

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

T.B.C. : STS-K-TPT
Serial No.:

Test Booklet Series

TEST BOOKLET

**Subject : Test 11 – ENVIRONMENT
Question Paper****Time Allowed : Two Hours****Maximum Marks : 200****INSTRUCTIONS**

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GOT IT REPLACED BY A COMPLETE TEST BOOKLET.

2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the Answer Sheet liable for rejection.

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 100/80 items (questions).

Each item is printed in English. Each item comprises of 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, mark the response which 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 directions in the Answer Sheet.

6. All items carry equal marks

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 Sheet as per instructions sent to you with your Admission Certificate.

8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator only the Answer Sheet. You are permitted to take away with you the Test Booklet.

9. Sheets for rough work are appended in the Test Booklet at the end.

10. Penalty for wrong answers:

THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS

(i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one third** if the marks assigned to that question will be deducted as penalty.

(ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to that question.

(iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no penalty for that question.

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1. The Central Ground Water Authority (CGWA) was constituted under which of the following legislations?

- (a) Water (Prevention and Control of Pollution) Act, 1974
- (b) Environment (Protection) Act, 1986
- (c) Groundwater (Regulation and Management) Act, 2002
- (d) National Water Policy, 2012

2. With reference to the Protection of Plant Varieties and Farmers' Rights Act, 2001, consider the following statements:

- 1. A farmer who has bred or developed a new plant variety is eligible for registration and is granted rights similar to those of a plant breeder.
- 2. The Act acknowledges the role of farmers in plant breeding but does not recognize the contributions of commercial plant breeders.

Which of the statements given above is/are correct?

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

3. Which of the following Ramsar sites is recognized as the world's only floating national park?

- (a) Sambhar Lake
- (b) Loktak Lake
- (c) Pong Dam Lake
- (d) Deepor Beel

4. With reference to wetland ecosystems, consider the following statements:

- 1. Wetlands act as carbon sinks, helping mitigate climate change.
- 2. Wetlands contribute to groundwater recharge by enhancing water percolation.
- 3. Wetlands are highly resistant to eutrophication due to their natural filtration capacity. Which of the statements given above are correct?

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

5. Match the following wetlands with their respective superlative records in India:

Wetland	Record
(A) Wular Lake	(1) Largest Freshwater Lake
(B) Chilika Lake	(2) Largest Brackish Water Lagoon
(C) Vembanad Lake	(3) Longest Lake
(D) Sambhar Lake	(4) Largest Inland Saltwater Lake

Select the correct answer using the codes given below:

- (a) A-1, B-2, C-3, D-4
- (b) A-2, B-1, C-4, D-3
- (c) A-3, B-4, C-1, D-2
- (d) A-4, B-3, C-2, D-1

6. Consider the following statements regarding competition in ecological systems:

- 1. Exploitation competition occurs when species indirectly compete by depleting shared resources.
 - 2. Interference competition occurs when one species directly prevents another from accessing resources.
 - 3. Competitive exclusion principle states that species occupying identical niches can coexist in the long term. Which of the statements given above are correct?
- (a) 1 and 2 only
 - (b) 2 and 3 only
 - (c) 1 and 3 only
 - (d) 1, 2, and 3

7. Soil Organic Carbon (SOC), recently seen in the news, refers to which of the following?

- (a) Carbon released as a result of organic farming practices
- (b) Proportion of carbon emitted due to fertilizer application
- (c) Carbon generated during crop residue (stubble) burning
- (d) Quantity of carbon stored within soil organic matter

8. A species that is introduced into a habitat where it does not naturally occur is referred to as:

- (a) Vulnerable species
- (b) Rare species
- (c) Endangered species
- (d) Exotic species

9. With reference to *Project Elephant*, consider the following statements:

1. It is a Centrally Sponsored Scheme launched in 1992.
2. The project is implemented across all States of India.
3. The first notified Elephant Reserve was the Singhbhum Elephant Reserve in Jharkhand.

Which of the statements given above are incorrect?

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

10. With reference to ecological classifications of species, consider the following pairs:

1. Keystone species – Species that plays a critical and disproportionate role in maintaining ecosystem structure
2. Flagship species – Species chosen to represent and promote conservation of a particular habitat or cause
3. Foundation species – Species that significantly shapes community structure and may occupy various trophic levels
4. Indicator species – Species whose presence or absence reflects specific environmental conditions

Which of the pairs given above are correctly matched?

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

11. Match the following types of coral reefs with their characteristic features:

List I (Type of Reef)	List II (Characteristic Feature)
A. Barrier Reefs	1. Located close to the shore
B. Patch Reefs	2. Lagoon present at the center
C. Fringing Reefs	3. Run parallel to the coastline
D. Atolls	4. Small, isolated reef structures

Select the correct answer using the code below:

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

12. Which of the following international agreements governs the safe handling, transport, and use of GMOs?

- (a) Kyoto Protocol
- (b) Cartagena Protocol on Biosafety
- (c) Ramsar Convention
- (d) Basel Convention

13. Coastal Zone Management Authorities (CZMA) were established under which environmental framework in India?

- (a) EPA, 1986 (Coastal Regulation Zone Notification, 1991)
- (b) Biodiversity Act, 2002
- (c) Water (Prevention and Control of Pollution) Act, 1974
- (d) Hazardous Waste Management Rules, 1989

14. Which of the following best describes the purpose of the 'Terminator Seed Technology'?

- (a) To develop drought-resistant crops by modifying genes.
- (b) To ensure seeds are sterile after one planting season, preventing farmers from reusing harvested seeds.
- (c) To increase pest resistance in crops without pesticide use.
- (d) To improve the nutritional quality of staple crops like rice and wheat.

15. With reference to the National Green Tribunal (NGT), consider the following statements:

1. The NGT was established under the Environmental Protection Act, 1986.
 2. The NGT has the power to hear cases related to the Water Act, 1974, Air Act, 1981, and the Forest Conservation Act, 1980.
 3. The NGT follows the principle of Natural Justice and aims to dispose of environmental cases within 6 months. Which of the statements given above are correct?
- (a) 1 and 2 only
 - (b) 2 and 3 only
 - (c) 1 and 3 only
 - (d) 1, 2, and 3

16. The Genetic Engineering Appraisal Committee (GEAC), established under the Environmental Protection Act, 1986, is responsible for regulating:

- (a) Environmental clearances for industrial projects
- (b) Wildlife protection and forest management
- (c) The release and commercial use of Genetically Modified Organisms (GMOs)
- (d) Waste management and hazardous chemical disposal

17. With reference to the Genetic Engineering Appraisal Committee (GEAC), consider the following statements:

1. The GEAC functions under the Ministry of Science and Technology in India.
2. The GEAC is responsible for approving the environmental release of GMOs and their commercial cultivation.
3. The GEAC regulates the import, export, and storage of GMOs in India.

Which of the statements given above are correct?

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

18. Which of the following best describes "Biodiversity Coldspots"?

- (a) Regions with high endemism and high levels of habitat loss
- (b) Regions with high biodiversity and low levels of habitat degradation
- (c) Regions with low biodiversity and relatively stable habitats (low habitat loss)
- (d) Regions with low biodiversity but experiencing high habitat destruction

19. With reference to *Sacred Groves* in India, consider the following statements:

1. These are forest patches preserved by local communities where exploitation or disturbance is traditionally prohibited.
2. They are associated with nature worship, especially among tribal and rural communities.
3. Species such as Mahua and Kadamba are commonly found in these groves.

Which of the statements given above is/are correct?

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

20. With reference to ecological interactions, consider the following examples:

1. Cattle egrets feeding on insects disturbed by grazing cattle
2. Orchids growing on the trunks of trees in forests
3. Cuckoos laying their eggs in the nests of crows
4. Honeybees pollinating flowers in return for nectar

Which of the above represent examples of *commensalism*?

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

21. Which one of the following correctly matches the ecological category with its characteristic feature?

- (a) Eurythermal — Species restricted to narrow temperature ranges.
- (b) Stenohaline — Species adapted to a wide range of salinity conditions.
- (c) Euryphotic — Species that survive across varying light intensities.
- (d) Stenoionic — Species that can tolerate highly variable pH conditions.

22. Which of the following statements best explains why the Vembanad Kol Wetland is ecologically significant?

- (a) It is the largest high-altitude lake in India, located in Ladakh.
- (b) It is a brackish water lagoon, home to the endangered saltwater crocodile.
- (c) It is the longest lake in India, known for supporting below-sea-level farming in the Kuttanad region.
- (d) It is a natural sedimentation reservoir formed by the deposition of river silt.

23. Which of the following best describes the term Bioeconomy that has been gaining prominence in recent environmental discussions?

- (a) Economic activities driven by biological resources like crops, forests, and algae.
- (b) Use of living organisms to clean up environmental pollutants.
- (c) Development of eco-friendly plastics to reduce plastic waste.
- (d) Ethical concerns regarding the misuse of personal genetic data.

24. Consider the following Ramsar sites and their associated states:

Wetland	State
Sarsai Nawar Jheel	(1) Uttar Pradesh
Hokera Wetland	(2) Jammu Kashmir
Sundarbans Wetland	(3) Odisha
Nanda Lake	(4) Goa

Which of the pairs given above are correctly matched?

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

25. Which of the following terms refers to the technique that uses microorganisms to extract valuable metals from ores or mine waste?

- (a) Bioprospecting
- (b) Bioremediation
- (c) Biomining
- (d) Bioeconomy

26. Which of the following wetlands is known for being the largest inland saltwater lake in India?

- (a) Sambhar Lake
- (b) Pulicat Lake
- (c) Chilika Lake
- (d) Vembanad Lake

27. Match the following Ramsar sites with their unique geographical features:

Wetland	Unique Feature
(A) Kolleru Lake	(1) Largest Shallow Freshwater Lake
(B) Kabartal Wetland	(2) Largest Freshwater Oxbow Lake
(C) Loktak Lake	(3) World's Only Floating National Park
(D) Pong Dam Lake	(4) Largest Artificial Wetland in India

Select the correct answer using the codes given below:

- (a) A-1, B-2, C-3, D-4
- (b) A-2, B-1, C-4, D-3
- (c) A-3, B-4, C-2, D-1
- (d) A-4, B-3, C-1, D-2

28. Consider the following pairs regarding emerging biotech terms and their descriptions:

Term	Description
Bioprinting	Printing of biological tissues using 3D printing technology.
Biofortification	Genetic modification of crops to enhance nutritional value.
Biopharming	Using engineered animals to produce pharmaceutical drugs.
Biodegradable Plastics	Use of synthetic polymers that resist decomposition.

Which of the pairs given above are correctly matched?

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

29. With reference to Biodiversity Management Committees (BMCs) in India, consider the following statements:

1. BMCs are constituted at the village, panchayat, or urban local body levels to promote biodiversity conservation.
2. The primary function of a BMC is to prepare a People's Biodiversity Register (PBR), which documents local biological resources and traditional knowledge.
3. BMCs function under the supervision of the Ministry of Environment, Forest and Climate Change (MoEF&CC).

Which of the statements given above are correct?

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

30. Consider the following pairs regarding types of species interactions and their characteristics:

Interaction Type	Characteristic
Predation	One species kills and consumes another species.
Parasitism	Both species benefit, but one gains more than the other.
Commensalism	One species benefits while the other is neither helped nor harmed.
Amensalism	One species suffers while the other remains unaffected.

Which of the pairs given above are correctly matched?

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

31. With reference to Biodiversity Hotspots, consider the following statements:

1. A biodiversity hotspot must have at least 1,500 vascular plant species as endemics.
 2. A region must have lost at least 70% of its original habitat to qualify as a biodiversity hotspot.
 3. India is home to four biodiversity hotspots — the Himalaya, Western Ghats, Indo-Burma, and Sundaland.
- Which of the statements given above are correct?

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

32. With reference to the Asiatic Lion Reintroduction Program in India, consider the following statements:

1. The Kuno-Palpur Wildlife Sanctuary in Madhya Pradesh was identified as a suitable site for establishing a second wild population of Asiatic lions.
2. The primary objective of the program is to reduce the risk posed by the entire Asiatic lion population being confined to Gir National Park in Gujarat.
3. The reintroduction program faced delays due to concerns over disease transmission, habitat suitability, and opposition from the Gujarat government.

Which of the statements given above are correct?

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

33. Consider the following pairs regarding types of mutualism and their examples:

Type of Mutualism	Example
Obligate Mutualism	Fig tree and Fig wasp
Facultative Mutualism	Birds and fruiting plants
Defensive Mutualism	Termites and gut microbes
Trophic Mutualism	Ants and Acacia trees

Which of the pairs given above are correctly matched?

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

34. The term “species diversity” refers to which of the following?

- (a) Genetic variation within a particular species
- (b) The count of species present in a given area
- (c) Diversity of habitats and ecological processes within an ecosystem
- (d) The number of species and their relative abundance within a defined region

35. According to the latest India State of Forest Report (ISFR) 2023, which of the following states recorded the largest decrease in mangrove cover?

- (a) Andhra Pradesh
- (b) Gujarat
- (c) Odisha
- (d) West Bengal

36. The Wildlife Protection (Amendment) Act, 2022 introduced new provisions for Invasive Alien Species. Consider the following statements:

1. The central government has been given the power to regulate, control, and prohibit the import, trade, or possession of invasive alien species.
2. The Act defines invasive alien species as non-native species that pose a threat to local ecosystems and biodiversity.
3. The Chief Wildlife Warden has been given exclusive power to declare a species as invasive based on scientific advice.

Which of the statements given above are correct?

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

37. Consider the following pairs regarding species and their ecological tolerance:

Species	Ecological Category
Salmon	Euryhaline
Goldfish	Stenohaline
Coral Reefs	Eurythermal
Trout	Stenoxic

Which of the pairs given above are correctly matched?

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

38. Consider the following statements regarding Parasitism:

1. Endoparasites like tapeworms reside inside the host's body and absorb nutrients directly.

2. Ectoparasites like ticks and fleas attach to the host's external body for nourishment.

3. Mesoparasites live partially inside and partially outside the host's body.

4. Obligate parasites can survive independently but prefer parasitic behavior under favorable conditions.

Which of the statements given above are correct?

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

39. With reference to Genetically Modified Organisms (GMOs) in India, consider the following statements:

1. Bt Cotton is the only genetically modified crop that has been approved for commercial cultivation in India.

2. The Genetic Engineering Appraisal Committee (GEAC) is the regulatory body responsible for approving environmental release of GMOs in India.

3. Golden Rice, a genetically modified crop enriched with Vitamin A, has been approved for commercial cultivation in India to combat malnutrition. Which of the statements given above are correct?

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

40. Which of the following factors can pose threats to biodiversity in a given geographical area?

- 1. Global warming
- 2. Habitat fragmentation
- 3. Invasion by alien species
- 4. Promotion of vegetarianism

Select the correct answer using the code below:

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

41. With reference to ecological concepts, consider the following pairs:

- 1. Antibiosis – Production of substances by one organism that are harmful to other organisms
- 2. Homeostasis – Maintenance of a stable internal equilibrium in a system
- 3. Symbiosis – Close association between species in which both derive benefit

Which of the pairs given above are correctly matched?

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

42. With reference to habitat fragmentation, consider the following statements:

- 1. Habitat fragmentation refers to the breaking up of continuous habitats into smaller, isolated patches due to natural or anthropogenic causes.
- 2. The adverse effects of habitat fragmentation can be mitigated by establishing ecological corridors between fragmented patches.
- 3. Run-of-the-River (RoR) hydroelectric projects, due to the absence of large reservoirs, do not contribute to habitat fragmentation.

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

43. With reference to global patterns of biodiversity, consider the following statements:

- 1. Species diversity generally declines from the equatorial regions towards the polar regions.
- 2. Species richness tends to increase from higher latitudes to lower latitudes due to favourable climate and resource availability.
- 3. The Arctic tundra supports greater species richness than tropical rainforests.

Which of the statements above are correct?

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

44. Which of the following pairs are correctly matched?
1. Hydroponics – Growing plants without soil
 2. Red Tide – Harmful Algal Blooms
 3. Winter Kill – Ice sheets restricting sunlight
 4. Timberline – Trees do not grow above this line

Select the correct answer:

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

45. Consider the following examples:

1. Vultures feeding on animal carcasses left by predators
2. Hermit crabs occupying empty snail shells
3. Barnacles growing on the shell of a turtle
4. Penicillium fungi releasing chemicals that inhibit bacterial growth

Which of the above represents an example of Amensalism?

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

46. Consider the following Ramsar wetlands and their corresponding rivers:

Wetland	River
(A) Wular Lake	(1) Jhelum River
(B) Asan Conservation Reserve	(2) Yamuna River
(C) Ansupa Lake	(3) Mahanadi River
(D) Ranganathittu Bird Sanctuary	(4) Kaveri River

Which of the pairs given above are correctly matched?

- (a) A-1, B-2, C-3, D-4
- (b) A-2, B-1, C-4, D-3
- (c) A-1, B-3, C-2, D-4
- (d) A-3, B-4, C-1, D-2

47. Which of the following is a genetically modified crop that has been developed in India to improve oil content?

- (a) Bt Brinjal
- (b) Golden Rice
- (c) GM Mustard (Dhara Mustard Hybrid-11 or DMH-11)
- (d) Flavr Savr Tomato

48. With reference to algae, consider the following statements:

1. Algae are capable of performing photosynthesis and play a crucial role as primary producers in aquatic ecosystems.
2. Some species of algae like Spirulina are used as a rich source of protein and vitamins in human diets.
3. Red algae are predominantly found in freshwater ecosystems, while green algae dominate marine ecosystems.

Which of the statements given above are correct?

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

49. Which of the following biosphere reserves was the first to be established in India?

- (a) Nilgiri Biosphere Reserve
- (b) Sundarbans Biosphere Reserve
- (c) Nanda Devi Biosphere Reserve
- (d) Gulf of Mannar Biosphere Reserve

50. Match the following lakes with their formation type and distinctive features:

Lake	Formation Type	Distinctive Feature
A. Wular Lake	1. Tectonic activity	(i) Largest freshwater lake in India
B. Loktak Lake	2. Floodplain formation	(ii) Home to the world's only floating national park
C. Lonar Lake	3. Meteorite impact	(iii) India's only crater lake
D. Pulicat Lake	4. Lagoon (sediment deposition)	(iv) Lagoon formed by sediment deposition
E. Rudrasagar Lake	5. Floodplain (no rock base)	(v) Heavy sediment deposition (up to ~50 m)

Select the correct answer using the code below:

- (a) A-1-i, B-2-ii, C-3-iii, D-4-iv, E-5-v
- (b) A-2-i, B-1-ii, C-3-iii, D-4-v, E-5-iv
- (c) A-1-iii, B-4-i, C-2-v, D-3-iv, E-5-ii
- (d) A-3-i, B-2-ii, C-1-iii, D-4-v, E-5-iv

51. With reference to the revised Schedules in the Wildlife Protection (Amendment) Act, 2022, which of the following pairs is correctly matched?

Schedule	Key Feature
(A) Schedule I	(1) Species with the highest protection status
(B) Schedule II	(2) Species requiring lesser protection
(C) Schedule III	(3) Plants protected from exploitation
(D) CITES Schedule	(4) Species listed under the Convention on International Trade in Endangered Species (CITES)

Select the correct answer using the codes given below:

- (a) A-1, B-2, C-3, D-4
- (b) A-1, B-3, C-2, D-4
- (c) A-2, B-1, C-4, D-3
- (d) A-4, B-3, C-2, D-1

52. Consider the following statements regarding ecological adaptations:

1. Euryhydric species can survive in both drought-prone and moisture-rich environments.
2. Stenothermal species are often found in stable ecosystems like coral reefs and Arctic zones.
3. Euryhaline species are commonly found in coastal regions with fluctuating salinity levels.

Which of the statements given above are correct?

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

53. Consider the following pairs regarding ecological tolerance categories and their corresponding examples:

Ecological Category	Example
Eurythermal	Cockroach
Stenohaline	Salmon
Euryphotic	Deep-sea fish
Stenoxic	Trout

Which of the pairs given above are correctly matched?

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

54. With reference to ethanol production in India, consider the following statements:

1. Ethanol can be produced from bagasse, a by-product of the sugar industry.
2. The Government discourages ethanol production from sugarcane as it may lead to excessive cultivation of sugarcane.

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. Arrange the following Biosphere Reserves in India from South to North:

1. Seshachalam
2. Panna
3. Nokrek
4. Nanda Devi

Select the correct order using the code below:

- (a) Nanda Devi → Panna → Nokrek → Seshachalam
- (b) Panna → Nokrek → Seshachalam → Nanda Devi
- (c) Seshachalam → Panna → Nokrek → Nanda Devi
- (d) Seshachalam → Panna → Nanda Devi → Nokrek

56. With reference to viruses, consider the following statements:

1. Viruses are obligate intracellular parasites and can replicate only within a host cell.
2. Viruses possess both DNA and RNA simultaneously as their genetic material.
3. The capsid is a protein coat that protects and encloses the viral genetic material.

Which of the statements given above are correct?

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

57. With reference to 'fire lines' in forest management, consider the following statements:

1. A fire line is a cleared strip devoid of vegetation that acts as a barrier to the spread of wildfires.
2. Certain man-made features such as roads and railway lines can function as fire lines.

Which of the statements given above are correct?

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

58. With reference to biodiversity concepts, consider the following statements:

1. Alpha diversity refers to the species diversity within a specific habitat or local area.
2. Beta diversity measures the variation in species composition between two different ecosystems or habitats.
3. Gamma diversity is the total species diversity across multiple ecosystems in a broader geographic region.

Which of the statements given above are correct?

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

59. With reference to the Cartagena Protocol on Biosafety, consider the following statements:

1. The Cartagena Protocol is an international agreement under the Convention on Biological Diversity (CBD) that aims to ensure the safe handling, transport, and use of living modified organisms (LMOs).
2. The protocol applies specifically to genetically modified crops and excludes other genetically modified organisms like bacteria and animals.
3. The Advance Informed Agreement (AIA) procedure under the protocol ensures that countries are informed before the first import of LMOs intended for introduction into the environment.

Which of the statements given above are correct?

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

60. Which of the following wetlands is known for the presence of the endangered Indus River dolphin?

- (a) Surinsar-Mansar Lakes
- (b) Beas Conservation Reserve
- (c) Nanda Lake
- (d) Renuka Wetland

61. With reference to the Wildlife Protection (Amendment) Act, 2022, consider the following statements regarding penalties and enforcement:

1. The fine for violating the provisions of the Act has been increased to ₹1 lakh for general offenses.

2. The amendment makes voluntary surrender of captive animals illegal, and no compensation will be provided to the owners in such cases.

3. The Act imposes stricter penalties for offenses against species listed under Schedule I and CITES-listed species.

Which of the statements given above are correct?

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

62. Which of the following correctly describes the origin of State Pollution Control Boards (SPCBs) in India?

- (a) Established under the Environment Protection Act, 1986
- (b) Formed under the Air (Prevention and Control of Pollution) Act, 1981
- (c) Established under the Water (Prevention and Control of Pollution) Act, 1974
- (d) Created by the Forest Conservation Act, 1980

63. Consider the following Ramsar sites and their unique features:

Wetland	Unique Feature
(A) Pong Dam Lake	(1) A man-made reservoir formed on the Beas River.
(B) Bhitarkanika Mangroves	(2) Known for India's largest population of saltwater crocodiles.
(C) Chilika Lake	(3) Largest brackish water lagoon in Asia.
(D) Sasthamkotta Lake	(4) Freshwater lake with water purified by cavaborus larvae.

Select the correct answer using the codes given below:

- (a) A-1, B-2, C-3, D-4
- (b) A-2, B-1, C-4, D-3
- (c) A-1, B-3, C-2, D-4
- (d) A-3, B-4, C-1, D-2

64. With reference to the Ramsar Convention on Wetlands, consider the following statements:

1. It was adopted in Ramsar, Iran, in 1971 and came into force in 1975.

2. It is formally affiliated with the United Nations system as a multilateral environmental agreement.

3. 2nd February is observed annually as World Wetlands Day.

Which of the statements given above is/are incorrect?

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

65. Which of the following best explains why species richness is higher in tropical regions compared to polar regions?

- (a) Tropical regions experience lower competition for resources, enabling more species to thrive.
- (b) Tropical ecosystems are less affected by seasonal changes, providing stable environmental conditions.
- (c) Polar regions receive more sunlight throughout the year, favoring fewer but specialized species.
- (d) Tropical regions have reduced soil fertility, which limits the dominance of a single species, promoting diversity.

66. Which of the following statements best defines the relationship between the Yucca plant and the Yucca moth?

- (a) Commensalism, as the moth benefits from the plant without affecting it.
- (b) Obligate Mutualism, as neither species can survive or reproduce without the other.
- (c) Parasitism, as the moth larvae consume the seeds of the plant.
- (d) Amensalism, as one species is harmed while the other is unaffected.

67. Which of the following ecological interactions is considered an example of Facultative Mutualism?

- (a) Lichens, where algae and fungi are interdependent.
- (b) Ants protecting aphids in exchange for honeydew secretion.
- (c) Mycorrhizal fungi forming a symbiotic relationship with plant roots.
- (d) Fig tree and Fig wasp relying exclusively on each other for survival.

68. Match the following forestry practices with their correct descriptions:

List I	List II
A. Community Forestry	1. Integration of forestry with agricultural practices
B. Social Forestry	2. Farmers cultivate trees for commercial and domestic use
C. Farm Forestry	3. Management and protection of forests on degraded/barren lands
D. Agro-Forestry	4. Planting and management of trees on public/community lands

Select the correct answer using the code below:

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

69. With reference to Biosphere Reserves, consider the following statements:

1. Core Zone is strictly protected for conservation of ecosystems and biodiversity.
2. Buffer Zone focuses on equitable sharing of benefits among local communities.
3. Transition Zone allows sustainable use of natural resources.
4. Biosphere Reserves in India are declared under the Wildlife (Protection) Act, 1972.

Which of the statements given above are correctly matched?

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

70. According to the India State of Forest Report (ISFR) 2023, which of the following states possesses the highest forest carbon stock in India?

- (a) Chhattisgarh
- (b) Madhya Pradesh
- (c) Maharashtra
- (d) Arunachal Pradesh

71. With reference to the Wildlife (Protection) Amendment Act, 2022, consider the following statements:

1. The amendment rationalised the number of schedules, reducing them from six to four.
2. It introduced a separate schedule to regulate species covered under the Convention on International Trade in Endangered Species (CITES).
3. The amendment specifically enhanced protection for marine species by placing them under Schedule II.

Which of the statements given above are correct?

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

72. Consider the following statements regarding the International Big Cat Alliance (IBCA):

1. The IBCA focuses on the conservation of seven big cat species: Tiger, Lion, Leopard, Snow Leopard, Puma, Jaguar, and Cheetah.
2. India is one of the founding members of the IBCA and hosts its headquarters.
3. The IBCA is open exclusively to countries where these big cat species are native.

Which of the statements given above is/are correct?

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

73. With reference to the *Coalition for Disaster Resilient Infrastructure (CDRI)*, consider the following statements:

1. It was launched by the Prime Minister of India at the United Nations General Assembly in 2019.
2. It is a financial institution that provides funds to countries affected by natural disasters.

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. With reference to the Wildlife Protection (Amendment) Act, 2022, consider the following statements regarding the surrender of captive animals:

1. Any individual in possession of a captive animal listed under Schedule I can voluntarily surrender it to the Chief Wildlife Warden.
2. Upon surrender, the ownership certificate of the captive animal is canceled, and the animal becomes state property.
3. The Act mandates that individuals who surrender their captive animals are entitled to monetary compensation for their loss.

Which of the statements given above are correct?

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

75. In terms of percentage of geographical area under forest cover, which of the following has the highest coverage as per ISFR 2023?

- (a) Andaman & Nicobar Islands
- (b) Lakshadweep
- (c) Mizoram
- (d) Arunachal Pradesh

76. Regarding the India State of Forest Report (ISFR) 2023, consider the following statements:

1. The total forest and tree cover in India is 8,27,356.95 km², accounting for 25.17% of the country's geographical area.
2. The forest cover constitutes 21.76%, while the tree cover accounts for 3.41% of the total geographical area.
3. There has been a net increase of 1,445 km² in forest and tree cover compared to the previous assessment in 2021.

Which of the statements given above are correct?

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

77. Match the following types of fungi with their ecological roles and examples:

Type of Fungi	Ecological Role	Example
A. Saprophytic fungi	1. Decomposers	(i) Mushrooms, molds
B. Parasitic fungi	2. Pathogens	(ii) <i>Puccinia</i>
C. Mycorrhizal fungi	3. Symbiotic nutrient enhancers	(iii) <i>Glomus</i> species
D. Lichen-forming fungi	4. Symbiosis with algae	(iv) Lichens

Select the correct answer using the code below:

- (a) A-1-i, B-2-ii, C-3-iii, D-4-iv
- (b) A-1-ii, B-2-i, C-3-iv, D-4-iii
- (c) A-3-i, B-4-ii, C-1-iii, D-2-iv
- (d) A-4-iv, B-3-i, C-2-ii, D-1-iii

78. Consider the following Indian laws and their relevance to GMOs:

Law/Regulation	Purpose
(A) Environment Protection Act, 1986	Regulates the release of GMOs into the environment.
(B) Biodiversity Act, 2002	Protects traditional knowledge and genetic resources.
(C) Seed Act, 1966	Regulates the production, quality, and sale of GMO seeds.
(D) Food Safety and Standards Act, 2006	Regulates the safety of GMO-based food products.

Which of the pairs given above are correctly matched?

- (a) A and B only
- (b) A, B, and D only
- (c) B, C, and D only
- (d) A, B, C, and D

79. With reference to the impact of weathering on biodiversity, consider the following statements:

1. Chemical weathering is more dominant in tropical regions, contributing to higher soil fertility and species richness.
2. Physical weathering dominates in arid and cold regions, resulting in nutrient-poor soils that support limited biodiversity.
3. Ecosystems influenced by chemical weathering are generally more stable and less prone to invasive species colonization.

Which of the statements given above are correct?

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

80. Which of the following pairs regarding types of fungi and their ecological roles are correctly matched?

Type of Fungi	Ecological Role
Saprophytic Fungi	Decompose dead organic matter
Parasitic Fungi	Form mutualistic associations with plants
Mycorrhizal Fungi	Enhance nutrient absorption in plant roots
Lichen-forming Fungi	Decompose complex organic compounds

Select the correct answer using the codes given below:

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

81. With reference to the Central Pollution Control Board (CPCB), consider the following statements:

1. The CPCB was established under the Environmental Protection Act, 1986 as the apex pollution control authority in India.
2. The CPCB is responsible for implementing the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
3. The Ministry of Environment, Forest and Climate Change (MoEF&CC) oversees the functioning of the CPCB.

Which of the statements given above are correct?

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

82. The Environmental Impact Assessment (EIA) system was formally introduced in India under which of the following acts or notifications?

- (a) Environment Protection Act, 1986
- (b) Wildlife Protection Act, 1972
- (c) Air (Prevention & Control of Pollution) Act, 1981
- (d) EIA Notification, 2006

83. Regarding the implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) under the Wildlife Protection (Amendment) Act, 2022, consider the following statements:

1. The Act designates a Management Authority responsible for issuing permits and certificates for the trade of scheduled specimens.

2. A Scientific Authority is established to advise on the impact of trade on the survival of species listed in the CITES Appendices.

3. The Act prohibits all international trade of species listed under CITES Appendices.

Which of the statements given above are correct?

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

84. Match the following international agreements/protocols with their objectives and key features:

Agreement/ Protocol	Objective	Key Feature
A. Cartagena Protocol	1. Regulation of GMOs/LMOs	(i) Advance Informed Agreement (AIA)
B. Nagoya Protocol	2. Access and benefit sharing of genetic resources	(ii) Benefit-sharing with local communities
C. Aichi Targets	3. Biodiversity conservation goals (2010–2020)	(iii) 20 Strategic Targets
D. Kunming–Montreal Global Biodiversity Framework	4. Biodiversity protection by 2030	(iv) 30×30 target

Select the correct answer using the code below:

- (a) A-1-i, B-2-ii, C-3-iii, D-4-iv
- (b) A-3-iii, B-2-iv, C-4-ii, D-1-i
- (c) A-2-ii, B-3-iii, C-1-i, D-4-iv
- (d) A-1-iv, B-2-ii, C-3-i, D-4-iii

85. Consider the following interactions in nature:

1. Fleas feeding on the blood of mammals

2. Clownfish living among sea anemones for protection

3. Cleaner wrasse fish removing parasites from larger fish

4. Tapeworms residing in the intestines of cattle

Which of the above represents a commensal relationship?

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

86. Which of the following is the best example of Interspecific Competition?

- (a) A lion and a leopard competing for prey in the same region.
- (b) Two ant colonies of the same species competing for territory.
- (c) Cattle grazing on grass in an open field.
- (d) A parasite infecting two different hosts.

87. With reference to the relationship between weathering and biodiversity, consider the following statements:

1. Weathering enhances soil formation by breaking down rocks, which contributes to nutrient availability for plant growth.

2. Regions with intense chemical weathering generally support higher biodiversity due to nutrient-rich soils.

3. Physical weathering in arid and cold regions accelerates biodiversity growth by creating deep fertile soil layers.

Which of the statements given above are correct?

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

88. With reference to the Cheetah Reintroduction Program in India, consider the following statements:

1. The Cheetah Reintroduction Program aims to introduce the African Cheetah as a substitute for the extinct Asiatic Cheetah in India.

2. The Kuno National Park in Madhya Pradesh was selected as the primary site for cheetah reintroduction due to its suitable grassland ecosystem.

3. The project is part of India's commitment to the Convention on Migratory Species (CMS), under which the cheetah is listed as a vulnerable species.

4. The last recorded Asiatic cheetah in India was spotted in the Palamau Tiger Reserve, Jharkhand, before its declared extinction in 1952.

Which of the statements given above are correct?

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

89. With reference to adaptations of animals to desert environments, consider the following features:

- 1. Ability to run fast
- 2. Nocturnal behaviour
- 3. Presence of short legs in animals and birds
- 4. Excretion of highly concentrated urine

Which of the above are characteristic adaptations to desert conditions?

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

90. A network of protected areas across the world, designed to showcase the balance between biodiversity conservation and sustainable development, is referred to as:

- (a) National Parks
- (b) Wildlife Sanctuaries
- (c) Biosphere Reserves
- (d) Community Reserves

91. The Wildlife Protection (Amendment) Act, 2022, introduced new provisions regarding Wildlife Corridors. Consider the following statements:

- 1. The Act defines wildlife corridors as ecological zones meant to facilitate the safe movement of wildlife between protected areas.
- 2. The amendment empowers the Chief Wildlife Warden to notify and manage wildlife corridors in their respective states.
- 3. Wildlife corridors have been given the same protection status as National Parks and Wildlife Sanctuaries under the new amendment. Which of the statements given above are correct?
 - (a) 1 and 2 only
 - (b) 2 and 3 only
 - (c) 1 and 3 only
 - (d) 1, 2, and 3

92. Consider the following statements regarding Ramsar Wetlands in India:

1. Kolleru Lake in Andhra Pradesh is a freshwater lake located between the Krishna and Godavari deltas.

2. Wular Lake in Jammu and Kashmir is a brackish water lake formed due to tectonic activity.

3. Loktak Lake in Manipur is known for its floating phumdis and is home to the Keibul Lamjao National Park.

Which of the statements given above are correct?

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

93. With reference to biodiversity assessment, consider the following statements:

1. Species Richness refers to the number of different species present in a given area, irrespective of their population size.

2. Species Evenness measures the distribution of individuals across various species in a community.

3. A community with high species richness will always have high species evenness.

Which of the statements given above are correct?

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

94. With reference to fungi, consider the following statements:

1. Fungi are eukaryotic organisms that lack chlorophyll and obtain nutrients through absorption.

2. Most fungi reproduce through spores, which can be dispersed by air, water, or animals.

3. Unlike plants, fungi have cell walls composed of cellulose, which provides structural support.

Which of the statements given above are correct?

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

95. Which of the following statements best explains why viruses are considered an exception in the classification of living organisms?

(a) Viruses can perform respiration and metabolism without a host cell.

(b) Viruses lack cellular structure but can replicate inside a host cell.

(c) Viruses possess both DNA and RNA simultaneously, making them unique.

(d) Viruses can reproduce independently like bacteria under favorable conditions.

96. Consider the following statements regarding Ramsar Wetlands in India:

1. Sundarbans Wetland in West Bengal is the largest Ramsar site in India.

2. Renuka Wetland in Himachal Pradesh is the smallest Ramsar site in India.

3. The Keoladeo National Park in Rajasthan was the first site in India to be declared a Ramsar site.

Which of the statements given above are correct?

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

97. Match the following waterfalls with their respective states, rivers, and unique features:

Waterfall	State	River	Unique Feature
(A) Jog Falls	(1) Odisha	(i) Sharavati	(a) Second highest plunge waterfall in India
(B) Dudhsagar Falls	(2) Karnataka	(ii) Mandovi	(b) Known for its milky white appearance during monsoon
(C) Chitrakote Falls	(3) Goa	(iii) Indravati	(c) Widest waterfall in India, called the 'Niagara of India'
(D) Barehipani Falls	(4) Chhattisgarh	(iv) Budhabalanga	(d) Located in Simlipal National Park; a two-tiered fall

Select the correct answer using the codes given below:

- (a) A-2-i-a, B-3-ii-b, C-4-iii-c, D-1-iv-d
- (b) A-3-i-a, B-2-ii-c, C-1-iii-b, D-4-iv-d
- (c) A-1-ii-b, B-4-iii-c, C-2-i-a, D-3-iv-d
- (d) A-4-ii-c, B-3-i-a, C-2-iv-b, D-1-iii-d

98. With reference to mangrove forests, consider the following statements:

- 1.They are extensively developed in the Andaman and Nicobar Islands.
2. They provide habitat for a wide diversity of bird species.
3. They are composed of salt-tolerant (halophytic) plant species.
4. They typically occur along coasts in areas such as salt marshes, tidal creeks, and estuaries.

Which of the statements given above are correct?

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

99. Which state experienced the largest decrease in forest and tree cover according to the ISFR 2023?

- (a) Chhattisgarh
- (b) Karnataka
- (c) Madhya Pradesh
- (d) Nagaland

100. With reference to the Wildlife (Protection) Act, 1972, consider the following statements:

- 1.The Act provides for the creation of National Parks, Wildlife Sanctuaries, and Conservation Reserves.
- 2.The Act originally contained six schedules for classification of species based on the level of protection.
- 3.Hunting of wild animals is completely prohibited under all circumstances.

Which of the statements given above is/are correct?

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