

# All India Civil Services Coaching Centre

(Under the aegis of Government of Tamil Nadu)

### **TEST BOOKLET**

**NCERT Environment** 

Time Allowed: 2 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, GET IT REPLACED BY A COMPLETE TEST BOOKLET
- 2. You have to enter your Name on the Test Booklet
- 3. This Test Book contains 100 items (questions). Each it 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, mark the response, which you consider the best. In any case, choose ONLY ONE response for each item.
- 4. You have to mark all your response ONLY on the separate sheet provided along with the Test Booklet.
- 5. All items Carry equal marks. There will be **penalty (negative marking)** for wrong answers marked by you in the Answer sheet.
- 6. There are four alternatives for the answers to every question. For each question for which a wrong answer has been given by the candidate, one third (1/3) of the marks assigned to that question will be deducted as penalty.
- 7. 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 same penalty as above for that question.
- 8. If a question is left blank i.e., no answer is given by the candidate, there will be no penalty for that question.

DO NOT OPEN THIS BOOKLET UNTIL YOU AR E ASKED TO DO SO



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Time Allowed: 2 Hours Maximum Marks: 200

- 1. Which of the following is not an 'abiotic component' of ecosystem?
  - (a.) Rainfall
  - (b.) Temperature
  - (c.) Carbohydrates
  - (d.) Green plants
- 2. The term Homeostasis with reference to Ecosystem means:
  - (a.) Homely environment to all the species present in an ecosystem.
  - (b.) The capacity of an ecosystem to self regulate and maintain their state of equilibrium.
  - (c.) Necessary environment for the domina
  - (d.) The capacity of Alien species to settle in an ecosystem.
- 3. Which of the following is not an example of Ecotone?
  - (a.) Mangrove
  - (b.) Grassland
  - (c.) Estuary
  - (d.) Pond
- 4. Consider the following statements about an Ecotone:
  - It is a transition zone between two or more diverse ecosystems.
  - 2. Edge effect phenomena is related to it. Which of the above statements is/are correct?
  - (a.) 1 only
  - (b.) 2 only
  - (c.) Both 1 and 2
  - (d.) Neither 1 nor 2

- 5. Which of the following statement about Niche is incorrect?
  - (a.) It refers to the unique functional role and position of a species in its habitat or ecosystem.
  - (b.) A niche is unique for a species.
  - (c.) Two species may have exact identical niches.
  - (d.) It plays an important role in conservation of organisms.
- 6. In which of the following biomes multiple stories of broad-leafed evergreen tree species are in abundance?
  - (a.) Desert
  - (b.) Boreal forest
  - (c.) Grassland
  - (d.) Tropical rain forest
- 7. Match the following:

### Name of Biome Region

- A. Tropical rain forest 1. Devoid of trees
  - Devoid of trees except stunted shrubs
- B. Desert
- 2. Temperate conditions with low rainfall
- C. Tundra
- 3. Temperature and rainfall high
- D. Grassland
- 4. Sporadic rainfall with low humidity

Select the correct answer using the codes given below:

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

- (d.) 4 3 1 2
- 8. Which of the following statement about the Aquatic Ecosystem is incorrect?
  - (a.) Aquatic Ecosystems are type of biomes.
  - (b.) Temperature is one of the limiting factors of Aquatic Ecosystem.
  - (c.) oceans, estuary and mangroves are examples of marine ecosystems.
  - (d.) None
- 9. What is Biosphere?
  - (a.) It represents a highly integrated and interacting zone comprising of atmosphere (air), hydrosphere (water) and lithosphere (land).
  - (b.) It is the outermost layer of earth.
  - (c.) It is the collective name for all the water bodies on Earth.
  - (d.) None of the above
- 10. Consider the following statements regarding the Trophic level in an Ecosystem:
  - Producers belong to the first trophic level, herbivores to the second and carnivores to the third trophic level.
  - Organisms at each trophic level depend on those at the lower trophic level for their energy demands.
  - 3. Each trophic level has a certain mass of living material at a particular time called the standing crop.

Which of the above statements is/are correct?

- (a.) 1 and 2 only
- (b.) 1 and 3 only
- (c.) 3 only
- (d.) 1, 2 and 3
- 11. Which among the following is correct regarding the food chain in an Ecosystem?
  - (a.) It represents all the possible paths of energy flow in an ecosystem.
  - (b.) It illustrates the order in which a chain of organisms feeds upon each other.
  - (c.) The grass is eaten by a caterpillar, which

- is eaten by lizard and lizard is eaten by a snake is an example of the detritus food chain.
- (d.) The grazing food chain starts from an organic matter of dead and decaying animals.
- 12. Which of the following statements is/are correct?
  - 1. The organisms that eat the primary producers are called secondary consumers.
  - 2. Grass Grasshopper □ Frog □ Hawk □ Snake is an example of a grassland ecosystem.
  - Removal of any one trophic level from the food chain will automatically affect the entire food web.

Select the correct answer using the code given below:

- (a.) 2 only
- (b.) 3 only
- (c.) 1 and 3 only
- (d.) 2 and 3 only
- 13. Consider the following statements regarding ecological pyramids:
  - 1. An ecological pyramid is a graphical representation of a food web.
  - Pyramid of numbers represents the total number of individuals of different species, belonging to each trophic level in an ecosystem.
  - 3. Pyramid of biomass can be both upright and inverted.

- (a.) 1 and 2 only
- (b.) 2 and 3 only
- (c.) 1 and 3 only
- (d.) 1, 2 and 3
- 14. Consider the following statements regarding the Nutrient Cycling:
  - 1. It involves non-living components.
  - 2. Temperature is the only factor that

the rate of release of nutrients regulates into the atmosphere.

Which of the above statements is/are correct?

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 15. Consider the following statements regarding the hydrogen cycle:
  - 1. Evaporation of water makes the environment warm.
  - 2. Condensation of water makes the environment cool.
  - 3. The water cycle is driven by the sun's energy.

Which of the above statements is/are correct?

- (a.) 1 and 2 only
- (b.) 3 only
- (c.) 1 and 3 only
- (d.) 1, 2 and 3
- 16. Consider the following statements regarding the Hibernation:
  - 1. It is a method of Adaptation.
  - Bear goes into hibernation to avoid the summer heat and desiccation.

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 17. An ecotone is a transition area between two biomes. Which of the following species is found in this region?
  - (a.) Dominant Species
  - (b.) Indicator Species
  - (c.) Edge Species
  - (d.) Umbrella Species
- 18. Which of the following statements is correct regarding the Indicator Species?
  - (a.) It reflects a specific environmental

- condition.
- (b.) It can signal a change in the biological condition of a particular ecosystem.
- (c.) It may be used as a proxy to diagnose the health of an ecosystem.
- (d.) All of the above
- 19. Which of the following species play an important role in supporting network species as pollinators, dispersal agents, etc?
  - (a.) Surrogate Species
  - (b.) Critical Link Species
  - (c.) Indicator Species
  - (d.) Dominant Species
- 20. The process by which an organism tries to accommodate itself against the change in a physical environment like changes in altitude, temperature, humidity, photoperiod or pH, etc. is known as:
  - (a.) Acclimatization
  - (b.) Homeostasis
  - (c.) Aestivation
  - (d.) Diapause
- 21. The type of interaction in which neither species is affected by association with the other is known as:
  - (a.) Predation
  - (b.) Neutralism
  - (c.) Amensalism
  - (d.) None of the above
- 22. Which of the following principles states that two closely related species competing for the same resources cannot co-exist indefinitely and the competitively inferior one will be eliminated eventually?
  - (a.) Principles of Divergence and Natural Selection
  - (b.) The Sustainability Principle
  - (c.) Competitive Exclusion Principle
  - (d.) None of the above.

- 23. Which among the following is an example of predation?
  - (a.) Rhizobium a bacterium that is found at the root nodules of a leguminous plant.
  - (b.) Barnacles growing on the back of the whale.
  - (c.) A large tree inhibits the growth of small

plants laying nearby due to its shades,

- (d.) Interaction between Lion and Deer.
- 24. With reference to the forest ecosystem, consider the following statements:
  - The nature of local topography determines the abundance of the trees in the forest vegetation.
  - 2. Forest biomes are generally arranged on a gradient form from high to lower altitudes or from north to south latitude.

Which of the above statements is/are incorrect?

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 25. Consider the following statements pertaining to the Temperate deciduous forest:
  - 1. These are commonly inhabited by narrow-leafed trees.
  - 2. Their forest soils are characterized by podzolic soils.

Which of the above statements is/are incorrect?

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 26. Which of the following features is/are incorrect regarding the Littoral and Swamp forests found in India?
  - 1. They are found along the Andaman and Nicobar islands only.
  - 2. Soft tissues are present in their roots so

that the plant can breathe in water. Select the correct answer using the code given below:

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 27. With reference to the Montane Wet temperate forests, consider the following statements:
  - 1. These are found in the Kerala and Arunachal Pradesh.
  - 2. They receive a minimum rainfall of 2000 mm in Arunachal Pradesh.
  - 3. Oak and Champa trees are found in these forests.

Which of the above statements are correct?

- (a.) 1 and 2 only
- (b.) 2 and 3 only
- (c.) 1 and 3 only
- (d.) 1, 2 and 3
- 28. Which of the following statements is /are correct about the grasslands ecosystems?
  - 1. They are found where rainfall is about 25-75 cm per year.
  - 2. In India, they are found mainly in the high Himalayas

Select the correct answer using the code given below:

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 29. Which of the following statements is/are correct regarding the Neuston?
  - 1. These are found living at the bottom of the sea-level.
  - 2. Back-swimmers and beetles are common example of it.

Select the correct answer using the code given below:

(a.) 1 only

- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 30. What are the reasons behind the removal of the nutrients from a lake?
  - 1. Deepwater abstraction
  - 2. Harvest of fishes and macrophytes
  - 3. Removal of sludge 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
- 31. Which of the following are the effects of eutrophication?
  - (a.) Detritus layer in the ponds
  - (b.) Less penetration of sunlight
  - (c.) Depletion of dissolved oxygen level
  - (d.) All of the above
- 32. What is Red Tide?
  - (a.) It is a process in which algal blooms produce toxins that affect aquatic organisms and humans.
  - (b.) It is red color of ocean tides due to the reflection of the sunlight
  - (c.) It is a phenomenon where phytoplankton species contain pigments and "bloom" such that the human eye perceives the water to be discolored
  - (d.) None of the above.
- 33. What is the possible implication of adding fertilizer to aquatic systems?
  - (a.) Increased growth of phytoplankton and hypoxic conditions
  - (b.) Increased growth of phytoplankton and hyperoxic conditions
  - (c.) Decreased growth of phytoplankton and hypoxic conditions
  - (d.) Decreased growth of phytoplankton and

#### hyperoxic conditions

- 34. The different variety of living organism present on the earth is known as:
  - (a.) Community diversity
  - (b.) Genetic diversity
  - (c.) Species diversity
  - (d.) Ecosystem diversity
- 35. What do you understand by Community/ Ecosystem diversity?
  - (a.) It is a variety of different types of habitats in an area.
  - (b.) It is the diversity of living creatures found in a food chain.
  - (c.) It defines the different natural services provided by plants for human beings.
  - (d.) It is the diversity of a scientifically planned collection of living trees, shrubs etc. from various parts of the world.
- 36. Which of the following does not come under the category of Biological services provided by the Biodiversity?
  - (a.) Breeding stocks
  - (b.) Wood products
  - (c.) Recreation and tourism
  - (d.) Medicinal resources and pharmaceutical drugs
- 37. Which among the following is not an example of the Insect class of Invertebrates?
  - (a.) Clam
  - (b.) Moth
  - (c.) Dragonfly
  - (d.) Praying mantis
- 38. What are Saprophytes?
  - (a.) It is a class of flower-bearing plants.
  - (b.) These are organisms that grow on dead and organic matters.
  - (c.) It is a group of marine plants that survive in deep seawater.
  - (d.) None of the above.

- 39. Extensive grasslands interspersed with densely forested gorges of evergreen vegetation represent the flora of which Indian regions?
  - (a.) Peninsular Indian region of Ganga River System
  - (b.) Himalayan Foothill region
  - (c.) The tropical Rain forest of Western Ghats
  - (d.) Semi-arid areas of Aravalli
- 40. What do you understand by the term 'Epiphytes'?
  - (a.) These are organisms that draw a part or whole of its nourishment from another living organism.
  - (b.) These are plants that grow on the host plant but do not get nourishment from the host plant.
  - (c.) It is a group of plants that do not bear leaves throughout the seasons.
  - (d.) It is a group of insectivorous plants.
- 41. Which among the following is/are invasive alien flora of India?
  - (a.) Needle Bush
  - (b.) Black Wattle
  - (c.) Goat Weed
  - (d.) All of the above
- 42. Which of the following statement is incorrect regarding deciduous types of trees?
  - (a.) They lose all their leaves for a part of the year.
  - (b.) These trees are bare throughout the winter.
  - (c.) Red maple is an example of a deciduous tree.
  - (d.) None of the above statement is incorrect.
- 43. Which of the following statement correctly defines the term Sapwood?
  - (a.) It is the hardest wood of the tree giving it support and strength.
  - (b.) It is a root that arises from the taproot

- and spread laterally to support the tree.
- (c.) It is the youngest wood of the tree that brings water and nutrients up from roots to the branches.
- (d.) None of the above.
- 44. What do you understand by the term 'Etiolation?
  - (a.) It is the decrease in the diameter of the stem of a tree from the base upwards.
  - (b.) It is the study of characteristic period events of trees.
  - (c.) It is the process of dispersing seeds aerially.
  - (d.) It is the process in which plants become pale yellow in the absence of adequate light.
- 45. "The Evil Quartet" in biodiversity refers to:
  - (a.) Four most powerful and dangerous animals
  - (b.) Four extinct Animals
  - (c.) Four methods of Conservation of Biodiversity
  - (d.) Four major causes of loss of biodiversity
- 46. Which among the following statements is/are a Preventice strategy for Man- Animal Conflict?
  - (a.) Increasing alternate crops preys or water points
  - (b.) Wildlife translocation
  - (c.) Wildlife conservation education for local populations
  - (d.) All of the above
- 47. What do you understand by high-value fish?
  - (a.) A fish that is captured prior to completing its life cycle.
  - (b.) A fish that is captured after the completion of its life cycle.
  - (c.) A fish whose cost is high in the market of commercial fishing.
  - (d.) A fish whose demand is high among consumers due to its good quality.

- 48. Improved technologies, such as radar/ sonar/electronic equipment's/navigation, aids help locate shoals of fish very accurately. How does high-technology fishing affect marine biodiversity?
  - (a.) It helps deeper zone fishing, which results in the capture/loss of fish, which were not caught earlier easily.
  - (b.) Some fish and other edible animals such as Crayfish are cultured at the cost of other natural fish causing imbalances.
  - (c.) Fish farms destroy large mangrove trees.
  - (d.) All of the above
- 49. Several factors determine the degree of diversity in an ecosystem. Consider the following statements in this regard:
  - An ecosystem dominated by one single species supports lesser biodiversity.
  - Higher the variety of niches in an ecosystem, greater is the diversity.

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 50. With respect to Biodiversity Conservation, which among the following statements is not a constraint in their conservation?
  - (a) Low priority for the conservation of living natural resource
  - (b) The exploitation of living natural resources for monetary gain.
  - (c) Adequate values and knowledge about the species and ecosystem.
  - (d) Unplanned urbanization and uncontrolled industrialization
- 51. If the population of any species has been reduced by more than 90% over the last 10 years and its population size is less than 50 mature individuals, it will be categorized as:
  - (a) Endangered (EN)
  - (b) Vulnerable (VU)

- (c) Critically Endangered (CR)
- (d) Extinct (EX)
- 52. Which of the following statement is correct regarding Biosphere Reserves?
  - (a) The structure of the Biosphere Reserve is divided into four zones.
  - (b) The core zone of any biosphere reserve has only minimal human activity presence.
  - (c) The transition zone is the zone between the core and buffer zone of any biosphere reserve.
  - (d) None of the above
- 53. Which of the following national park is a part of the Vulture Safety zone in India?
  - (a) Sundarban National Park
  - (b) Jim Corbett
  - (c) Gir Forest National Park
  - (d) All of the above
- 54. Which of the following animal is best known for its synchronized nesting in mass numbers?
  - (a.) Pacific Ridley sea turtle
  - (b.) Giant Indian Squirrel
  - (c.) Ganges River Dolphin
  - (d.) All of the above
- 54. Identify the incorrect statement with respect to the Pygmy Hog found in India:
  - (a.) Pygmy hog-sucking Louse is a parasite that feeds only on Pygmy Hogs.
  - (b.) Its habitat is found in the Tropical Rainforests of Western Ghats.
  - (c.) It is categorized as 'Critically Endangered' in the IUCN Red List.
  - (d.) Livestock grazing and afforestation are one of the main threats for its survival.
- 56. What is the current IUCN status of the Malabar Civet?
  - (a.) Extinct
  - (b.) Vulnerable

- (c.) Endangered
- (d.) Critically Endangered
- 57. What do you understand by the term 'Monotreme'?
  - (a.) It is a subdivision of mammal that lay eggs rather than giving birth to their young.
  - (b.) It is a class of insects that lay eggs in the parasite for their reproduction.
  - (c.) It is a phenomenon by which deep-sea flora survive without sunlight.
  - (d.) None of the above.
- 58. Which of the following is not the characteristic of mangroves?
  - (a.) They are evergreen land plants growing on sheltered shores.
  - (b.) They are best located where silt free water is brought down by rivers.
  - (c.) They are very well adapted to high salinity stress.
  - (d.) They require high solar radiation.
- 59. Which among the following is not a characteristic feature of coral reefs?
  - (a.) Coral reefs occur in areas where seawater is shallow, clear and warm.
  - (b.) Corals are generally slow-growing colonies of animals.
  - (c.) Coral reefs have high productivity and thus support high biodiversity.
  - (d.) Coral reefs require nutrient-rich waters.
- 60. Coral bleaching is a general response to stress and it can be induced by a variety of factors. Which among the following is not a factor responsible for coral bleaching?
  - (a.) Eutrophication
  - (b.) Sub-aerial exposure
  - (c.) Solar irradiance
  - (d.) Sediment loading
- 61. This soil type is found in wetland ecosystems and is characterized by anaerobic conditions

where enough oxygen is not available for plants. The soil type is called:

- (a.) Xeric Soils
- (b.) Aquic Soils
- (c.) Hydric Soils
- (d.) None of the above
- 62. Wetlands are areas of critical ecological significance as they support multiple ecosystem services. Which of the following is not the service provided by wetlands?
  - (a.) Groundwater discharging
  - (b.) Stabilization of local climate
  - (c.) Supporting species diversity
  - (d.) Controlling rate of runoff in urban areas
- 63. What is Gross Cropped Area?
  - (a.) It represents an area in which total crops are grown only once in a year.
  - (b.) It represents an area in which total crops are sown more than once in an agricultural year plus net sown area.
  - (c.) It represents an area in which total crops are sown more than once in an agricultural year.
  - (d.) It represents an area in which total crops are sown more than once in an agricultural year excluding the net sown area.
- 64. What are the consequences of mining on the environment?
  - (a.) The extraction of minerals from the earth produces large amounts of debris.
  - (b.) Underground mining leads to landslides.
  - (c.) Depletion of non-renewable natural resources.
  - (d.) All of the above
- 65. Which one of the following statements is not an argument in favour of multipurpose river projects?
  - (a.) Multi-purpose projects bring water to those areas which suffer from water

- scarcity.
- (b.) Multi-purpose projects by regulating water flow help to control floods.
- (c.) Multi-purpose projects lead to large scale displacements and loss of livelihood.
- (d.) Multi-purpose projects generate electricity for our industries and our homes.
- 66. Which of the following statements is /are correct about the secondary pollutants?
  - 1. These are formed by interaction among the primary pollutants.
  - 2. Peroxyacetyl Nitrate (PAN) is an example of secondary pollutants.

Select the correct answer using code given below:

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 67. According to their nature of disposal, pollutants are classified into Biodegradable Pollutants and Non-biodegradable Pollutants. In this context, consider the following statements:
  - 1. Biodegradable Pollutants are degraded by microbial action.
  - 2. Non-biodegradable Pollutants are not decomposed by microbial action.

Select the correct answer using code given below:

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 68. Which of the following gas is released by incomplete combustion of petrol and wood and lowers the amount of oxygen that enters in human blood?
  - (a.) Carbon Dioxide (CO2)
  - (b.) Methane (CH4)

- (c.) Carbon Monoxide (CO)
- (d.) Hydrogen gas (H2)
- 69. Consider the following statements about the Photochemical Smog:
  - It is a term used to describe air pollution that is a result of the interaction of sunlight with certain chemicals in the atmosphere.
  - 2. During the winter it leads to a decrease in pollution levels.

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 70. With respect to the composition of fly ash, which of the following chemicals are present in it?
  - (a.) Oxides of Aluminium and Nitrogen,
    Cobalt
  - (b.) Methane, Propane, and Lead
  - (c.) Aluminum Silicate, Silicon dioxide, and Arsenic
  - (d.) Carbon monoxide, Carbon dioxide, and Copper
- 71. What is Buffering in the context of eliminating the sources of pollution?
  - (a.) It is a process of destroying the pollutants by thermal or catalytic combustion.
  - (b.) It is the practice of adding a neutralizing agent to the acidified water to increase the pH.
  - (c.) It is a treatment of sewage water and the industrial effluents before releasing it into water bodies.
  - (d.) It decreases the amount of ammonia in the soil by increasing the rate of decomposition.
- 72. Which inorganic pollutants are produced by the Soap and Detergent Industry?
  - (a.) Sulphides and bleaching liquors

- (b.) Tertiary ammonium compounds alkalies
- (c.) Various acids and alkalies and silica
- (d.) Fluorine, nitrates of metals and phosphorus
- 73. What is the impact of the decrease in dissolved oxygen (DO) in water bodies?
  - (a.) Death of a large population of fish and other aquatic organisms
  - (b.) Decrease of phytoplankton
  - (c.) Increase in algal blooms
  - (d.) Both (a) and (c)
- 74. Which of the following statements is /are correct about the Biochemical Oxygen Demand (BOD)?
  - It is the amount of dissolved oxygen needed by bacteria in decomposing the biodegradable and non-biodegradable waste present in water.
  - 2. The higher value of BOD indicates the low DO content of water.

Select the correct answer using the code given below:

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 75. Which of the following statement is correct regarding the Eutrophication?
  - (a.) It is the thermal decomposition of materials at elevated temperatures in an inert atmosphere.
  - (b.) It refers to the addition of artificial or non- artificial substances through fertilizers or sewage, to a freshwater system.
  - (c.) It is the propagation of plants by growing plantlets in tissue culture and then planting them out.
  - (d.) It is a type of physical filtration process through a special pore-sized membrane.

- 76. Which of the following pair is incorrectly matched pertaining to the e-waste metals and their respective sources?
  - (a.) Beryllium Glass panels
  - (b.) Mercury Thermostats
  - (c.) Hexavalent Chromium PVC
  - (d.) Barium Cathode Ray tube
- 77. What do you understand by the process of Vermiculture?
  - (a.) Earthworms are added to the compost and they add their excreta to make the compost rich in nutrients.
  - (b.) Fungi and bacteria decompose degradable organic waste into humus.
  - (c.) It recycles the nutrients and returns them back to the soil as nutrients.
  - (d.) Both (a) and (c)
- 78. What are the ecological effects of dumping hot water from factories and power plants?
  - (a.) Decrease in the level of dissolved oxygen and increase in the rate of decomposition of organic matter.
  - (b.) Decrease in the level of dissolved oxygen and the rate of decomposition of organic matter.
  - (c.) Increase in the level of dissolved oxygen and decrease in the rate of decomposition of organic matter.
  - (d.) Increase in the level of dissolved oxygen and the rate of decomposition of organic matter.
- 79. What is Mycoremediation?
  - (a.) It is a process to detoxify toluene which is released from radioactive nuclear waste.
  - (b.) It is a process to degrade the environmental contaminants of the area with the help of fungi.
  - (c.) It is a process of waste segregation, collection, treatment, and disposal.
  - (d.) It is a process of exchange between hydrogen ions and nutrient cations in the soil.

- 80. Which of the following statement is not correct regarding the Greenhouse effect?
  - (a.) It is a naturally occurring phenomenon
  - (b.) It makes the earth inhabitable
  - (c.) It blankets the earth lower atmosphere
  - (d.) Human-generated greenhouse gas emissions upset the natural balance
- 81. Consider the following statements:
  - 1. The ozone layer is concentrated in the upper part of the Troposphere.
  - The ozone layer blocks the harmful UV radiation reaching the earth.

Which of the above statements is/are correct?

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 82. Which of the above statements are correct regarding the urban heat island?
  - 1. It is a phenomenon occurring due to the high albedo of cities.
  - 2. It suppresses the formation of fog.
  - 3. The temperature difference is often greater at night than in the daytime.

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
- 83. Which of the following can be the possible impacts of climate change on agriculture?
  - 1. Increased crop yields in temperate regions.
  - 2. Decreased amount of arable land in the high-latitude region.
  - 3. Increased fertilizer requirement.
  - 4. Reduction in agricultural production variability.

Select the correct answer using the code given below:

(a.) 1 and 3 only

- (b.) 2 and 3 only
- (c.) 1 and 4 only
- (d.) 1 and 2 only
- 84. Consider the following statements with respect to Water (Prevention and Control of Pollution) Act, 1974:
  - The Act is enacted with the aim of prevention and control of only water pollution in India.
  - 2. The Act prohibits the discharge of pollutants into water bodies beyond a given standard and lays down penalties for non compliance.
  - 3. This Act provides for a levy and collection of cess on water consumed by industries and local authorities.

Which of the above statements is/are incorrect?

- (a.) 2 and 3 only
- (b.) 1 only
- (c.) 1 and 2 only
- (d.) 1 and 3 only
- 85. Consider following with respect to the Forest Conservation Act, 1980
  - 1. The Act extends to the whole of India.
  - 2. It applies to all forests irrespective of the nature of ownership.
  - The act places restrictions on the power of the State Government concerning the preservation of forests or use of forest land for non-forest purposes

Which of the above statements is/are correct?

- (a.) 1 only
- (b.) 1 and 2 only
- (c.) 3 only
- (d.) 2 and 3 only
- 86. Which of the following is/are protected under Schedule I of Wildlife Protection Act, 1972?
  - 1. Kashmir Stag
  - 2. Black Buck
  - 3. Nilgiri Tahr
  - 4. Nilgai

Select the correct answer using the code given

below:

- (a.) 1, 2 and 3 only
- (b.) 2 and 3 only
- (c.) 3 and 4 only
- (d.) 1, 2, 3 and 4
- 87. Which of the following is/are the provisions under the Plastic Waste Management Rules, 2016?
  - 1. It has recommended increasing the minimum thickness of plastic carry bags.
  - It has expanded the jurisdiction of waste management from urban areas to rural areas.
  - 3. It aims to promote the use of plastic waste for road construction.

Select the correct answer using the code given below:

- (a.) 1 and 2 only
- (b.) 2 only
- (c.) 3 only
- (d.) 1, 2 and 3
- 88. Consider the following statements regarding the United Nations Framework Convention on Climate Change (UNFCCC):
  - It is an international treaty drawn at the UN Conference on Environment and Development, Rio de Janeiro, 1992.
  - Kyoto Protocol implemented the objectives of UNFCCC to fight global warming by reducing the concentration of greenhouse gases.

Which of the above statements is/are correct?

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 89. Consider the following statements about the Rotterdam Convention:
  - It is a multilateral treaty or Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and

- Pesticides in International Trade
- The convention promotes an open exchange of information and calls on exporters of hazardous chemicals to use proper labeling, include directions on safe handling, and inform purchasers of any known restrictions or bans.
- 3. It is administered by the World Health Organisation and the United Nations Environment Programme (UNEP).

Which of the above statements are correct?

- (a.) 1 and 2 only
- (b.) 2 and 3 only
- (c.) 1 and 3 only
- (d.) 1, 2 and 3
- 90. With reference to the Black Carbon Research Initiative, consider the following statements:
  - It is an Indian initiative launched as a part of the National Carbonaceous Aerosols Program (NCAP).
  - It is to monitor the black carbon aerosols and assess its impacts on the microclimates.
  - 3. Ministry of Earth Sciences, Indian Space Research Organization Ministry of Environment and Department of Science and Technology are implementing agencies of this programme.

- (a.) 1 and 2 only
- (b.) 1 only
- (c.) 2 and 3 only
- (d.) 1, 2 and 3
- 91. The Katowice Rulebook is a precise and detailed agreement according to which the Paris agreement will be implemented. In this context consider the following statements:
  - The rulebook provides for uniform = standards of reporting, monitoring, and evaluation for all countries.
  - 2. As per the rulebook, the developed countries can meet their financial

- commitments from public funds as well as private sources.
- The special report of IPCC on impacts of 1.5°C global warming was accepted unanimously.
- Finalisation of rules regarding the carbon market is a significant achievement of the rulebook.

Which of the above statement are correct?

- (a.) 1 and 2 only
- (b.) 1, 2 and 3 only
- (c.) 2, 3 and 4 only
- (d.) 3 and 4 only
- 92. In India, the Environment Impact Assessment is governed by which among the following rules and regulations?
  - The Environment Impact Assessment is governed by the Environment (Protection) Act, 1986.
  - Coastal Zone Management Plans (CZMPs) are prepared by coastal states or Union Territories as per rules set by CRZ notification 1991.

Select the correct answer using the code given below:

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 93. Which of the following statements is/ are correct regarding National Board for Wildlife (NBWL)?
  - 1. It is a statutory organization constituted under the Wildlife Protection Act, 1972
  - It serves as apex body to review all wildlife- related matters and approve projects in and around national parks and sanctuaries.
  - 3. Alternation of boundaries in national parks and wildlife sanctuaries can be done

without approval of the NBWL.

Select the correct answer using the code given below:

- (a.) 1 and 2 only
- (b.) 2 only
- (c.) 2 and 3 only
- (d.) 1, 2 and 3
- 94. Which of the following statement about the World Nature Organization (WNO) is incorrect?
  - (a.) It has been initiated by the South Asian nations to mitigate climate change.
  - (b.) The role of the organization is to turn declarations into implementable actions and to support the protection of the environment and climate at an international level.
  - (c.) The organization has an international legal personality.
  - (d.) The membership is open for all governments and intergovernmental organizations (IGO).
- 95. Which of the following statements related to the Comprehensive Environmental Pollution Index is incorrect?
  - (a.) It has been developed by NITI Aayog in guidance of NGT.
  - (b.) It acts as a tool for comprehensive environmental assessment of industrial clusters and formulation of remedial Action Plans.
  - (c.) The concept can be applied to locations also other than industrial clusters.
  - (d.) The outcome of the CEPI assessment shall not be used by the Bankers for any sort of financial freezing decisions on industry funding
- 96. With reference to the 'Integrated Development of Wildlife Habitats' scheme, consider the following statements:
  - 1. It is a centrally sponsored scheme.
  - 2. One of the components of the scheme is

the protection of wildlife outside protected areas.

Which of the above statements is/are correct?

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 97. Consider the following statements with respect to the Green Muffler:
  - 1. Green Mufflers are barriers grown near noisy places to reduce the impact of noise.
  - Under the Green Muffler scheme, Asoka and Neem plants are planted near the house or resident localities to reduce noise pollution.

Which of the above statements is/are correct?

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 98. Consider the following statements with reference to Solar Geo-Engineering frequently seen in news:
  - It is a process through which the reflectivity of the Earth's atmosphere or surface is decreased to offset climate change.
  - Methods include marine cloud brightening and using mirrors in space.

Which of the above statements is/are correct?

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 99. Consider the following statements:
  - 'Strengthening Forest Fire Management in India' report is jointly prepared by the Ministry of Environment & Forests (MoEF) and the World Bank.
  - As part of the Intended Nationally Determined Contributions (INDCs), India plans to create an additional carbon sink of

- 5 billion tones of CO
- 3. Equivalent through additional forest and tree cover by 2030.

- (a.) 1 only
- (b.) 2 only
- (c.) Both 1 and 2
- (d.) Neither 1 nor 2
- 100. 'Extended Producer Responsibility' is a term most often used in the context of:
  - (a.) Intellectual Property Rights
  - (b.) Collection and channelization of ewaste
  - (c.) Tribal rights in terms of minor forest produce
  - (d.) The obligation of mining companies to safeguard the welfare of its workers