
TEST BOOKLET

GENERAL STUDIES (P) 2024 – Test no 2 – PHYSICAL GEOGRAPHY

Time Allowed: 2 Hrs

Maximum Marks: 200

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET DOES NOT HAVE ANY UNPRINTED OR TURN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES A, B, C OR D AS THE CASE MAY BE IN THE APPROPRIATE PLACE IN THE ANSWER SHEET.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. Do NOT write anything else on the Test Booklet.
4. This Test Booklet contains 100 items (Questions). Each item is printed in English. Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response with you consider the best. In any case, choose ONLY ONE response for each item.
5. You have to mark all your responses ONLY on the separate Answer Sheet provided. See direction in the answers sheet.
6. All items carry equal marks. Attempt all items. Your total marks will depend only on the number of correct responses marked by you in the answer sheet. For every incorrect response 1/3rd of the allotted marks will be deducted.
7. Before you proceed to mark in the Answer sheet the response to various items in the Test booklet, you have to fill in some particulars in the answer sheets as per instruction sent to you with your Admission Certificate.
8. After you have completed filling in all responses on the answer sheet and the examination has concluded, you should hand over to Invigilator only the answer sheet. You are permitted to take away with you the Test Booklet.
9. Sheet for rough work are appended in the Test Booklet at the end.

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1. Consider the following statements about Temperature Inversion.
 1. It is the increase in temperature with increasing height temporarily or locally.
 2. Short winter nights, cloudy sky, cold air and the presence of winds lead to temperature inversion.
 3. During a temperature inversion, the temperature may fall below freezing point in the valleys leading even to the occurrence of frost.

Which of the statements given above are correct?

- (a) 1 and 2
- (b) 2 and 3
- (c) 1 and 3
- (d) 1, 2 and 3

2. What are the disadvantages of green hydrogen as a fuel?
 1. Colorless and Odourless fuel, which is light in weight.
 2. Highly flammable fuel.
 3. Very high energy density, which is about 3 times of hydrocarbons.
 4. Hydrogen embrittlement.

Choose the correct answer from the options given below:

- (a) 1 and 2 only
- (b) 2 and 4 only
- (c) 1 and 3 only
- (d) 1, 3 and 4

3. With reference to the Coriolis force, consider the following statement:
 1. It is responsible for the formation of meandering in the river.
 2. It helps sustain the cyclonic circulation in the Doldrum region.
 3. It is maximum at the pole as compared to the equator and inversely proportional to the velocity of the wind.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 2 only

4. Which of the following statements about volcanoes are correct?
 1. Volcanoes are responsible for creating more than 80 percent of the Earth's surface.
 2. A volcano that has remained dormant for decades can never become active again.
 3. Over the years, volcanic materials have formed the most fertile Earth soil.

Choose the correct answer from the options given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

5. Recent discoveries of ancient rock paintings in Bargur have led to many inferences. Consider the following statements regarding Bargur cave Paintings.

1. These are found in the forest area of Madhya Pradesh.
2. The paintings are monochrome in fashion with human and animal figurines.
3. These paintings depict the worship of God during ancient times.

Which of the statements given above are *not* correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

6. Consider the following statements regarding Ocean waters:

1. The continuous flow of large volumes of water in a definite direction is referred to as Waves.
2. Ocean water level is higher near the equator than at the middle latitudes.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

7. Which of the following statements about ocean currents are correct?

1. Cold currents are found on the west coast of the continents, both in low and higher latitudes
2. The velocity of an ocean current is higher at the surface than at the depths.
3. Fishing is an important economic activity in regions where warm and cold currents meet.

Choose the correct answer from the options given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

8. Consider the following statements:

1. The climate is characterized by warm, moist summer and cool, dry winter.
2. Well-distributed rainfall throughout the year but maximum in June, July and August.
3. Wet paddy or swamp rice is cultivated majorly in this type of climate.

The above features are distinct characteristics of which among the following climate?

- (a) The Tropical Monsoon Climate
- (b) The Warm temperate eastern margin
- (c) The Cool temperate western margin
- (d) The Temperate continental climate

9. Consider the following statements regarding Ocean gyres:

1. They are large circulations in the ocean caused due to planetary winds and the Coriolis effect.
2. The Sargasso Sea is associated with the north Atlantic gyre and is known for its biodiversity.
3. The Great Pacific garbage patch is the largest collection of marine pollutant materials associated with North Pacific gyre circulation.

Which of the statements given above are correct?

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

10. Millets are considered the Future Super Food for India. In this context, consider the following statements about Millets production in India.

1. Millets are low cost and are rich in iron, calcium, magnesium, and antioxidants.
2. They are drought-resistant crops with a short growing season and lower water requirements.
3. Jowar is known to have the highest calcium content among all the food grains.
4. Currently, India is the largest exporter of Millet in the world.

Which of the statements given above are correct?

- (a) 1 and 2
- (b) 2 and 3
- (c) 3 and 4
- (d) 1, 2, 3 and 4

11. Consider the following pairs:

| <i>Types of lakes</i> | <i>Associate Physical Feature</i> |
|-----------------------|-----------------------------------|
| 1. Kettle lake | - Karst region |
| 2. Oxbow lake | - River meanders |
| 3. Lagoon lake | - Coastal region |
| 4. Playa lake | - Wind erosion |

How many pair(s) given above is/are correctly matched?

- (a) One pair
- (b) Two pairs
- (c) Three pairs
- (d) Four pairs

12. Which of the following statement regarding JetStreams is correct?

- (a) They are high-velocity stratospheric winds present in both hemispheres.
- (b) They shift Southwards during summer and blow in Southern Asia.
- (c) The westerly Jet streams are more extensive and stronger during the summer season.
- (d) Tropical Easterly Jet Stream are established during the summer season and plays an important role in the onset of the Indian monsoon.

13. Among the following climatic conditions, identify the one which is *not* related to El-Nino circulation in the Pacific Ocean.

- (a) More frequent hurricanes in the north Atlantic Ocean
- (b) Higher sea surface temperature in the tropical eastern Pacific Ocean
- (c) Dry conditions in Southeast Asian countries
- (d) Floods in Peru and Ecuador

14. Consider the following statement regarding soils:

- 1. Generally, plants grow well in mild alkaline soil.
- 2. Adding sulfur to the soil reduces the alkalinity of the soil.
- 3. Black soils are well aerated but poor in the water holding capacity.
- 4. Maximum humus content is found in the subsoil region due to dead and decaying organisms.

How many statement(s) given above is/are correct?

- (a) One statement
- (b) Two statements
- (c) Three statements
- (d) Four statements

15. Zmiinyi island was in the news due to the ongoing war between Ukraine and Russia. On which of the below sea is this island located?

- (a) Caspian Sea
- (b) Dead Sea
- (c) Black Sea
- (d) Azov Sea

16. Which of the following statement best explains the significance of the Clarion-Clipperton Zone?
- A submarine region in the Pacific Ocean is estimated to contain abundant metallic nodules.
 - A convergent plate boundary near Tonga island in the Pacific Ocean.
 - A dead zone resulted from oxygen depletion in oceanic water in the Gulf of Mexico.
 - A disputed exclusive economic zone between Brazil and Argentina.
17. Which of the following are considered natural mechanisms responsible for climate change?
- Sunspots causing the difference in solar radiation
 - Variations in distance and tilt of Earth with respect to the Sun
 - Major volcanic eruption
 - Changes in magnetic field strength of Earth.
- Choose the correct answer from the options given below:
- 1 and 3
 - 1, 2 and 4
 - 2 and 3
 - 1, 2, 3 and 4
18. Which of the following is **not** true about the phenomenon of South Atlantic Anomaly (SAA)?
- It is the behavior of Earth's Geomagnetic field in an area between Africa and South America.
 - The area where the Earth's inner Van Allen radiation belt comes closest to the Earth's surface.
 - The SAA is the near-Earth region where the Earth's magnetic field is strongest.
 - This leads to an increased flux of energetic particles in this region.
19. Which of the following is **not** caused due to gravitational force of Earth?
- River flow
 - Landslide
 - Tides
 - Lahar flow
20. A huge sunspot directly facing Earth has grown to be twice the size of Earth, and its width has doubled in just 24 hours. In this context, consider the following statements about Sunspots.
- Sunspots are areas that appear dark on the surface of the Sun.
 - They are cooler than other parts of the Sun's surface.
 - Solar flares are a sudden explosion of energy caused by tangling, crossing or reorganizing magnetic field lines near sunspots.
- Which of the statements given above are correct?
- 1 and 2 only
 - 2 and 3 only
 - 1 and 3 only
 - 1, 2 and 3
21. Consider the following statements regarding Hotspot Volcanoes:
- It refers to the active volcanoes found along the Pacific ring of fire.
 - They are usually associated with convergent plate boundaries.
 - Emperor seamount in the Pacific Ocean is known to be formed due to hotspot volcanic activity.
- Which of the statement(s) given above is/are correct?
- 1 only
 - 2 only
 - 3 only
 - 1, 2 and 3

22. Consider the following statements related to Atmospheric Phenomena:

1. The temperature and humidity in an air mass are uniform, and hardly any fall in temperature is noticed with increasing altitude.
2. When contrasting air masses meet, it can result in the formation of Tornadoes.
3. The wind velocity in a tropical cyclone is higher than that of a temperate cyclone.

Which of the statement(s) given above is/are correct?

- (a) 1 and 2
- (b) 1 only
- (c) 2 and 3
- (d) 1, 2 and 3

23. Glaciers are melting at a faster rate than ever before. Which of the following is/are the possible consequences of melting glaciers?

1. Sea level rise
2. Less freshwater availability
3. Decline in ocean salinity
4. Loss of species
5. New Diseases

Select the correct answer using the codes given below:

- (a) 1, 3 and 4 only
- (b) 1, 3 and 5 only
- (c) 2, 3 and 4 only
- (d) 1, 2, 3, 4 and 5

24. Which of the following statements is/are *not* correct?

1. For the first time recently, the Earth clocked one of its fastest days, completing one rotation on its axis 1.59 milliseconds less than the usual 24 hours.
2. The Earth has completed one full spin in approximately 24 hours since its origin.
3. Earth's spin is not affected by wind speed and atmospheric gases.

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

25. Consider the following statements with respect to Wetlands.

1. 2nd February 2022 is the first year World Wetlands Day will be observed as a United Nations International day.
2. Among South Asia, India has the largest network of Ramsar sites.
3. In India, Community-based ecotourism with minimum construction activities is permitted in notified wetlands.
4. Bakhira Wildlife Sanctuary in Madhya Pradesh was announced as a Ramsar site on the occasion of World Wetland day 2022.

Which of the statements given above are correct?

- (a) 1 and 4
- (b) 2 and 3
- (c) 1, 2 and 3
- (d) 3 and 4

26. He was the commander of the Ahom forces and an icon of Assamese nationalism. In 1669, Aurangzeb dispatched the Rajput Raja Ram Singh I to recapture territories won back by the Ahoms in previous battles. He fought against the Mughals and won the Battle of Saraighat (Naval battle) on the River Brahmaputra. Today, His victory is honored with a gold medal given yearly to the best cadet graduating from the National Defence Academy (NDA). Which of the below Personalities suits the above statements?
- Kanaklata Barua
 - Paona BrajaBashi
 - Lachit Borphukan
 - Haipou Jadonang

27. Recently, NASA released striking images of the unseen Universe captured by the James Webb Space telescope. Which of the following statements about the origin and evolution of the Universe are correct?

- The first galaxy was born immediately after the Big Bang
- The Universe mostly remains the same at any given point in time.
- The space between the galaxies has been increasing since their origin.

Select the correct answer using the codes given below:

- 1 only
- 1 and 2 only
- 1 and 3 only
- 3 only

28. Consider the following statements regarding Mines and Minerals Amendment Act, 2021.

- Minerals, as per the act, include coal and mineral oil.
- The Central Government prescribes the period of mining leases for the case of Government companies or corporations.

Which of the statement(s) given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

29. Consider the following statements:

- Both P and S waves travel through the body of the Earth.
- Surface waves or L waves are high-frequency waves that travel through the crust.
- The magnitude of an Earthquake indicates the quantity of energy released by an earthquake at the source point, which is measured using the Mercalli Scale.
- The US Geological Survey is a responsible institution for measuring and assessing Earthquakes across the world.

Which of the statements given above are *not*

correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 2 and 4 only

30. Consider the following statements regarding Poliovirus:

1. Poliovirus belongs to the family of Picornaviridae.
2. Polio is a highly infectious viral disease that largely affects children under 5 years of age.
3. There is no cure for Polio; it can only be prevented.
4. Currently, Strains of Poliovirus Type 1 are eradicated globally.

Which of the statements given above is/are **not** correct?

- (a) 1 and 2 only
- (b) 3 only
- (c) 4 only
- (d) None of the above

31. The term “Angadias” recently seen in the media refers to

- (a) The tribal group in central and eastern India
- (b) A type of rural child care in India
- (c) Shop or market for stationery and grocery items existing since Ancient times
- (d) A system of an age-old Payment system used by traders

32. Which of the following statements are correct?

1. The volume of renewable water on Earth remains constant.
2. Water available in Ice caps and Glaciers is nearly thrice the volume of Groundwater.

Select the correct answer using the codes given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

33. Consider the following statements:

1. Savanna is an example of ecotone in tropical latitudes.
2. Kano is the type of savanna grassland distributed along the east coast of South America
3. Rhododendron nilagiricum is the only Shola tree species that can tolerate fire.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 1 and 3 only
- (c) 2 only
- (d) 2 and 3 only

34. Consider the following statements:

1. Jet streams are special types of geostrophic winds that are predominantly westerly winds.
2. Geostrophic winds are caused by Coriolis force, frictional force and pressure gradient forces.

Which of the statements given above is/are **not** correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

35. The LIC IPO is considered a game changer for the Capital market environment in India. In this context, consider the following statements about the history of Life insurance.

1. Advent of Life Insurance Business in India started in the 1800s.
2. Oriental Life Insurance Company, started in Calcutta, was the first life insurance company on Indian soil, restricted only to the European community.
3. Life insurance in India was nationalized in 1956 by absorbing more than 200 both Indian and Foreign insurers.

Which of the Statements given above are correct?

- (a) 1 and 3
- (b) 2 and 3
- (c) 1 and 2
- (d) 1, 2 and 3

36. Consider the following statements:

1. Indian Ocean dipole (IOD) is defined as differences in Sea Surface Temperature (SST) in the equatorial Indian Ocean similar to ENSO.
2. The Indian summer monsoon is affected by the Atlantic SST variability.
3. Positive IOD and negative Equatorial Indian Ocean Oscillation (EQUINOO) events bring more rainfall to India.

Which of the statements given above is/are correct?

- (a) 2 only
- (b) 3 only
- (c) 1 and 3 only
- (d) 1 and 2 only

37. Match the following:

| <i>Tectonic plates</i> | - | <i>Location</i> |
|-------------------------------|---|--|
| 1. Carolin eplate | - | between Philippine and Indian plate |
| 2. Nazca plate Central | - | between America and the pacific plate |
| 3. Scotia plate South | - | between Africa and the Antarctic plate |
| 4. Cocos plate South | - | between America and the pacific plate |
| 5. Philippine plate | - | between the Eurasian plate and pacific plate |

How many pairs given above is/are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) No pair

38. This type of climate is found in the temperate regions of the world, and it is characterized by warm moist summers and cool, dry winters. The mean monthly temperature is between 40 degrees F and 78 degrees F and has a strong maritime influence. The region has well-distributed rainfall with thunderstorms in summer with the occasional occurrence of Tornadoes. The region exhibits monsoonal characteristics with more than 200 frost-free days, and the abundant moisture favors the cultivation of cotton and maize. On the highlands, conifers such as pines and cypresses are important softwoods. It is also called a slight monsoonal type of climate. Which one of the following types of climate best describes the above passage?

- (a) Laurentian type climate
- (b) British type climate
- (c) Gulf type climate
- (d) Steppe type climate

39. Consider the following statements

1. Corals survive only in warmer tropical and subtropical latitudes
2. Polyps along fringing reefs will die immediately once the water recedes during Earthquakes.
3. The corals are best developed on the inner aspect of Atolls due to less disruption by ocean currents.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) All of the above
- (d) None of the above

40. Which of the following statements regarding Aphelion is **not** correct?

- (a) Aphelion is the position at which the Earth is at its farthest from the Sun.
- (b) The Earth is at Aphelion in the early month of July, which is 152 million km away from the Sun.
- (c) Being farthest from the Sun, the Earth experiences a significant drop in temperature.
- (d) The varying distance between the Sun and the Earth does not cause seasons.

41. Consider the following statements:

- 1. Ocean surface Salinity affects the water cycle and ocean circulation.
- 2. The annual range of temperature decreases with latitude from the equator towards the poles.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

42. What is/are the best possible evidence that supports the continental drift theory?

- 1. Ancient fossil fuels, rocks, and the mountain range across the continents.
- 2. Ancient climatic zones in different locations.
- 3. Distribution of placer deposits on Earth.

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

43. Consider the following statements:

- 1. Mid-oceanic ridges are continuous mountain ranges that occur along convergent plate boundaries.
- 2. Mid-oceanic ridges are much younger than continental areas.
- 3. Mid-Atlantic ridges do not create Rift Valley in the Atlantic Ocean because it spreads quickly.

Which of the statements given above is/are correct?

- (a) 1 and 3 only
- (b) 2 only
- (c) 1, 2 and 3
- (d) None of the above

44. Consider the following statements:

- 1. The halocline is an ocean layer where salinity changes most rapidly with depth.
- 2. Pycnocline refers to the rapid change in density with depth.
- 3. The Arabian Sea experiences less salinity than the Bay of Bengal due to the influence of the southwest monsoon.

Which of the statements given above is/are correct?

- (a) 3 only
- (b) 1 and 3 only
- (c) 2 only
- (d) 1 and 2 only

45. Consider the following statements with reference to The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT):

1. ICRISAT is an international non-profit organization undertaking agricultural research for development in Asia and Sub-Saharan Africa.
2. It is the only International Agricultural Research Centre (IARC) Headquartered in India.
3. India has granted a special status to ICRISAT as a UN Organization, making it eligible for special immunities and tax privileges.

Which of the statements given above is/are correct?

- (a) 1 and 3 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

46. Consider the following statements about International North-South Transport Corridor (INSTC).

1. The INSTC is a land- and sea-based multi-modal transport network that connects the Indian Ocean, Persian Gulf, the Caspian Sea and Russia.
2. The INSTC was launched in the year 2000 with India as one of its founding members.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

47. Consider the following statements:

1. Atlantic meridional overturning circulation distributes heat and energy from the equatorial to the polar region.
2. AMOC is driven by thermohaline differences.
3. North Atlantic drift decreases the severity of winter in Western Europe.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

48. Consider the following statements:

1. Uranus and Neptune are called the Twin Planets of our Solar system.
2. Jupiter's moon Ganymede is the largest moon in our solar system, bigger than the Pluto.
3. Venus is the hottest planet in our solar system.

Which of the statements given above is/are *not*

correct?

- (a) 2 and 3 only
- (b) 1 only
- (c) 1, 2 and 3
- (d) None of the above

49. Which of the following is used to determine the precise location of a place?

1. The altitude of a place
2. Latitude of a place
3. Longitude of a place
4. Pressure
5. Direction of wind

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 2, 3 and 5 only
- (c) 3, 4 and 5 only
- (d) 2 and 3 only

50. Falkland Island recently seen in news is a disputed area between:

- (a) Brazil and Argentina
- (b) UK and Argentina
- (c) Brazil and UK
- (d) Brazil and Paraguay

51. Which of the following is/are responsible for the occurrence of solar and lunar eclipses?

- 1. Revolution of the moon around the Earth close to the Earth's ecliptic plane.
- 2. The proximity between the moon and the Earth.
- 3. The relative apparent size of the Sun and the moon.

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

52. Consider the following statements:

- 1. Mesopause is the coldest place in Earth's atmosphere.
- 2. Halogens are less reactive in the ozonosphere.

- 3. The Karman line is located beyond the Thermosphere, the place where space begins.
- 4. In the mesosphere, temperature increases with an increase in altitude.

Which of the statements given above is/are correct?

- (a) 2, 3 and 4 only
- (b) 1 only
- (c) 1 and 4 only
- (d) 2 and 3 only

53. Why are cyclones not formed despite high temperature and moisture near the equator?

- 1. Due to negligible Coriolis force.
- 2. Convergence of trade winds from both the Hemisphere.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

54. Why are the Major hot deserts in the northern Hemisphere located between 20-30 degrees north and on the western side of the continents?

- 1. The incidence of warm currents along the western coastal regions causes the onshore winds dry.
- 2. The relative humidity is extremely high, making condensation almost impossible.

Which of the statements given above is/are **not** correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

55. Four balance sheet problems recently seen in the news include which among the following?

- 1. Infrastructure companies
- 2. Core sector industries
- 3. Banks
- 4. Non-banking financial companies
- 5. Real estate companies
- 6. Foreign exchange

Choose the correct answer from the options given below:

- (a) 1, 2, 3 and 4
- (b) 1, 3, 4 and 5
- (c) 2, 3, 5 and 6
- (d) 1, 2, 4 and 5

56. With reference to Frontogenesis and Temperate cyclones, consider the following statements.

- 1. It happens in an anticlockwise direction in the northern and southern hemispheres in a clockwise direction.
- 2. Mid-latitude cyclones or temperate cyclones occur due to cold fronts.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

57. Consider the following statements with reference to the equatorial type of climate:

- 1. The annual range of temperature is high due to the direct incidence of sun rays in the equatorial region.
- 2. Unlike temperate forests, tropical hardwoods are very strong which are widely used in boat-making industries.
- 3. The equatorial region experiences peak rainfall during the months of April and October
- 4. The equatorial type of grassland found in Amazon lowlands is referred to as "selvas."

Which of the statements given above are correct?

- (a) 2 and 4
- (b) 1 and 3
- (c) 3 and 4
- (d) 1 and 2

58. Due to climate change dam-like structure is a proposed solution to the problem of rising water levels in the North Sea. Consider the following statements about the North Sea:

- 1. Because of the low rate of evaporation and the addition of fresh water, the North Sea has low salinity.
- 2. The North Sea is linked with the Baltic Sea by the strait of the Skagerrak.
- 3. It is surrounded by Germany, Denmark, Belgium, Luxembourg, Netherlands, and Norway.

Which of the statement given above is/are correct?

- (a) 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

59. Recently Canada witnessed a heat dome where a sudden increase in the ambient temperature. Consider the following statement related to the Heat dome:

1. A heat dome is an area of high pressure that traps heat over a region.
2. Heat dome is mostly formed during La Nina when waters are warm in the Eastern Pacific and cold in the western Pacific.
3. Heat domes are stationary, and they last for a few days to a week or two

Which of the statement given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) 1 and 2 only
- (d) 1, 2 and 3

60. Consider the following statements regarding the National Monsoon Mission.

1. The monsoon mission was launched by IMD to develop a state-of-the-art dynamical prediction system for monsoon rainfall on different time scales.
2. The system is capable of delivering Single time scale predictions annually.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

61. Which of the following conditions may cause cloud formation and precipitation?

1. Condensation Nuclei
2. Volcanism
3. Convective current
4. Active cold front

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 4 only
- (d) 1, 2, 3 and 4

62. Consider the following statements with respect to Isotherms:

1. Lines joining places having equal temperature are called isotherms.
2. Isotherms in both hemispheres are always parallel to the latitudes.
3. Isotherms are more closely spaced over sea than over land.

Which of the statements given above is/are *not* correct?

- (a) 1 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1 and 3 only

63. With reference to the Thunderstorm, consider the following statements:

1. Thunderstorms are violent storms that occur for a short time and in a small area.
2. It occurs due to the intense convection on a moist hot day.
3. Thunderstorms are a manifestation of the atmosphere's adjustment to varying energy distribution

Which of the statement given above is/are correct?

- (a) 1 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

64. How many of the following lakes share an international boundary?

1. Lake Michigan
2. Sea of Galilee
3. Lake Titicaca
4. Lake Nyasa
5. Lake Chad
6. Lake Balkhash

Select the correct answer using the codes given below:

- (a) Three only
- (b) Four only
- (c) Five only
- (d) Six only

65. The Global Environment Outlook report is released by

- (a) United Nations Food and Agriculture Organisation
- (b) World Economic Forum
- (c) Oxfam International
- (d) United Nations Environment Assembly

66. Recently longest river in Europe Danube, was in the news. In which of the following countries does the river Danube flow?

1. Slovenia
2. Croatia
3. Serbia
4. Moldova
5. Bosnia and Herzegovina

Select the correct answer using the codes given below:

- (a) 1, 2, 3 and 4 only
- (b) 2, 3, and 4 only
- (c) 1, 2, 4 and 5 only
- (d) 1, 2, 3, 4 and 5

67. What is/are the possible impact of the convergence of the Labrador current and gulfstream?

1. Chance of higher fish catch in this zone
 2. Chances of the accident of the boats due to a reduction in the visibility
 3. Replenishment of nutrient and oxygen
- Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

68. Which of following statements are correct?

1. The tropical marine climate is predominantly found along the eastern coast of continents which lie south of the Tropic of Cancer.
2. According to the erstwhile planning commission, India consists of 10 agro-climatic zones.
3. Teak is extensively grown in the regions of monsoon type of climates.

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

69. Consider the following statements with reference to Blizzards:

1. A blizzard is a severe storm condition with low temperature, strong winds and snow.
2. Blizzards can occur in tropical region.
3. Blizzard can cause hyperthermia by exposure to frigid temperatures.

Which of the statement(s) given above is/are correct?

- (a) 2 only
- (b) 1 and 3 only
- (c) 1 and 2 only
- (d) 1, 2 and 3

70. Recently, the Ministry of Tribal Affairs has sanctioned ₹2.26 Crores for Medaram Jathara. Consider the following statements regarding the cultural festival, Medaram Jathara:

1. Medaram Jathara is the second-largest festival in India, after the Kumbh Mela.
2. Medaram Jathara is biennially celebrated and organized by the Chenchu Tribes in the state of Telangana.
3. Jampannavagu river is worshiped as one of the parts of rituals.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

71. Consider the following statements:

1. A Cloud burst is a short-duration, intense rainfall event in a specific region with precipitation exceeding 100mm/hr.
2. The state of global climate report by WMO highlights the global mean temperature for 2021 was about 1.5°C above the 1850-1900 average.

Which of the statements given above is/are **not** correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

72. Which of the following can be considered to be the direct sources of information regarding the interior of the Earth?

1. Volcanic eruptions
2. Meteors
3. Mining and deep drilling projects
4. Seismic activities
5. Earth's magnetic field

Select the correct answer using the codes given below:

- (a) 1 and 3 only
- (b) 2, 3 and 5 only
- (c) 1, 3, 4 and 5 only
- (d) 1, 2 and 4 only

73. Consider the following statements.

1. Tropical evergreen forests are rich in fertile soils, which helps in the luxurious growth of tropical rainforests.
2. Most of the designated world heritage sites are situated along the equatorial region.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

74. Which of the following statements is/are correct with respect to earthquake waves?

1. Body waves travel through the interior of the Earth and can move in all directions.
2. The velocity of surface waves remains unchanged as they travel through materials of different densities.
3. P-waves are longitudinal waves and can travel only through solid materials.
4. Surface waves are more destructive than body waves.

Select the correct answer using the codes given below:

- (a) 1 and 4 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 2 and 4 only

75. Which of the following best describes the term 'Blue Blob' recently seen in the news?
- (a) It is the new technology for harnessing electricity from ocean water.
 - (b) It is an area with the highest species density declared by the IUCN in ocean water.
 - (c) It is a cold patch formed in the Polar region.
 - (d) It is one of the conservation efforts by UNEP to save the ocean water ecosystem.

76. With respect to the interior of the Earth, consider the following statements:
1. The continental crust is mainly granitic in nature and is denser than the Oceanic crust
 2. The asthenosphere is the lowermost portion of the mantle and is the main source of magma
 3. The outer core is in a liquid state, while the inner core is in a solid state.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
 - (b) 2 only
 - (c) 3 only
 - (d) 1 and 3 only
77. Recently Lassa fever outbreak happened in parts of West Africa, including Sierra Leone, Liberia, Guinea, and Nigeria. Consider the following statement about Lassa fever.
1. It is one of the viral diseases named after its origin in Nigeria.
 2. It is spread by the fruit-eating bat.
 3. It causes difficulty in breathing and facial swelling with a high death rate.

Which of the statement given above is/are correct?

- (a) 1 only
- (b) 1 and 2
- (c) 2 only
- (d) 1, 2 and 3

78. Which of the following statements with regard to the ozone layer is **not** correct?

- (a) Generally, concentration levels of 220 Dobson Units or less are considered ozone depletion in the Stratosphere.
- (b) Total ozone is generally highest at the equator and lowest in polar regions
- (c) The Montreal Protocol is a global agreement to protect the stratospheric ozone layer by phasing out ozone-depleting substances.
- (d) Ozone is a bluish gas with a boiling point of -112 degrees Celsius.

79. Consider the following statements:

1. Weathering is a precondition for mass movements like landslides.
2. Geomorphic agents do not cause mass movements.
3. Mass movements like mudflow and rockfall down the slope are due to the influence of gravity.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1, 2 and 3
- (d) None of the above

80. Recently, India's first Graphene Innovation Center is to be established in Thrissur, Kerala. Consider the following about Graphene:

1. It is a good conductor of heat and electricity.
2. It is a three-dimensional structure with just 0.3nm in thickness.
3. It can be used in Transport, medicine, electronics, energy, defense, desalination etc.

Which of the statement given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

81. Which among the following is an Endogenic process?

1. Denudation
2. Volcanic activity
3. Folding of crust
4. Deposition
5. Faults formation

Choose the correct answer from the options given below:

- (a) 1, 3 and 4 only
- (b) 1, 2 and 4 only
- (c) 2, 3, 4 and 5 only
- (d) 2, 3 and 5 only

82. Consider the following statements.

1. Aravalli is one of the oldest fold mountains in the world.
2. Unlike the Himalayas, the Rocky Mountains are formed by ocean-continent convergence.
3. Mt. Blanc is the highest peak in the Andes.

Which of the statements given above is/are correct?

- (a) 2 only
- (b) 3 only
- (c) 1 and 2 only
- (d) 1, 2 and 3

83. What are the factors controlling the nature and magnitude of tides?

1. The shape of the shoreline.
2. Local wind and weather patterns.
3. Changes in the position of the Sun and moon in relation to the Earth.
4. Uneven distribution of water over the globe. Choose the correct answer from the options given below:

- (a) 2, 3 and 4 only
- (b) 1 and 3 only
- (c) 3 and 4 only
- (d) 1, 2, 3 and 4

84. With reference to world features, Vesuvius, Mona Loa, and Cotopaxi are the names of

- (a) Saline Lakes
- (b) Glaciers
- (c) Volcanos
- (d) Rift Valleys

85. With reference to Kaziranga National Park, which of the following statements are correct?

1. It is spread over three districts.
2. It hosts nearly two-thirds of the world's great one-horned Rhino population.
3. Eastern Swamp deer could be found only in Kaziranga.

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

86. Arrange the following cities in descending order based on the length of the days during Summer in the Northern Hemisphere:

1. Canberra
2. Oslo
3. San Francisco
4. Chennai
5. Kalimantan

Select the correct answer using the codes given below:

- (a) 1-2-3-4-5
- (b) 3-2-4-5-1
- (c) 2-3-4-5-1
- (d) 1-5-4-3-2

87. Consider the following statements regarding Hot springs.

1. These springs are found in areas of present or past volcanic activity.
2. Hot springs which emit fountains of hot water and steam at almost regular intervals are called geysers.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

88. Consider the following Statements:

Assertion: The dynamics of the Intertropical Convergence Zone have a significant role in changing the characteristics of the Indian monsoon rainfall

Reason: The significant shifting of ITCZ towards the northern Hemisphere in summer causes Southeastern trade winds to encroach into the Northern Hemisphere and blow as Southwest monsoon winds.

Choose the correct answer using the codes given below:

- (a) Both 'A' and 'R' are individually true, and 'R' is the correct explanation of A.'
- (b) Both 'A' and 'R' are individually true, but 'R' is not the correct explanation of A.'
- (c) 'A' is true, but 'R' is false.
- (d) 'A' is false, but 'R' is true.

89. Consider the following Statements.

1. La Nina conditions in the Pacific Ocean can cause dry conditions in the horn of Africa.
2. “gu” and “deyr” refers to the two rainy seasons in the horn of Africa.
3. Both Eritrea and Somalia border the Gulf of Edden.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) 1 and 2 only
- (d) 1, 2 and 3

90. Recently government launched the “SMILE: Support for Marginalised Individuals for Livelihood and Enterprise” Scheme. Consider the following statement related to the SMILE scheme:

1. It is a central sector scheme launched by the Ministry of Skill Development and Entrepreneurship
2. It is set up for the vulnerable sections of society, majorly physically handicapped people and destitute women.
3. It helps to uphold Article 46 of Part-IV of the Indian constitution.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 3 only
- (d) 2 and 3 only

91. Consider the following Statements.

Assertion: The deep-sea plains of the Indian Ocean is highly rugged.

Reason: This is due to its formation from a large amount of solidified lava extending for hundreds of kilometers.

Choose the correct answer using the codes given below:

- (a) Both 'A' and 'R' are individually true, and 'R' is the correct explanation of A.'
- (b) Both 'A' and 'R' are individually true, but R is not the correct explanation of A.'
- (c) 'A' is true, but 'R' is false.
- (d) 'A' is false, but 'R' is true.

92. Consider the following statements regarding tides.

- 1. Spring tides are formed during the syzygy position of the Sun, Earth and Moon, which happens during the time of the eclipse.
- 2. Neap tides are formed during the quadrature position of the Sun, Earth and Moon during the lunar phase's first and third quarters.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

93. Consider the following statements regarding Cyclones.

- 1. The cyclone's approach is characterized by a fall in barometric reading, clear sky, strong oppressive winds and bad weather.
- 2. The approach of Anticyclone is characterized by the dull sky, calm air and high temperature in summer.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

94. Consider the following statement.

- 1. Vertical Temperature gradient refers to the fall in temperature with respect to altitude.
- 2. The Gradient value decreases by 6.5°C per kilometer of ascend.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

95. With reference to the Denotified Tribes (DNTs), consider the following statements.

- 1. British government categorized DNTs as criminal tribes during colonial rule in India.
- 2. Renke commission was set up for the welfare of the Denotified tribe in India
- 3. Recently union ministry of the tribal affair launched the Scheme for Economic Empowerment of DNTs (SEED)

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

96. Consider the following statements:

1. Cocoa is a tropical crop, majorly cultivated in the equatorial type climate.
2. Kerala ranks first in cocoa cultivation in terms of productivity.
3. India is self-sufficient in cocoa production, with an area of one lakh hectares.

Which of the statement(s) given above is/are correct?

- (a) 1 and 2 only
- (b) 1 only
- (c) 2 and 3 only
- (d) 3 only

97. 'WASP-96b' has been in the news and is related to which of the following?

- (a) Group of insects that help in pollination.
- (b) A hot, massive planet orbiting outside the Solar system.
- (c) A giant cluster of galaxies is present in the direction of Volans Constellation.
- (d) An interstellar gas cloud

98. Consider the following fluvial erosional and depositional landforms.

1. Swamps and Marshes
2. V-shaped valleys
3. Waterfalls and rapids
4. Braided channels

Which of the above are *not* usually formed during the old age course of a river?

- (a) 1 and 2 only
- (b) 1 and 4 only
- (c) 2 and 3 only
- (d) 2 and 4 only

99. KIRAN Scheme, which was in the news recently is related to,

- (a) Providing opportunities to women Scientists
- (b) Providing Hostel to Working Woman
- (c) To improve the child sex ratio in the state
- (d) Providing Financial assistance to OBC and SC/ST Students

100. The Market Infrastructure Institutions was in news recently consider the following statement:

1. Stock exchanges, depositories and clearing houses constitutes the Market Infrastructure Institutions (MIIs).
2. They constitute a key part of the nation's vital economic infrastructure.
3. In 2010, a panel was set up under the chairmanship of former RBI Governor Shaktikanta Das to examine the issues arising from the ownership and governance of MIIs.

Which of the Statement given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3