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| Question | **222333 + 333222 is divisible by which of the following numbers ?** |
| Type | multiple-choice |
| Option | 2 and 3 but not 37 |
| Option | 3 and 37 but not 2 |
| Option | 2 and 37 but not 3 |
| Option | 2, 3 and 37 |
| Answer | 2 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| Question | **What percent of water must be mixed with honey so as to gain 20% by selling the mixture at the cost price of honey ?** |
| Type | multiple-choice |
| Option | 20% |
| Option | 10% |
| Option | 5% |
| Option | 4% |
| Answer | 1 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| --- | --- |
| Question | **What is the rightmost digit preceding the zeros in the value of 3030 ?** |
| Type | multiple-choice |
| Option | 1 |
| Option | 3 |
| Option | 7 |
| Option | 9 |
| Answer | 4 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| Question | **421 and 427, when divided by the same number, leave the same remainder 1. How many numbers can be used as the divisor in order to get the same remainder 1 ?** |
| Type | multiple-choice |
| Option | 1 |
| Option | 2 |
| Option | 3 |
| Option | 4 |
| Answer | 3 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| Question | **A can X contains 399 litres of petrol and a can Y contains 532 litres of diesel. They are to be bottled in bottles of equal size so that whole of petrol and diesel would be separately bottled. the bottle capacity in terms of litres is an integer. How many different bottle sizes are possible ?** |
| Type | multiple-choice |
| Option | 3 |
| Option | 4 |
| Option | 5 |
| Option | 6 |
| Answer | 2 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| Question | Consider the following statements in respect of the sum S = x + y + z, where x, y and z are distinct prime numbers each less than 10 :   1. The unit digit of S can be 0. 2. The unit digit of S can be 9. 3. The unit digit of S can be 5.   Which of the statements given above are correct ? |
| Type | multiple-choice |
| Option | 1 and 2 only |
| Option | 2 and 3 only |
| Option | 1 and 3 only |
| Option | 1, 2 and 3 |
| Answer | 3 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| Question | Directions for the following 3 (three) items :  Read the following two passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.  Passage – 1  By the time children reach class 8, the bulk of them tend to be in the age range of 13 years to 15 years. But in our country, about a quarter of all children in class 8 struggle with reading simple texts and more than half are still unable to do basic arithmetic operations like division. Every year about 25 million young boys and girls from elementary school move into the life that lies for them beyond compulsory schooling. They cannot enter the workforce at least in the organized sector till they are 18. For many families, these children are the first from their families ever to get this far in school. Parents and children expect that such 'graduates' from school will go on to high school and college. Hardly anyone wants to go back to agriculture. On the other hand, abilities in terms of academic competencies are far lower than they should be even based on curricular expectations of class 8.  Based on the above passage, the following assumptions have been made :   1. For effective school education, parents have greater role than the governments. 2. School curriculum that conforms to today's requirements and is uniform for the entire country may address the issues brought out.   Which of the assumptions given above is/are valid ? |
| Type | multiple-choice |
| Option | 1 only |
| Option | 2 only |
| Option | Both 1 and 2 |
| Option | Neither 1 nor 2 |
| Answer | 4 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| --- | --- |
| Question | Passage – 1  By the time children reach class 8, the bulk of them tend to be in the age range of 13 years to 15 years. But in our country, about a quarter of all children in class 8 struggle with reading simple texts and more than half are still unable to do basic arithmetic operations like division. Every year about 25 million young boys and girls from elementary school move into the life that lies for them beyond compulsory schooling. They cannot enter the workforce at least in the organized sector till they are 18. For many families, these children are the first from their families ever to get this far in school. Parents and children expect that such 'graduates' from school will go on to high school and college. Hardly anyone wants to go back to agriculture. On the other hand, abilities in terms of academic competencies are far lower than they should be even based on curricular expectations of class 8.  **Which one of the following statements best reflects the central idea conveyed by the passage ?** |
| Type | multiple-choice |
| Option | Total eradication of poverty in the country will resolve the issue of under-performance of our schoolchildren. |
| Option | Monetary incentives to parents and teachers is a strategy to improve the children's academic performance. |
| Option | Public policy should ensure that competencies and achievements of young people are aligned with their expectations. |
| Option | India is not going to take advantage of the demographic dividend unless some school pass-outs go back to agriculture. |
| Answer | 3 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| Question | Passage - 2  We take it for granted now that science has a social responsibility. The idea would not have occurred to Newton or Galileo. They thought of science as an account of the world as it is, and the only responsibility that they acknowledged was to tell the truth. The idea that science is a social enterprise is modern, and it begins at the industrial revolution. We are surprised that we cannot trace a social sense further back, because we nurse the illusion that the industrial revolution ended a golden age.  Which one of the following statements best reflects the thinking of the author about the science? |
| Type | multiple-choice |
| Option | Science must value the commitment of the scientists. |
| Option | Science is a product of civilized society and must be used for the promotion of scientific awareness in people. |
| Option | Industrial revolution was made possible by the advancements in science. |
| Option | Science must pursue truth but be responsible for social welfare. |
| Answer | 4 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| --- | --- |
| Question | Consider the sequence: A \_ BCD \_ BBCDABC \_ DABC \_ D that follows a certain pattern. Which one of the following completes the sequence ? |
| Type | multiple-choice |
| Option | B, A, D, C |
| Option | B, A, C, C |
| Option | A, A, C, D |
| Option | A, A, D, C |
| Answer | 3 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| Question | Two persons P and Q enter into a business. P puts Rs. 14,000 more than Q, but P has invested for 8 months and Q has invested for 10 months. If P’s share is Rs. 400 more than Q’s share out of the total profit of Rs. 2,000, what is the capital contributed by P ? |
| Type | multiple-choice |
| Option | Rs. 30,000 |
| Option | Rs. 26,000 |
| Option | Rs. 24,000 |
| Option | Rs. 20,000 |
| Answer | 1 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| --- | --- |
| Question | P’s salary is 20% lower than Q’s salary which is 20% lower than R’s salary. By how much percent is R’s salary more than P’s salary ? |
| Type | multiple-choice |
| Option | 48.75% |
| Option | 56.25% |
| Option | 60.50% |
| Option | 62.25% |
| Answer | 2 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| Question | A number is mistakenly divided by 4 instead of multiplying by 4. What is the percentage change in the result due to this mistake ? |
| Type | multiple-choice |
| Option | 25% |
| Option | 50% |
| Option | 72.75% |
| Option | 93.75% |
| Answer | 4 |
| Solution |  |
| Positive Marks | 2 |
| Negative Marks | 0.67 |

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| Question | Which one of the following shows a unique relationship with an insect that has coevolved with it and that is the only insect that can pollinate this tree ? |
| Type | multiple-choice |
| Option | Fig |
| Option | Mahua |
| Option | Sandalwood |
| Option | Silk cotton |
| Answer | 1 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| Question | In an examination, 80% of students passed in English, 70% of students passed in Hindi and 15% failed in both the subjects. What is the percentage of students who failed in only one subject ? |
| Type | multiple-choice |
| Option | 15% |
| Option | 20% |
| Option | 25% |
| Option | 35% |
| Answer | 2 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| Question | A father said to his son, “n years back I was as old as you are now. My present age is four times your age n years back”. If the sum of the present ages of the father and the son is 130 years, what is the difference of their ages ? |
| Type | multiple-choice |
| Option | 30 years |
| Option | 32 years |
| Option | 34 years |
| Option | 36 years |
| Answer | 1 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| Question | Consider the following :   1. 1000 litres = 1 m3 2. 1 metric ton = 1000 kg 3. 1 hectare = 10000 m2   Which of the above are correct ? |
| Type | multiple-choice |
| Option | 1 and 2 only |
| Option | 2 and 3 only |
| Option | 1 and 3 only |
| Option | 1,2 and 3 |
| Answer | 4 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| --- | --- |
| Question | Directions for the following 4 (four) items :  Read the following two passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.  Passage – 1  “The history of science is the real history of mankind.” In this striking epigram, a nineteenth-century writer links science with its background. Like most epigrams, its power lies in emphasizing by contrast an aspect of truth which may be easily overlooked. In this case, it is easy to overlook the relations between science and mankind, and to treat the former as some abstract third party, which can sometimes be praised for its beneficial influences, but frequently and conveniently blamed for the horrors of war. Science and mankind cannot be divorced from time to time at men's convenience. Yet we have seen that, in spite of countless opportunities of improvement, the opening years of the present period of civilization have been dominated by international conflict. Is this the inevitable result of the progress of science or does the fault lie elsewhere ?  Which of the following is/are emphatically conveyed by the author of the passage ?   1. Without science, mankind could not have continued to exist till today. 2. It is the science that will ultimately determine the destiny of mankind.   Select the correct answer using the code given below. |
| Type | multiple-choice |
| Option | 1 only |
| Option | 2 only |
| Option | Both 1 and 2 |
| Option | Neither 1 nor 2 |
| Answer | 4 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

|  |  |
| --- | --- |
| Question | Passage – 1  “The history of science is the real history of mankind.” In this striking epigram, a nineteenth-century writer links science with its background. Like most epigrams, its power lies in emphasizing by contrast an aspect of truth which may be easily overlooked. In this case, it is easy to overlook the relations between science and mankind, and to treat the former as some abstract third party, which can sometimes be praised for its beneficial influences, but frequently and conveniently blamed for the horrors of war. Science and mankind cannot be divorced from time to time at men's convenience. Yet we have seen that, in spite of countless opportunities of improvement, the opening years of the present period of civilization have been dominated by international conflict. Is this the inevitable result of the progress of science or does the fault lie elsewhere ?  Based on the above passage, the following assumptions have been made :   1. The horrors of modem life are the inevitable result of the progress of science. 2. The aspect of truth likely to be overlooked is that science is what man has made it.   Which of the assumptions given above is/are correct ? |
| Type | multiple-choice |
| Option | 1 only |
| Option | 2 only |
| Option | Both 1 and 2 |
| Option | Neither 1 nor 2 |
| Answer | 2 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| --- | --- |
| Question | Passage – 2  Only with long experience and opening of his wares on many a beach where his language is not spoken, will the merchant come to know the worth of what he carries, and what is parochial and what is universal in his choice. Such delicate goods as justice, love and honour, courtesy, and indeed all the things we care for, are valid everywhere but they are variously moulded and often differently handled, and sometimes nearly unrecognizable if you meet them in a foreign land, and the art of learning fundamental common values is perhaps the greatest gain of travel to those who wish to live at ease among their fellows.  When we meet other people while we travel, we learn to differentiate between |
| Type | multiple-choice |
| Option | imagination and understanding |
| Option | communities and nationalities |
| Option | local values and universal values |
| Option | friends and foes |
| Answer | 3 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

|  |  |
| --- | --- |
| Question | Passage – 2  Only with long experience and opening of his wares on many a beach where his language is not spoken, will the merchant come to know the worth of what he carries, and what is parochial and what is universal in his choice. Such delicate goods as justice, love and honour, courtesy, and indeed all the things we care for, are valid everywhere but they are variously moulded and often differently handled, and sometimes nearly unrecognizable if you meet them in a foreign land, and the art of learning fundamental common values is perhaps the greatest gain of travel to those who wish to live at ease among their fellows.  With reference to the above passage, the following assumptions have been made :   1. Travel leads to an understanding of humans. 2. Travel helps those who wish to learn fundamental common values. 3. A person with long experience in travel can resolve differences amongst people.   Which of the assumptions given above are valid ? |
| Type | multiple-choice |
| Option | 1 and 2 only |
| Option | 2 and 3 only |
| Option | 1 and 3 only |
| Option | 1, 2 and 3 |
| Answer | 1 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

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| --- | --- |
| Question | Let X be a two-digit number and Y be another two-digit number formed by interchanging the digits of X. If (X + Y) is the greatest two-digit number, then what is the number of possible values of X ? |
| Type | multiple-choice |
| Option | 2 |
| Option | 4 |
| Option | 6 |
| Option | 8 |
| Answer | 4 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

|  |  |
| --- | --- |
| Question | Consider the following : Weight of 6 boys = Weight of 7 girls = Weight of 3 men = Weight of 4 women. If the average weight of the women is 63 kg, then what is the average weight of the boys ? |
| Type | multiple-choice |
| Option | 40 kg |
| Option | 42 kg |
| Option | 45 kg |
| Option | 63 kg |
| Answer | 2 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |

|  |  |
| --- | --- |
| Question | How many times the hour hand and the minutes hand coincide in a clock between 10:00 a.m. and 2:00 p.m. (same day) ? |
| Type | multiple-choice |
| Option | 3 times |
| Option | 4 times |
| Option | 5 times |
| Option | 6 times |
| Answer | 1 |
| Solution |  |
| Positive Marks | 2.5 |
| Negative Marks | 0.83 |