



# VISIONIAS

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Test Booklet Series

TEST BOOKLET

C

GENERAL STUDIES (P) 2024 – Test – 4141

Time Allowed: Two Hours

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.
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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 **1/3<sup>rd</sup> 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.

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ASKED TO DO SO**

1. Consider the following statements regarding the Son River:
1. It originates near the Amarkantak hills.
  2. Its course covers a total of three states.
  3. Gharials are found in the Son River.
- How many of the statements given above are correct?
- (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
2. Consider the following statements regarding Isotherms:
1. The spacing of isotherms depicts the temperature gradient across a portion of the Earth's surface.
  2. Widely spaced isotherms indicate a small change in temperature over distance and closely spaced isotherms indicate large changes in temperature.
- 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
3. These types of soils constitute about 10 to 40% of the organic matter and also a reasonable number of soluble salts. They are low in phosphate and potash content. They are found in the Almora district of Uttarakhand, and also a few districts of Kerala.
- The above description relates to which of following types of soil?
- (a) Peaty Soils
  - (b) Saline Soils
  - (c) Alluvial Soils
  - (d) Arid Soils
4. Consider the following:
1. Clear skies and a rise in temperature
  2. Oppressive weather
  3. Southward movement of a low-pressure trough in the Plains of Ganga
  4. Rainfall on the southeastern coast
- Which of the following has the characteristics mentioned above?
- (a) Breaks in monsoon
  - (b) Summer season
  - (c) An El Nino year
  - (d) Retreating monsoon
5. Consider the following statements:
- Statement I: Maximum number of solar eclipses in a year is 2.
- Statement II: Earth's orbit is elliptical in shape.
- Which one of the following is correct in respect of the above statements?
- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
  - (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
  - (c) Statement-I is correct but Statement-II is incorrect
  - (d) Statement-I is incorrect but Statement-II is correct
6. With reference to the Defence Acquisition Council (DAC), consider the following statements:
1. It was formed post-Kargil war in 2001.
  2. The Prime minister is the chairman of DAC and the defense minister is the Vice-chairman.
  3. It decides capital acquisitions for all three services i.e. Army, Navy and Air Force as well as Indian coast guard.
- How many of the above statements are correct?
- (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None

7. Consider the following statements regarding coral reefs:
1. A fringing reef is a coralline platform lying close to the shore extending outwards from the mainland.
  2. A barrier reef is separated from the coast by a much wider and deeper channel or lagoon.
  3. Atolls are similar to barrier reefs except that they are circular in shape, enclosing a shallow lagoon.
- How many of the statements given above are correct?
- (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
8. Consider the following statements:
- Statement-I: The western disturbances arriving in India have either delayed or weakened in the past few years.
- Statement-II: During December month, sub-tropical westerly jet streams have been shifting northwards.
- Which one of the following is correct in respect of the above statements?
- (a) Both Statement-I and Statement-II are correct and Statement - II is the correct explanation for Statement-I
  - (b) Both Statement-I and Statement-II are correct and Statement - II is not the correct explanation for Statement-I
  - (c) Statement-I is correct but statement - II is incorrect
  - (d) Statement - I is incorrect but Statement - II is correct
9. The "Great Oxygenation Event" during the Precambrian Era was a significant geological event that led to the accumulation of oxygen in Earth's atmosphere. What was the primary source of this oxygen?
- (a) Volcanic activity
  - (b) Cyanobacteria
  - (c) Meteor impacts
  - (d) Vascular Plants

10. Consider the following pairs in the context of rainfall distribution in India:
- | <i>Rainfall intensity</i> | <i>Region</i>       |
|---------------------------|---------------------|
| 1. Extreme rainfall       | : Arunachal Pradesh |
| 2. Heavy rainfall         | : Nagaland          |
| 3. Moderate Rainfall      | : West Bengal       |
- How many pairs given above are correctly matched?
- (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
11. What is the primary driving force behind isostatic adjustments in the Earth's crust?
- (a) Tectonic plate movements
  - (b) Volcanic eruptions
  - (c) Buoyancy and gravitational forces
  - (d) Earth's magnetic field
12. Chennai has a hot and humid tropical climate with temperatures often exceeding 35°C in summer and milder winters with temperatures around 20-25°C while Hyderabad experiences hotter summers with temperatures reaching 40-45°C and slightly cooler winters with temperatures around 15-25°C.
- Which of the following best explains the phenomenon?
- (a) Chennai is situated at a higher elevation compared to Hyderabad.
  - (b) Longitudinally, Chennai is situated to the east of Hyderabad.
  - (c) Chennai experiences maritime climate while Hyderabad has a more continental climate.
  - (d) None of the above

13. With reference to the Himalayan region, consider the following statements:
1. Dun formations are part of the Lesser Himalayan range.
  2. The Kanchenjunga Peak is located in the Shiwalik range.
  3. In the west, the Great Himalayan range ends at Nanga Parbat.
- How many statements given above are correct?
- (a) Only one  
(b) Only two  
(c) All three  
(d) None
14. Consider the following statements:
1. Clear sky, calm air, high relative humidity, and cold and long nights are ideal conditions for formation of Dew.
  2. For the formation of dew, it is necessary that the dew point is below the freezing point.
- 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
15. "This type of climate is found in the western coastal region, south of Mumbai. This area receives over 300 cm of annual rainfall in summer from the south-west monsoons." According to Koppen's classification, the above mentioned paragraph refers to which of the following climatic regions?
- (a) Monsoon type with short dry winter season  
(b) Monsoon type with dry season in high sun period  
(c) Monsoon type with dry winters  
(d) Tropical Savannah type

16. Consider the following planets:
1. Venus
  2. Mars
  3. Jupiter
- How many of the planets given above take more time than earth to revolve around the Sun?
- (a) Only one  
(b) Only two  
(c) All three  
(d) None
17. In the context of the Indian monsoon, consider the following statements:
1. The monsoon rainfall has a declining trend with decreasing distance from the sea.
  2. The variability of rainfall is among the highest in the northern part of Jammu and Kashmir.
- 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
18. The Kaimur Hills are situated to the:
- (a) North of Hazaribagh Plateau.  
(b) South of Baghelkhand.  
(c) East of Bundelkhand.  
(d) West of Vindhyan range.
19. With reference to the salinity in water bodies, consider the following statements:
1. Equatorial waters are highly saline due to high temperatures at the equator.
  2. Lake Van, one of the most saline water bodies, is located in Turkey.
- 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

20. Consider the following:

1. Ria coasts
2. Fjord coasts
3. Dalmatian coasts

How many of the above are features of submergence coast?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

21. With reference to the Kaveri River, consider the following statements:

1. It rises in Brahmagiri hills.
2. It covers the states of Kerala, Karnataka, Tamil Nadu, and the Union territory of Puducherry.
3. It thrice forks into two streams and reunites forming the islands of Srirangappattanam, Sivasamudram, and Srirangam.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

22. Consider the following countries:

1. India
2. USA
3. Brazil
4. France
5. Argentina

How many of the above countries are founding members of Global Biofuel Alliance?

- (a) Only two
- (b) Only three
- (c) Only four
- (d) All five

23. Which of the following best explains the general absence of lightning during the active phase of the monsoon season?

- (a) Monsoon clouds are mainly stratiform clouds and lightning is mainly associated with convective clouds.
- (b) Monsoon clouds are mainly convective clouds and lightning is mainly associated with stratiform clouds.
- (c) Interaction of Convective and stratiform clouds negates the possibility of lightning.
- (d) None of the above

24. Consider the following mountain ranges:

1. Alps
2. Andes
3. Sierra Nevada
4. Appalachian Mountains

How many of the above mountain ranges are fold mountains?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

25. Consider the following statements regarding the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES):

1. It is a United Nations climate science body.
2. It was established by the Busan outcome document.
3. All member states of the United Nations are eligible for IPBES membership.

Which of the statements given above is/are correct?

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

26. Arrange the following hills in India from North to South:
1. Satmala hills
  2. Kaimur hills
  3. Pir Panjal Range
- Select the correct answer using the code given below.
- (a) 2-3-1
  - (b) 1-2-3
  - (c) 1-3-2
  - (d) 3-2-1
27. Consider the following statements regarding the trade winds:
1. These are westerly winds.
  2. They are humid and warmer in the areas of their origin.
  3. Strong trade winds are associated with heavy precipitation.
  4. The Southeast Asian monsoon, is a seasonal, moisture-laden trade wind.
- How many of the statements given above are correct?
- (a) Only one
  - (b) Only two
  - (c) Only three
  - (d) All four
28. Which of the following factors primarily influences the texture or the size of mineral grains of igneous rocks?
- (a) The rate of deposition and the rate of erosion at a site
  - (b) Proximity to other rocks of similar nature
  - (c) Rate of cooling of the molten material
  - (d) Amount of organic material present

29. Storm Daniel, recently seen in the news caused floods in
- (a) Morocco
  - (b) Libya
  - (c) Brazil
  - (d) Argentina
30. Consider the following statements:
1. Long Period Average of rainfall is the rainfall recorded over a particular region for a given interval average over a long period like 30 years, 50 years, etc.
  2. Long-range forecast of a monsoon is the forecast over a period ranging from 15 years to 25 years.
- 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
31. Consider the following pairs:
- | <i><b>Moon</b></i> | <i><b>Description</b></i>                                 |
|--------------------|---|
| 1. Supermoon       | : Occurs when a full moon coincides with its apogee point |
| 2. Blood moon      | : Occurs when the moon is total lunar eclipse             |
| 3. Blue moon       | : The second full moon within a single calendar month     |
- How many of the pairs given above are correctly matched?
- (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None

32. Consider the following pairs:

<b>Rivers</b>		<b>Tributary</b>
1. Wardha	:	Penganga
2. Mahanadi	:	Seonath
3. Damodar	:	Barakar
4. Kaveri	:	Bhavani

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

33. Gujarat Declaration, 2023 which was recently seen in the news is related to

- (a) Traditional Medicine
- (b) Green Hydrogen
- (c) International Debt
- (d) Biofuels

34. Consider the following statements regarding the troposphere:

- 1. The temperature in the troposphere changes at a positive lapse rate.
- 2. All weather phenomena like cyclones, rainfall, fog and hailstorms, etc. are confined to this layer.
- 3. The temperature at the tropopause is nearly constant.

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

35. Consider the following pairs:

<b>Satellite</b>		<b>Planet</b>
1. Phobos	:	Mars
2. Ganymede	:	Saturn
3. Titan	:	Jupiter

How many of the pairs given above are correctly matched?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

36. Classified as 'Southern Montane Wet Temperate Forest', these are found in the upper reaches of the Nilgiris, Anamalais, Palni hills, Kalakadu, Mundanthurai and Kanyakumari in the states of Tamil Nadu and Kerala. The introduction of alien plant species and frequent fires have threatened their existence. Recently, the forest type has been in the news due to the issue of its classification.

Which of the following is best described by the passage given above?

- (a) Sal forests
- (b) Silent valley rainforests
- (c) Neelkurinji tracts
- (d) Shola forests

37. The general elevation ranges between 700-1,000 m above the mean sea level and it slopes towards the north and northeastern directions. Most of the tributaries of the river Yamuna have their origin in this region. An eastern extension is formed by the Rajmahal hills, to the south of which lies a large reserve of mineral resources in the Chotanagpur plateau. In the West, its extension can be seen as far as Jaisalmer.

Which of the following is best described in the passage given above?

- (a) Deccan Plateau
- (b) Central Highlands
- (c) Maikal ranges
- (d) The Eastern Ghats

38. Consider the following pairs:

<b>Rivers</b>		<b>Origin State</b>
1. Myntdu	:	Meghalaya
2. Barak	:	Manipur
3. Tizu	:	Nagaland
4. Gomati	:	Tripura

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four



39. Which type of fault results from the horizontal compression of rocks, causing one block to move upward relative to the other?
- (a) Normal fault
  - (b) Reverse fault
  - (c) Strike-slip fault
  - (d) Transform fault

40. With reference to ocean currents, consider the following statements:

1. Labrador current is a cold ocean current flowing from the Arctic Ocean south along the east coast of Canada.
2. Kuroshio Current north-flowing warm current off the coast of Japan in the Pacific Ocean.
3. The Gulf Stream is a warm current that flows from the Gulf of Mexico to the Atlantic coast of Europe.
4. Agulhas Current is a warm current found along the east coast of Africa.

How many of the statements given above is/are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

41. Which of the following protected sites is being prepared for the introduction of Cheetahs as an alternative to the Kuno National Park?

- (a) Kanha Tiger Reserve
- (b) Ratapani Wildlife Sanctuary
- (c) Gandhi Sagar Wildlife Sanctuary
- (d) Sariska Tiger Reserve

42. Consider the following conditions regarding Delta formation:

1. High sediment load of the river
2. Turbulent waves near the mouth of the river
3. Shallow coastal waters
4. Multiple distributaries of the river

How many of the above conditions are favorable for delta formation?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

43. If you are traveling westward across the International Date Line, how does your calendar date change?

- (a) It moves one day ahead.
- (b) It moves one day behind
- (c) It remains the same.
- (d) It skips two days.

44. With reference to the Indian Ocean Dipole (IOD), consider the following statements:

1. It is characterized by differences in sea surface temperatures (SSTs) between the western and eastern Indian Ocean.
2. Negative IOD can lead to increased rainfall and atmospheric convection over the eastern Indian Ocean, Indonesia, and northern Australia.

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



45. In the context of Earth's geological history, the terms Vaalbara, Rodinia, Pannotia refer to:
- (a) Ancient species of dinosaurs that thrived during the Paleozoic era.
  - (b) Ancient supercontinents that existed at different points in Earth's history.
  - (c) Geological epochs associated with mass extinctions.
  - (d) Subduction zones responsible for the formation of mountain ranges.
46. It is one of the oldest forms of weaving in the world. This style of weaving from Nagaland was showcased at 'Crafts Bazaar' during G20 Summit. Dramatic color combinations, bold patterns, and striking minimalist geometric motifs mark this form. Most of the patterning is done in geometric designs, except for the warrior shawls of the Ao tribe, which have hand-painted central band depicting tigers, bison, crossed spears, and roosters.
- Which style of weaving is best described by the passage given above?
- (a) Tanchoi weaving
  - (b) Mekhla Cheddar Weaving
  - (c) Moirang phee weaving
  - (d) Loin Loom Weaving
47. Consider the following statements regarding forces affecting the movement of wind:
1. In the movement of wind the Coriolis force acts parallel to the direction of the pressure gradient force.
  2. When there is no friction and the pressure gradient force is balanced by the Coriolis force, the resultant wind is known as the geostrophic wind.
- 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
48. Arrange the following in decreasing order of the albedo values.
1. Cirrus Clouds
  2. Sand
  3. Ice and Snow
  4. Water
- Select the correct answer using the code given below.
- (a) 1-3-2-4
  - (b) 3-1-2-4
  - (c) 3-2-4-1
  - (d) 2-3-4-1
49. The term 'Brandt line' is often seen in the news recently. Which of the following statements best describes the term 'Brandt line'?
- (a) It is a line that tracks Earth Overshoot days over the years when humanity consumes more natural resources than the Earth can regenerate.
  - (b) It is a line showing hypothesized relationship between environmental quality and economic development of a nation.
  - (c) It refers to the border separating pre-1967 Israel from the erstwhile Palestine.
  - (d) It is a curve that divides the world into the economically rich North and poor South.
50. Which of the following statements is *not* correct regarding the Sudan type of climate?
- (a) It is a transitional type of climate found between the equatorial forests and the trade wind hot deserts.
  - (b) It is characterized by an alternate hot, rainy season and cool, dry season.
  - (c) The annual precipitation is more than that of the Tropical Monsoon Climate.
  - (d) The extreme diurnal range of temperature is another characteristic feature of it.

51. Consider the following statements:  
Statement-I: Soil degradation issues can be solved with biogas plants.  
Statement-II: Biogas plants replenish organic material and phosphorous content in the soils.  
Which one of the following is correct in respect of the above statements?
- (a) Both Statement-I and Statement-II are correct. and Statement-II is the correct explanation for Statement-I
  - (b) Both Statement-I and Statement-II correct and Statement-II is not the correct explanation for Statement-I
  - (c) Statement-I is correct but Statement-II is incorrect
  - (d) Statement-I is incorrect but Statement-II is correct
52. The terms 'ChaSTE' and 'ILSA' often seen in the news recently, are
- (a) particle accelerators in CERN
  - (b) modules of International Space Station
  - (c) payloads on Chandrayan-3's Vikram lander
  - (d) supercomputers developed by C-DAC
53. Consider the following statements regarding earthquakes:
1. Epicenter is the location below the earth's surface where the earthquake starts and hypocentre is the location directly above it on the surface.
  2. Only natural processes like plate movements and faulting are capable of causing earthquakes.
  3. Earthquakes cannot be predicted in advance as there are no instruments invented for the same.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only
  - (b) 1 and 3 only
  - (c) 3 only
  - (d) 2 and 3 only

54. Consider the following statements regarding temperature inversion:
1. A long winter night with cloudy skies and moving air is an ideal situation for temperature inversion.
  2. This phenomenon commonly occurs in hills and mountains.
- 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
55. In 2023, the United Nations Convention against Transnational Organized Crime (UNTOC) entered the 20th year of its implementation. In this context, consider the following statements:
1. It is a global legally binding instrument to fight transnational organized crime.
  2. UNTOC has a 'Protocol on Prohibitions or Restrictions on the Use of Incendiary Weapons'.
  3. Enforcement Directorate is India's national nodal agency for cross-border assistance on matters relating to the Convention.
- How many of the above statements are correct?
- (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
56. With reference to the Orange Pekoe tea recently seen in the news, consider the following statements:
1. Orange pekoe is the grade name for black tea.
  2. It is cultivated in Darjeeling.
- 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 regarding the Laurentian type of climate:
1. It has cold, dry winters and warm summers.
  2. It has features of both the maritime and the continental climates.
  3. In the southern hemisphere, this climate type is absent.
- How many statements given above are **not** correct?
- (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
58. With reference to the Earth's magnetic poles, consider the following statements:
1. The magnetic poles are stationary and do not change over time.
  2. The magnetic poles coincide exactly with the geographic 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
59. With reference to tides, consider the following statements:
1. Together gravitational pull and the centrifugal forces are responsible for creating the two major tidal bulges on the Earth.
  2. Normally, there is a fifteen-day interval between the spring tides and neap tides.
- 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

60. The term 'Abraham Accords' is recently seen in the news in the context of
- (a) Armenia-Azerbaijan conflict
  - (b) Afghanistan peace-talks between US and Taliban
  - (c) Piracy in the Persian Gulf region
  - (d) Israel-Palestine Conflict
61. Consider the following statements:
1. Excess soil salinity causes uneven, stunted growth and poor yields in crops.
  2. The osmotic pressure of the soil solution increases as the salt concentration increases.
- 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
62. Consider the following pairs:
- | <i>Plateau</i>    | <i>Continent</i> |
|-------------------|------------------|
| 1. Massif Central | : Europe         |
| 2. Loess Plateau  | : Asia           |
| 3. Katanga        | : Africa         |
- How many of the pairs given above are correctly matched?
- (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None

**63.** Consider the following statements regarding the extratropical cyclones and tropical cyclones:

1. Extratropical cyclones can originate over the sea but not on land.
2. The wind velocity of a tropical cyclone is much higher and more destructive than an extratropical cyclone.
3. The extra tropical cyclones move from west to east but tropical cyclones, move from east to west.

Which of the statements given above is/are correct?

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

**64.** Consider the following statements regarding Electromagnetic Ion Cyclotron (EMIC) Waves:

1. These waves are the discreet electromagnetic emissions observed in the Earth's magnetosphere.
2. These waves are generated in the equatorial latitudes.
3. These waves can resonate with charged particles causing them to move in a cyclical motion.

Which of the statements given above is/are correct?

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

**65.** Consider the following statements regarding the Aphelion position of the Earth:

1. It occurs when the Earth is at its greatest distance from the Sun.
2. It occurs during the month of July.

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

**66.** The first Global Stocktake synthesis report, 2023 has been released by

- (a) The Intergovernmental Panel on Climate Change (IPCC)
- (b) The United Nations Environment Programme (UNEP)
- (c) The United Nations Framework Convention on Climate Change (UNFCCC).
- (d) The Global Environment Facility (GEF).

**67.** Consider the following statements:

1. Samvidhan Sadan is a name given to the new Parliament House.
2. The old Parliament House was designed by British architects Sir Edwin Lutyens and Herbert Baker.

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

**68.** With reference to World Soil Day, consider the following statements:

1. Due to the efforts of the United Nations, it is celebrated every year on December 5.
2. "Soils: Where Food Begins" was the campaign for World Soil Day 2022.

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

69. Recently a magnificent Nataraja sculpture has been installed at 'Bharat Mandapam', the venue of the G20 Leaders' Summit in Delhi. In this context, consider the following statements regarding Nataraja sculpture.

1. The statue is an ashtadhatu (eight-metal alloy) piece of art, crafted by sculptors from Swamimalai in the Thanjavur district of Tamil Nadu.
2. The traditional 'lost-wax' casting method has been used to create the sculpture.
3. All three temples that inspired the Bharat Mandapam Nataraja statue were originally constructed by the Cholas.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

70. Which of the following is **not** a direct effect of the Earth's axial tilt?

- (a) Changing seasons
- (b) Variation in Daylight
- (c) Length of the year
- (d) Solar Energy Distribution

71. Consider the following statements regarding the sub-tropical heat belt:

1. A calm condition with feeble winds is created in this high-pressure belt.
2. Most of the deserts are present along this belt, in both hemispheres.
3. The corresponding latitudes of the subtropical high-pressure belt are called horse latitudes.

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

72. Due to which of the following reasons the monsoon depressions during the south west monsoon season generally do not intensify into cyclonic storms?

- (a) Presence of high pressure belt on the subcontinent
- (b) Presence of low pressure belt on the Indian ocean
- (c) High vertical wind shear
- (d) Lack of vertical wind shear

73. Which of the following factors leads to a reduction in soil organic matter in an open cycle system?

1. Low harvest index
2. Overgrazing
3. Tillage practices

Select the correct answer from the code given below.

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

74. With reference to the Enhanced Collaborative Autonomous Rover System (ECARS), consider the following statements:

1. It is a multi-terrain manned ground vehicle for a wide range of military situations.
2. It is developed by the Defence Research and Development Organisation (DRDO).

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

75. Consider the following statements:
1. Earth receives the sun's radiation in the form of short waves.
  2. Most of the light received by Earth is scattered light.
- 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

76. Consider the following pairs:
- | <i>Famous Place</i> | <i>State</i>       |
|---------------------|--------------------|
| 1. Kufri            | : Uttarakhand      |
| 2. Chakrata         | : Himachal Pradesh |
| 3. Kalimpong        | : West Bengal      |
- How many of the above pairs are correctly matched?
- (a) Only one pair  
(b) Only two pairs  
(c) All three pairs  
(d) None of the pairs

77. Consider the following statements with reference to North-East Indian states:
1. Mizoram shares a boundary with the Bay of Bengal and Myanmar.
  2. Tripura shares boundary with Bangladesh, Meghalaya, Assam and Mizoram.
  3. Assam does not share a boundary with Sikkim.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only  
(b) 2 only  
(c) 2 and 3 only  
(d) 3 only

78. Consider the following statements with reference to lakes in India:
1. The Wular Lake is formed due to a structural depression.
  2. Kolleru Lake is formed due to a hollow between deltas.
  3. Lakes in Nainital in the Kumaon Himalaya were formed by faulting.
- How many of the statements given above are correct?
- (a) Only one  
(b) Only two  
(c) All three  
(d) None

79. Consider the following landforms:
1. Hoodoo
  2. Hanging Valley
  3. Spits and Bars
- How many of the above landforms are formed due to erosional activity?
- (a) Only one  
(b) Only two  
(c) All three  
(d) None

80. Consider the following statements regarding Southern Oscillation in El Nino and Southern Oscillation (ENSO):
1. Its strength is measured in the Southern Oscillation Index (SOI) which is computed from the fluctuations in air-pressure differences between Tahiti and Darwin.
  2. El Niño episodes are associated with negative values of the SOI, meaning that the pressure at Tahiti is relatively low compared to Darwin.
  3. When the Walker circulation enters its El Niño phase, the SOI is strongly negative.
- How many statements given above are correct?
- (a) Only one  
(b) Only two  
(c) All three  
(d) None



**81.** The 'State of the Rhino 2023' report was released recently. In this context, consider the following statements:

1. The 'State of the Rhino' report is released annually by the World Wide Fund for Nature.
2. The greater one-horned rhinos, which are native to India are categorised as 'endangered' on the IUCN Red List.

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

**82.** Bhoramdeo Wildlife Sanctuary (BWS), which has been designated as the Tiger Reserve recently is located at

- (a) Chattisgarh
- (b) Madhya Pradesh
- (c) Rajasthan
- (d) Jharkhand

**83.** Consider the following statements with reference to forest cover in India:

1. India ranks first globally with respect to the net gain in average annual forest area between 2010 and 2020.
2. Mizoram has the largest forest cover by area among states.
3. Madhya Pradesh has the largest forest cover as a percentage of the total geographical area among states.

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

**84.** Consider the following statements regarding the International Organisation of Legal Metrology (OIML) certificates:

1. An OIML pattern approval certificate is mandatory to sell a weight or measure in the international market.
2. India is a member of OIML and also a certificate issuing authority.

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

**85.** Consider the following statements:

Statement-I: The Norwegian coast at latitudes 60° to 70°N is ice-free throughout the year.

Statement-II: The North Atlantic Drift is a warm current.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct



86. Consider the following pairs:
- | <b>Discontinuity</b> | <b>Between</b>           |
|----------------------|--------------------------|
| 1. Mohorovicic       | : Upper and Lower Mantle |
| 2. Gutenberg         | : Crust and Mantle       |
| 3. Lehmann           | : Inner and Outer core   |
- How many of the pairs given above are correctly matched?
- (a) Only one  
(b) Only two  
(c) All three  
(d) None
87. In the context of fluvial erosion, river capture occurs when:
- (a) Both rivers have similar discharge and sediment loads.  
(b) One river has a higher discharge and eroding power than the other.  
(c) There are no geological faults or fractures in the area.  
(d) The rivers are located in arid desert regions.
88. Consider the following statements:
1. Of the five, the Lagrangian Point 1 (or L-1) of the Earth-Sun system is currently home to the Solar and Heliospheric Observatory Satellite (SOHO).
  2. Aditya L-1 is the first space based Indian mission to study the Sun.
  3. Aditya-L1 has seven payloads, all developed indigenously by ISRO and national research laboratories.
- How many of the above statements are correct?
- (a) Only one  
(b) Only two  
(c) All three  
(d) None

89. In the context of geological time scale, arrange the following in decreasing order.
1. Era
  2. Eon
  3. Period
  4. Epoch
- Select the correct answer using the code given below.
- (a) 1-2-3-4  
(b) 2-1-3-4  
(c) 3-1-2-4  
(d) 1-2-4-3
90. Consider the following pairs:
- | <b>Places often mentioned in news</b> | <b>Country/Region</b> |
|---------------------------------------|-----------------------|
| 1. Scarborough shoal                  | : South China Sea     |
| 2. Izmail port                        | : Israel              |
| 3. Al Haouz province                  | : Yemen               |
- How many of the above pairs are correctly matched?
- (a) Only one  
(b) Only two  
(c) All three  
(d) None
91. In the context of the oceanic distribution of temperature, consider the following statements regarding Thermocline:
1. It is the rapid increase in temperature with an increase in depth.
  2. It is about 5 kilometers in thickness.
- 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

92. Consider the following pairs:
- | <i>Mangrove</i> | <i>Region</i>    |
|-----------------|------------------|
| 1. Pichchavaram | : Andhra Pradesh |
| 2. Baratang     | : West Bengal    |
| 3. Bhitakarnika | : Odisha         |
| 4. Ratnagiri    | : Maharashtra    |
- How many pairs given above are correctly matched?
- (a) Only one  
(b) Only two  
(c) Only three  
(d) All four
93. With reference to the seaweed, consider the following statements:
1. More than 95% of the seaweed harvested for human consumption is cultivated.
  2. The seaweeds do not require fertilizer, pesticides, freshwater and land.
  3. India's first multi-purpose seaweed park will be established in Lakshadweep.
- How many of the above statements are correct?
- (a) Only one  
(b) Only two  
(c) All three  
(d) None
94. Consider the following statements:
- Statement-I: The off-shore vortices on the west coast bring very heavy rainfall to the west coast during the monsoon season.
- Statement-II: The Vortices are formed due to the inability of monsoon winds to climb over western ghats.
- Which one of the following is correct in respect of the above statements?
- (a) Both Statement-I and Statement-II are correct and Statement - II is the correct explanation for Statement-I  
(b) Both Statement-I and Statement-II are correct and Statement - II is not the correct explanation for Statement-I  
(c) Statement-I is correct but statement - II is incorrect  
(d) Statement - I is incorrect but Statement - II is correct
95. In the context of landform formation, *uvalas*, *dolines* and *poljes* are:
- (a) landforms of glaciation.  
(b) landforms of wind erosion.  
(c) landforms of river erosion.  
(d) landforms of karst topography.
96. An unconformity is a break in time in an otherwise continuous rock record. In this context, the Eparchaeon Unconformity which creates a million years gap in India's geological history is located in:
- (a) Trans Himalayas  
(b) Western Ghats  
(c) Eastern Ghats  
(d) Vindhyan Range
97. Consider the following statements:
1. The sun is vertically overhead at the equator only on two days each year.
  2. The longest day in the northern and southern hemispheres falls on the 22nd of December and 21st of June in summer solstices respectively.
  3. The Arctic and Antarctic circles mark the limits of the overhead sun.
- Which of the statements given above is/are **not** correct?
- (a) 1 only  
(b) 1 and 3 only  
(c) 2 and 3 only  
(d) 1, 2 and 3
98. Recently Santiniketan has been designated as the 41st UNESCO World Heritage Site (WHS) of India. In this context, consider the following statements:
1. Its design has been predominantly inspired from Greek and Roman architecture.
  2. It is the only world heritage site in Bengal.
- 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

99. Recently Kokborok language was in the news. Its widely spoken in which of the following states/UT?

- (a) Ladakh
- (b) Odisha
- (c) Lakshadweep
- (d) Tripura

100. The Government of India has come out with a new set of National Awards in the field of Science, Technology and Innovation known as “Rashtriya Vigyan Puraskar”. In this context, consider the following pairs:

1. Vigyan Ratna (VR) award: To recognize distinguished contributions made in any field of science and technology (S&T).
2. Vigyan Yuva-Shanti Swarup Bhatnagar (VY-SSB) award: To recognize young scientists up to the age of 45 years who made an exceptional contribution in any field of S&T.
3. Vigyan Shri (VS) award: To recognize lifetime achievements in any field of S&T.

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

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