

ENVIRONMENT & ECOLOGY

1. Biodiversity forms the basis for human existence in the following ways: (2011)

1. Soil formation
2. Prevention of soil erosion
3. Recycling of waste
4. Pollination of crops

Select the correct answer using the codes given

- A. 1, 2 and 3 only
- B. 2, 3 and 4 only
- C. 1 and 4 only
- D. 1, 2, 3 and 4

2. Which one of the following is not a site for in-situ method of conservation of flora? (2011)

- A. Biosphere Reserve
- B. Botanical Garden
- C. National Park
- D. Wildlife Sanctuary

3. Consider the following statements: (2011)

1. Biodiversity is normally greater in the lower latitudes as compared to the higher latitudes
2. Along the mountain gradients, biodiversity is normally greater in the lower altitudes as compared to the higher altitudes

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

4. Three of the following criteria have contributed to the recognition of Western Ghats-Sri Lanka and Indo-Burma regions as hotspots of biodiversity: (2011)

1. Species richness
2. Vegetation density
3. Endemism
4. Ethno-botanical importance
5. Threat perception
6. Adaptation of flora and fauna to warm and humid conditions

Which three of the above are correct criteria in this context?

- A. 1, 2 and 6
- B. 2, 4 and 6
- C. 1, 3 and 5
- D. 3, 4 and 6

5. Two important rivers - one with its source in Jharkhand (and known by a different name in Odisha), and another, with its source in Odisha -merge at a place only a short distance from the coast of Bay of Bengal before flowing into the sea. This is an important site of wildlife and biodiversity and a protected area. (2011)

Which one of the following could be this?

- A. Bhitarkanika
- B. Chandipur-on-sea
- C. Gopalpur-on-sea
- D. Simlipal

6. A sandy and saline area is the natural habitat of an Indian animal species. The animal has no predators in that area but its existence is threatened due to the destruction of its habitat. Which one of the following could be that animal? (2011)
- Indian wild buffalo
 - Indian wild ass
 - Indian wild boar
 - Indian gazelle
7. The Himalayan Range is Very rich in species diversity. Which one among the following is the most appropriate reason for this phenomenon?(2011)
- It has a high rainfall that supports luxuriant vegetative growth
 - It is a confluence of different bio-geographical zones
 - Exotic and invasive species have not been introduced in this region
 - It has less human interference
8. In the Union Budget 2011-12, a full exemption from the basic customs duty was extended to the bio-based asphalt (bioasphalt). What is the importance of this material? (2011)
- Unlike traditional asphalt, bio-asphalt is not based on fossil fuels
 - Bioasphalt can be made from non-renewable resources
 - Bioasphalt can be made from organic waste materials
 - It is eco-friendly to use bioasphalt for surfacing of the roads
- Which of the statements given above are correct?
- 1, 2 and 3 only
 - 1, 3 and 4 only
 - 2 and 4 only
 - 1, 2, 3 and 4
9. Consider the following: (2011)
- Carbon dioxide
 - Oxides of Nitrogen
 - Oxides of Sulphur
- Which of the above is/are the emission/emissions from coal combustion at thermal power plants?
- 1 only
 - 2 and 3 only
 - 1 and 3 only
 - 1, 2 and 3
10. The formation of ozone hole in the Antarctic region has been a cause of concern. What could be the reason for the formation of this hole? (2011)
- Presence of prominent tropo-spheric turbulence; and inflow of chlorofluorocarbons
 - Presence of prominent polar front and stratospheric' clouds; and inflow of chlorofluorocarbons
 - Absence of polar front and stratospheric clouds; and inflow of methane and chlorofluorocarbons
 - Increased temperature at polar region due to global warming
11. Regarding "carbon, credits", which one of the following statements is not correct? (2011)
- The carbon credit system was ratified in conjunction with the Kyoto Protocol
 - Carbon credits are awarded to countries or groups that have reduced greenhouse gases below their emission quota
 - The goal of the carbon credit system is to limit the increase of carbon dioxide emission
 - Carbon credits are- traded at a price fixed from time to time by the United Nations Environment Programme

12. There is a concern: over the increase in harmful algal blooms in the seawaters of India. What could be the causative factors for this phenomenon? (2011)

1. Discharge of nutrients from the estuaries
2. Run-off from the land during the monsoon
3. Upwelling in the seas

Select the correct answer from the codes given

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

13. The “Red Data Books” published by the International Union for Conservation of Nature and Natural Resources (IUCN) contain lists of: (2011)

1. Endemic plant and animal species present in the biodiversity hotspots
2. Threatened plant and animal species
3. Protected sites for conservation of nature and natural resources in various countries

Select the correct answer using the codes given

- A. 1 and 3
- B. 2 only
- C. 2 and 3
- D. 3 only

14. Human activities in the recent past have Caused the increased concentration of carbon dioxide in the atmosphere, but a lot of it does not remain in the lower atmosphere because of: (2011)

1. Its escape into the outer stratosphere
2. The photosynthesis by phyto-plankton in the oceans
3. The trapping of air in the polar ice caps

Which of the statements given above is/are correct?

- A. 1 and 2
- B. 2 only
- C. 2 and 3
- D. 3 only

15. In the context of ecosystem productivity, marine upwelling zones are important as they increase the marine productivity by bringing the: (2011)

1. Decomposer microorganisms to the surface
2. Nutrients to the surface
3. Bottom-dwelling organisms to- the surface

Which of the statements given above is/are correct?

- A. 1 and 2
- B. 2 only
- C. 2 and 3
- D. 3 only

16. With reference to India, consider the following Central Acts: (2011)

1. Import and Export (Control) Act, 1947
2. Mining and Mineral Development (Regulation) Act, 1957
3. Customs Act, 1962
4. Indian Forest Act, 1927

Which of the above Acts have relevance to/bearing on the biodiversity conservation in the country?

- A. 1 and 3 only

- B. 2, 3 and 4 only
- C. 1, 2, 3 and 4
- D. None of the above Acts

17. Consider the following kinds of organisms: (2012)

- 1. Bacteria
- 2. Fungi
- 3. Flowering plants

Some species of which of the above kinds of organisms are employed as biopesticides?

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

18. Biomass gasification is considered to be one of the sustainable solutions to the power crisis in India. In this context, which of the following statements is/are correct? (2012)

- 1. Coconut shells, groundnut shells and rice husk can be used in biomass gasification
- 2. The combustible gases generated from biomass gasification consist of hydrogen and carbon dioxide only
- 3. The combustible gases generated from biomass gasification can be used for direct heat generation but not in internal combustion engines

Select the correct answer using the codes given

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

19. Consider the following areas:(2012)

- 1. Bandipur
- 2. Bhitarkanika
- 3. Manas
- 4. Sunderbans

Which of the above are Tiger Reserves?

- A. 1 and 2 only
- B. 1, 3 and 4 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

20. In which one among the following categories of protected areas in India are local people not allowed to collect and use the biomass?(2012)

- A. Biosphere Reserves
- B. National Parks
- C. Wetlands declared under Ramsar Convention
- D. Wildlife Sanctuarie

21. Consider the following kinds of organisms:(2012)

- 1. Bat
- 2. Bee
- 3. Bird

Which of the above is/are pollinating agent/agents?

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

22. Which one of the following groups of animals belongs to the category of endangered species?(2012)

- A. Great Indian Bustard, Musk Deer, Red Panda and Asiatic Wild Ass
- B. Kashmir Stag, Cheetal, Blue Bull and Great Indian Bustard
- C. Snow Leopard, Swamp Deer, Rhesus Monkey and Saras (Crane)
- D. Lion-tailed Macaque, Blue Bull, Hanuman Langur and Cheetal

23. Which of the following can be threats to the biodiversity of a geographical area?(2012)

- 1. Global warming
- 2. Fragmentation of habitat
- 3. Invasion of alien species
- 4. Promotion of vegetarianism

Select the correct answer using the codes given

- A. 1, 2 and 3 only
- B. 2 and 3 only
- C. 1 and 4 only
- D. 1, 2, 3 and 4

24. Consider the following: (2012)

- 1. Black-necked crane
- 2. Cheetah
- 3. Flying squirrel
- 4. Snow leopard

Which of the above are naturally found in India?

- A. 1, 2 and 3 only
- B. 1, 3 and 4 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

25. A particular State in India has the following characteristics:(2012)

- 1. It is located on the same latitude which passes through northern Rajasthan
- 2. It has over 80% of its area under forest cover
- 3. Over 12% of forest cover constitutes Protected Area Network in this State

Which one among the following States has all the above characteristics?

- A. Arunachal Pradesh
- B. Assam
- C. Himachal Pradesh
- D. Uttarakhand

26. With reference to the wetlands of India, consider the following statements:(2012)

- 1. The country's total geographical area under the category of wetlands is recorded more in Gujarat as compared to other States
- 2. In India, the total geographical area of coastal wetlands larger than that of wetlands

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. The acidification of oceans is increasing. Why is this phenomenon a cause of concern? (2012)

- 1. The growth and survival of calcareous phytoplankton will be adversely affected
- 2. The growth and survival of coral reefs will be adversely affected
- 3. The survival of some animals that have phytoplanktonic larvae will be adversely affected
- 4. The cloud seeding and formation of clouds will be adversely affected

Which of the statements given above is/are correct?

- A. 1, 2 and 3 only

- B. 2 only
- C. 1 and 3 only
- D. 1, 2, 3 and 4

- 28.** The Millennium Ecosystem Assessment describes the following major categories of ecosystem services-provisioning, supporting, regulating, preserving and cultural. Which one of the following is supporting service? (2012)
- A. Production of food and water
 - B. Control of climate and disease
 - C. Nutrient cycling and crop pollination
 - D. Maintenance of diversity

- 29.** What would happen if phytoplankton of an ocean is completely destroyed for some reason? (2012)

- 1. The ocean as a carbon sink would be adversely affected
- 2. The food chains in the ocean would be adversely affected
- 3. The density of ocean water would drastically decrease

Select the correct answer using the codes given

- A. 1 and 2 only
- B. 2 only
- C. 3 only
- D. 1, 2 and 3

- 30.** What is the role of ultraviolet (UV) radiation in the water purification systems? (2012)

- 1. It inactivates /kills the harmful microorganisms in water
- 2. It removes all the undesirable odours from the water
- 3. It quickens the sedimentation of solid particles, removes turbidity and improves the clarity of water

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

- 31.** Consider the following statements: Chlorofluorocarbons, known as ozone-depleting substances, are used (2012)

- 1. In the production of plastic foams
- 2. In the production of tubeless tyres
- 3. In cleaning certain electronic components
- 4. As pressurizing agents in aerosol cans

Which of the statements given above is/are correct?

- A. 1, 2 and 3 only
- B. 4 only
- C. 1, 3 and 4 only
- D. 1, 2, 3 and 4

- 32.** Government of India encourages the cultivation of 'sea buckthorn'. What is the importance of this plant? (2012)

- 1. It helps in controlling soil erosion and in preventing desertification
- 2. It is a rich source of biodiesel
- 3. It has nutritional value and is well-adapted to live in cold areas of high altitudes
- 4. Its timber is of great commercial value

Which of the statements given above is/are correct?

- A. 1 only

- B. 2, 3 and 4 only
- C. 1 and 3 only
- D. 1, 2, 3 and 4

33. Which of the following can be found as pollutants in the drinking water in some parts of India? (2013)

- 1. Arsenic
- 2. Sorbitol
- 3. Fluoride
- 4. Formaldehyde
- 5. Uranium

Select the correct answer using the codes given

- A. 1 and 3 only
- B. 2, 4 and 5 only
- C. 1, 3 and 5 only
- D. 1, 2, 3, 4 and 5

34. In the grasslands, trees do not replace the grasses as a part of an ecological succession because of: (2013)

- A. Insects and fungi
- B. Limited sunlight and paucity of nutrients
- C. Water limits and fire
- D. None of the above

35. Which one of the following is the correct sequence of ecosystems in the order of decreasing productivity? (2013)

- A. Oceans, lakes, grasslands, mangroves
- B. Mangroves, oceans, grasslands, lakes
- C. Mangroves, grasslands, lakes, oceans
- D. Oceans, mangroves, lakes, grasslands

36. With reference to food chains in ecosystems, consider the following statements: (2013)

- 1. A food chain illustrates the order in which a chain of organisms feed upon each other
- 2. Food chains are found within the populations of a species
- 3. A food chain illustrates the numbers of each organism which are eaten by others

Which of the statements given above is / are correct?

- A. 1 only
- B. 1 and 2 only
- C. 1, 2 and 3
- D. None

37. Consider the following organisms: (2013)

- 1. Agaricus
- 2. Nostoc
- 3. Spirogyra

Which of the above is / are used as biofertilizer/biofertilizers

- A. 1 and 2
- B. 2 only
- C. 2 and 3
- D. 3 only

38. Which one of the following terms describes not only the physical space occupied by an organism, but also its functional role in the community of organisms? (2013)

- A. Ecotone
- B. Ecological niche

- C. Habitat
- D. Home range

- 39.** Photochemical smog is a resultant of the reaction among: (2013)
- A. NO₂, O₃ and peroxyacetyl nitrate in the presence of sunlight
 - B. CO, O₂ and peroxyacetyl nitrate in the presence of sunlight
 - C. CO, CO₂ and NO₂ at low temperature
 - D. High concentration of NO₂, O₃ and CO in the evening

- 40.** With reference to the food chains in ecosystems, which of the following kinds of organism is / are known as decomposer organism/organisms? (2013)

- 1. Virus
- 2. Fungi
- 3. Bacteria

Select the correct answer using the codes given

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

- 41.** Which one of the following is the process involved in photosynthesis?(2014)

- A. Potential energy is released to form free energy
- B. Free energy is converted into potential energy and stored
- C. Food is oxidized to release carbon dioxide and water
- D. Oxygen is taken, and carbon dioxide and water vapour are given out

- 42.** Which of the following adds/add carbon dioxide to the carbon cycle on the planet Earth? (2014)

- 1. Volcanic action
- 2. Respiration
- 3. Photosynthesis
- 4. Decay of organic matter

Select the correct answer using the code given

- A. 1 and 3 only
- B. 2 only
- C. 1, 2 and 4 only
- D. 1, 2, 3 and 4

- 43.** In India, the problem of soil erosion is associated with which of the following?

- 1. Terrace cultivation
- 2. Deforestation
- 3. Tropical climate

Select the correct answer using the code given

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

- 44.** Lichens, which are capable of initiating ecological succession even on a bare rock, are actually a symbiotic association of

- A. Algae and bacteria
- B. Algae and fungi
- C. Bacteria and fungi
- D. Fungi and mosses

45. The most important strategy for the conservation of biodiversity together with traditional human life is the establishment of
- Biosphere reserves
 - Botanical gardens
 - National parks
 - Wildlife sanctuaries
46. With reference to 'Eco-Sensitive Zones', which of the following statements is/are correct?
- Eco-Sensitive Zones are the areas that are declared under the Wildlife (Protection) Act, 1972
 - The purpose of the declaration of Eco-Sensitive Zones is to prohibit all kinds of human activities, in those zones except agriculture

Select the correct answer using the code given

- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
47. Consider the following pairs
- Dampa Tiger Reserve : Mizoram
 - Gumti Wildlife Sanctuary : Sikkim
 - Saramati Peak : Nagaland
- Which of the above pairs is /are correctly matched?
- 1 only
 - 2 and 3 only
 - 1 and 3 only
 - 1, 2 and 3

48. Wetland locations

Wetlands : Confluence of rivers

- Harike wetland : Beas and Satluj
- Keolado Ganga National Park: Banas and Chambal
- Kolleru Lake : Musi and Krishna

Which of the above pairs is/are correctly matched?

- 1 only
 - 2 and 3 only
 - 1 and 3 only
 - 1, 2 and 3
49. Which of the following have coral reefs?
- Andaman and Nicobar Islands
 - Gulf of Kutch
 - Gulf of Mannar
 - Sunderbans

Select the correct answer using the code given

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

50. Consider the following:

- Bats
- Bears
- Rodents

The phenomenon of hibernation can be

observed in which of the above kinds of animals?

- A. 1 and 2 only
- B. 2 only
- C. 1, 2 and 3
- D. Hibernation cannot be observed in any of the above

51. Among the following organisms, which one does not belong to the class of other three?

- A. Crab
- B. Mite
- C. Scorpion
- D. Spider

52. Which one of the following is the correct sequence of a food chain?

- A. Diatoms-Crustaceans-Herrings
- B. Crustaceans-Diatoms-Herrings
- C. Diatoms-Herrings-Crustaceans
- D. Crustaceans-Herrings-Diatoms

53. If you travel through the Himalayas, you are Likely to see which of the following plants naturally growing there?

- 1. Oak
- 2. Rhododendron
- 3. Sandalwood

Select the correct answer using the code given below

- A. 1 and 2 only
- B. 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

54. If you walk through countryside, you are likely to see some birds stalking alongside the cattle to seize the insects, disturbed by their movement through grasses, Which of the following is/are such bird/birds?

- 1. Painted Stork
- 2. Common Myna
- 3. Black-necked Crane

Select the correct answer using the code given

- A. 1 and 2
- B. 2 only
- C. 2 and 3
- D. 3 only

55. Other than poaching, what are the possible reasons for the decline in the population of Ganges River Dolphins?

- 1. Construction of dams and barrages on rivers
- 2. Increase in the population of crocodiles in rivers
- 3. Getting trapped in fishing nets accidentally
- 4. Use of synthetic fertilizers and other agricultural chemicals in crop-fields in the vicinity of rivers

Select the correct answer using the code given

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1, 3 and 4 only
- D. 1, 2, 3 and 4

- 56.** With reference to two non-conventional energy sources called 'coal bed methane' and 'shale gas', consider the following 'statements':
1. Coal bed methane is the pure methane gas extracted from coal seams, while shale gas is a mixture of propane and butane only that can be extracted from fine-grained sedimentary rocks
 2. In India abundant coal bed methane sources exist, but so far no shale gas sources have been found

Which of the statements given above is/are correct?

- A. 1 only
 - B. 2 only
 - C. Both 1 and 2
 - D. Neither 1 nor 2
- 57.** In India, cluster bean (Guar) is traditionally used as a vegetable or animal feed, but recently the cultivation of this has assumed significance. Which one of the following statements is correct in this context?
- A. The oil extracted from seeds is used in the manufacture of biodegradable plastics
 - B. The gum made from its seeds is used in the extraction of shale gas
 - C. The leaf extract of this plant has the properties of anti-histamines
 - D. It is a source of high quality biodiesel

- 58.** With reference to technologies for solar power production, consider the following statements:
1. 'Photovoltaics' is a technology that generates electricity by direct conversion of light into electricity, while 'Solar Thermal' is a technology that utilizes the Sun's rays to generate heat which is further used in electricity generation process
 2. Photovoltaics generates Alternating Current (AC), while Solar Thermal generates Direct Current (DC)
 3. India has manufacturing base for Solar Thermal technology, but not for Photovoltaics

Which of the statements given above is/are correct?

- A. 1 only
 - B. 2 and 3 only
 - C. 1, 2 and 3
 - D. None
- 59.** There is some concern regarding the nanoparticles of some chemical elements that are used by the industry in the manufacture of various products. Why?
1. They can accumulate in the environment, and contaminate water and soil
 2. They can enter the food chains
 3. They can trigger the production of free radicals

Select the correct answer using the code given

- A. 1 and 2 only
 - B. 3 only
 - C. 1 and 3 only
 - D. 1, 2 and 3
- 60.** Which of the following are some important pollutants released by steel industry in India?
1. Oxides of sulphur
 2. Oxides of nitrogen
 3. Carbon monoxide
 4. Carbon dioxide

Select the correct answer using the code given

- A. 1, 3 and 4 only
- B. 2 and 3 only

- C. 1 and 4 only
- D. 1,2, 3 and 4

61. Brominated flame retardants are used in many household products like mattresses and upholstery. Why is there some concern about their use?

1. They are highly resistant to degradation in the environment
2. They are able to accumulate in humans and animals

Select the correct answer using the code given

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

62. Consider the following countries:

1. Denmark
2. Japan
3. Russian Federation
4. United Kingdom
5. United States of America

Which of the above are the members of the 'Arctic Council'?

- A. 1, 2 and 3
- B. 2, 3 and 4
- C. 1, 4 and 5
- D. 1, 3 and 5

63. With reference to 'Global Environment Facility', which of the following statements is/are correct?

- A. It serves as financial mechanism for 'Convention on Biological Diversity' and 'United Nations Framework Convention on Climate Change'
- B. It undertakes scientific research on environmental issues at global level
- C. It is an agency under OECD to facilitate the transfer of technology and funds to underdeveloped countries with specific aim to protect their environment
- D. Both (a) and (b)

64. If a wetland of international importance is brought under the 'Montreux Record', what does it imply?

- A. Changes in ecological character have occurred, are occurring or are likely to occur in the wetland as a result of human interference
- B. The country in which the wetland is located should enact a law to prohibit any human activity within five kilo meters from the edge of the wetland
- C. The survival of the wetland depends on the cultural practices and traditions of certain communities living in its vicinity and therefore the cultural diversity therein should not be destroyed
- D. It is given the status of 'World Heritage Site'

65. With reference to a conservation organization called 'Wetlands International', which of the following statements is/are correct?

1. It is an intergovernmental organization formed by the countries which are signatories to Ramsar Convention
2. It works at the field level to develop and mobilize knowledge, and use the practical experience to advocate for better policies

Select the correct answer using the code given

- A. 1 only
- B. 2 only

- C. Both 1 and 2
- D. Neither 1 nor 2

66. Consider the following international agreements:

1. The International Treaty on Plant Genetic Resources for Food and Agriculture
2. The United Nations Convention to Combat Desertification
3. The World Heritage Convention

Which of the above has/have a bearing on the biodiversity?

- A. 1 and 2 only
- B. 3 only
- C. 1 and 3 only
- D. 1, 2, and 3

67. The scientific view is that the increase in global temperature should not exceed 2 °C above pre-industrial level. If the global temperature increases beyond 3°C above the pre-industrial level, what can be its possible impact/impacts on the world?

1. Terrestrial biosphere tends toward a net carbon source
2. Widespread coral mortality will occur
3. All the global wetlands will permanently disappear
4. Cultivation of cereals will not be possible anywhere in the world

Select the correct answer using the code given

- A. 1 only
- B. 1 and 2 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

68. Consider the following statements:

1. Animal Welfare Board of India is established under the Environment (Protection) Act, 1986
2. National Tiger Conservation Authority is a statutory body
3. National Ganga River Basin Authority is chaired by the Prime Minister

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 and 3 only
- C. 2 only
- D. 1, 2 and 3

69. With reference to Bombay Natural History Society (BNHS), consider the following statements

1. It is an autonomous organization under the Ministry of Environment and Forests
2. It strives to conserve nature through action-based research, education and public awareness
3. It organizes and conducts nature trails and camps for the general public

Which of the statements given above is/are correct?

- A. 1 and 3 only
- B. 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

70. Consider the following statements regarding 'Earth Hour'

1. It is an initiative of UNEP and UNESCO
2. It is a movement in which the participants switch off the lights for one hour on a certain day every year
3. It is a movement to raise the awareness about the climate change and the need to save the planet

Which of the statements given above is/are correct?

- A. 1 and 3 only
- B. 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

71. Every year, a month long ecologically important campaign/festival is held during which certain communities/ tribes plant saplings of fruit-bearing trees. Which of the following are such communities/tribes?

- A. Bhutia and Lepcha
- B. Gond and Korku
- C. Irula and Toda
- D. Sahariya and Agariya

72. Consider the following pairs: (2016)

Terms sometimes Their origin seen in the news

1. Annex—I Countries: Cartagena Protocol
2. Certified Emissions Reductions: Nagoya Protocol
3. Clean Development Mechanism: Kyoto Protocol

Which of the pairs given above is/are

Correctly matched?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 3 only
- D. 1, 2 and 3

73. Which of the following best describes/ describe the aim of 'Green India Mission' of the Government of India? (2016)

1. Incorporating environmental benefits and costs into the Union and State Budgets thereby implementing the 'green accounting'
2. Launching the second green revolution to enhance agricultural output so as to ensure food security to one and all in the future
3. Restoring and enhancing forest cover and responding to climate change by a combination of adaptation and mitigation measures

Select the correct answer using the code given

- A. 1 only
- B. 2 and 3 only
- C. 3 only
- D. 1, 2 and 3

74. Recently, our scientists have discovered a new and distinct species of banana plant which attains a height of about 11 metres and has orange-coloured fruit pulp. In which part of India has it been discovered? (2016)

- A. Andaman Islands
- B. Anaimalai Forests
- C. Maikala Hills
- D. Tropical rain forests of northeast

75. With reference to 'Initiative for Nutritional Security through Intensive Millets Promotion', which of the following statements is/are correct? (2016)

1. This initiative aims to demonstrate the improved production and post-harvest technologies, and to demonstrate value addition techniques, in an integrated manner, with cluster approach
2. Poor, small, marginal and tribal farmers have larger stake in this scheme.
3. An important objective of the scheme is to encourage farmers of commercial crops to shift to millet cultivation by offering them free kits of critical inputs of nutrients and micro-irrigation equipment

Select the correct answer using the code given

- A. 1 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

76. With reference to 'Red Sanders', sometimes seen in the news, consider the following statements: (2016)

1. It is a tree species found in a part of South India
2. It is one of the most important trees in the tropical rain forest areas of South 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

77. Which of the following statements is/are correct? (2016) Proper design and effective implementation of UN-REDD+ Programme can significantly contribute to

1. Protection of biodiversity
2. Resilience of forest ecosystems
3. Poverty reduction

Select the correct answer using the code given

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

78. With reference to 'Agenda 21', sometimes seen in the news, consider the following statements: (2016)

1. It is a global action plan for sustainable development
2. It originated in the World Summit on Sustainable Development held in Johannesburg in 2002

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

79. What is/are the purpose/purposes of 'District Mineral Foundations' in India? (2016)

1. Promoting mineral exploration activities in mineral-rich districts
2. Protecting the interests of the persons affected by mining operations
3. Authorizing State Governments to issue licences for mineral exploration

Select the correct answer using the code given

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

80. 'Gadgil Committee Report' and 'Kasturirangan Committee Report', sometimes seen in the news, are related to (2016)

- A. Constitutional reforms
- B. Ganga action plan
- C. Linking of rivers

D. Protection of western ghats

81. In which of the following regions of India are shale gas resources found? (2016)

1. Cambay Basin
2. Cauvery Basin
3. Krishna-Godavari Basin

Select the correct answer using the code given

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

82. Which of the following is/are the advantage /advantages of practising drip irrigation? (2016)

1. Reduction in weed
2. Reduction in soil salinity
3. Reduction in soil erosion

Select the correct answer using the code given

- A. 1 and 2 only
- B. 3 only
- C. 1 and 3 only
- D. None of the above

83. In the cities of our country, which among the following atmospheric gases are normally considered in calculating the value of Air Quality Index? (2016)

1. Carbon dioxide
2. Carbon monoxide
3. Nitrogen dioxide
4. Sulfur dioxide
5. Methane

Select the correct answer using the code given

- A. 1, 2 and 3 only
- B. 2, 3 and 4 only
- C. 1, 4 and 5 only
- D. 1, 2, 3, 4 and 5

84. Recently, for the first time in our country, which of the following States has declared a particular butterfly as 'State Butterfly'? (2016)

- A. Arunachal Pradesh
- B. Himachal Pradesh
- C. Karnataka
- D. Maharashtra

85. What is/are the importance/importances of the 'United Nations Convention to Combat Desertification'? (2016)

1. It aims to promote effective action through innovative national programmes and supportive inter-national partnerships
2. It has a special/particular focus on South Asia and North Africa regions, and its Secretariat facilitates the allocation of major portion of financial resources to these regions
3. It is committed to bottom-up approach, encouraging the participation of local people in combating the desertification

Select the correct answer using the code given

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only

D. 1, 2 and 3

- 86.** In which of the following regions of India are you most likely to come across the 'Great Indian Hornbill' in its natural habitat? (2016)
- Sand deserts of northwest India
 - Higher Himalayas of Jammu and Kashmir
 - Salt marshes of western Gujarat
 - Western Ghats

- 87.** Which of the following are the key features of 'National Ganga River Basin Authority (NGRBA)? (2016)

- River basin is the unit of planning and management
- It spearheads the river conservation efforts at the national level
- One of the Chief Ministers of the States through which the Ganga flows becomes the Chairman of NGRBA on rotation basis

Select the correct answer using the code given

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

- 88.** Why does the Government of India promote the use of 'Neem-coated Urea' in agriculture? (2016)

- Release of Neem oil in the soil increases nitrogen fixation by the soil microorganisms
- Neem coating slows down the rate of dissolution of urea in the soil
- Nitrous oxide, which is a greenhouse gas, is not at all released into atmosphere by crop fields
- It is a combination of a weedicide and a fertilizer for particular crop

- 89.** Consider the following statements in respect of Trade Related Analysis of Fauna and Flora in Commerce (TRAFFIC):

- TRAFFIC is a bureau under United Nations Environment Programme (UNEP)
- The mission of TRAFFIC is to ensure that trade in wild plants and animals is not a threat to the conservation of nature

Which of the above statements is/are correct?

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

- 90.** In the context of solving pollution problems, what is/are the advantage/advantages of bioremediation technique?

- It is a technique for cleaning up pollution by enhancing the same biodegradation process that occurs in nature
- Any contaminant with heavy metals such as cadmium and lead can be readily and completely treated by bioremediation using microorganisms
- Genetic engineering can be used to create microorganisms specifically designed for bioremediation

Select the correct answer using the code given

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

91. Due to some reasons, if there is a huge fall in the population of species of butterflies, what could be its likely consequence/consequences?

1. Pollination of some plants could be adversely affected
2. There could be a drastic increase in the fungal infections of some cultivated plants
3. It could lead to a fall in the population of some species of wasps, spiders and birds

Select the correct answer using the code given

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

92. In the context of mitigating the impending global warming due to anthropogenic emissions of carbon dioxide, which of the following can be the potential sites for carbon sequestration?

1. Abandoned and uneconomic coal seams
2. Depleted oil and gas reservoirs
3. Subterranean deep saline formations

Select the correct answer using the code given

- A. 1 and 2 only
- B. 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

93. According to the Wildlife (Protection) Act, 1972, which of the following animals cannot be hunted by any person except under some provisions provided by law?

1. Gharial
2. Indian wild ass
3. Wild buffalo

Select the correct answer using the code given

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

94. With reference to 'Global Climate Change Alliance', which of the following statements is/are correct?

1. It is an initiative of the European Union
2. It provides technical and financial support to targeted developing countries to integrate climate change into their development policies and budgets
3. It is coordinated by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD)

Select the correct answer using the code given

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

95. Biological Oxygen Demand (BOD) is a standard criterion for

- A. Measuring oxygen levels in blood
- B. Computing oxygen levels in forest ecosystems
- C. Pollution assay in aquatic ecosystems
- D. Assessing oxygen levels in high altitude regions

96. Consider the following statements:

1. Climate and Clean Air Coalition (CCAC) to Reduce Short Lived Climate Pollutants is a unique initiative of G20 group of countries
2. The CCAC focuses on methane, black carbon and hydrofluorocarbons

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
- 97.** If you want to see gharials in their natural habitat, which one of the following is the best place to visit?
- A. Bhitarkanika Mangroves
 - B. Chambal River
 - C. Pulicat Lake
 - D. Deepor Beel
- 98.** The term 'M-STripES' is sometimes seen in the news in the context of
- A. Captive breeding of Wild Fauna
 - B. Maintenance of Tiger Reserves
 - C. Indigenous Satellite Navigation System
 - D. Security of National Highways
- 99.** In India, if a species of tortoise is declared protected under Schedule I of the Wildlife (Protection) Act, 1972, what does it imply?
- A. It enjoys the same level of protection as the tiger
 - B. It no longer exists in the wild, a few individuals are under captive protection; and now it is impossible to prevent its extinction
 - C. It is endemic to a particular region of India.
 - D. Both (A) and (C) stated above are correct in this context

2018

100. In which one of the following States is Pakhui Wildlife Sanctuary located?

- A. Arunachal Pradesh
- B. Manipur
- C. Meghalaya
- D. Nagaland

101. Consider the following statements:

1. The definition of "Critical Wildlife Habitat" is incorporated in the Forest Rights Act, 2006.
2. For the first time in India, Baigas have been given Habitat Rights.
3. Union Ministry of Environment, Forest and Climate Change officially decides and declares Habitat Rights for Primitive and Vulnerable Tribal Groups in any part of India.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 3 only
- D. 1, 2 and 3

102. With reference to organic farming in India, consider the following statements:

1. 'The National Programme for Organic Production' (NPOP) is operated under the guidelines and directions of the Union Ministry of Rural Development.
2. 'The Agricultural and Processed Food Products Export Development Authority (APEDA) functions as the Secretariat for the implementation of NPOP.

3. Sikkim has become India's first fully organic State.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 3 only
- D. 1, 2 and 3

103. With reference to the 'Global Alliance for Climate-Smart Agriculture (GACSA); which of the following statements is/are correct?

- 1. GACSA is an outcome of the Climate Summit held in Paris in 2015.
- 2. Membership of GACSA does not create any binding obligations.
- 3. India was instrumental in the creation of GACSA.

Select the correct answer using the code given

- A. 1 and 3 only
- B. 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

104. The Partnership for Action on Green Economy (PAGE), a UN mechanism to assist countries transition towards greener and more inclusive economies, emerged at

- A. The Earth Summit on Sustainable Development 2002, Johannesburg
- B. The United Nations Conference on Sustainable Development 2012, Rio de Janeiro
- C. The United Nations Framework Convention on Climate Change 2015, Paris
- D. The World Sustainable Development Summit 2016, New Delhi

105. Consider the following statements:

- 1. Most of the world's coral reefs are in tropical waters.
- 2. More than one-third of the world's coral reefs are located in the territories of Australia, Indonesia and Philippines.
- 3. Coral reefs host far more number of animal phyla than those hosted by tropical rainforests.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

106. "Momentum for Change : Climate Neutral Now" is an initiative launched by

- A. The Intergovernmental Panel on Climate Change
- B. The UNEP Secretariat
- C. The UNFCCC Secretariat
- D. The World Meteorological Organization

107. With reference to the circumstances in Indian agriculture, the concept of "Conservation Agriculture" assumes significance. Which of the following fall under the Conservation Agriculture?

- 1. Avoiding the monoculture practices
- 2. Adopting minimum tillage
- 3. Avoiding the cultivation of plantation crops
- 4. Using crop residues to cover soil surface
- 5. Adopting spatial and temporal crop sequencing/crop rotations

Select the correct answer using the code given

- A. 1, 3 and 4
- B. 2, 3, 4 and 5

- C. 2,4 and 5
- D. 1,2,3 and 5

108. How is the National Green Tribunal (NGT) different from the Central Pollution Control Board (CPCB)?

1. The NGT has been established by an Act whereas the CPCB has been created by an executive order of the Government.
2. The NGT provides environmental justice and helps reduce the burden of litigation in the higher courts whereas the CPCB promotes cleanliness of streams and wells, and aims to improve the quality of air in the country.

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

109. In which one of the following States is Pakhui Wildlife Sanctuary located?

- A. Arunachal Pradesh
- B. Manipur
- C. Meghalaya
- D. Nagaland

2019

110. Consider the following statements:

1. Agricultural soils release nitrogen oxides into environment.
2. Cattle release ammonia into environment.
3. Poultry industry releases reactive nitrogen compounds into environment.

Which of the statements given above is/are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 2 only
- D. 1, 2 and 3

111. Why is there a great concern about the 'microbeads' that are released into environment?

- A. They are considered harmful to marine ecosystems.
- B. They are considered to cause skin cancer in children.
- C. They are small enough to be absorbed by crop plants in irrigated fields
- D. They are often found to be used as food adulterants

112. The word 'Denisovan' is sometimes mentioned in media in reference to

- A. Fossils of a kind of dinosaurs
- B. An early human species
- C. A cave system found in north-east India
- D. A geological period in the history of Indian subcontinent

113. Which of the following statements are correct about the deposits of 'methane hydrate'?

1. Global warming might trigger the release of methane gas from these deposits.
2. Large deposits of 'methane hydrate' are found in Arctic Tundra and under the seafloor.
3. Methane in atmosphere oxidizes to carbon dioxide after a decade or two.

Select the correct answer using the code given

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

114. In India, 'extended producer responsibility' was introduced as an important feature in which of the following?

- A. The Bio-medical Waste (Management and Handling) Rules, 1998
- B. The Recycled (Manufacturing and Usage) Rules, 1999
- C. The (e-Waste) (Management and Handling) Rules, 2011
- D. The Food Safety and Standard Regulations, 2011

115. Consider the following:

- 1. Carbon monoxide
- 2. Methane
- 3. Ozone
- 4. Sulphur dioxide

Which of the above are released into atmosphere due to the burning of crop/biomass residue?

- A. 1 and 2 only
- B. 2, 3 and 4 only
- C. 1 and 4 only
- D. 1, 2, 3 and 4

116. In India, the use of carbofuran, methyl parathion, phorate and triazophos is viewed with apprehension. These chemicals are used as

- A. pesticides in agriculture
- B. preservatives in processed foods
- C. fruit-ripening agents
- D. moisturising agents in cosmetics

117. Consider the following statements:

- 1. Under Ramsar Convention, it is mandatory on the part of the Government of India to protect and conserve all the wetlands in the territory of India.
- 2. The Wetlands (Conservation and Management) Rules, 2010 were framed by the Government of India based on the recommendations of Ramsar Convention.
- 3. The Wetlands (Conservation and Management) Rules, 2010 also encompass the drainage area or catchment regions of the wetlands as determined by the authority.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 3 only
- D. 1, 2 and 3

118. Which one of the following National Parks lies completely in the temperate alpine zone?

- A. Manas National Park
- B. Namdapha National Park
- C. Neora Valley National Park
- D. Valley of Flowers National Park

119. Consider the following statements:

- 1. Asiatic lion is naturally found in India only.
- 2. Double-humped camel is naturally found in India only.
- 3. One-horned rhinoceros is naturally found in India only.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

120. In the context of which of the following do some scientists suggest the use of cirrus cloud thinning technique and the injection of sulphate aerosol into stratosphere?

- A. Creating the artificial rains in some regions
- B. Reducing the frequency and intensity of tropical cyclones
- C. Reducing the adverse effects of solar wind on the Earth
- D. Reducing the global warming

121. Which of the following are in Agasthyamala Biosphere Reserve?

- A. Neyyar, Peppara and Shendurney Wildlife Sanctuaries; and KalakadMundanthurai Tiger Reserve
- B. Mudumalai, Sathyamangalam and Wayanad Wildlife Sanctuaries; and Silent Valley National Park
- C. Kaundinya, GundlaBrahme-swaram and Papikonda Wildlife Sanctuaries; and Mukurthi National Park
- D. Kawal and Sri Venkateswara Wildlife Sanctuaries; and Nagarjunasagar- Srisailam Tiger Reserve

122. Consider the following statements:

- 1. Some species of turtles are herbivores.
- 2. Some species of fish are herbivores.
- 3. Some species of marine mammals are herbivores.
- 4. Some species of snakes are viviparous.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2, 3 and 4 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

123. Consider the following pairs:

Wildlife : Naturally found in

- 1. Blue-finned Mahseer : Cauvery River
- 2. Irrawaddy Dolphin : Chambal River
- 3. RustyspottedCat : Eastern Ghats

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

124. Consider the following statements:

- 1. As per law, the Compensatory Afforestation Fund Management and Planning Authority exists at both National and State levels.
- 2. People's participation is mandatory in the compensatory afforestation programmes carried out under the Compensatory Afforestation Fund Act, 2016.

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

125. Consider the following statements:

- 1. The United Nations Convention against Corruption (UNCAC) has a 'Protocol against the Smuggling of Migrants by Land, Sea and Air'.
- 2. The UNCAC is the ever-first legally binding global anti-corruption instrument.
- 3. A highlight of the United Nations Convention against Transnational Organized Crime (UNTOC) is the inclusion of a specific chapter aimed at returning assets to their rightful owners from whom they had been taken illicitly.
- 4. The United Nations Office on Drugs and Crime (UNODC) is mandated by its member States to assist in the implementation of both UNCAC and UNTOC.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2, 3 and 4 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

126. Consider the following statements:

1. As per recent amendment to the Indian Forest Act, 1927, forest dwellers have the right to fell the bamboos grown on forest areas.
2. As per the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, bamboo is a minor forest produce.
3. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 allows ownership of minor forest produce to forest dwellers.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 3 only
- D. 1, 2 and 3

127. Recently, there was a growing awareness in our country about the importance of Himalayan nettle (*Girardinia diversifolia*) because it is found to be a sustainable source of

- A. Anti-malarial drug
- B. Biodiesel
- C. Pulp for paper industry
- D. Textile fibre

128. Consider the following statements: The Environment Protection Act, 1986 empowers the Government of India to

1. state the requirement of public participation in the process of environmental protection, and the procedure and manner in which it is sought
2. lay down the standards for emission or discharge of environmental pollutants from various sources

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

129. As per the Solid Waste Management Rules, 2016 in India, which one of the following statements is correct?

- A. Waste generator has to segregate waste into five categories.
- B. The Rules are applicable to notified urban local bodies, notified towns and all industrial townships only.
- C. The Rules provide for exact and elaborate criteria for the identification of sites for landfills and waste processing facilities.
- D. It is mandatory on the part of waste generator that the waste generated in one district cannot be moved to another district.

2020

In the context of recent advances in human reproductive technology, “Pronuclear

Transfer” is used for

(a) fertilization of egg in vitro by the donor sperm

(b) genetic modification of sperm-producing cells

- (c) development of stem cells into functional embryos
- (d) prevention of mitochondrial diseases in offspring

Q 2. With reference to carbon nanotubes, consider the following statements:

1. They can be used as carriers of drugs and antigens in the human body.
2. They can be made into artificial blood capillaries for an injured part of human body.
3. They can be used in biochemical sensors.
4. Carbon nanotubes are biodegradable.

Which of the statements given above are correct?

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

Q 3. Consider the following activities:

1. Spraying pesticides on a crop field
2. Inspecting the craters of active volcanoes
3. Collecting breath samples from spouting whales for DNA analysis
4. At the present level of technology, which of the above activities can be successfully carried out by using drones?

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

Q 4. Consider the following statements:

Genetic changes can be introduced in the cells that produce eggs or sperms of a prospective parent.

A person's genome can be edited before birth at the early embryonic stage.

Human-induced pluripotent stem cells can be injected into the embryo of a pig.

Which of the statements given above is/are correct?

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

Q 5. Which of the following statements are correct regarding the general difference between plant and animal cells?

1. Plant cells have cellulose cell walls whilst animal cells do not
2. Plant cells do not have plasma membrane unlike animal cells which do
3. Mature plant cell has one large vacuole

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

Q 6. Which of the following are the reasons/factors for exposure to benzene pollution?

1. Automobile exhaust
2. Tobacco smoke
3. Wood burning
4. Using varnished wooden furniture
5. Using products made of polyurethane

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, 3, 4 and 5

Q 7. With reference to Indian elephants, consider the following statements:

1. The leader of an elephant group is a female
2. The maximum gestation period can be 22 months
3. An elephant can normally go on calving till the age of 40 years only
4. Among the States in India, the highest elephant population is in Kerala

Which of the statements given above is/are correct?

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

Q 8. Which of the following Protected Areas are located in Cauvery basin?

1. Nagarhole National Park
2. Papikonda National Park
3. Sathyamangalam Tiger Reserve
4. Wayanad Wildlife Sanctuary

Select the correct answer using the code given below:

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

Q 9. With reference to India's biodiversity, Ceylon Frogmouth, Coppersmith Barbet, Gray Chinned Minivet and White-throated Redstart are

- (a) Birds
- (b) Primates
- (c) Reptiles
- (d) Amphibians

Q 10. Which one of the following protected areas is well-known for the conservation of a sub-species of the Indian swamp deer (Barasingha) that thrives well on hard ground and is exclusively graminivorous?

- (a) Kanha National Park

- (b) Manas National Park
- (c) Mudumalai Wildlife Sanctuary
- (d) Tal Chhapar Wildlife Sanctuary

Q 11. Which of the following are the most likely places to find the musk deer in its natural habitat?

- Askot Wildlife Sanctuary
- Gangotri National Park
- Kishanpur Wildlife Sanctuary
- Manas National Park

Select the correct answer using the code given below:

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

Q 12. In rural road construction, the use of which of the following is preferred for ensuring environmental sustainability or to reduce carbon footprint?

1. Copper slag
2. Cold mix asphalt technology
3. Geotextiles
4. Hot mix asphalt technology
5. Portland cement

Select the correct answer using the code given below:

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

Q 13. Steel slag can be the material for which of the following?

1. Construction of base road
2. Improvement of agricultural soil
3. Production of cement

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

Q 14. Consider the following statements:

1. Coal ash contains arsenic, lead and mercury.
2. Coal-fired power plants release sulphur dioxide and oxides of nitrogen into the environment.
3. High ash content is observed in Indian coal.

Which of the statements given above is/are correct?

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

Q 15. What is the use of biochar in farming?

1. 'Biochar can be used as a part of the growing medium in vertical farming.
2. When biochar is a part of the growing medium, it promotes the growth of nitrogen fixing microorganisms.
3. When biochar is a part of the growing- medium, it enables the growing medium to retain water for longer time.

Which of the statements given above is/are correct?

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

Q 16. If a particular plant species is placed under Schedule VI of The Wildlife Protection Act, 1972, what is the implication?

- (a) A licence is required to cultivate that plant
- (b) Such a plant cannot be cultivated under any circumstances
- (c) It is a Genetically Modified crop plant
- (d) Such a plant is invasive and harmful to the ecosystem

Q 17. What is/are the advantage/advantages of zero tillage in agriculture?

1. Sowing of wheat is possible without burning the residue of the previous crop
2. Without the need for the nursery of rice saplings, direct planting of paddy seeds in the wet soil is possible.
3. Carbon sequestration in the soil is possible.

Select the correct answer using the code given below:

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

Q 18. According to India's National Policy on Biofuels, which of the following can be used as raw materials for the production of biofuels?

1. Cassava
2. Damaged wheat grains
3. Groundnut seeds
4. Horse gram
5. Rotten potatoes
6. Sugar beet

Select the correct answer using the code given below:

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

Q 19. Which one of the following statements best describes the term 'Social Cost of Carbon'? It is a measure, in monetary value, of the

- (a) long-term damage done by a tonne of CO₂, emissions in a given year
- (b) requirement of fossil fuels for a country to provide goods and services to its citizens, based on the burning of those fuels
- (c) efforts put in by a climate refugee to adapt to live in a new place

(d) contribution of an individual person to the carbon footprint on the planet Earth

Q 20. In the context of India, which of the following is/are considered to be of practice(s) of eco-friendly agriculture?

1. Crop diversification
2. Legume intensification
3. Tensiometer use
4. Vertical farming

Select the correct answer using the code given below:

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

Q 21. Consider the following minerals:

1. Bentonite
2. Chromite
3. Kyanite
4. Sillimanite

In India, which of the above is/are officially designated as major minerals?

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

Q 22. With reference to Ocean Mean Temperature (OMT), which of the following statements is/are correct?

1. OMT is measured up to a depth of 26°C isotherm which is 129 meters in the southwestern Indian Ocean during January — March.
2. OMT collected during January — March can be used in assessing whether the amount of rainfall in monsoon will be less or more than a certain long-term mean.

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

Q 23. With reference to India's Desert National Park, which of the following statements are correct?

It is spread over two districts.

There is no human habitation inside the Park.

It is one of the natural habitats of the Great Indian Bustard.

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

Q 24. Consider the following statements :

36% of India's districts are classified as "overexploited" or "critical" by the Central Ground Water Authority (CGWA).

CGWA was formed under the Environment (Protection) Act.

India has the largest area under groundwater irrigation in the world.

Which of the statements given above is/are correct?

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

Q 25. Among the following Tiger Reserves, which one has the largest area under "Critical Tiger Habitat"?

- (a) Corbett
- (b) Ranthambore
- (c) Nagarjunsagar-Srisaïlam
- (d) Sunderbans

2021

1. Statement 1:

The United Nations Capital Development Fund (UNCDF) and the Arbor Day Foundation have recently recognized Hyderabad as 2020 Tree City of the World

Statement 2:

Hyderabad was selected for recognition for a year following its commitment to grow and maintain the Urban forests.

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

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 is the correct explanation for Statement 1
- (b) Both Statement 1 and Statement 2 are correct but Statement 2 is not the correct explanation for Statement 1.
- (c) Statement 1 is correct but Statement 2 is not correct.
- (d) Statement 1 is not correct but Statement 2 is correct.

2. In the context of India's preparation for Climate-smart Agriculture, consider the following statements:

- 1. The 'Climate-Smart village' approach in India is a part of a project led by climate change, Agriculture and food security (CCAFS), an international research programme.
- 2. The project of CCAFS is carried out under Consultative Group on International Agricultural Research (CGIAR) headquartered in France.
- 3. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in India is one of the CGIAR'S research centers.

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

3. Consider the following kinds of organisms:

- 1. Copepods

2. Cyanobacteria
3. Diatoms
4. Foraminifera

Which of the above are primary producers in the food chains of oceans?

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

4. Consider the following animals

1. Hedgehog
2. Marmot
3. Pangolin

To reduce the chance of being captured by predators, which of the above organisms rolls up/roll up and protects/protect its/their vulnerable parts?

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

5. With reference to the "New York Declaration on Forests", which of the following statements are correct?

1. It was first endorsed at the United Nations Climate Summit in 2014
2. It endorses a global timeline to end the loss of forests
3. It is a legally binding international declaration
4. It is endorsed by governments, big companies and indigenous communities.
5. India was one of the signatories at its inception

Select the correct answer using the code given below

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

6. Magnetite particles, suspected to cause neurodegenerative problems are generated as environmental pollutants from which of the following?

1. Brakes of motor vehicles
2. Engines of motor vehicles
3. Microwave stoves within homes
4. Power plants
5. Telephone lines

Select the correct answer using the code given below

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

7. Which one of the following is a filter feeder?

- (a) Catfish
- (b) Octopus
- (c) Oyster
- (d) Pelican

8. In the case of which of the following biogeochemical cycles, the weathering of rocks is the main source of release of nutrients to enter the cycle?

- (a) Carbon cycle
- (b) Nitrogen cycle
- (c) Phosphorus cycle
- (d) Sulphur cycle

9. Which of the following are detritivores?

- 1. Earthworms
- 2. Jellyfish
- 3. Seahorse
- 4. Woodlice

Select the correct answer using the code given below

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

10. The “Common Carbon Metric” supported by UNEP, has been developed for

- (a) Assessing the carbon footprint of building operations around the world
- (b) Enabling commercial farming entities around the world to enter carbon emission trading
- (c) Enabling governments to assess the overall carbon footprint caused by their countries
- (d) Assessing the overall carbon foot-print caused by the use of fossil fuels by the world in a unit time

11. Which of the following have species that can establish a symbiotic relationship with other organisms?

- 1. Cnidarians
- 2. Fungi
- 3. Protozoa

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

12. “R2 Code of Practices” constitute a tool available for promoting the adoption of

- (a) Environmentally responsible practices in the electronics recycling industry
- (b) Ecological management of “Wetlands of International Importance” under the Ramsar Convention
- (c) Sustainable practices in the cultivation of agricultural crops in degraded lands
- (d) “Environmental Impact Assessment” in the exploitation of natural resources

13. Why is there a concern about copper smelting plants?

- 1. They may release lethal quantities of carbon monoxide into the environment
- 2. The copper slag can cause the leaching of some heavy metals into the environment
- 3. They may release sulphur dioxide as a pollutant

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

14. With reference to furnace oil, consider the following statements:

- 1. It is a product of oil refineries
- 2. Some industries use it to generate power
- 3. Its use causes sulphur emissions into the environment

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

15. What is blue carbon?

- (a) Carbon captured by oceans and coastal ecosystems
- (b) Carbon sequestered in forest biomass and agricultural soils
- (c) Carbon contained in petroleum and natural gas
- (d) Carbon present in the atmosphere

16. In nature, which of the following is/are most likely to be found surviving on a surface without soil?

- 1. Fern
- 2. Lichen
- 3. Moss
- 4. Mushroom

Select the correct answer using the code given below

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

2022

1. Among the following crops, which one is the most important anthropogenic source of both methane and nitrous oxide ?

- (a) Cotton
- (b) Rice
- (c) Sugarcane
- (d) Wheat

2. Consider the following pairs:

Wetland/Lake:	Location
Hokera Wetland	Punjab
Renuka Wetland	Himachal Pradesh
Rudrasagar Lake	Tripura
Sasthamkotta	Tamil Nadu

How many pairs given above are correctly matched?

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

3. "Climate Action Tracker" which monitors the emission reduction pledges of different countries is a :

- (a) Database created by coalition of research organisations
- (b) Wing of "International Panel of Climate Change"
- (c) Committee under "United Nations Framework Convention on Climate Change"
- (d) Agency promoted and financed by United Nations Environment Programme and World Bank

4. Consider the following statements:

- 1. The Climate Group is an international non-profit organisation that drives climate action by building large networks and runs them.
- 2. The International Energy Agency in partnership with the Climate Group launched a global initiative "EP100".
- 3. EP100 brings together leading companies committed to driving innovation in energy efficiency and increasing competitiveness while delivering on emission reduction goals.
- 4. Some Indian companies are members of EP100.
- 5. The International Energy Agency is the Secretariat to the "Under2 Coalition".

Which of the statements given above are correct?

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

5. "If rainforests and tropical forests are the lungs of the Earth, then surely wetlands function as its kidneys." Which one of the following functions of wetlands best reflects the above statement?

- (a) The water cycle in wetlands involves surface runoff, subsoil percolation and evaporation.
- (b) Algae form the nutrient base upon which fish, crustaceans, molluscs, birds, reptiles and mammals thrive.
- (c) 58 15 Wetlands play a vital role in maintaining sedimentation balance and soil stabilization.
- (d) Aquatic plants absorb heavy metals and excess nutrients.

6. In the Guidelines, statements: context of WHO consider the Air Quality following

- 1. The 24-hour mean of PM_{2.5} should not exceed 15 $\mu\text{g}/\text{m}^3$ and annual mean of PM 2.5 should not exceed 5 $\mu\text{g}/\text{m}^3$.
- 2. In a year, the highest levels of ozone pollution occur during the periods of inclement weather.
- 3. PM₁₀ can penetrate the lung barrier and enter the bloodstream.
- 4. Excessive ozone in the air can trigger asthma.

Which of the statements given above are correct?

- (a) 1, 3 and 4

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

7. With reference to “Gucchi” sometimes mentioned in the news, consider the following statements:

It is a fungus.

It grows in some Himalayan forest areas.

It is commercially cultivated in the Himalayan foothills of north-eastern India.

Which of the statements given above is/are correct?

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

8. With reference to polyethylene terephthalate, the use of which is so widespread in our daily lives, consider the following statements:

1. Its fibres can be blended with wool and cotton fibres to reinforce their properties.
2. Containers made of it can be used to store any alcoholic beverage.
3. Bottles made of it can be recycled into other products.
4. Articles made of it can be easily disposed of by incineration without causing greenhouse gas emissions.

Which of the statements given above are correct?

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

9. Which of the following is not a bird?

- (a) Golden Mahseer
- (b) Indian Nightjar
- (c) Spoonbill
- (d) White Ibis

10. Which of the following are nitrogen-fixing plants?

1. Alfalfa
2. Amaranth
3. Chickpea
4. Clover
5. Purslane (Kulfa)
6. Spinach

Select the correct answer using the code given below:

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

11. “Biorock technology” is talked about in which one of the following situations?

- (a) Restoration of damaged coral reefs
- (b) Development of building materials using plant residues

- (c) Identification of areas for exploration/extraction of shale gas
- (d) Providing salt licks for wild animals in forests/protected areas

12. The “Miyawaki method” is well known for the:

- (a) Promotion of commercial farming in arid and semi-arid areas
- (d). Harvesting wind energy on coastal areas and on sea surfaces
- (b) Development of gardens genetically modified flora using
- (d) Creation of mini forests in urban areas

13. Consider the following statements:

1. The India Sanitation Coalition is a platform to promote sustainable sanitation and is funded by the Government of India and the World Health Organisation.
2. The National Institute of Urban Affairs is an apex body of the Ministry of Housing and Urban Affairs in Government of India and provides innovative solutions to address the challenges of Urban 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

14. Which one of the following has been constituted under the Environment (Protection) Act, 1986 ?

- (a) Central Water Commission
- (b) Central Ground Water Board
- (c) Central Ground Water Authority
- (d) National Water Development Agency

15. Which one of the following statements best describes the ‘Polar Code’?

- (a) It is the international code of safety for ships operating in polar waters.
- (b) It is the agreement of the countries around the North Pole regarding the demarcation of their territories in the polar region.
- (c) It is a set of norms to be followed by the countries whose scientists undertake research studies in the North Pole and South Pole.
- (d) It is a trade and security agreement of the member countries of the Arctic Council.

16. Which one of the following best describes the term “greenwashing”?

- (a) Conveying a false impression that a company’s products are eco-friendly and environmentally sound
- (b) Non-inclusion of ecological/ environmental costs in the Annual Financial Statements of a country
- (c) Ignoring the consequences disastrous ecological while infrastructure development undertaking
- (d) Making mandatory provisions for environmental costs in a government project/programme

17. With reference to Indian laws about wildlife protection, consider the following statements :

1. Wild animals are the sole property of the government.
2. When a wild animal is declared protected, such animal is entitled for equal protection whether it is found in protected areas or outside.
3. Apprehension of a protected wild animal becoming a danger to human life is sufficient ground for its capture or killing.

Which of the statements given above is/are correct?

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

18. Certain species of which one of the following organisms are well known as cultivators of fungi?

- (a) Ant
- (b) Cockroach
- (c) Crab
- (d) Spider

19. Consider the following:

1. Carbon monoxide
2. Nitrogen oxide
3. Ozone
4. Sulphur dioxide

Excess of which of the above in the environment is/are cause(s) of acid rain?

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

Edge IAS