28 (2) 99 (3) 412 (4) 2075  
(5) 12460

**366.** 144 215 540 1890 8505 46777.5  
304053.75

- (1) 2151 (2) 540 (3) 1890  
(4) 8505 (5) 46777.5

**367.** 2222 1879 16 63 1538 1474

- 1447 1440 (1) 1879  
(2) 1538 (3) 1474  
(4) 1447 (5) 1440

**368.** 1050 510 242 106 46 16 3

- (1) 3 (2) 106 (3) 242  
(4) 510 (5) None of these

**369.** 550 546 537 521 494 460  
411

- (1) 494 (2) 546 (3) 521  
(4) 460 (5) None of these

**370.** 8 21 47 86 140 203 281

- (1) 47 (2) 86 (3) 140 (4) 203  
(5) None of these

**371.** 4 24 161 965 4795 19176 57525

- (1) 161 (2) 965 (3) 57525  
(4) 19176 (5) None of these

**372.** 1 2 8 24 120 720 5040

- (1) 120 (2) 24 (3) 8 (4) 720  
(5) None of these

**Directions:** In the following number series, a wrong number is given. Find out that wrong number.

**(Canara Bank PO Exam.  
09.02.2003)**

**373.** 11 38 197 1172 8227 65806

- (1) 11 (2) 38  
(3) 197 (4) 1172  
(5) 8227

**374.** 16 19 21 30 46 71 107

- (1) 19 (2) 21  
(3) 30 (4) 46  
(5) 71

**375.** 7 9 16 25 41 68 107 173

- (1) 107 (2) 16  
(3) 41 (4) 68  
(5) 25

**376.** 4 2 3.5 7.5 26.25 118.125

- (1) 118.125 (2) 26.25  
(3) 3.5 (4) 2  
(5) 7.5

**377.** 16 4 2 1.5 1.75 1.875

- (1) 1.875 (2) 1.75  
(3) 1.5 (4) 2  
(5) 4

**Directions:** What will come in place of the question mark (?) in the following number series ?

**(Syndicate Bank PO  
Exam. 10.10.2004)**

**378.** 3 10 32 100 ?  
 (1) 345 (2) 460  
 (3) 308 (4) 440  
 (5) None of these

**379.** 5 3 4 ? 38  
 (1) 8.5 (2) 6  
 (3) 7.5 (4) 8  
 (5) None of these

**380.** 5 6 ? 57 244  
 (1) 21 (2) 16  
 (3) 17 (4) 15  
 (5) None of these

**381.** 3 10 21 ? 51  
 (1) 34 (2) 32  
 (3) 33 (4) 37  
 (5) None of these

**382.** 5 11 ? 55 117  
 (1) 21 (2) 27  
 (3) 23 (4) 25  
 (5) None of these

**Directions:** In each of the following questions a number series is given. After the series a number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with the number given, following the sequence of the original series and answer the questions that follow the series.

**(Union Bank of India PO  
Exam. 27.11.2005)**

**383.** 12 30 120 460 1368 2730  
 16 (a) (b) (c) (d) (e)

What will come in place of (d) ?

- (1) 1384 (2) 2642  
 (3) 2808 (4) 1988  
 (5) None of these

**384.** 154 462 231 693 346.5 1039.5  
 276 (a) (b) (c) (d) (e)

What will come in place of (e) ?

- (1) 1746 (2) 621  
 (3) 1242 (4) 983  
 (5) None of these

**385.** 7 91 1001 7007 35035 105105  
 14.5 (a) (b) (c) (d) (e)

What will come in place of (c) ?

- (1) 21132.5  
 (2) 14514.5  
 (3) 20020.5  
 (4) 13864.5  
 (5) None of these

**386.** 582 574 601 537 662 446  
 204 (a) (b) (c) (d) (e)

What will come in place of (d) ?

- (1) 284 (2) 68  
 (3) 174 (4) 331  
 (5) None of these

**387.** 85 43 44 67.5 137 345  
 125 (a) (b) (c) (d) (e)

What will come in place of (c) ?

- (1) 86 (2) 107.5  
 (3) 112.5 (4) 97.5  
 (5) None of these

**Directions:** What will come in place of the question mark (?) in the following number series ?

**(Corporation Bank Po  
Exam. 29.07.2006)**

**388.** 1 ? 27 64 125  
 (1) 8 (2) 4  
 (3) 6 (4) 9  
 (5) None of these

**389.** 25 16 ? 4 1  
 (1) 3 (2) 6  
 (3) 12 (4) 18  
 (5) None of these

**390.** 1 6 36 240 1960 ?  
 (1) 19660 (2) 3680  
 (3) 36800 (4) 19600  
 (5) None of these

**391.** 12 14 17 13 8 14 21 13 4 ?  
 (1) 14 (2) 13  
 (3) 15 (4) 2  
 (5) None of these

**392.** 2 5 7 12 19 31 50 ?  
 (1) 53 (2) 81  
 (3) 69 (4) 74  
 (5) None of these

**393.** 15 12 17 10 ? 8 21 6  
 (1) 3 (2) 7  
 (3) 21 (4) 19  
 (5) None of these

**394.** 4 6 12 30 90 315 ?

- (1) 945 (2) 1102  
 (3) 1260 (4) 1417.5  
 (5) None of these

**Directions :** What should come in place of the question mark (?) in the following number series ?

**(Bank Of Maharashtra PO Exam. 29.07.2006)**

**395.** 1548 516 129 43 ?

- (1) 11 (2) 10.75  
 (3) 9.5 (4) 12  
 (5) None of these

**396.** 949 189.8 ? 22.776 11.388 6.8328

- (1) 48.24 (2) 53.86  
 (3) 74.26 (4) 56.94  
 (5) None of these

**397.** 121 144 190 259 ? 466

- (1) 351 (2) 349  
 (3) 374 (4) 328  
 (5) None of these

**398.** 14 43.5 264 ? 76188

- (1) 3168 (2) 3176  
 (3) 1587 (4) 1590  
 (5) None of these

**399.** 41 164 2624 ? 6045696

- (1) 104244(2) 94644  
 (3) 94464 (4) 102444  
 (5) None of these

**Directions:** What should come in place of question mark (?) in the following number series ?

**(Indian Overseas Bank PO Exam. 15.06.2008)**

**400.** 12 12 18 45 180 1170 ?

- (1) 12285 (2) 10530  
 (3) 11700 (4) 12870  
 (5) 7605

**401.** 444 467 513 582 674 789 ?

- (1) 950 (2) 904  
 (3) 927 (4) 881  
 (5) 973

**402.** 1 16 81 256 625 1296 ?

- (1) 4096 (2) 2401  
 (3) 1764 (4) 3136  
 (5) 6561

**403.** 23 25 53 163 657 3291 ?

- (1) 16461 (2) 13169

(3) 9877 (4) 23045

(5) 19753

**404.** 13 13 65 585 7605 129285 ?

- (1) 2456415(2)2235675  
 (3) 2980565(4)2714985  
 (5) 2197845

**Directions :** What should come in place of question mark (?) in the following number series ?

**(Andhra Bank PO Exam. 14.09.2008)**

**405.** 40280625 732375 16275 465 18.6 1.24 ?

- (1)0.248 (2)0.336  
 (3)0.424 (4)0.512  
 (5)0.639

**406.** 14 12 21 59 231 1149 ?

- (1)6987 (2)6787  
 (3)6887 (4)6687  
 (5)6587

**407.** 1728 2744 4096 5832 8000 10648 ?

- (1)12167 (2)13824  
 (3)15625 (4)9261  
 (5)17576

**408.** 120 15 105 17.5 87.5 ?

- (1)18.5 (2)19.5  
 (3)21.875 (4)17.5  
 (5)90

**409.** 3 6 21 28 55 66 ? 120

- (1)103 (2)104  
 (3)108 (4)106  
 (5)105

**Directions:** In each of the following questions a number series is given which has only one **wrong** number. You have to find out the **wrong** number.

**(Bank Of Baroda Specialist Officer Exam. 05.10.2008)**

**410.** 7.25 47.5 87.5 157.5 247.5 357.5 487.5

- (1)357.5 (2)87.5  
 (3)157.5 (4)7.5  
 (5)47.5

**411.** 13 16 21 27 39 52 69

- (1)21 (2)39  
 (3)27 (4)52



- (5)16  
**412.** 1500 1581 1664 1749 1833 1925  
 2016  
 (1)1581 (2)1664  
 (3)1833 (4)1925  
 (5)1749  
**413.** 66 91 120 153 190 233 276  
 (1)120 (2)233  
 (3)153 (4)276  
 (5)190  
**414.** 1331 2197 3375 4914 6859 9261  
 12167  
 (1)4914 (2)6859  
 (3)9261 (4)2197  
 (5)12167

**Directions:** What should come in place of the question mark (?) in the following number series ?

**(Oriental Bank of Commerce  
 PO Exam. 21.12.2008)**

- 415.** 20 24 33 49 74 110 ?  
 (1)133 (2)147  
 (3)159 (4)163  
 (5)171  
**416.** 529 841 961 1369 1681 1849  
 ?  
 (1)2809 (2)2601  
 (3)3249 (4)3481  
 (5)2209  
**417.** 16 24 48 120 360 1260 ?  
 (1)3780 (2)4725  
 (3)5355 (4)5040  
 (5)4410  
**418.** 8 31 122 485 1936 7739 ?  
 (1)30950 (2)46430  
 (3)34650 (4)42850  
 (5)38540  
**419.** 499 622 868 1237 1729 2344  
 ?  
 (1)3205 (2)3082  
 (3)2959 (4)3462  
 (5)2876

**Directions:** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(PNB Agriculture Officer  
 Exam. 04.01.2009)**

- 420.** 1 4 27 256 3125 46658  
 (1)46658 (2) 4  
 (3) 27 (4) 3125  
 (5)None of these  
**421.** 18000 3600 720 142.2 28.8 5.76  
 (1) 28.8 (2) 3600  
 (3) 5.76 (4) 142.2  
 (5)None of these  
**422.** 12 237 406 527 604 657  
 (1) 237 (2) 406  
 (3) 527 (4) 657  
 (5)None of these  
**423.** 3 35 226 1160 4660 13998  
 (1) 13998 (2) 4660  
 (3) 226 (4) 1160  
 (5)None of these  
**424.** 18 119 708 3534 14136 42405  
 (1) 708 (2) 3534  
 (3) 14136 (4) 42405  
 (5)None of these  
**Directions:**What should come in place of question mark (?) in the following number series ?  
**(Canara Bank PO Exam. 15.03.2009)**  
**425.** 5 9 18 34 59 95 ?  
 (1)272 (2)168  
 (3)116 (4)148  
 (5)144  
**426.** 1200 480 192 76.8 30.72  
 12.288 ?  
 (1)4.9152 (2)5.8192  
 (3)6.7112 (4)7.6132  
 (5)8.5172  
**427.** 963 927 855 747 603 423 ?  
 (1)209 (2)208  
 (3)207 (4)206  
 (5)205  
**428.** 841 961 1089 1225 1369  
 1521 ?  
 (1)1581 (2)1681  
 (3)1781 (4)1881  
 (5)1981  
**429.** 18 20 44 138 560 2810 ?  
 (1)16818 (2)16836  
 (3)16854 (4)16872  
 (5)16890

**Directions:** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(UCO Bank PO Exam. 22.03.2009)**

- 430.** 4 6 18 49 201 1011  
 (1) 1011 (2) 201  
 (3) 18 (4) 49  
 (5) None of these
- 431.** 48 72 108 162 243 366  
 (1) 72 (2) 108  
 (3) 162 (4) 243  
 (5) None of these
- 432.** 2 54 300 1220 3674 7350  
 (1) 3674 (2) 1220  
 (3) 300 (4) 54  
 (5) None of these
- 433.** 8 27 64 125 218 343  
 (1) 27 (2) 218  
 (3) 125 (4) 343  
 (5) None of these
- 434.** 19 68 102 129 145 154  
 (1) 154 (2) 129  
 (3) 145 (4) 102  
 (5) None of these

**Directions:** What should come in place of the question mark (?) in the following number series ?

**(Indian Overseas Bank PO Exam. 05.04.2009)**

- 435.** 0 5 18 43 84 145 ?  
 (1) 220 (2) 240  
 (3) 260 (4) 280  
 (5) None of these
- 436.** 10 17 48 165 688 3475 ?  
 (1) 27584 (2) 25670  
 (3) 21369 (4) 20892  
 (5) None of these
- 437.** 1 3 24 360 8640 302400 ?  
 (1) 14525100 (2) 154152000  
 (3) 14515200 (4) 15425100  
 (5) None of these
- 438.** 12 14 32 102 416 2090 ?  
 (1) 15522 (2) 12552  
 (3) 13525 (4) 17552

(5) None of these

**439.** 10 15 15 12.5 9.375 6.5625 ?

- (1) 4.375 (2) 3.2375  
 (3) 4.6275  
 (4) 3.575  
 (5) None of these

**Directions :** What will come in place of the question mark (?) in each of the following series ?

**(United Bank of India PO Exam. 21.06.2009)**

**440.** 17 52 158 477 ? 4310

- (1) 1433 (2) 1432  
 (3) 1435 (4) 1434  
 (5) None of these

**441.** 3 22 ? 673 2696 8093

- (1) 133 (2) 155  
 (3) 156 (4) 134  
 (5) None of these

**442.** 6 13 38 ? 532 2675

- (1) 129 (2) 123  
 (3) 172 (4) 164  
 (5) None of these

**443.** 286 142 ? 34 16 7

- (1) 66 (2) 72  
 (3) 64 (4) 74  
 (5) None of these

**444.** 17 9 ? 16.5 35 90

- (1) 5 (2) 15  
 (3) 10 (4) 20  
 (5) None of these

**Directions:** What will come in place of the question mark (?) in each of the following number series ?

**(Andhra Bank PO Exam. 05.07.2009)**

**445.** 2 8 26 ? 242

- (1) 78 (2) 72  
 (3) 82 (4) 84  
 (5) None of these

**446.** 3 4 12 ? 196

- (1) 45 (2) 40  
 (3) 41 (4) 49  
 (5) None of these

**447.** 9 17 ? 65 129

- (1) 32 (2) 24

- (3) 35 (4) 33  
 (5) None of these  
**448.** 7 13 ? 49 97

- (1) 27 (2) 25  
 (3) 23 (4) 29  
 (5) None of these

- 449.** 5 3 6 ? 64.75  
 (1) 15 (2) 15.5  
 (3) 17.5 (4) 17.25  
 (5) None of these

**Directions:** What will come in place of the question mark (?) in each of the following number series ?

**(PNB Specialist Officer's Exam. 16.08.2009)**

- 450.** 168 1230 ?  
 (1) 75 (2) 105  
 (3) 95 (4) 115  
 (5) None of these

- 451.** 5 6 14 45 ?  
 (1) 138 (2) 154  
 (3) 118 (4) 184  
 (5) None of these

- 452.** 7 12 32 105 ?  
 (1) 428 (2) 214  
 (3) 218 (4) 416  
 (5) None of these

- 453.** 11 23 47 95 ?  
 (1) 189 (2) 193  
 (3) 181 (4) 195  
 (5) None of these

- 454.** 9 17 33 65 ?  
 (1) 113 (2) 131  
 (3) 129 (4) 118  
 (5) None of these

**Directions:** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(Corporation Bank PO Exam. 22.11.2009)**

- 455.** 8 11 17 47 128 371 1100  
 (1) 11 (2) 47  
 (3) 17 (4) 371  
 (5) 128

- 456.** 1 5 13 31 61 125 253

- (1) 1 (2) 5  
 (3) 31 (4) 61  
 (5) 125

**Directions:** In the following number series a **wrong** number is given. Find out the **wrong** number.

**(Indian Bank Rural Marketing Officer Exam. 03.01.2010)**

- 457.** 150 290 560 1120 2140 4230 8400

- (1) 2140 (2) 560  
 (3) 1120 (4) 4230  
 (5) 290

- 458.** 10 8 13 35 135 671 4007 (1) 8 (2) 671  
 (3) 135 (4) 13  
 (5) 35

- 459.** 80 42 24 13.5 8.75 6.375 5.1875

- (1) 8.75 (2) 13.5  
 (3) 24 (4) 6.375  
 (5) 42

- 460.** 125 75 45 25 16.2 9.72 5.832  
 (1) 25 (2) 45  
 (3) 9.72 (4) 16.2  
 (5) 75

- 461.** 29 37 21 43 13 53 5  
 (1) 37 (2) 53  
 (3) 13 (4) 21  
 (5) 43

**Directions:** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(Indian Bank PO Exam. 17.10.2010)**

- 462.** 13 25 40 57 79 103 130

- (1) 25 (2) 40  
 (3) 57 (4) 79  
 (5) None of these

- 463.** 850 600 550 500 475 462.5 456.25

- (1) 600 (2) 550  
 (3) 500 (4) 462.5  
 (5) None of these

- 464.** 2 10 18 54 162 486 1458  
 (1) 18 (2) 54  
 (3) 162 (4) 10

- (5) None of these
- 465.** 8 12 24 46 72 108 152  
 (1) 12 (2) 24  
 (3) 46 (4) 72  
 (5) None of these
- 466.** 142 119 100 83 65 59 52  
 (1) 65 (2) 100  
 (3) 59 (4) 119  
 (5) None of these
- Directions:** What should come in place of the question mark in the following number series ?
- (Bank Of India Banking Officer Exam. 24.01.2010)**
- 467.** 5 54 90 115 131 140 ?  
 (1) 149 (2) 146  
 (3) 142 (4) 152  
 (5) None of these
- 468.** 7 4 5 9 ? 52.5 160.5  
 (1) 32 (2) 16  
 (3) 14 (4) 20  
 (5) None of these
- 469.** 6 42 ? 1260 5040 15120 30240  
 (1) 546 (2) 424  
 (3) 252 (4) 328  
 (5) None of these
- 470.** 4 10 40 190 940 ? 23440  
 (1) 4690 (2) 2930  
 (3) 5140 (4) 3680  
 (5) None of these
- 471.** 2 9 30 ? 436 2195 13182  
 (1) 216 (2) 105  
 (3) 178 (4) 324  
 (5) None of these
- Directions:** In each question below, a number series is given in which one number is **wrong**. Find out the **wrong** number.
- (Allahabad Bank PO Exam. 21.02.2010)**
- 472.** 484 240 120 57 26.5 11.25 3.625  
 (1) 240 (2) 120  
 (3) 57 (4) 26.5  
 (5) 11.25
- 473.** 3 5 13 43 176 891 5353

- (1) 5 (2) 13  
 (3) 43 (4) 176  
 (5) 891
- 474.** 6 7 16 41 90 154 292  
 (1) 7 (2) 16  
 (3) 41 (4) 90  
 (5) 154
- 475.** 5 7 16 57 244 1245 7506  
 (1) 7 (2) 16  
 (3) 57 (4) 244  
 (5) 1245
- 476.** 4 2.5 3.5 6.5 15.5 41.25 126.75  
 (1) 2.5 (2) 3.5  
 (3) 6.5 (4) 15.5  
 (5) 41.25
- Directions:** What should come in place of the question mark (?) in the following number series.
- (Corporation Bank PO Exam. 09.05.2010)**
- 477.** 325 314 292 259 215 ?  
 (1) 126 (2) 116  
 (3) 130 (4) 160  
 (5) None of these
- 478.** 45 46 70 141 ? 1061.5  
 (1) 353 (2) 353.5  
 (3) 352.5 (4) 352  
 (5) None of these
- 479.** 620 632 608 644 596 ?  
 (1) 536 (2) 556  
 (3) 656 (4) 646  
 (5) None of these
- 480.** 15 25 40 65 ? 195  
 (1) 115 (2) 90  
 (3) 105 (4) 120  
 (5) None of these
- 481.** 120 320 ? 2070 5195 13007.5  
 (1) 800 (2) 920  
 (3) 850 (4) 900  
 (5) None of these

**Directions:** In the following number series only one number is **wrong**. Find out the wrong number.

**(Punjab & Sind Bank PO Exam. 16.05.2010)**

**482.** 32 34 37 46 62 87 123

- (1) 34 (2) 37  
(3) 62 (4) 87  
(5) 46

**483.** 7 18 40 106 183 282 403

- (1) 18 (2) 282  
(3) 40 (4) 106  
(5) 183

**484.** 850 843 829 808 788 745 703

- (1) 843 (2) 829  
(3) 808 (4) 788  
(5) 745

**485.** 33 321 465 537 573 590 600

- (1) 321 (2) 465  
(3) 573 (4) 537  
(5) 590

**486.** 37 47 52 67 87 112 142

- (1) 47 (2) 52  
(3) 67 (4) 87  
(5) 112

**Directions:** What will come in place of the question mark (?) in the following number series ?

**(Bank Of Baroda PO  
Exam. 30.05.2010)**

**487.** 13 16 22 33 51 (?)

- (1) 89 (2) 78  
(3) 102 (4) 69  
(5) None of these

**488.** 39 52 78 117 169 (?)

- (1) 246 (2) 182  
(3) 234 (4) 256  
(5) None of these

**489.** 62 87 187 412 812 (?)

- (1) 1012 (2) 1437  
(3) 1337 (4) 1457  
(5) None of these

**490.** 7 8 24 105 361 (?)

- (1) 986 (2) 617  
(3) 486 (4) 1657  
(5) None of these

**491.** 656 432 320 264 236 (?)

- (1) 222 (2) 229  
(3) 232 (4) 223  
(5) None of these

**Directions :** What will come in place of the question mark (?) in the following number series ?

**(Central Bank Of India PO  
Exam. 25.07.2010)**

**492.** 7 20 46 98 202 (?)

- (1) 420 (2) 410  
(3) 310 (4) 320  
(5) None of these

**493.** 210 209 213 186 202 (?)

- (1) 138 (2) 77  
(3) 177 (4) 327  
(5) None of these

**494.** 27 38 71 126 203 (?)

- (1) 212 (2) 202  
(3) 301 (4) 312  
(5) None of these

**495.** 435 354 282 219 165 (?)

- (1) 103 (2) 112  
(3) 120 (4) 130  
(5) None of these

**496.** 4 200 369 513 634 (?)

- (1) 788 (2) 715  
(3) 734 (4) 755  
(5) None of these

**Directions :** What will come in place of the question mark (?) in the following number series ?

**(Syndicate Bank PO  
Exam. 29.08.2010)**

**497.** 495 485 465 425 345 ?

- (1) 195 (2) 165  
(3) 185 (4) 175  
(5) None of these

**498.** 16 22 33 49 70 ?

- (1) 95 (2) 96  
(3) 85 (4) 91  
(5) None of these

**499.** 32 36 52 88 152 ?

- (1) 266 (2) 232  
(3) 242 (4) 256  
(5) None of these

**500.** 17 289 425 493 527 ?

- (1) 534 (2) 542  
(3) 544 (4) 594  
(5) None of these

**501.** 13 27 55 97 153 ?

- (1) 243 (2) 265  
 (3) 215 (4) 223  
 (5) None of these

**Directions :** What should come in place of the question mark (?) in the following number series ?

**(Punjab National Bank Specialist Officer Exam. 24.10.2010)**

**502.** 50 60 75 97.5 ? 184.275  
267.19875

- (1) 120.50 (2) 130.50  
 (3) 131.625 (4) 124.25  
 (5) None of these

**503.** 12 15 36 ? 480 2415  
14508

- (1) 115 (2) 109  
 (3) 117 (4) 121  
 (5) None of these

**504.** 1 2 6 21 88 445 ?

- (1) 2230 (2) 2676  
 (3) 2580 (4) 2670  
 (5) None of these

**505.** 20 21 25 34 50 ? 111

- (1) 70 (2) 65  
 (3) 60 (4) 75  
 (5) None of these

**506.** 600 125 30 ? 7.2 6.44  
6.288

- (1) 6 (2) 10  
 (3) 15 (4) 12  
 (5) None of these

**Directions:** What will come in the place of the question mark (?) in the following number series ?

**(Bank Of India PO Exam. 31.10.2010)**

**507.** 11 15 31 67 131 (?)

- (1) 233 (2) 221-  
 (3) 243 (4) 231  
 (5) None of these

**508.** 483 471 435 375 291 (?)

- (1) 183 (2) 184  
 (3) 185 (4) 186  
 (5) None of these

**509.** 5 7 13 25 45 (?)

- (1) 67 (2) 75  
 (3) 65 (4) 55

- (5) None of these

**510.** 4 11 25 53 109 (?)

- (1) 221 (2) 234  
 (3) 212 (4) 222  
 (5) None of these

**511.** 15 21 33 51 75 (?)

- (1) 113 (2) 103  
 (3) 105 (4) 115  
 (5) None of these

**Directions:** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(United Bank Of India PO Exam. 14.11.2010)**

**512.** 5 348 564 689 716 780 788

- (1) 716 (2) 788  
 (3) 348 (4) 689  
 (5) 780

**513.** 4444 2224 1114 556 281.5  
142.75 73.375

- (1) 2224 (2) 281.5  
 (3) 1114 (4) 556  
 (5) 142.75

**514.** 4.5 16 25 33 38.5 42 43.5

- (1) 33 (2) 38.5  
 (3) 42 (4) 43.5  
 (5) 25

**515.** 6 49 305 1545 6196 18603  
37218

- (1) 6196 (2) 49  
 (3) 305 (4) 1545  
 (5) 18603

**516.** 8 5 6.5 11 26 68 207.5

- (1) 68 (2) 6.5  
 (3) 11 (4) 26  
 (5) 207.5

**Directions :** What should come in place of the question mark (?) in the following number series?

**(PNB Management Trainee Exam. 28.11.2010)**

**517.** 586 587 586 581 570 ?  
522

- (1) 545 (2) 543  
 (3) 551 (4) 557  
 (5) None of these

518. 64 54 69 49 74 44 ?

- (1) 89 (2) 69  
(3) 59 (4) 99  
(5) None of these

519. 4000 2008 1012 ? 265 140.5  
78.25

- (1) 506 (2) 514  
(3) 520 (4) 512  
(5) None of these

520. 5 5 15 75 ? 4725  
51975

- (1) 520 (2) 450  
(3) 525 (4) 300  
(5) None of these

521. 52 26 26 39 78 ? 585

- (1) 195 (2) 156  
(3) 234 (4) 117  
(5) None of these

**Directions :** What will come in place of question mark (?) in the following number series ?

**(Bank Of Maharashtra  
Exam. 19.12.2010)**

522. 10 14 25 55 140 (?)

- (1) 386 (2) 398  
(3) 388 (4) 396  
(5) None of these

523. 119 131 155 191 239  
(?)

- (1) 289 (2) 290  
(3) 279 (4) 280  
(5) None of these

524. 11 57 149 333 701 (?)

- (1) 1447 (2) 1347  
(3) 1368 (4) 1437  
(5) None of these

525. 697 553 453 389 353  
(?)

- (1) 328 (2) 337  
(3) 362 (4) 338  
(5) None of these

526. 336 224 168 140 126  
(?)

- (1) 119 (2) 118  
(3) 116 (4) 121  
(5) None of these

**Directions:** What will come in place of the question mark (?) in the following number series ?

**(Oriental Bank Of Commerce PO  
Exam. 26.12.2010 (1st Sitting))**

527. 9 15 27 51 99 ?

- (1) 165 (2) 195  
(3) 180 (4) 190  
(5) None of these

528. 13 21 36 58 87 ?

- (1) 122 (2) 128  
(3) 133 (4) 123  
(5) None of these

529. 7 9 19 45 95 ?

- (1) 150 (2) 160  
(3) 145 (4) 177  
(5) None of these

530. 14 15 23 32 96 ?

- (1) 121 (2) 124  
(3) 152 (4) 111  
(5) None of these

531. 20 24 36 56 84 ?

- (1) 116 (2) 124  
(3) 120 (4) 128  
(5) None of these

**Directions :** What should come in place of the question mark (?) in the following number series ?

**(Indian Bank PO Exam. 02.01.2011)**

532. 3 732 1244 1587 1803 1928 ?

- (1) 2144 (2) 1992  
(3) 1955 (4) 2053  
(5) None of these

533. 16 24 ? 210 945 5197.5 33783.75

- (1) 40 (2) 36  
(3) 58 (4) 60  
(5) None of these

534. 45030 9000 1795 355 68 ?  
1.32

- (1) 11.6 (2) 12.2  
(3) 10.4 (4) 9.8  
(5) None of these

535. 5 12 36 123 ? 2555 15342

- (1) 508 (2) 381  
(3) 504 (4) 635  
(5) None of these

536. 8 11 17 ? 65 165.5 498.5

- (1) 27.5 (2) 32  
 (3) 28 (4) 30.5  
 (5) None of these

**Directions:** What will come in place of the question mark (?) in the following number series ?

**(Union Bank Of India PO Exam. 09.01.2001)**

**537.** 117 389 525 593 627 (?)

- (1) 654(2) 640  
 (3) 634(4) 630  
 (5) None of these

**538.** 7 11 23 51 103 (?)

- (1) 186(2) 188  
 (3) 185(4) 187  
 (5) None of these

**539.** 18 27 49 84 132 (?)

- (1) 190(2) 183  
 (3) 180(4) 193  
 (5) None of these

**540.** 33 43 65 99 145 (?)

- (1) 201(2) 203  
 (3) 205(4) 211  
 (5) None of these

**541.** 655 439 314 250 223 (?)

- (1) 205(2) 210  
 (3) 195(4) 190  
 (5) None of these

**Directions:** What will come in place of the question mark (?) in the following number series ?

**(Corporation Bank PO Exam. 016.01.2011)**

**542.** 15 21 39 77 143 (?)

- (1) 243 (2) 240  
 (3) 253 (4) 245  
 (5) None of these

**543.** 33 39 57 87 129 (?)

- (1) 183 (2) 177  
 (3) 189 (4) 199  
 (5) None of these

**544.** 15 19 83 119 631 (?)

- (1) 731 (2) 693  
 (3) 712 (4) 683  
 (5) None of these

**545.** 19 26 40 68 124 (?)

- (1) 246 (2) 238

(3) 236 (4) 256

(5) None of these

**546.** 43 69 58 84 73 (?)

- (1) 62(2) 98  
 (3) 109 (4) 63  
 (5) None of these

**Directions :** What should come in place of the question mark (?) in the following number series ?

**(Punjab & Sind Bank PO Exam. 23.01.2011)**

**547.** 15 18 16 19 17 20 ?

- (1) 23 (2) 22  
 (3) 16 (4) 18  
 (5) None of these

**548.** 1050 420 168 67.2 26.88 10.752 ?

- (1) 4.3008 (2) 6.5038  
 (3) 4.4015 (4) 5.6002  
 (5) None of these

**549.** 0 6 24 60 120 210 ?

- (1) 343(2) 280  
 (3) 335(4) 295  
 (5) None of these

**550.** 32 49 83 151 287 559 ?

- (1) 1118 (2) 979  
 (3) 1103 (4) 1120  
 (5) None of these

**551.** 462 552 650 756 870 992 ?

- (1) 1040 (2) 1122  
 (3) 1132 (4) 1050  
 (5) None of these

**Directions:** What will come in place of the question mark (?) in the following number series?

**(UCO Bank PO Exam. 30.01.2011)**

**552.** 28 39 63 102 158 (?)

- (1) 232(2) 242  
 (3) 233(4) 244  
 (5) None of these

**553.** 7 16 141 190 919 (?)

- (1) 1029 (2) 1019  
 (3) 1020 (4) 1030  
 (5) None of these

**554.** 12 17 32 57 92 (?)

- (1) 198(2) 195  
 (3) 137(4) 205



- (5) None of these  
**555.** 19 25 45 87 159 (?)  
 (1) 254(2) 279  
 (3) 284(4) 269  
 (5) None of these  
**556.** 83 124 206 370 698 (?)  
 (1) 1344 (2) 1324  
 (3) 1364 (4) 1334  
 (5) None of these

**Directions:** What will come in place of the question mark (?) in the following number series.

**(Bank Of Baroda PO Exam. 13.03.2011)**

- 557.** 1 7 49 343 (?)  
 (1) 16807 (2) 1227  
 (3) 2058 (4) 2401  
 (5) None of these  
**558.** 13 20 39 78 145 (?)  
 (1) 234(2) 244  
 (3) 236(4) 248  
 (5) None of these  
**559.** 12 35 81 173 357 (?)  
 (1) 725(2) 715  
 (3) 726(4) 736  
 (5) None of these  
**560.** 3 100 297 594 991 (?)  
 (1) 1489 (2) 1479  
 (3) 1478 (4) 1498  
 (5) None of these  
**561.** 112 119 140 175 224 (?)  
 (1) 277(2) 276  
 (3) 287(4) 266  
 (5) None of these

**Directions :** What will come in place of the question mark (?) in the following number series ?

**(Allahabad Bank PO Exam. 17.04.2011)**

- 562.** 958 833 733 658608 (?)  
 (1) 577 (2) 583  
 (3) 567 (4) 573  
 (5) None of these  
**563.** 11 10 18 51 200 (?)  
 (1) 885 (2) 1025  
 (3) 865 (4) 995  
 (5) None of these

- 564.** 25 48 94 186370 (?)  
 (1) 738 (2) 744  
 (3) 746 (4) 724  
 (5) None of these

- 565.** 14 24 43 71 108 (?)  
 (1) 194 (2) 154  
 (3) 145 (4) 155  
 (5) None of these

- 566.** 144 173 140 169136 (?)  
 (1) 157 (2) 148  
 (3) 164 (4) 132  
 (5) None of these

**Directions :** What will come in place of the question mark (?) in the following number series?

**(Indian Overseas Bank PO Exam. 22.05.2011)**

- 567.** 8 10 18 44 124 (?)  
 (1) 344 (2) 366  
 (3) 354 (4) 356  
 (5) None of these

- 568.** 13 25 61 121 205 (?)  
 (1) 323 (2) 326  
 (3) 324 (4) 313  
 (5) None of these

- 569.** 656 352 200 124 86 (?)  
 (1) 67 (2) 59  
 (3) 62 (4) 57  
 (5) None of these

- 570.** 454 472 445 463 436 (?)  
 (1) 436 (2) 456  
 (3) 454 (4) 434  
 (5) None of these

- 571.** 12 18 36 102 360 (?)  
 (1) 1364 (2) 1386  
 (3) 1384 (4) 1376  
 (5) None of these

**Directions :** In the following number series only one number is **wrong**. Find out the wrong number.

**(IBPS Bank PO/MT CWE Exam. 18.09.2011)**

- 572.** 7 12 40 222 1742 17390 208608  
 (1) 222 (2) 12  
 (3) 40 (4) 1742  
 (5) 208608

573. 6 91 584 2935 11756 35277  
70558

- (1) 6 (2) 70558  
(3) 584 (4) 2935  
(5) 35277

574. 9050 5675 3478 2147 1418  
1077 950

- (1) 950 (2) 1418  
(3) 5675 (4) 2147  
(5) 1077

575. 1 4 25 256 3125 46656  
823543

- (1) 4 (2) 823543  
(3) 46656 (4) 25  
(5) 256

576. 8424 4212 2106 1051 526.5  
263.25 131.625

- (1) 526.5 (2) 1051  
(3) 4212 (4) 8424  
(5) 263.25

**Directions:** In each of these questions a number series is given. In each series **only one** number is wrong. Find out the **wrong** number.

**(IBPSBank PO/MT CWE 17.06.2012)**

577. 5531 5506 5425 5304 5135 4910  
4621

- (1) 5531 (2) 5425  
(3) 4621 (4) 5135  
(5) 5506

578. 6 7 9 13 26 37 69

- (1) 7 (2) 26  
(3) 69 (4) 37  
(5) 9

579. 1 3 10 36 152 760 4632

- (1) 3 (2) 36  
(3) 4632 (4) 760  
(5) 152

580. 4 5 13 40 105 229 445

- (1) 4 (2) 13  
(3) 105 (4) 445  
(5) 229

581. 157.5 45 15 6 3 2 1

- (1) 1 (2) 2  
(3) 6 (4) 157.5  
(5) 45

**Directions :** What will come in place of the question mark (?) in the following number series ?

**(IDBI Bank Officer Exam.16.09.2012)**

582. 123 277 459 669 907 ?

- (1) 1179 (2) 1173  
(3) 1167 (4) 1169  
(5) None of these

583. 456.5 407 368.5 341 324.5 ?

- (1) 321 (2) 319  
(3) 317 (4) 323  
(5) None of these

584. 23 42.2 80.6 157.4 311 ?

- (1) 618.2 (2) 623.2  
(3) 624.2 (4) 616.6  
(5) None of these

585. 36 154 232 278 300 ?

- (1) 304 (2) 313  
(3) 308 (4) 307  
(5) None of these

586. 24 536 487 703 678 ?

- (1) 768 (2) 748  
(3) 764 (4) 742  
(5) None of these

587. 224 576 752 840 884 ?

- (1) 960 (2) 890  
(3) 906 (4) 908  
(5) None of these

**Directions:** What should come in place of the question mark (?) in the following series ?

**(IBPS RRBs Office Assistant CWE Exam. 09.09.2012)**

588. 5 6 16 57 ? 1245

- (1) 244 (2) 148  
(3) 296 (4) 271  
(5) None of these

589. 12 ? 168 504 1260 2520

- (1) 96 (2) 59  
(3) 61 (4) 48  
(5) None of these

590. 4 9 29 ? 599 3599

- (1) 117 (2) 347  
(3) 258 (4) 174  
(5) None of these

591. 177 170 159 146 ? 110

- (1) 132 (2) 106

(3) 129 (4) 127

(5) None of these

**592.** 2 3 11 38 102 ?

(1) 402 (2) 182

(3) 227 (4) 168

(5) None of these

**Directions:** What will come in place of the question mark (?) in the following number series ?

**(Indian Overseas Bank PO Online Exam. 01.09.2013)**

**593.** 21 10.5 ? 15.75 31.5 78.75

(1) 10.5 (2) 11.5

(3) 12.5 (4) 10.25

(5) None of these

**594.** 6 19 58 ? 214 331

(1) 113 (2) 123

(3) 133 (4) 143

(5) None of these

**595.** ? 16 28 58 114 204

(1) 7 (2) 9

(3) 14 (4) 6

(5) 10

**596.** 13.76 14.91 17.21 20.66 ? 31.01

(1) 25.66 (2) 24.36

(3) 24.26 (4) 25.26

(5) 25.36

**597.** 15 ? 24 33 97 122

(1) 20 (2) 19

(3) 17 (4) 18

(5) 16

**Directions :** In each of the following number series, a number is **wrong**. Find out that wrong number.

**(Corporation Bank Specialist Officer (Marketing) Exam 22.02.2014)**

**598.** 2 6 15 30 45 43.5 22.5

(1) 6 (2) 30

(3) 45 (4) 15

(5) 43.5

**599.** 950 661 436 269 146 65 16

(1) 436 (2) 65

(3) 269 (4) 661

(5) 146

**600.** 6.5 11.8 22.4 38.3 59.5 87.3 117.8

(1) 22.4 (2) 59.5

(3) 11.8 (4) 38.3

(5) 87.3

**601.** 1 2 4 9 23 69 186

(1) 2 (2) 9

(3) 23 (4) 4

(5) 69

**602.** 250 239 216 181 136 75 4

(1) 239 (2) 181

(3) 75 (4) 216

(5) 136

**Directions:** What will come in place of the question mark (?) in the following number series ?

**603.** 2 13 ? 285 871 1767 1803

(1) 69 (2) 68

(3) 64 (4) 120

(5) 105

**604.** 5 ? 38 105 299 872 2580

(1) 12 (2) 14

(3) 16 (4) 18

(5) 20

**605.** 5 12 26 ? 110 222 446

(1) 50 (2) 52

(3) 54 (4) 56

(5) 60

**(Bank of Baroda PO Exam. 14.08.2014)**

**Directions :** What will come in place of the question mark (?) in each of the following number series?

**606.** 3 15 ? 42 116 81 5041 10081

(1) 85 (2) 80

(3) 84 (4) 95

(5) None of these

**607.** 6 13 ? 118.5 430.75 1748

(1) 35.5 (2) 36.5

(3) 43.5 (4) 42.5

(5) None of these

**608.** 5 46 117 250 509 ? 2045

(1) 829 (2) 1000

(3) 1022 (4) 922

(5) None of these

**609.** 11 25 53 ? 221 445 893

(1) 110 (2) 108

(3) 105 (4) 109

(5) None of these

**610.** 7 5 7 13 29 ? 232

(1) 76 (2) 72

(3) 78 (4) 84

(5) None of these

**(IDBI Officer Grade Exam. 22.08.2014)****Directions :** What will come in place of the question mark (?) in each of the following number series ?**611.** 13 14 32 105 436 ?

(1) 2205 (2) 2105

(3) 2215 (4) 2405

(5) None of these

**612.** 331 336 361 486 1111 ?

(1) 4329 (2) 4136

(3) 4236 (4) 4326

(5) None of these

**613.** 3 4.5 18 135 ? 28350

(1) 1400 (2) 1620

(3) 1800 (4) 1820

(5) None of these

**614.** 147 148 153 167 197 ?

(1) 242 (2) 262

(3) 282 (4) 252

(5) None of these

**615.** 200 102 157 400.5 ? 6411.875

(1) 1417.75 (2) 1471.75

(3) 1417.25 (4) 1317.75

(5) None of these

**(SIDBI Bank Officer Exam. 09.09.2014)****Directions :** What will come in place of the question mark (?) in the following number series ?**616.** 20 23 30 43 64 ?

(1) 95 (2) 90

(3) 100 (4) 105

(5) 96

**617.** 33 16.5 ? 24.75 49.5 123.75

(1) 18.5 (2) 16.5

(3) 8.5 (4) 8.25

(5) None of these

**618.** 44 ? 99 148.5 2 22.75 334.125

(1) 44 (2) 55

(3) 66 (4) 33

(5) 35

**619.** 121 238 472 ? 1876 3748

(1) 1008 (2) 948

(3) 944 (4) 940

(5) 1005

**620.** 9 10 39 220 ? 14382

(1) 1589 (2) 1598

(3) 1958 (4) 1985

(5) 1835

**(IBPS RRBs Officer Scale-I CWE, 06.09.2014)****Directions:** In the following number series only one number is wrong. Find the wrong number.**621.** 119 130 129 154 203 284 405

(1) 130 (2) 129

(3) 154 (4) 203

(5) 405

**622.** 11 14 22 37 68 96 144

(1) 37 (2) 68

(3) 96 (4) 22

(5) 144

**623.** 20 10 12 15 30 75 225

(1) 30 (2) 15

(3) 12 (4) 75

(5) 225

**624.** 39 43 51 60 87 110 167

(1) 167 (2) 87

(3) 60 (4) 110

(5) 43

**625.** 3 4 12 45 198 1005 6066

(1) 4 (2) 6066

(3) 45 (4) 1005

(5) 198

**(IBPS Bank PO/MT CWE-IV 18.10.2014)****Directions:** What will come in place of the question mark (?) in the given number series?**(BOB Junior Management Grade/Scale-I Exam. 18.04.2015)****626.** 11.2 12.9 9.5 14.6 7.8 ?

(1) 17.9 (2) 16.3

- (3) 16.7 (4) 16.2  
(5) 16.9
- 627.** 8 5 9 22.5 61 ?  
(1) 184 (2) 181.5  
(3) 192.5 (4) 177.5  
(5) 172.5
- 628.** 7 9 24 84 ? 1810  
-(1) 336 (2) 356  
(3) 348 (4) 340  
(5) 352
- 629.** 11 27 48 84 145 ?  
-(1) 241 (2) 239  
(3) 263 (4) 257  
(5) 229
- 630.** 16 15 10 26 1 ?  
-(1) 45 (2) 61  
(3) 42 (4) 38  
(5) 37

**Directions:** What will come in place of the question mark (?) in each of the following number series.

**(IBPS RRBs Officer Scale-I & II  
CWE 12.09.2015)**

- 631.** 158 78 38 18 8 ?  
(1) 3 (2) 5  
(3) 2 (4) 7  
(5) 6
- 632.** 16 19 24 33 50 ?  
(1) 83 (2) 66  
(3) 99 (4) 74  
(5) 102
- 633.** 402 400 388 358 302 ?  
(1) 212 (2) 236  
(3) 190 (4) 182  
(5) 210
- 634.** 31 15 21 50 ? 767.25  
(1) 160.5 (2) 171.5  
(3) 156.5 (4) 122.5  
(5) 143.5
- 635.** 8 5.5 8.5 23 89.5 ?  
(1) 455 (2) 420.5  
(3) 445 (4) 415.5  
(5) 433

**Directions :** What will come in place of the question mark (?) in the given number series ?

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 03.10.2015)**

- 636.** 123140 10615789 ?  
(1) 214 (2) 139  
(3) 198 (4) 169  
(5) 174
- 637.** 19094 46 22 ? 4  
(1) 19 (2) 15  
(3) 10 (4) 8  
(5) 16
- 638.** 320 308 284236140 ?  
(1) 114 (2) 110  
(3) -50 (4) 98  
(5) -52
- 639.** 3 4 9 28 113 ?  
(1) 782 (2) 424  
(3) 646 (4) 384  
(4) 566
- 640.** 8 4 6 15 ? 236.25  
(1) 64.5 (2) 84  
(3) 52.5 (4) 36  
(5) 46

**Directions:** What will come in place of the question mark (?) in each of the following number series ?

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 04.10.2015)**

- 641.** 9 5 6 10.5 23 ?  
(1) 85 (2) 60  
(3) 78 (4) 49  
(5) 97
- 642.** 59 66 80 108 ? 276  
(1) 150 (2) 125  
(3) 164 (4) 132  
(5) 178
- 643.** 47 23 11 5 2 ?  
(1) 0.2 (2) 1  
(3) 0.4 (4) 2  
(5) 0.5
- 644.** 1 2 6 21 88 ?  
(1) 539 (2) 398  
(3) 216 (4) 445  
(5) 615
- 645.** 300298 307 279 344 ?  
(1) 265 (2) 218  
(3) 253 (4) 289  
(5) 298

**Directions:** What will come in place of the question mark (?) in the following number series ?

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015  
1st Sitting)**

- 646.** 4 5.8 9.4 16.6 ? 59.8  
(1) 31 (2) 32  
(3) 29 (4) 33  
(5) 34
- 647.** 7 6 10 27 104 ?  
(1) 516 (2) 515  
(3) 525 (4) 535  
(5) 540
- 648.** 139 135 128 116 97 ?  
(1) 65 (2) 68  
(3) 69 (4) 67  
(5) 80
- 649.** 10 10 16 31 70 ?  
(1) 156 (2) 150  
(3) 180 (4) 184  
(5) 148
- 650.** 9 4 3 3 4 ?  
(1) 9.5 (2) 8.5  
(3) 4.5 (4) 6.5  
(5) 7.5

**Directions :** What will come in place of the question mark (?) in the following number series ?

**(IBPS Bank PO/MT CWE-V  
(Preliminary) 10.10.2015)**

- 651.** 155 151 144 132 113 ?  
(1) 89 (2) 71 (3) 85 (4) 92  
(5) 60
- 652.** 18 18 24 48 108 ?  
(1) 254 (2) 228  
(3) 212 (4) 176  
(5) 194
- 653.** 9 10.8 14.4 21.6 ? 64.8  
(1) 36 (2) 44  
(3) 34 (4) 41.8  
(5) 37.6
- 654.** 6 5 8 21 80 ?  
(1) 268 (2) 192  
(3) 255 (4) 364  
(5) 395
- 655.** 13 6 5 6 10 ?  
(1) 19 (2) 25

- (3) 17.5 (4) 28  
(5) 22.5

**Directions:** What will come in place of question mark (?) in the following number series ?

**(IBPS Bank PO/MT CWE-V  
Main Exam. 31.10.2015)**

- 656.** 15 29 56 108 208 400 ?  
(1) 758 (2) 770  
(3) 784 (4) 768  
(5) 778
- 657.** 13-21 34 -55 89 -144 ?  
(1) 233 (2) 255  
(3) 244 (4) 266  
(5) 222
- 658.** 133 183 241 307 381 463 ?  
(1) 557 (2) 521  
(3) 553 (4) 541  
(5) Other than those given as options
- 659.** 1.21 1.44 1.69 1.96 2.25 2.56 ?  
(1) 3.61 (2) 2.85  
(3) 3.24 (4) 2.94  
(5) Other than those given as options
- 660.** 36 52 70 90 112 136 ?  
(1) 150 (2) 152  
(3) 162 (4) 140  
(5) Other than those given as options
- Directions:** What will come in place of the question mark (?) in the given number series ?
- (IBPS RRBs Officer Scale-I & II  
CWE 13.09.2015)**
- 661.** 500 484 451 384 266 ?  
(1) 36 (2) 80  
(3) 56 (4) 64  
(5) 42
- 662.** 9 4 5 6 14 ?  
(1) 48.5 (2) 42  
(3) 32.5 (4) 20  
(5) 36
- 663.** 100 52 28 16 10 ?  
(1) 7 (2) 3  
(3) 6 (4) 4

- (5) 5  
**664.** 1 2 12 63 316 ?  
 (1) 1705 (2) 1066  
 (3) 1585 (4) 1224  
 (5) 584  
**665.** 3 5 13 43 177 ?  
 (1) 723 (2) 645  
 (3) 930 (4) 891  
 (5) 550

**Directions:** What will come in place of the question mark (?) in the following number series ?

**(IBPS Specialist Officer (IT)  
 CWE 14.02.2016)**

- 666.** 606 20166 21 6 ?  
 (1) 0.5 (2) 2  
 (3) 5 (4) 1  
 (5) 3  
**667.** 19 10 11 18 38 ?  
 (1) 97.5 (2) 110  
 (3) 115 (4) 124.5  
 (5) 99.5  
**668.** 6 4 5 11 ? 189  
 (1) 44 (2) 39  
 (3) 65 (4) 96  
 (5) 62  
**669.** 24 26 20 32 12 ?  
 (1) 42 (2) 54  
 (3) 56 (4) 46  
 (5) 64  
**670.** 18 19 24 37 66 ?  
 (1) 158 (2) 224  
 (3) 219 (4) 192  
 (5) 127  
**671.** 19 19.6 20.8 23.2 28 ?  
 (1) 35.7 (2) 37.6  
 (3) 31.8 (4) 39.8  
 (5) 38.2

**Directions:** One number is wrong in each of the number series given in each of the following questions. You have to identify that number and assuming that a new series starts with that number following the same logic as in the given series, which of the numbers given in (1), (2), (3), (4) and (5)

given below each series will be the **third** number in the new series?

**(SBI Associate Banks PO  
 Exam. 14.02.1999)**

- 672.** 3 5 12 38 154 914 4634  
 (1) 1636 (2) 1222  
 (3) 1834 (4) 3312  
 (5) 1488  
**673.** 3 4 10 34 136 685 4116  
 (1) 22 (2) 276  
 (3) 72 (4) 1374  
 (5) 12  
**674.** 214 18 162 62 143 90 106  
 (1) -34 (2) 110  
 (3) 10 (4) 91  
 (5) 38  
**675.** 160 80 120 180 1050 4725  
 25987.5  
 (1) 60 (2) 90  
 (3) 3564 (4) 787.5  
 (5) 135  
**676.** 2 3 7 13 25 47 78  
 (1) 11 (2) 13  
 (3) 15 (4) 18  
 (5) 20

**Directions:** In each of the following questions, a number **series** is given. After the series, below it, a number alongwith (a), (b), (c), (d) and (e) is given. You have to complete the series following the same sequence as that of the given series. Then answer the question that follows.

**(SBI Associate Banks PO  
 Exam. 16.07.2000)**

- 677.** 2 3 10 29 172 885  
 1 (a) (b) (c) (d) (e)  
 What will come in place of (b)?  
 (1) 11(2) 7  
 (3) 9(4) 8  
 (5) None of these  
**678.** 5 7 10 36 136 690  
 2 (a) (b) (c) (d) (e)  
 What will come in place of (e)?  
 (1) 310 (2) 330  
 (3) 110 (4) 64  
 (5) None of these

679. 8 4 6 15 52.5 236.25

4 (a) (b)(c) (d) (e)

Which of the following will come in place of (d) ?

- (1) 36.25           (2) 33.25  
(3) 26.75           (4) 32.75  
(5) None of these

**Directions :** In each of the following questions, a number series is established if the positions of two out of the five marked numbers are interchanged. The position of the first unmarked number remains the same and it is the beginning of the series. The earlier of the two marked numbers whose positions are interchanged is the answer. For example, if an interchange of number marked '1' and the number marked '4' is required to establish the series, your answer is '1'. If it is not necessary to interchange the position of the numbers to establish the series, give 5 as your answer. Remember that when the series is established, the numbers change from left to right (i.e. from the unmarked number to the last marked number) in a specific order.

**(SBI Banks PO Exam. 20.08.2000)**

680. 9. 40 14 60 24 80 19

(1) (2) (3) (4) (5)

681. 120 15 105 21.875 87.5 17.5

(1) (2) (3) (4) (5)

**Directions :** In each of the following number-series only one number is **wrong**. If the wrong number is corrected, the series gets established following a certain logic. Below the series a number is given followed by (a), (b), (c), (d), (e) and (f). You have to complete the series following the same logic as in the given series after correcting the **wrong** number. Now answer the following questions giving the correct values for the letter in the questions.

**(SBI Banks PO Exam. 11.02.2001)**

682. 2 3 2 15 76 254 1434

3 (a) (b) (c) (d) (e) (f)

What will come in place of (c) ?

- (1) 18               (2) 22  
(3) 24               (4) 21  
(5) None of these

683. 1 2 8 33 148 740 4626

2 (a) (b) (c) (d) (e) (f)

What will come in place of (d) ?

- (1) 156               (2) 164  
(3) 168               (4) 152  
(5) None of these

684. 2 4.5 11 30 93 312 1136

1 (a) (b) (c) (d) (e) (f)

What will come in place of (b) ?

- (1) 6                 (2) 81  
(3) 16.75           (4) 18.75  
(5) None of these

685. 2 14 18 46 82 176 338

4 (a) (b) (c) (d) (e) (f)

What will come in place of (e) ?

- (1) 238               (2) 338  
(3) 218               (4) 318  
(5) None of these

686. 1 3 7 11 21 43 85

4 (a) (b) (c) (d) (e) (f)

What will come in place of (f) ?

- (1) 275               (2) 279  
(3) 277               (4) 273  
(5) None of these

**Directions:** Find out the wrong number in the following given sequence.

**(SBI Associate Banks PO Exam. 21.07.2002)**

687. 7 4 6 9 20 52.5 160.5

- (1) 6                 (2) 4  
(3) 20               (4) 9  
(5) 52.5

688. 4 6 12 30 75 315 1260

- (1) 315               (2) 75  
(3) 12               (4) 6  
(5) 30

689. 3 4 13 38 87 166 289

- (1) 38               (2) 13  
(3) 87               (4) 166



(5) 4  
**690.** 4 5 9 29 111 556 3325

- (1) 5 (2) 9  
 (3) 29 (4) 111  
 (5) 556

**691.** 2 6 16 38 84 176 368

- (1) 6 (2) 16  
 (3) 38 (4) 84  
 (5) 176

**Directions :** In each of the following number series, a **wrong** number is given. Find out the **wrong** number.

**(SBI Banks PO Exam. 18.05.2003)**

**692.** 2 3 6 18 109 1944 209952

- (1) 3 (2) 6  
 (3) 18 (4) 109  
 (5) 1944

**693.** 1 3 6 11 20 39 70

- (1) 3 (2) 39  
 (3) 11 (4) 20  
 (5) 6

**694.** 2 13 27 113 561 3369  
 23581

- (1) 13 (2) 27  
 (3) 113 (4) 561  
 (5) 3369

**695.** 50 51 47 56 42 65 29

- (1) 51 (2) 47  
 (3) 56 (4) 42  
 (5) 65

**696.** 3 9 23 99 479 2881 20159

- (1) 9 (2) 23  
 (3) 99 (4) 479  
 (5) 2881

**697.** 2 4 5 8 13 21 34

- (1) 4 (2) 5  
 (3) 8 (4) 13  
 (5) 21

**Directions:** In each of the following questions a number series is given. After the **series** a number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with the given number, following the sequence of original series and

answer the questions that follow the series.

**(SBI PO Exam. 09.01.2005)**

**698.** 3 19 103 439 1381 2887

5 (a) (b) (c) (d) (e)

What will come in place of (b) ?

- (1) 139 (2) 163  
 (3) 161 (4) 157  
 (5) None of these

**699.** 4 13 40 135 552 2765

2 (a) (b) (c) (d) (e)

What will come in place of (c) ?

- (1) 123 (2) 133  
 (3) 127 (4) 131  
 (5) None of these

**700.** 5 12 4 10 3 8

6 (a) (b) (c) (d) (e)

What will come in place of (d) ?

- (1) 3 (2) 5  
 (3) 4 (4) 7  
 (5) None of these

**701.** 3 13 37 87 191 401

1 (a) (b) (c) (d) (e)

What will come in place of (d) ?

- (1) 169 (2) 161  
 (3) 171 (4) 159  
 (5) None of these

**702.** 8 4 6 15 52.5 236.25

12(a) (b) (c) (d) (e)

What will come in place of (c) ?

- (1) 18.25 (2) 19  
 (3) 22.5 (4) 20.75  
 (5) None of these

**Directions:** In each of the following questions a number series is given. After the **series**, a number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with the number given following the sequence of the given series. Then answer the question given below it.

**(SBI PO Exam. 26.11.2006)**

**703.** 9 19.5 41 84.5

12 (a) (b) (c) (d) (e)

Which of the following numbers will come in place of (c) ?

- (1) 111.5 (2) 118.5

- (3) 108.25 (4) 106.75  
(5) None of these

**704.** 4 5 22 201  
7 (a) (b) (c) (d) (e)

Which of the following number will come in place of (d) ?

- (1) 4948 (2) 4840  
(3) 4048 (4) 4984  
(5) None of these

**705.** 5 5.25 11.5 36.75  
7 (a) (b) (c) (d)  
(e)

Which of the following number will come in place of (c) ?

- (1) 34.75 (2) 24.75  
(3) 24.5 (4) 34.5  
(5) None of these

**706.** 3 8 19 28.5 71.25  
18 (a) (b) (c) (d) (e)

Which of the following number will come in place of (d) ?

- (1) 118.75 (2) 118.25  
(3) 108.25 (4) 118.125  
(5) None of these

**707.** 25 146 65 114  
39 (a) (b) (c) (d) (e)

Which of the following number will come in place of (e) ?

- (1) 122 (2) 119  
(3) 112 (4) 94  
(5) None of these

**Directions :** In each of these questions a number series is given. Only one number is **wrong** in each series. You have to find out the **wrong** number.

**(SBI Associate Banks PO  
Exam. 07.01.2007)**

**708.** 10 15 24 35 54 75 100  
(1) 35 (2) 75  
(3) 24 (4) 15  
(5) 54

**709.** 1 3 4 7 11 18 27 47  
(1) 4 (2) 11  
(3) 18 (4) 7  
(5) 27

**710.** 3 2 3 6 12 37.5 115.5

- (1) 37.5 (2) 3  
(3) 6 (4) 2  
(5) 12

**711.** 2 8 32 148 765 4626 32431

- (1) 765 (2) 148  
(3) 8 (4) 32  
(5) 4626

**712.** 2 3 11 38 102 229 443

- (1) 11 (2) 229  
(3) 102 (4) 38  
(5) 3

**Directions :** What should come in place of the question mark(?) in the following number series?

**(SBI PO Preliminary (Tier-I)  
Exam. 27.04.2008)**

**713.** 7413 7422 7440 ? 7503 7548

- (1) 7464 (2) 7456  
(3) 7466 (4) 7477  
(5) None of these

**714.** 4 16 36 64 100 ?

- (1) 120 (2) 180  
(3) 136 (4) 144  
(5) None of these

**715.** 12 33 96 ? 852 2553

- (1) 285 (2) 288  
(3) 250 (4) 384  
(5) None of these

**716.** 70000 14000 2800 ? 112 22.4

- (1) 640 (2) 420  
(3) 560 (4) 540  
(5) None of these

**717.** 102 99 104 97 106 ?

- (1) 96 (2) 95  
(3) 100 (4) 94  
(5) None of these

**Directions:** What will come in place of the question mark (?) in the following number series which has only one number wrong by a margin of + 1 or - 1 ? The first and last number in the series are correct?

**(SBI PO Preliminary (Tier-I)  
Exam. 27.07.2008)**

**718.** 93 95 99 ? 110 121 134

- (1) 104 (2) 96

- (3) 82(4) 103  
 (5) None of these
- 719.** 8 12 18 26 40.5 60.75 ? 136.6875  
 (1) 104.125 (2) 121.125  
 (3) 96.125 (4) 83.125  
 (5) None of these
- 720.** 4 7 11 18 28 ? 76 123  
 (1) 59(2) 38  
 (3) 46(4) 53  
 (5) None of these
- 721.** 3 10 ? 172 886 5346 37471  
 299832  
 (1) 39(2) 27  
 (3) 24(4) 34  
 (5) None of these
- 722.** 15 22 57 183 ? 748 3755  
 22542  
 (1) 709 (2) 698  
 (3) 748 (4) 800  
 (5) None of these
- Directions:** In each of these questions a number series is given. In each series **only one** number is **wrong**. Find out the **wrong** number.
- (SBI Associate Banks PO Exam. 07.08.2011)**
- 723.** 3601 3602 1803 604 154  
 36 12  
 (1) 3602 (2) 1803  
 (3) 604 (4) 154  
 (5) 36
- 724.** 4 12 42 196 1005 6066  
 42511  
 (1) 12 (2) 42  
 (3) 1005 (4) 196  
 (5) 6066
- 725.** 2 8 12 20 30 42 56  
 (1) 8 (2) 42  
 (3) 30 (4) 20 (5) 12
- 726.** 32 16 24 65 210 945  
 5197.5  
 (1) 945 (2) 16  
 (3) 24 (4) 210  
 (5) 65
- 727.** 7 13 25 49 97 194 385  
 (1) 13 (2) 49

- (3) 97 (4) 194  
 (5) 25

**Directions :** In each of the following questions, a number series is given. After the series a number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with the number given, following the sequence of the original series and answer the questions that follow the series.

**(SBI Management Executive Exam. 23.02.2014)**

- 728.** 37 19 20 31.5 65 165  
 21 (a) (b) (c) (d) (e)  
 What will come in the place of (e) ?  
 (1) 105 (2) 41  
 (3) 110 (4) 108  
 (5) 116
- 729.** 5 6 16 57 244 1245  
 9 (a) (b) (c) (d) (e)  
 What will come in the place of (d) ?  
 (1) 366 (2) 364  
 (3) 368 (4) 378  
 (5) 382
- 730.** 7 5 11 49 335 3005  
 13 (a) (b) (c) (d) (e)  
 What will come in the place of (b) ?  
 (1) 31 (2) 27  
 (3) 29 (4) 28  
 (5) 30
- 731.** 12 47 152 467 1412  
 4247  
 33 (a) (b) (c) (d) (e)  
 What will come in the place of (d) ?  
 (1) 3131 (2) 1133  
 (3) 3311 (4) 3113  
 (5) 3123
- 732.** 54 50 84 188 496  
 1456  
 42 (a) (b) (c) (d) (e)  
 What will come in the place of (d) ?  
 (1) 304 (2) 286  
 (3) 293 (4) 281  
 (5) 301
- Directions :** In each of the following questions, a number series is given. After the series a

number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with the number given, following the sequence of the original series and answer the questions that follow the series.

- 733.** 37 19 20 31.5 65 165  
21 (a) (b) (c) (d) (e)  
What will come in the place of (e) ?  
(1) 105 (2) 41  
(3) 110 (4) 108  
(5) 116
- 734.** 5 6 16 57 244 1245  
9 (a) (b) (c) (d) (e)  
What will come in the place of (d) ?  
(1) 366 (2) 364  
(3) 368 (4) 378  
(5) 382
- 735.** 7 5 11 49 335 3005  
13 (a) (b) (c) (d) (e)  
What will come in the place of (b) ?  
(1) 31 (2) 27  
(3) 29 (4) 28  
(5) 30
- 736.** 12 47 152 467 1412  
4247  
33 (a) (b) (c) (d) (e)  
What will come in the place of (d) ?  
(1) 3131 (2) 1133  
(3) 3311 (4) 3113  
(5) 3123
- 737.** 54 50 84 188 496 1456  
42 (a) (b) (c) (d) (e)  
What will come the in the place of (d) ?  
(1) 304 (2) 286  
(3) 293 (4) 281  
(5) 301

**(SBI Management  
Executive Exam.22.02.2014)**

**Directions:** What will come in place of the question mark (?) in each of the following number series?

- 738.** 224 576 752 840 884 ?  
(1) 906 (2) 904  
(3) 898 (4) 916

- (5) None of these
- 739.** 36 49 75 88 114 ?  
(1) 129 (2) 127  
(3) 137 (4) 128  
(5) None of these
- 740.** 130 139 155 180 216 ?  
(1) 245 (2) 255  
(3) 265 (4) 275  
(5) None of these
- 741.** 35 256 451 620 763 ?  
(1) 870 (2) 890  
(3) 860 (4) 880  
(5) None of these

**(SBI Specialist (IT)  
Officer Exam. 19.04.2014)**

**Directions :** What will come in place of the question mark (?) in each of the following number series ?

- 742.** 11 12 28 93 388 ?  
(1) 1965 (2) 865  
(3) 1956 (4) 2065  
(5) None of these
- 743.** 2 7.5 20.5 67 273.5 ?  
(1) 1263 (2) 1373  
(3) 1273 (4) 1337  
(5) None of these
- 744.** 8 4.5 5.5 9.75 21.5 ?  
(1) 56.75 (2) 55.25  
(3) 56.25 (4) 54.50  
(5) None of these
- 745.** 12 22 42 82 162 ?  
(1) 332 (2) 304  
(3) 302 (4) 322  
(5) None of these
- 746.** 3 5 16 60 260 ?  
(1) 1330 (2) 1303  
(3) 1203 (4) 1230  
(5) None of these
- 747.** 2 3 18 115 854 ?  
(1) 7776 (2) 7767  
(3) 6676 (4) 6667  
(5) None of these
- 748.** 20 22 29 46 78 ?  
(1) 135 (2) 170  
(3) 130 (4) 140  
(5) None of these

749. 24 27 34 47 68 ?

- (1) 96 (2) 97  
(3) 98 (4) 99  
(5) 100

**(SBI Management Executive  
Exam. 19.09.2014)**

**Directions:** What will come in place of the question mark (?) in each of the following number series ?

**(SBI Management Executive  
Exam. 19.09.2014)**

750. 7.5 20.5 67 273.5 ?

- (1) 1263 (2) 1373  
(3) 1273 (4) 1337  
(5) None of these

751. 8 4.5 5.5 9.75 21.5 ?

- (1) 56.75 (2) 55.25  
(3) 56.25 (4) 54.50  
(5) None of these

752. 12 22 42 82 162 ?

- (1) 332 (2) 304  
(3) 302 (4) 322  
(5) None of these

753. 3 5 16 60 260 ?

- (1) 1330 (2) 1303  
(3) 1203 (4) 1230  
(5) None of these

754. 2 3 18 115 854 ?

- (1) 7776 (2) 7767  
(3) 6676 (4) 6667  
(5) None of these

755. 20 22 29 46 78 ?

- (1) 135 (2) 170  
(3) 130 (4) 140  
(5) None of these

756. 24 27 34 47 68 ?

- (1) 96 (2) 97  
(3) 98 (4) 99  
(5) 100

**Directions :** In each of the following questions, a number series is given. After the series a number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with the given number following the sequence of original series and

answer the question that follows the series.

**(SBI Associates PO Online  
Exam. 30.11.2014)**

757. 4824 36 90 315 1417.5

- 20 (a) (b) (c) (d) (e)  
What will come in place of (d) ?  
(1) 131.25 (2) 133.75  
(3) 136 (4) 140  
(5) 142.25

758. 2 11 52 183 430 555

- 4 (a) (b) (c) (d) (e)  
What will come in place of (b) ?  
(1) 92 (2) 98  
(3) 82 (4) 88  
(5) 96

759. 7 9 21 67 273 1371

- 6 (a) (b) (c) (d) (e)  
What will come in place of (b) ?  
(1) 19 (2) 22  
(3) 18 (4) 20  
(5) 17

760. 9 8 12 27 92 435

- 7 (a) (b) (c) (d) (e)  
What will come in place of (c) ?  
(1) 19 (2) 12  
(3) 13 (4) 15  
(5) 16

761. 8 9 21 68 279 1404

- 5 (a) (b) (c) (d) (e)  
What will come in place of (d) ?  
(1) 184 (2) 207  
(3) 212 (4) 196  
(5) 228

762. 4 7 19 73 361 2161

- 8 (a) (b) (c) (d) (e)  
What will come in place of (c) ?  
(1) 106 (2) 169  
(3) 156 (4) 184  
(5) 174

**Directions:** What will come in place of the question mark (?) in each of the following number series ?

**(SBI PO Phase-I (Preliminary)  
Online Exam. 20.06.2015)**

763. 125 128 119 146 65 ?

- (1) 308 (2) 316  
(3) 298 (4) 294

- (5) 264  
**764.** 8 17 30 47 68 ?  
 (1) 83 (2) 93  
 (3) 98 (4) 95  
 (5) 96  
**765.** 24 12 12 18 ? 90  
 (1) 40 (2) 38  
 (3) 36 (4) 45  
 (5) None of these  
**766.** 5 16 49 104 ? 280  
 (1) 165 (2) 160  
 (3) 171 (4) 181  
 (5) 175  
**767.** 13 19 30 48 75 ?  
 (1) 107 (2) 108  
 (3) 116 (4) 112  
 (5) 113

**Directions :** What will come in place of the question mark (?) in the following number series.

**(SBI PO Phase-I (Preliminary) Online Exam. 21.06.2015)**

- 768.** 19 30 44 67 117 ?  
 (1) 236 (2) 272  
 (3) 264 (4) 248  
 (5) 254  
**769.** 7 9 18 46 111 ?  
 (1) 245 (2) 229  
 (3) 233 (4) 248  
 (5) 237  
**770.** 7 24 58 109 ? 262  
 (1) 183 (2) 189  
 (3) 171 (4) 163  
 (5) 177  
**771.** 19 20 16 25 9 ?  
 (1) 32 (2) 38  
 (3) 34 (4) 42  
 (5) 48  
**772.** 7.4 9.2 11.4 14 17 ?  
 (1) 19.8 (2) 22.6  
 (3) 23 (4) 21  
 (5) 20.4

**Directions:** What will come in place of the question mark (?) in the given number series ?

**(SBI PO Phase-I (Preliminary) Online Exam. 27.06.2015)**

- 773.** 1719 25 37 ? 87  
 (1) 63 (2) 52  
 (3) 55 (4) 67 (5) 57  
**774.** 6182124187 ? 376  
 (1) 271 (2) 263  
 (3) 257 (4) 287 (5) 249  
**775.** 2330 46 80 141 ?  
 (1) 244 (2) 212  
 (3) 226 (4) 220 (5) 238  
**776.** 179180172199 135 ?  
 (1) 236 (2) 272  
 (3) 240 (4) 256 (5) 260  
**777.** 146 5 6.5 12 ?  
 (1) 29 (2) 27  
 (3) 23 (4) 33 (5) 35

**RBI GRADE-B/ NABARD GRADE-A OFFICER EXAMS**

**Directions (1-5) :** In each of the following questions a number series is given. After the series a number is given followed by (a), (b) (c), (d) and (e). You have to complete the series starting with the number given, following the sequence of the original series and answer the questions that follow the series.

**(RBI Grade-B Officer Exam. 17.11.2002)**

- 778.** 5 6 16 57 244 1245  
 2 (a) (b) (c) (d) (e)  
 What will come in place of (d)?  
 (1) 46 (2) 39  
 (3) 156 (4) 172  
 (5) None of these  
**779.** 3 5 9 17 33 65  
 7 (a) (b) (c) (d) (e)  
 What will come in place of (d)?  
 (1) 95 (2) 51  
 (3) 99 (4) 49  
 (5) None of these  
**780.** 7 4 5 9 20 52.5  
 3 (a) (b) (c) (d) (e)  
 What will come in place of (c)?  
 (1) 4.5 (2) 2  
 (3) 6 (4) 7  
 (5) None of these

781. 3 10 32 111 460 2315

2 (a) (b) (c) (d) (e)

What will come in place of (b)?

(1) 29 (2) 30

(3) 26 (4) 28

(5) None of these

782. 5 8 6 10 7 12

7 (a) (b) (c) (d) (e)

What will come in place of (c)?

(1) 14 (2) 16

(3) 9 (4) 11

(5) None of these

**Directions:** What should come in place of the question mark (?) in the following number series ?

**(RBI Grade-B Officer Exam. 2007)**

783. 104 109 99 114 94 ?

(1) 69 (2) 124

(3) 120 (4) 78

(5) None of these

784. 980 392 156.8 ? 25.088 10.0352

(1) 65.04 (2) 60.28

(3) 62.72 (4) 63.85

(5) None of these

785. 14 16 35 109 441 ?

(1) 2651 (2) 2205

(3) 2315 (4) 2211

(5) None of these

786. 1331 2197 4913 6859 ? 24389

(1) 12167 (2) 13824

(3) 9261 (4) 15625

(5) None of these

787. 3600 725 150 35 12 ?

(1) 8 (2) 7.4 (3) 10.5

(4) 10 (5)

None of these

**Directions:** What should come in place of question mark (?) in the following number series ?

**(RBI Grade-B Officer Exam. 2008)**

788. 13143093 376 1885 ?

(1) 10818 (2) 10316

(3) 11316 (4) 11318

(5) None of these

789. 4 6 9 13.5 20.25 30.375 ?

(1) 40.25 (2) 45.5625

(3) 42.7525 (4) 48.5625

(5) None of these

790. 400 240 144 86.4

51.8431.104 ?

(1) 19.2466 (2) 17.2244

(3) 16.8824 (4) 18.6625

(5) None of these

791. 9 4.5 4.5 6.75 13.5 33.75 ?

(1) 101.25 (2) 103.75

(3) 99.75 (4) 105.50

(5) None of these

792. 705 728 774 843 935 1050 ?

(1) 1190 (2) 1180

(3) 1185 (4) 1187

(5) None of these

**Directions :** In each of these questions a number series is given. Below the series one number is given followed by (a), (b), (c), (d) and (e). You have to complete this series following the same logic as in the original series and answer the question that follows.

**(RBI Grade-B Officer Exam. 11.10.2009)**

793. 5 9 25 91 414 2282.5

3 (a) (b) (c) (d) (e)

What will come in place of (c) ?

(1) 63.25 (2) 63.75

(3) 64.25 (4) 64.75

(5) None of these

794. 15 9 8 12 36 170

19 (a) (b) (c) (d) (e)

What will come in place of (b) ?

(1) 18 (2) 16

(3) 22 (4) 24

(5) None of these

795. 7 6 10 27 104 515

9 (a) (b) (c) (d) (e)

What will come in place of (d) ?

(1) 152 (2) 156

(3) 108 (4) 112

(5) None of these

796. 6 16 57 244 1245 7506

4 (a) (b) (c) (d) (e)

What will come in place of (d) ?

(1) 985 (2) 980

(3) 1004 (4) 1015

(5) None of these

**797.** 8 9 20 63 256 1285

5 (a) (b) (c) (d) (e)

What will come in place of (e) ?

(1) 945 (2) 895

(3) 925 (4) 845

(5) None of these

**Directions:** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(RBI Grade-B Officer  
Exam.06.02.2011)**

**798.** 4 3 4.5 8.5 20 53

162.5 (1) 3 (2) 4.5

(3) 8.5 (4) 20

(5) 53

**799.** 12000 2395 472 89.8

12.96 -2.408 -5.4816 (1)

-5.4816 (2) 472

(3) 12.96 (4) - 2.408

(5) 2395

**800.** 1 8 28 99 412 2075 12460

(1) 28 (2) 99 (3) 412 (4) 2075

(5) 12460

**801.** 144 215 540 1890 8505

46777.5 304053.75

(1) 215 (2) 540

(3) 1890 (4) 8505

(5) 46777.5

**802.** 2222 1879 1663 1538 1474

1447 1440 (1)

1879 (2) 1538

(3) 1474 (4) 1447

(5) 1440

**Directions :** What will come in place of the question mark (?) in the following number series ?

**(RBI Grade 'B' Officer's  
Exam. 18.12.2011)**

**803.** 9 31 73 141 (?)

(1) 164 (2) 280

(3) 239 (4) 241

(5) None of these

**804.** 35 256 451 620 763 (?)

(1) 680 (2) 893

(3) 633 (4) 880

(5) None of these

**805.** 130 139 155 180 216 (?)

(1) 260 (2) 290

(3) 265 (4) 996

(5) None of these

**806.** 2890 (?) 1162 874 730 658

(1) 1684 (2) 1738

(3) 1784 (4) 1672

(5) None of these

**807.** 14 1004 1202 1251.5 1268 (?)

(1) 1267.5 (2) 1276.25

(3) 1324.5 (4) 1367.25

(5) None of these

**Directions:** What will come in place of the question mark (?) in the following number series?

**(RBI Officer Grade 'B'  
Online Exam. 25.08.2013)**

**808.** 224 576 752 840 884 ?

(1) 960 (2) 890

(3) 906 (4) 908

(5) None of these

**809.** 55 66.15 88.45 121.9 166.5 ?

(1) 212.25 (2) 322.25

(3) 224.25 (4) 222.25

(5) None of these

**810.** 36 49 75 88 114 (?)

(1) 130 (2) 140

(3) 132 (4) 128

(5) 127

**Directions:** In the following number series, a wrong number is given. Identify the wrong number that does not follow the given pattern.

**811.** 3 1033 111 349 1072

3252

(1) 33 (2) 111

(3) 349 (4) 1072

(5) 10

**812.** 1 2 12 63 316 1704

10446

(1) 63 (2) 1704

(3) 316 (4) 10446

(5) 2

**813.** 2 6 24 96 285 568 567

(1) 6 (2) 96

(3) 24 (4) 568



- (5) 567  
**814.** 1528 43 60 79 101 123  
 (1) 28 (2) 43  
 (3) 60 (4) 101  
 (5) 123  
**815.** 9 10 18 45 109 235 450  
 (1) 10 (2) 9  
 (3) 18 (4) 109  
 (5) 235

**(RBI Officer Grade 'B' Phase-I,  
Exam. 03.08.2014)**

**Directions:** What will come in place of the question mark (?) in the given number series.

**(NABARD Officer Grade 'A'  
Online Exam. 03.08.2014)**

- 816.** 10 9 14 33 116 ?  
 (1) 687 (1) 428  
 (3) 742 (4) 555  
 (5) 856  
**817.** 189 148 119 100 89 ?  
 (1) 78 (2) 76  
 (3) 67 (4) 84  
 (5) 61  
**818.** 44 34 58 164 646 ?  
 (1) 3820 (2) 2644  
 (3) 3640 (4) 3220  
 (5) 2856  
**819.** 19 34 64 124 244 ?  
 (1) 396 (2) 358  
 (3) 484 (4) 328  
 (5) 332  
**820.** 161 163 169 181 ? 231  
 (1) 218 (2) 195  
 (3) 129 (4) 201  
 (5) 207

**Directions:** In the following number series, a wrong number is given. Identify the wrong number that does not follow the given pattern.

**(RBI Officer Grade 'B' Phase-I  
Exam. 03.08.2014)**

- 821.** 3 10 33 111 349 1072  
 3252  
 (1) 33 (2) 111  
 (3) 349 (4) 1072  
 (5) 10

- 822.** 1 2 12 63 316 1704  
 10446  
 (1) 63 (2) 1704  
 (3) 316 (4) 10446  
 (5) 2  
**823.** 2 6 24 96 285 568 567  
 (1) 6 (2) 96  
 (3) 24 (4) 568  
 (5) 567  
**824.** 1528 43 60 79 101 123  
 (1) 28 (2) 43  
 (3) 60 (4) 101  
 (5) 123  
**825.** 9 10 18 45 109 235 450  
 (1) 10 (2) 9  
 (3) 18 (4) 109  
 (5) 235

**Directions :** In each of the following questions, a number series is given. Only one number is wrong which doesn't fit in the series, Find out the wrong number?

**(RBI Officer Grade 'B' Phase-I  
Exam. 21.11.2015)**

- 826.** 10 4 3 3.5 6 15 41  
 (1) 3 (2) 15  
 (3) 4 (4) 6  
 (5) 3.5  
**827.** 50 40 720 120 24 6 3 1  
 (1) 3 (2) 6  
 (3) 120 (4) 720  
 (5) 24  
**828.** 140 157 193 242 310 395 497  
 (1) 395 (2) 193  
 (3) 310 (4) 242  
 (5) 157  
**829.** 150 148 143 133 116 80 53  
 (1) 133 (2) 116  
 (3) 80 (4) 148  
 (5) 143  
**830.** 5 4 6 15 56 285 1644  
 (1) 56 (2) 285  
 (3) 6 (4) 15  
 (5) 4

**Directions:** In each of the following number series, there is a **wrong** number that does not follow

the rule/pattern of the series. Find the **wrong** number.

**(RBI Officer Grade 'B' Phase-I Online Exam. 22.11.2015)**

**831.** 1 2 6 21 88 505 2676

- (1) 505 (2) 88  
(3) 2676 (4) 21  
(5) 6

**832.** 6 4 5 8.5 18 48 139

- (1) 8.5 (2) 48  
(3) 139 (4) 8.5  
(5) 5

**833.** 7 8 35 160 505 1232  
2563

- (1) 35 (2) 160  
(3) 505 (4) 1232  
(5) 2563

**834.** 18 21 25 35 52 78 115

- (1) 35 (2) 52  
(3) 78 (4) 21  
(5) 115

**835.** 120 137 178 222 290 375  
477

- (1) 120 (2) 222  
(3) 375 (4) 477  
(5) 178

**836.** What will come in place of the question mark (?) in the following series?

3 7 18 26 ? 53 64 96

- (1) 34 (2) 37  
(3) 32 (4) 38

**(United India Insurance Co. AAO Exam. 21.04.2002)**

**837.** What will come in place of the question mark (?) in the following series?

1.7 3.2 2.7 4.2 3.7 ? 4.7 6.2

- (1) 6.2 (2) 5.5  
(3) 5.2 (4) 4.3

**(United India Insurance Co. AAO Exam. 21.04.2002)**

**Directions:** In each of the following questions, a number series is given. **Only** one number is **wrong** in this series. Find out that **wrong** number, and taking

this wrong number as the first term of the second series formed following the same logic, find out the fourth term of the second series.

**(LIC Assistant Administrative Officer (AAO) Exam. 24.04.2005)**

**838.** 8 4 4 6 12 28 90

- (1) 18 (2) 42  
(3) 21 (4) 24  
(5) None of these

**839.** 17 17.25 18.25 20.75 24.5 30.75

- (1) 23.25 (2) 24.25  
(3) 24.5 (4) 24.75  
(5) None of these

**840.** 438 487 447 476 460 469

- (1) 485 (2) 425  
(3) 475 (4) 496  
(5) None of these

**841.** 2 7 18 45 99 209 431

- (1) 172 (2) 171  
(3) 174 (4) 175  
(5) None of these

**842.** 6 8 10 42 146 770 4578

- (1) 868 (2) 8872  
(3) 858 (4) 882  
(5) None of these

**Directions:** Find out the wrong number in the following given sequence.

**(LIC Assistant Administrative Officer (AAO) Exam. 2006)**

**843.** 7 4 6 9 20 52.5 160.5

- (1) 6 (2) 4  
(3) 20 (4) 9  
(5) 52.5

**844.** 4 6 12 30 75 315 1260

- (1) 315 (2) 75  
(3) 12 (4) 6  
(5) 30

**845.** 3 4 13 38 87 166 289

- (1) 38 (2) 13  
(3) 87 (4) 166  
(5) 4

**846.** 4 5 9 29 111 556 3325

- (1) 5 (2) 9  
(3) 29 (4) 111

- (5) 556  
**847.** 2 6 16 38 84 176 368  
 (1) 6 (2) 16  
 (3) 38 (4) 84  
 (5) 176

**Directions:** What should come in place of the question mark (?) in the following number series?

**(New India Assurance AO Exam. 25.10.2009)**

- 848.** 3 52 88 113 129 ?  
 (1) 128 (2) 142  
 (3) 133 (4) 145  
 (5) None of these
- 849.** 2 3 8 ? 112 565  
 (1) 36 (2) 14  
 (3) 27 (4) 45  
 (5) None of these
- 850.** 6 4 8 23 ? 385.25  
 (1) 84.5 (2) 73  
 (3) 78.5 (4) 82  
 (5) None of these
- 851.** 8 64 216 512 ? 1728  
 (1) 729 (2) 1331  
 (3) 684 (4) 1000  
 (5) None of these
- 852.** 5 11 32 108 444 ?  
 (1) 1780 (2) 2230  
 (3) 1784 (4) 2225  
 (5) None of these
- 853.** If  $S = 1^2 - 2^2 + 3^2 - 4^2 + \dots + 199^2 - 200^2$ , then the value of S is  
 (1) 19900 (2) 20100  
 (3) -20100 (4) -19900

**(New India Assurance AO Exam. 25.10.2009)**

**Directions:** What will come in place of the question mark (?) in the following number series ?

**(United India Insurance AO Exam. 27.03.2011)**

- 854.** 8 14 32 70 136 (?)  
 (1) 248 (2) 247  
 (3) 237 (4) 238  
 (5) None of these
- 855.** 25 41 89 169 281 (?)  
 (1) 425 (2) 415

- (3) 409 (4) 419  
 (5) None of these

- 856.** 461 474 465 478 469 (?)

- (1) 460 (2) 482  
 (3) 456 (4) 478  
 (5) None of these

- 857.** 980 516 284 168 110 (?)

- (1) 73 (2) 71  
 (3) 83 (4) 91 (5) None of these

- 858.** 4 4 10 34 94 (?)

- (1) 230 (2) 214  
 (3) 220 (4) 209  
 (5) None of these

- 859.** The sum  $1 + 3 - 5 + 7 + 9 - 11 + 13 + 15 - 17 + \dots + 61 + 63 - 65$  is equal to

- (1) 319 (2) 330  
 (3) 341 (4) 451

**(New India Insurance AAO Exam. 22.05.2011)**

- 860.** If , then value of is closest to

- (1) 1.1 (2) 1  
 (3) 0.9 (4) 0.8

**(New India Insurance AAO Exam. 22.05.2011)**

**Directions:** Find the wrong number in the following number series .

**(LIC Assistant Administrative Officer (AAO) Exam. 12.05.2013)**

- 861.** 1050 510 242 106 46 16 3

- (1) 3 (2) 106  
 (3) 242 (4) 510  
 (5) None of these

- 862.** 550 546 537 521 494 460 411

- (1) 494 (2) 546  
 (3) 521 (4) 460  
 (5) None of these

- 863.** 8 21 47 86 140 203 281

- (1) 47 (2) 86  
 (3) 140 (4) 203  
 (5) None of these

- 864.** 4 24 161 965 4795 19176 57525

- (1) 161 (2) 965  
 (3) 57525 (4) 19176

- (5) None of these  
**865.** 1 2 8 24 120 720 5040  
 (1) 120 (2) 24  
 (3) 8 (4) 720  
 (5) None of these

**Directions:** What should come in place of the question mark (?) in the following number series ?

**(United India Insurance AO Exam. 26.05.2013)**

- 866.** 1548 516 129 43 ?  
 (1) 11 (2) 10.75  
 (3) 9.5 (4) 12  
 (5) None of these  
**867.** 949 189.8 ? 22.776 11.388 6.8328  
 (1) 48.24 (2) 53.86  
 (3) 74.26 (4) 56.94  
 (5) None of these  
**868.** 121 144 190 259 ? 466  
 (1) 351 (2) 349  
 (3) 374 (4) 328  
 (5) None of these  
**869.** 14 43.5 264 ? 76188  
 (1) 3168 (2) 3176  
 (3) 1587 (4) 1590  
 (5) None of these  
**870.** 41 164 2624 ? 6045696  
 (1) 104244 (2) 94644  
 (3) 94464 (4) 102444  
 (5) None of these  
**871.** Find the missing number in the series :  
 2, 5, 9, ?, 20, 27  
 (1) 14 (2) 16  
 (3) 18 (4) 24

**(NICL (GIC) Administrative Officer Exam. 15.12.2013)**

**Directions:** What will come in place of the question mark (?) in the following number series?

**(OICL Specialist Officer (Finance) Exam. 03.05.2015)**

- 872.** 1500 1400 1284 1120 812 ?  
 (1) 245 (2) 156  
 (3) 98 (4) 72  
 (5) 124  
**873.** 4 9 29 119 599?

- (1) 3599 (2) 3353  
 (3) 3897 (4) 3429  
 (5) 3650  
**874.** 10 15 30 75? 787.5  
 (1) 185 (2) 375  
 (3) 415 (4) 225  
 (5) 350  
**875.** 2 9 25 82 335?  
 (1) 1326 (2) 1682  
 (3) 1584 (4) 1985  
 (5) 1719  
**876.** 121 118 11095? 36  
 (1) 71 (2) 82  
 (3) 45 (4) 54  
 (5) 60

**Directions:** What will come in place of the question mark (?) in the given number series?

**(LIC Assistant Administrative Officer (AAO) Online Exam. 22.03.2015)**

- 877.** 3 5 13 49 241 ?  
 (1) 1210 (2) 1451  
 (3) 1221 (4) 1441  
 (5) 1200  
**878.** 7 13 31 85 247 ?  
 (1) 409 (2) 727  
 (3) 733 (4) 649  
 (5) 444  
**879.** 5 7 17 47 115 ?  
 (1) 285 (2) 245  
 (3) 225 (4) 235  
 (5) 275  
**880.** 508 256 130 67 35.5 ?  
 (1) 18.25 (2) 19.75  
 (3) 17.25 (4) 15.75  
 (5) 17.75  
**881.** 17 9 15 40 143.5 ?  
 (1) 505.75 (2) 578.5  
 (3) 650.25 (4) 578  
 (5) 678.5

**Directions :** What will come in place of question mark (?) in the given number series ?

**(LIC Assistant Administrative Officer (AAO) Online Exam. 05.03.2016)**

- 882.** 1 2 5 16 65 ?  
 (1) 312 (2) 294

- (3) 326 (4) 482  
 (5) 257  
**883.** 160151 133 106 ? 25  
 (1) 70 (2) 32  
 (3) 55 (4) 40  
 (5) 25  
**884.** 16? 8 16 64 512  
 (1) 12 (2) 10  
 (3) 32 (4) 8  
 (5) 24  
**885.** 400375 424 343 464 ?  
 (1) 251 (2) 385  
 (3) 295 (4) 371  
 (5) 562  
**886.** 6836 20 12? 6  
 (1) 5 (2) 8  
 (3) 10 (4) 9  
 (5) 4

**Directions :** What will come in place of question mark (?) in the given number series?

**(LIC Assistant Administrative Officer**

**(AAO) Online Exam. 06.03.2016)**

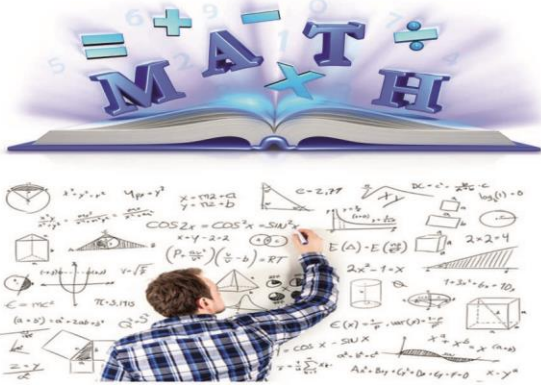
- 887.** 2 3 7 22 89 ?  
 (1) 446 (2) 412  
 (3) 324 (4) 319  
 (5) 298  
**888.** 196 100 52 28 ? 10  
 (1) 14 (2) 18  
 (3) 12 (4) 16  
 (5) 15  
**889.** 140 133 119 98 ? 35  
 (1) 70 (2) 45  
 (3) 30 (4) 72  
 (5) 61  
**890.** 300 325 276 357 236 ?  
 (1) 302 (2) 426  
 (3) 415 (4) 496  
 (5) 405  
**891.** 14 ? 7 14 56 448  
 (1) 9 (2) 12  
 (3) 25 (4) 7  
 (5) 14

**All The Best**

# The Reliable Publication, Pune

## QUANTITATIVE APTITUDE

RBI / SBI / IBPS / SSC / RLY



Mr. Manohar Patil

The Reliable Publication, Pune

Quantitative Aptitude

## REASONING Verbal & Logical

RBI / SBI / IBPS / SSC / RLY



Mr. Manohar Patil

The Reliable Publication, Pune

Reasoning Ability

## GENERAL AWARENESS

(with Special Reference To Banking)

## COMPUTER AWARENESS

RBI / SBI / IBPS / SSC / RLY



Mr. Manohar Patil

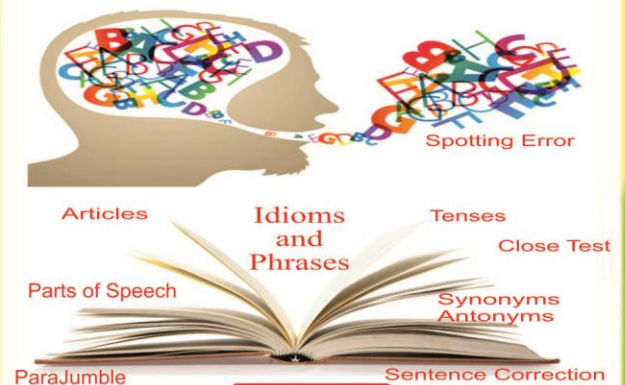
The Reliable Publication, Pune

General Awareness

## ENGLISH Language

(Grammar with Practice Question)

RBI / SBI / IBPS / SSC / RLY



Mr. Manohar Patil

The Reliable Publication, Pune

English

चालू घडामोडींचे मासिके, अभ्यासक्रम,  
सराव प्रश्न पत्रिका, नोकरी संदर्भ,  
विषयावरील महत्त्वाच्या PDF साठी  
आमच्या संकेत स्थळाला भेट द्या.

[www.reliableacademy.com](http://www.reliableacademy.com)

### मुख्य वैशिष्ट्ये

- १) अनुभवी व तज्ञ प्राध्यापक (मुंबई-पुणे-औरंगाबाद-नाशिक)
- २) दर्जेदार व अद्यावत नोट्स
- ३) सर्व स्पर्धापरीक्षेची पुस्तके व मासिके वाचनास मोफत उपलब्ध
- ४) पूर्व आणि मुख्य परीक्षाभिमुख सराव चाचण्या
- ५) मुलाखातीसाठी तज्ञ अधिकाऱ्यांचे मार्गदर्शन
- ६) स्पर्धापरीक्षेचे फॉर्म मोफत भरून दिले जातील.
- ७) २४ तास सुसज्ज A/C लायब्ररी (मुले व मुलींसाठी स्वतंत्र)
- ८) शालेय पुस्तकांवर आधारित सराव परीक्षा

### Features:

- Expert Faculty
- Online Exam Practice
- Projector Presentations
- Qualitative Materials
- 200 Update Test Series Topicwise online / off Line
- 18 A/C Library
- Maths & Reasoning Tricks
- Personal Attention
- Interview Guidance
- CCTV Surveillance
- AC Class Room
- Personality Development
- Memory Technique Course
- Committed to Result

### संपूर्ण मार्गदर्शन

- १) राज्यसेवा पूर्व व मुख्य परीक्षेची तयारी कशी करावी ?
- २) PSI/STI/ADO पूर्व व मुख्य परीक्षेची तयारी कशी करावी ?
- ३) प्रत्येक विषयाचा अभ्यास कोणत्या पध्दतीने करावा ?
- ४) सराव परीक्षांमध्ये कशाप्रकारे सुधारणा करावी ?
- ५) अभ्यासाचे वार्षिक नियोजन कसे असावे ?
- ६) वर्तमानपत्र वाचन व चालू घडामोडीची तयारी कशी करावी ?
- ७) आगामी काळातील परीक्षेची एकत्रित तयारी करते वेळी कोणती काळजी घ्यावी ?

Join Us :



@mpscofficers



9222333999



@Reliable Academy

### Kalyan (Head Office)

- ◆ 5<sup>th</sup> Floor, C.J.Joshi Complex, Above Vodafone Store, Opp. Railway reservation counter, Kalyan (W)

### Kalyan (Library)

- ◆ Reliable 24\*7 A/C Library, Near Waman Hari Pethe Jewellers Shivaji Chowk, Kalyan (W)

### Nashik (Office)

- ◆ Suyojit Avdhoot Tower, Below Vikhe Patil Bank, Dongre Vastigruh, Old Gangapur Naka, Nashik

### Nashik (Library)

- ◆ 2<sup>nd</sup> Floor, Shraddha Sankul Building, Nr.Vihar Hotel, Old Gangapur Naka, Gangapur Road, Nashik

Email : [thereliableacademy@gmail.com](mailto:thereliableacademy@gmail.com)

# 9222333999