

# **VISIONIAS**

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**Test Booklet Series** 

#### **TEST BOOKLET**

C

GENERAL STUDIES (P) 2024 – Test – 4143

**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.
- **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. With reference to the Botanical Survey of India (BSI), consider the following statements:
  - It is the apex research organisation under the Ministry of Environment, Forest and Climate Change of India ((MoEFCC) for carrying out studies on wild plant resources of the country.
  - It is headquartered in Kolkata, West Bengal.
  - 3. It does ex-situ conservation of critically threatened species in botanical gardens.

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- Which of the following are natural World

  Heritage Sites in India as mandated by

  UNESCO?
  - 1. Kaziranga National Park
  - 2. Keoladeo National Park
  - 3. Sundarbans National Park
  - Valley of Flowers National Park
     Select the correct answer using the code given below.
  - (a) 1, 2, and 3 only
  - (b) 2 and 4 only
  - (c) 1, 2, 3 and 4
  - (d) 1, 3 and 4 only

- 3. Consider the following statements with respect to the Negotiable Warehouse Receipt (NWR):
  - At present, no warehouseman shall issue any negotiable warehouse receipt in physical form.
  - 2. An electronic NWR (eNWR) has a time validity that is co-terminus with the shelf-life of the commodity or withdrawal of the commodity fully from the warehouse.
  - eNWR once entered with a transaction such as a pledge or transfer, cannot be simultaneously used for any other purpose.

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 4. The concept of "Edge effect" in ecology is best defined as which of the following?
  - (a) It is the impact of human activities on ecosystems.
  - (b) It is the change in environmental conditions and species composition in ecotones.
  - (c) It is the formation of new species in hybrid zones.
  - (d) It is the role played by keystone species in community dynamics.

- **5.** Consider the following statements:
  - 1. Food Safety and Standards Authority of India (FSSAI) gives 'Food animal' tags to the animals.
  - 2. FSSAI is a statutory body and comes under the Ministry of Environment, Forest and Climate Change (MoEFCC).
  - 3. The Mithun, an Indian bison from Maharashtra got the food animal tag recently.

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **6.** Consider the following pairs:

## Elephant Reserves State

Lemru : Chhattisgarh
 Chirang-Ripu : Meghalaya

3. Singphan : Jharkhand

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 7. With reference to the Pink Bloom, consider the following statements:
  - 1. It is an invasive alien plant species from Indonesia.
  - 2. It is posing serious biodiversity threats for Kole wetlands in Kerala, an important Ramsar site.
  - 3. It was brought in India as an aquarium plant and escaped to the wild.

How many of the above statements are correct?

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

- **8.** "Nature 2030: A Union in action" is a project of:
  - (a) International Union for Conservation of Nature
  - (b) United Nations Environment Program
  - (c) World Wildlife Fund
  - (d) United Nations Framework Convention on Climate Change
- 9. State Forest Departments have jurisdiction over which of the following forests under the Indian Forest Act, 1927?
  - 1. Reserve Forests
  - 2. Protected Forests
  - 3. Villages or nagarpalika forests

Select the correct answer using the code given below.

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3
- **10.** Consider the following features:
  - 1. Sharing similar resources
  - 2. Competing for similar resources
  - 3. Interbreeding and reproduction

How many of the above are distinguishing features of a population in ecology?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 11. This aquatic ecosystem is characterized by its low salt content and is often found in ponds, lakes, bogs, and swamps. It experiences diurnal and seasonal variations in temperature and has distinct zones, including the limnetic zone with shallow water and the profundal zone at the bottom.

Which of the following aquatic ecosystems is best described by the above paragraph?

- (a) Coral reef
- (b) Freshwater ecosystem
- (c) Mangrove swamp
- (d) Marine ecosystem

- 12. The 2023 Production Gap Report titled "Phasing down or phasing up? Top fossil fuel producers plan even more extraction despite climate promises" was recently released. In this context, consider the following statements:
  - 1. The report is published by the United Nations Framework Convention on Climate Change (UNFCCC).
  - 2. The report tracks the discrepancy between governments' planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C or 2°C.

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
- 13. Which of the following best desribes the Metapopulation concept in ecology?
  - (a) All species can be classified into one of four fundamental niches.
  - (b) Populations are isolated and do not interact.
  - (c) Population of a species are interconnected and can rescue each other from extinction.
  - (d) Competition is the primary driver of species diversity.
- 14. With reference to the National Parks in India, consider the following statements:
  - 1. The central government can declare a national park.
  - 2. The State government has all the rights of lands to be included in the national parks.
  - 3. Only on the recommendation of the National Board for Wildlife (NBWL), the boundaries of national parks can be changed.

How many of the above statements are correct?

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

- 15. In the process of ecological succession, which term refers to the intermediate stage where the community is transitioning from the pioneer species to the climax community?
  - (a) Pioneer stage
  - (b) Climax stage
  - (c) Seral stage
  - (d) None
- **16.** With reference to the Kaziranga National Park, consider the following tags:
  - 1. Tiger Reserve
  - 2. Important Bird Area recognized by BirdLife International
  - 3. World Heritage Site of UNESCO How many of the above tags are associated with Kaziranga National Park?
  - (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
- 17. The term 'Generative Adversarial Networks (GANs)' is often used in the context of
  - (a) Health care infrastructure
  - (b) Deepfake technology
  - (c) Telecommunication infrastructure
  - (d) Money laundering network
- **18.** With reference to the Conservation reserve, consider the following statements:
  - 1. It is notified by State Government after consulting with the Central government and the local communities.
  - 2. They act as buffer zone and migration corridors between national parks, wildlife sanctuaries and reserved and protected forests.
  - 3. India's first conservation reserve for Dugongs has been set up in Palk Bay.

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

- **19.** Consider the following trees:
  - 1. Ebony
  - 2. Mahogany
  - 3. Rosewood

How many of the above trees are naturally found in tropical rainforests in India?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **20.** Which of the following correctly describes the theme of UN decade of 2021-30?
  - (a) United Nations Decade of Action on Nutrition
  - (b) United Nations Literacy Decade
  - (c) United Nations Decade for Deserts and the Fight against Desertification
  - (d) United Nations Decade on Ecosystem Restoration
- 21. 'Dichotomous keys' best refers to which one of the following situations?
  - (a) Measurement of ecological efficiency
  - (b) Production of differentiated cells from a single cell in an organism
  - (c) Identification of different organisms based the organism's observable traits.
  - (d) Measurement of ecological damage done by invasive species
- 22. If any wild animal specified in Schedule I of the Wild Life (Protection) Act, 1972 has become dangerous to human life, who among the following permits any person to hunt such animal?
  - (a) Chief Conservator of Forests
  - (b) National Biodiversity Authority
  - (c) State Board for Wildlife
  - (d) Chief Wildlife Warden

- **23.** Consider the following:
  - 1. Rule of law
  - 2. Government Effectiveness
  - 3. Voice and Accountability
  - 4. Control of Corruption

How many of the above dimensions are used by the World Bank in ranking countries under the Worldwide Governance Indicators framework?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- 24. How many of the following types of adaptations are shown by mangroves?
  - 1. Viviparity
  - 2. Cutinized epidermis
  - 3. Pneumatophores
  - 4. Knee roots

Select the correct answer using the code given below.

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- **25.** Consider the following pairs:-

## Biosphere Reserve State

1. Pachmarhi : Madhya Pradesh

2. Seshachalam Hills : Telangana

3. Nokrek : Tripura

How many of the above pairs are correctly matched?

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

- **26.** Consider the following statements regarding Leith's Softshell Turtle:
  - 1. It is a large freshwater turtle which is endemic to peninsular India.
  - 2. It has the least concern status by IUCN. 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
- **27.** Consider the following statements with respect to Indian Porcupines:
  - 1. They are nocturnal.
  - 2. Their population is restricted to the southern India.
  - 3. They are protected under Schedule-I of the Wildlife Protection Act, 1972.

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **28.** Consider the following statements:
  - A protected forest can be a reserved forest but a reserved forest cannot be a protected forest.
  - Rules for regulating the management of the village forest is made by the State Government.

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

- 29. Recently, India signed a MoU on "Enhancing Innovation Ecosystems through an Innovation Handshake" with which of the following countries?
  - (a) Japan
  - (b) The United States of America
  - (c) The United Kingdom
  - (d) South Korea
- **30.** In the context of ecological niches, the term "Fundamental niche" refers to,
  - (e) The entire range of environmental conditions in which a species can potentially exist.
  - (f) The specific conditions where a species is most commonly found.
  - (g) The niche that two species share when they coexist in a habitat.
  - (h) The idealized niche for a species, without considering competition.
- Recently, India successfully tested fired 'Pralay' missile off Odisha coast. In this context, consider the following statements:
  - The missile has been developed by Defence Research and Development Organisation (DRDO).
  - 2. It is a 350-500 km short-range, surface-to-surface missile.
  - 3. It has a payload capacity of 500-1000 kg.

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

- 32. Arrange the following organisms in the correct sequential order of a food chain, starting from the primary producer to the top predator.
  - 1. Desert Hare
  - 2. Desert willow
  - 3. Coyote
  - 4. Falcon
  - 5. Snake

Select the correct answer using the code given below.

- (a) 1-2-3-4-5
- (b) 2-1-5-4-3
- (c) 3-2-1-5-4
- (d) 1-2-5-4-3
- 33. Fifth meeting of Conference of Parties (COP 5) to Minamata Convention held in Geneva recently. In this context, consider the following statements:
  - 1. The Minamata Convention on Mercury is a globally binding treaty to protect human health and the environment from the adverse effects of mercury.
  - 2. India has ratified the Convention.
  - 3. In COP 5, Parties have agreed on a threshold value of 100mg/kg total concentration of mercury in wastes contaminated with mercury.

How many of the above statements are correct?

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

- 34. With reference to The Man and the Biosphere (MAB) programme, consider the following statements:
  - It is an intergovernmental programme launched in 1971 by UNESCO for improving people's relationships with environment.
  - 2. Biosphere Reserves designation criteria includes large protected core area enough to sustain viable populations representing all trophic levels.
  - 3. It is governed by International Coordinating Council (ICC), reporting to UNESCO.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 35. Consider the following statements regarding the criteria for the definition of a Biodiversity Hotspot:
  - 1. It must have at least 1,500 vascular plants and animals as endemics.
  - 2. It must have 30% or less of its original natural vegetation.

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

- **36.** Consider the following statements regarding the Marine Protected Areas (MPAs):
  - 1. They are notified as 'national parks' or 'wildlife sanctuaries' under Wildlife Protection Act, 1972.
  - Coastal and marine sites are identified and prioritized as Important Coastal and Marine Areas by the Wildlife Institute of India.

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
- 37. It is a nocturnal bird found only in the northern part of the State of Andhra Pradesh in peninsular India. It is a flagship species for scrub jungle which is under extreme threat. The species was considered to be extinct until it was rediscovered in 1986. It is threatened creation of new pastures, the growing of dryland crops, and plantations of exotic trees.

Which of the following birds is being discussed in the above passage?

- (a) Bengal Florican
- (b) Jerdon's Courser
- (c) Forest Owlet
- (d) White-bellied Heron
- 38. The Horn of Africa experiences increased rainfall during which of the following weather phenomena?
  - 1. El Nino
  - 2. La Nina
  - 3. Positive Indian Ocean Dipole
  - 4. Negative Indian Ocean Dipole

Select the correct answer using the code given below.

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

- 39. Consider the following statements with respect to the Employees' State Insurance (ESI) Scheme:
  - 1. The wage ceiling for coverage of employees under the ESI Act is Rs. 15,000.
  - 2. Both employees and employers contribute equally to the contributory fund under the ESI Scheme.
  - Employees' State Insurance Corporation (ESIC) which implements the ESI Scheme functions under the Ministry of Finance.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 40. Consider the following statements with respect to the e-way bill system under the Goods and Services Tax (GST):
  - A consignment value of more than ₹50,000 is required to generate an e-way bill for movement between the two States and within a State.
  - 2. With regard to intrastate movement of goods, each state is free to choose a threshold value for e-way bill generation.
  - 3. No e-way bill is required for goods transported by a non-motorized conveyance.

How many of the above statements are correct?

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

- 41. The terms 'isoniazid', 'rifampin', 'ethambutol' are often seen in the news. What are they?
  - (a) synthetic chemical insecticides
  - (b) medications to treat tuberculosis
  - (c) fruit ripening hormones
  - (d) ozone depleting substances
- 42. Consider the following statements regarding the World Network of Biosphere Reserves (WNBR):
  - 1. It was formed in 1971 for biodiversity conservation, ecosystem restoration, and living in harmony with nature.
  - 2. More than 50 percent of the notified biosphere reserves in India are a part of the WNBR.
  - 3. Sundarbans Biosphere Reserve was the first to be recognized under the WNBR.

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 43. Recently, India has been removed from the Review of Significant Trade process (RST) for Red Sanders. In this context, consider the following statements with respect to RST and Red Sanders species:
  - The Review of Significant Trade (RST)
     Management System was launched by
     the World Trade Organisation.
  - 2. Red Sanders is listed in the Schedule 1 of the Wildlife Protection Act, 1972.
  - 3. Red Sanders is endemic to South India. How many of the above statements are correct?
  - (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None

- 44. With reference to the Kunming-Montreal Global Biodiversity Framework, consider the following statements:
  - It was adopted during the sixteenth meeting of the Conference of the Parties (COP 16) to the Convention on Biological Diversity.
  - 2. It aspires to restore 30% of degraded lands and marine areas by 2030.
  - 3. It targets to reduce the rate of introduced invasive species by 50 per cent by 2030.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **45.** Consider the following pairs:

Nutrient Largest Natural

Reservoir

1. Carbon : Sedimentary Rocks

2. Phosphorus : Atmosphere3. Nitrogen : Oceans

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **46.** With reference to the Indian Elephants, consider the following statements:
  - 1. It is the National Heritage animal and is depicted on the frieze of the circular abacus of the State Emblem.
  - 2. Elephant census is conducted once in 5 years.
  - 3. There are around 50 Elephant Reserves in India.

How many of the above statements are correct?

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

- **47.** Consider the following statements:
  - Statement-I: If the number of sea otters increased in a coastal marine ecosystem, the kelp forests tends to grow rapidly in that environment.
  - Statement-II: In a top-down trophic cascade, changes in population of top predator alters the food web dynamics of lower trophic stages.

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.
- **48.** Consider the following statements with respect to Greenhouse Gas Bulletin:
  - 1. It is an initiative of the United Nations Environment Programme.
  - 2. The bulletin shows the globally averaged surface mole fractions for carbon dioxide (CO2), methane (CH4), and nitrous oxide (N<sub>2</sub>O) and compares them with the previous year and preindustrial levels.
  - 3. It is published semi-annually.

How many of the above statements are correct?

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

- **49.** The 'Bletchley Declaration', sometimes seen in the news, is related to
  - (a) Artificial Intelligence
  - (b) Greenhouse gas emissions
  - (c) Ozone pollution
  - (d) Road safety
- **50.** Consider the following approaches for the conservation of biodiversity:
  - 1. Germplasm banks
  - 2. Tissue culture
  - 3. Cryopreservation
  - 4. DNA clones

How many of the above techniques are invitro techniques for the conservation of biodiversity?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- Management (JFM) in India, consider the following statements:
  - It helps to meet the needs of subsistence and livelihood as well as generates local environmental services for locals.
  - It has legal sanction under the Indian Forest Act, 1927.

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

- 52. Recently, several state governments approached the Supreme Court over the Governor's delay in approving the bills passed by state legislative assemblies. In this context, consider the following statements:
  - 1. The Constitution does not prescribe a specific timeframe for the Governor to make a decision with respect to a bill.
  - 2. When a bill passed by the state legislature endangers the position of the state high court, it is obligatory for the Governor to reserve the bill for the consideration of the President.
  - 3. If a bill is returned by the Governor and it is passed again with amendments by the state legislature, the governor can withhold his assent to the bill.

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 53. Consider the following statements with respect to the sacred groves in India:
  - They are patches of natural vegetation preserved by indigenous societies on religious and cultural grounds.
  - 2. They have been legally protected as 'community reserves' under the Wildlife Protection Act, 1972.
  - 3. They are maintained by rural communities.

How many of the above statements are correct?

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

- **54.** Which of the following regions have been classified as 'biodiversity hotspots' in India?
  - 1. The Western Ghats
  - 2. Lakshadweep Islands
  - 3. Himalayas
  - 4. Indo-Burma region

Select the correct answer using the code given below.

- (a) 1, 2 and 3 only
- (b) 2 and 4 only
- (c) 1, 3 and 4 only
- (d) 1, 2 and 4 only
- 55. There are 106 coastal and marine sites that have been identified and prioritized as Important Coastal and Marine Areas (ICMBAs) by the Wildlife Institute of India. In this context consider the following pairs:

ICMBA State

1. Koteshwar : Gujarat

2. Angria Bank : Goa

3. Kali estuary : Karnataka

4. Junput : Odisha

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- **56.** Which of the following best describes "Homeostasis" in ecology?
  - (a) The unlimited capacity of ecosystems to regulate every aspect of their environment.
  - (b) A constant state of change and adaptation.
  - (c) The capacity of ecosystems to self-regulate and maintain stability.
  - (d) The tendency for biological systems to undergo rapid changes.

- 57. Consider the following statements with respect to the flora and fauna found in the Thar desert ecosystem:
  - 1. Phog and Sewan grass are typical shrubs found in the desert.
  - 2. The gazelle is the only species of the Indian antelope of which the females have horns.
  - 3. Rann of Kutch is a breeding site in the Indian subcontinent for the flamingoes.

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 58. Which of the following statements best describes the term 'net community production' in an ecosystem?
  - (a) It is the rate of production of organic matter not used by heterotrophs.
  - (b) It is the amount of biomass accumulated by plants per unit area in a given period.
  - (c) It is the rate of formation of new organic matter by heterotrophs.
  - (d) It refers to the total amount of solar energy fixed into organic matter by primary producers.
- 59. With reference to the water cycle, consider the following statements:
  - 1. Almost 95% of the total water on the earth is chemically bound to rocks and does not form any part of a cycle.
  - 2. The driving forces for the water cycle are solar radiation and gravity.
  - 3. In the water cycle, evaporation is higher than precipitation over land.

How many of the above statements are correct?

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

**60.** Consider the following pairs:

National Park State

1. Madhav National Park : Chattisgarh

2. Kuno National Park : Madhya

Pradesh

3. Sanjay Gandhi National : Maharashtra Park

Vanaan Vallan Nation

4. Kanger Valley National: Odisha

Park

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- 61. Consider the following statement with respect to the protocols of the Convention on Biological Diversity:
  - 1. Nagoya Protocol aims to ensure the safe handling, transport and use of living-modified organisms.
  - 2. Cartagena Protocol aims to share the benefits arising from the utilization of genetic resources in a fair and equitable way.

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 statements with respect to biota of oceans:
  - 1. Biota of the pelagic region is less rich in species compared to the littoral zone.
  - 2. Dinoflagellates and Kelp forests are part of the biota of the Neritic zone.

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

- 63. Consider the following statements with respect to TRAFFIC:
  - 1. It is an organization that was established in 1976 by WWF and IUCN.
  - It specializes in providing information analytics on illegal trade networks and new trends in trafficking.
  - It has launched Project Spotlight to monitor the illegal trade in freight using sniffer dog detection.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **64.** Consider the following statements:
  - National Biodiversity Authority (NBA)
    is a statutory body formed under the
    Biological Diversity (BD) Act, 2002 to
    regulate use of India's biological
    resources.
  - It would be required to obtain the approval of the NBA before seeking any IPR based on biological material obtained from India.
  - 3. Human genetic material is excluded from the definition of biological resources under the BD Act, 2002.

How many of the above statements are correct?

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

65. This forest type is characterized by its evergreen, drought-resistant, woody coniferous trees like spruce, fir, and pine, which bear naked seeds in cones. The animals found in this forest include red squirrel, deer, goat, mule, moose, and carnivores like timber wolves and lynxes. The soils are acidic and poor in nutrients.

Which of the following type of forest is described in the above paragraph?

- (a) Tropical rainforest
- (b) Temperate deciduous forest
- (c) Tundra
- (d) Boreal forest
- **66.** Which of the following best describes ecological efficiency in an ecosystem?
  - (a) The energy saved by primary producers which is otherwise lost as heat during photosynthesis.
  - (b) The higher natality rate of species and lower rate of extinction within the ecosystem.
  - (c) The percentage of energy transferred from one trophic level to another in an ecosystem.
  - (d) The higher proportion of primary producers as compared to that of heterotrophs in the ecosystem.
- 67. How many of the following authorities are established under the Wildlife Protection Act, of 1972?
  - 1. National Board for Wildlife
  - 2. Central Zoo Authority
  - 3. Wildlife Crime Control Bureau
  - 4. Wildlife Institute of India

Select the correct answer from the code given below.

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

- **68.** Which of the following best describes "Black Mimosa"?
  - (a) Himalayan herb used to treat anxiety
  - (b) Organism endemic to western ghats known for its vibrant colours
  - (c) A venomous species of snake found in the deserts of Rajasthan
  - (d) Invasive species that invades wetlands
- **69.** Consider the following pairs:-

Sanctuaries State

1. Karlapat Wildlife : Odisha

Sanctuary

2. Nagi- Nakti Bird Sanctuary: Chattisgarh

3. Dehing Patkai wildlife : Meghalaya

sanctuary

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **70.** Consider the following statements with respect to the Central Asian Flyway:
  - It is one of the five flyways identified by Birdlife International for the migration of birds.
  - 2. It is the shortest flyway in the world.
  - 3. Bar-headed Goose Anser indicus, the world's highest-altitude migrant, follows this route.

How many of the statements given above are correct?

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

- 71. With reference to India's biodiversity, Tamil lacewing, Tree Nymph, Andaman Crow and Great windmill Swallowtail are:
  - (a) Birds
  - (b) Reptiles
  - (c) Butterflies
  - (d) Amphibians
- **72.** Consider the following characteristics:
  - 1. Short life
  - 2. High solubility in water
  - 3. Low mobility
  - 4. Biologically inactive

In order for biomagnification to occur, a pollutant must posess how many of the above characteristics?

- (a) Only two
- (b) Only three
- (c) All four
- (d) None
- **73.** Arrange the following steps in the process of decomposition in sequence.
  - 1. Catabolism
  - 2. Humification
  - 3. Mineralisation
  - 4. Leaching

Select the correct answer using the code given below.

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

- **74.** With reference to the High Seas Treaty, consider the following statements:
  - 1. It is a legally binding international agreement on the conservation of marine biological diversity.
  - 2. It covers the high seas, exclusive economic zones and national waters of countries.
  - 3. It is the first-ever international treaty by the United Nations to govern the high seas.

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 75. With reference to the processes under nitrogen cycle, consider the following pairs:

Process

1. Nitrification

2. Conversion of nitrates or nitrites into gaseous nitrogen

2. Assimilation : Conversion of gaseous nitrogen

into ammonia

3. Ammonification : Conversion of

nitrogenous
waste products
and dead
organisms into
inorganic

ammonia

4. Denitrification : Co

Conversion of ammonia into nitrates or nitrites

How many of the above pairs are correctly matched?

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

- 76. Recently, Union Minister for Commerce and Industry participated in the Investor Forum of the Partnership for Global Infrastructure and Investment (PGII). In this context, consider the following statements:
  - 1. It is an initiative of Group 20 (G20).
  - 2. It is aimed to fund infrastructure projects in developing countries through public and private investments.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 77. Consider the following statements with respect to the United Nations Commission on International Trade Law (UNCITRAL):
  - It was established in the aftermath of the dot-com bubble in the late 1990s.
  - The members of the Commission are elected by the General Assembly of the UN for a term of six years.
  - UNICTRAL is involved with state-tostate issues such as countervailing duties or import quotas.

How many of the above statements are correct?

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

- **78.** With reference to the Indian Tigers, consider the following statements:
  - 1. It is is both an umbrella species and keystone species.
  - 2. Launched 50 years ago, Project Tiger provides central assistance to states for in-situ conservation of tigers in designated tiger reserves.
  - 3. The boundaries of tiger reserves cannot be altered without the the approval of the National Board for Wildlife.

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 79. Which of the following international agreement addresses issues related to biopiracy and benefit-sharing?
  - (a) Kyoto Protocol
  - (b) Stockholm Convention
  - (c) Nagoya Protocol
  - (d) Montreal Protocol
- **80.** Consider the following statements with respect to Monotremes:
  - 1. They are highly specialised egg-laying predatory mammals, containing the platypus and echidnas
  - 2. There are only five living species and all of them are found only in Australia and New Guinea.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both1 and 2
- (d) Neither 1 nor 2

- **81.** Consider the following statements regarding Photosynthetically Active Radiation (PAR):
  - 1. It constitutes more than 50 percent of incident solar radiation.
  - Plants capture less than 10 percent of the PAR energy that sustains the entire world.

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. With reference to the Zoological Survey of India (ZSI), consider the following statements:
  - 1. It is a custodian of the National Zoological Collections.
  - 2. It prepares Red Data Book, Fauna of India and does chromosomal mapping and DNA finger printing of fauna.

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
- **83.** Consider the following protected areas:
  - 1. Pin Valley National Park
  - 2. Kibber Wildlife Sanctuary
  - 3. Kitam Bird Sanctuary

How many of the above protected areas are a part of the Cold Desert Biosphere Reserve?

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

- **84.** Undemarcated protected forests cannot be used for non-forest purposes without clearance under
  - (a) Indian Forest Act, 1927
  - (b) Wildlife Protection Act 1972
  - (c) Forest Conservation (FC) Act, 1980
  - (d) National Forest Policy, 1988
- **85.** Consider the following organisms:
  - 1. Nitrococcus
  - 2. Thiobacillus
  - 3. Pseudomonas
  - 4. Paracoccus

How many of the above organisms are denitrifying bacteria?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- **86.** Which of the following statements best describes the term 'Speciation' in ecology?
  - (a) It is the process of creating new species from existing ones.
  - (b) It is the taxonomic classification of organisms into species.
  - (c) It is the movement of species from one habitat to another.
  - (d) It is the evolutionary reversal of a species to its ancestral form.
- 87. With reference to The Economics of Ecosystems and Biodiversity (TEEB), consider the following statements:
  - 1. It is a global initiative focused on "making nature's values visible".
  - 2. It finds its institutional home at the United Nations Environment Programme in Geneva.
  - 3. Recently, the Government of India launched the TEEB-India Initiative at G20, 2023 summit.

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

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

- **88.** Consider the following statements with respect to United Nations General Assembly (UNGA):
  - 1. In UNGA, each of the Member States of the United Nations has an equal vote.
  - 2. The Assembly meets in regular sessions from september to december each year.
  - 3. The UNGA elects the non-permanent members of the Security Council.
  - 4. The Credentials Committee is appointed by the UNGA at each session.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) Onl three
- (d) All four
- **89.** With reference to the Biodiversity coldspots, consider the following statements:
  - They are the areas where the fitness of at least one of the two species is determined by interactions with the other.
  - 2. Coldspots are relatively empty and have unstable environments.
  - 3. They are better equipped to handle diversification of species than tropical areas.

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

- **90.** Consider the following statements with respect to the powers of the National Tiger Conservation Authority:
  - 1. It is the primary authority which notifies the tiger reserves in the tiger states of the country.
  - 2. Its approval is required for the alteration of the boundary of a tiger reserve in India.

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
- **91.** Which of the following statements best describes the term 'Allelopathy'?
  - (a) It is a biological interaction where the association is beneficial for both the partners but it is not essential for survival of each other.
  - (b) It is a biological phenomenon by which an organism produces biochemicals that influence the survival of other organisms.
  - (c) It is the ability of ecological systems to maintain stable system properties despite perturbations.
  - (d) It is a form of programmed cell death that occurs in multicellular organisms.
- **92.** Consider the following animals:
  - 1. Bats
  - 2. Dolphins
  - 3. Whales

How many of the above mentioned animals are known to use echolocation for navigation?

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

- **93.** In the context of wetlands, consider the following statements:
  - 1. Wetlands occupy 18.4% of the country's area of which 70% are under paddy cultivation.
  - 2. The state of Tamil Nadu has the most Ramsar sites in India, followed by Assam.

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
- 94. Consider the following with respect to 'Gentiana kurroo', a plant mentioned in the news recently:
  - 1. It is endemic to Western Ghats.
  - 2. It is classified as 'critically endangered' by IUCN.
  - 3. It is known to help treat digestive disorders and urinary infection.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 95. Consider the following statements with respect to the Biodiversity Act, of 2002:
  - There is no need for prior approval of State Biodiversity Boards for obtaining biological resources for research in India for Indian researchers.
  - 2. The People's Biodiversity Register (PBR) which is a legal document that contains details of biological resources is prepared by National Biodiversity 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

## **96.** Consider the following:

- 1. Space
- 2. Food
- 3. Water

How many of the above represent structural components of Habitat in an ecosystem?

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

## **97.** Consider the following countries:

- 1. China
- 2. Hong Kong
- 3. Russia
- 4. Singapore
- 5. United States

How many of the above-mentioned countries are members of the Asia-Pacific Economic Cooperation (APEC)?

- (a) Only two
- (b) Only three
- (c) Only four
- (d) All five
- 98. With reference to the homeostasis, which of the following statements best describes a positive feedback system in an ecosystem?
  - (a) An increase in population at one level leads to further increase in its population.
  - (b) An increase in population at one level leads to a decrease in population at a lower level.
  - (c) A decrease in population level leads to increase in competition for resources.
  - (d) A sudden increase in population leads to shortage of food supply.

## **99.** Consider the following characteristics:

- 1. Fast runners
- 2. Nocturnal nature
- 3. Usually have long legs

The animals in which of the following ecosystems generally have the above characteristics?

- (a) Desert ecosystem
- (b) Grasslands ecosystem
- (c) Temperate deciduous forests ecosystem
- (d) Alpine tundra ecosystem

## **100.** Consider the following statements:

Statement-I: No two species in a habitat can have the same niche

Statement-II: If two species occupy the same niche they will compete with one another until one is displaced.

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.

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