

1. Consider the following statements:

1. There is greater Biodiversity in upper latitudes.
2. The biodiversity is greater in lower altitude than the higher altitudes in mountainous area.
3. A less diverse ecosystem is more productive and can withstand environmental stress.

Choose the correct option from the codes given below:

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

2. Consider the following statements about recently launched *innovating for clean air initiative*:

1. It is launched in India with collaboration with United Kingdom.
2. It is three years joint initiative in Bengaluru.

Now, considering the statements, choose the correct ones

- (a) 1 only
- (b) 2 Only
- (c) Both
- (d) None

3. Consider the following statements about ocean energy:

1. India does not have any installed capacity for ocean energy capacity.
2. The ocean energy has not yet received the status of renewable energy in India.
3. Thermal energy is not part of ocean energy

Select the correct statements from the given codes

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

4. Consider the statements regarding the Tamil yeoman:

1. This species is endemic to western ghat.
2. This has been given status of state butterfly of Tamil Nadu
3. India is the first country to give such identification to any such species.

Select the correct answer from the code given codes

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

5. Consider the following statements regarding the Ecotone.

1. It is zone of junction between two diverse system

2. It is zone of tension.

3. It is linear in nature.

Now, choose the correct code, from below:

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

6. Consider the following statements about household air pollution:

1. The household fuels are the single biggest source of air pollution in India
2. Carbon mono oxide and methane are major component of household air pollution.
3. The emissions of PM2.5 by burning of household solid fuels is termed Household Air Pollution (HAP)

Now, choose the correct code, from below:

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

7. Which of the following are nitrogen fixing agent?

1. Thunder
2. Bacteria
3. Blue green algae
4. Chemical factories

Select the correct statements from the given codes:

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

8. Consider the following statements:

1. Ammonium ions can-not be directly taken up as a source of nitrogen by plants.
2. Ammonium ions are first oxidized to nitrite by the bacterium Nitrobacter

Select the correct answer from the code given below:

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

9. Which of the following are Ramsar sites in India?

1. Chilka lake
2. Deepor beel
3. East Calcutta wetland
4. Wular lake

Select the correct answer from the codes given below:

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

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

10. Consider the following statements about the Bharat stage norms.

1. The norms were introduced in 2000.
2. From April 2017, BS IV norms are applicable nationwide
3. BS V would have been rolled out by 2021 and BS VI in 2024.
4. BS-IV fuels contain 10 parts per million (ppm) Sulphur.

Now choose the correct option from the code given

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

11. Consider the statements about coral reefs given below:

1. They are more suitable in tropical area.
2. Saline water and siltation provide good condition for coral reefs.
3. In India west Bengal and Andhra coast provide good condition for coral reefs.

Choose the correct statements:

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

12. Consider the statements about currents:

1. Non-ionizing radiations affect only those components which absorb them.
2. Ionizing radiations have high penetration power and cause breakage of macromolecules.

Select the correct answer from code given below:

- (a) 1 only
- (b) 2 only
- (c) Neither 1 or 2
- (d) both

13. Consider the following statements:

1. Biodiversity hotspots are located only in tropical regions.
2. India has four biodiversity hotspots, i.e., Himalayas, Sundaland, Indo-Burma and Western Ghats
3. Indo-Burma holds remarkable endemism in freshwater turtle species.

Select the correct answer from code given below:

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

- (d) 1 and 2 only

14. Consider the following statements

1. IUCN is an NGO and CITES is an international agreement between governments.
2. IUCN runs thousands of field projects around the world to better manage natural environments.
3. CITES is legally binding on the States that have joined it, and this Convention takes the place of national laws.

Select the correct answer from code given below:

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

15. Consider the following statements about TRAFFIC: The Wildlife Trade Monitoring Network.

1. This was founded in 1976, with headquarters now located in Cambridge, United Kingdom.
2. Traffic is complimentary to CITES
3. TRAFFIC is multilateral agreements between governments.

Choose the correct statements:

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

16. Which of the following statements are correct about world wildlife fund?

1. It was founded as an organ of United nation in 1961.
2. It releases *The Living Planet Report* every two years.
3. WWF has launched worldwide campaigns like Earth Hour.

Select the correct answer from code given below:

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

17. Consider the following statements about cetaceans:

1. They are aquatic animals
2. They are not fish
3. They are blind
4. Whale and Dolphin are example of it.

Select the correct answer from code given below:

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

18. Consider the following statements:

1. The coal-fired power plants have to ensure that they curtail Sulphur dioxide and nitrous oxide emissions by 2020
2. India is largest emitter of Sulphur dioxide.

Select the correct answer from code given below:

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

19. Consider the following statements about invasive species.

1. Union Ministry of health & Family Welfare is responsible for the control of invasive pests & weeds.
2. They can cause monoculture replacing diverse system.
3. They are introduced through transportation.
4. The most recent was the fall armyworm that destroyed almost the entire cotton crop in the country in 2018.

Select the correct answer from code given below:

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

20. Consider the following statements about food wastage and climate change:

1. At present, a waste of food items is one-third of the global food production.
2. Currently, global food system is responsible for one third of the world's gas house gas emissions.
3. Food waste have 21-22 times greater global warming potential compared to CO₂.

Select the correct answer from code given below:

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

21. Consider the following statements about IUCN red List:

1. The IUCN Red List of Threatened Species, founded in 1964
2. The red pages in this publication include the critically endangered species.
3. Pink pages are used for those species that were formerly endangered but have now recovered to a point where they are no longer threatened.

Select the correct answer from code given below:

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

22. In recent times the incidents of forest fire have increased. Which of the followings are outcomes of forest fire?

1. Decreases the acidity of soil
2. Reduces moisture
3. Reduces nutrients component of soil
4. Sometime help in balancing ecosystem.

Select the correct answer from code given below:

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

23. Consider the following statements:

1. Pyramids of number is always inverted
2. Pyramid of energy upright and inverted both
3. Pyramid of biomass is always upright

Select the incorrect answer from code given below:

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

24. Consider the following statements:

1. There is an increase in seawater concentration of methylmercury since the late 1990s.
2. Fish metabolism is temperature independent.

Select the incorrect answer from code given below:

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

25. Consider the following statements about contribution of land use patterns to climate change:

1. Activities like agriculture and cattle rearing are a major source of methane and nitrous oxide (GHGs).
2. Perfluorocarbons (PFCs) have higher global warming potential than hydrofluorocarbons (HFCs)

Select the incorrect answer from code given below:

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

1. **B**
2. **A.** Innovation for clean air initiative is two years joint initiative in Bengaluru.
3. **A.** In recent time the ocean energy has been conferred status of renewable energy in India. Thermal energy is part of ocean energy.
4. **B**
5. **D**
6. **B.** A new study states that household fuels are the single biggest source of air pollution in India. Such household solid fuels accounts for somewhere between 22% to 52% of all ambient air pollution in India. In addition to generating GHGs like carbon dioxide and methane, the household solid fuels kick out chemicals and other fine particulate matter that can stick in the lungs and trigger pneumonia, lung cancer, etc. Fine particulate matter refers to particles or droplets with a diameter of 2.5 microns or less (PM2.5).
7. **D.** Nitrogen fixation on earth is accomplished in three different ways: By microorganisms (bacteria and blue-green algae), By man using industrial processes (Fertilizers factories) and To a limited extent by atmospheric phenomena such as thunder and lightning.
8. **D.** Ammonium ions are first oxidized to nitrite by the bacteria Nitrosomonas and/or Nitrococcus. The nitrite is further oxidized to nitrate with the help of the bacterium Nitrobacter.
9. **D**
10. **A.** From April 2017, BS IV norms are applicable nationwide. The central government had announced the April 1, 2020 deadline for adopting Bharat Stage VI emission norms by manufactures. Bharat Stage (BS) norms. The BS norms are instituted by the government to regulate the emission of air pollutants from motor vehicles. The norms were introduced in 2000. The norms limit the release of air pollutants such as nitrogen oxides, carbon monoxide, hydrocarbons, particulate matter (PM) and Sulphur oxides from vehicles using internal combustion engines. The norms are meant to be adopted by using appropriate fuel and technology. As the stage goes up, the control of emissions become stricter. BS IV and BS VI norms are based on similar norms in Europe called Euro 4 and Euro 6. As decided initially, BS V would have been rolled out by 2021 and BS VI in 2024, but leapfrog to BS VI norms by 2020 (skipping BS V) had to be done because of the carbon footprint obligations.
11. **A**
12. **C**
13. **A**
14. **D.** International Union for Conservation of Nature and Natural Resources (IUCN) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). IUCN is an NGO and CITES is an international agreement between governments. IUCN runs thousands of field projects around the world to better manage natural environments. CITES is legally binding on the States that have joined it, but this Convention does not take the place of national laws.
15. **A.** TRAFFIC is a NGO working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development. TRAFFIC is a joint programme of World Wide Fund for Nature (WWF) and IUCN. Traffic is complimentary to CITES. The programme was founded in 1976, with headquarters now located in Cambridge, United Kingdom. TRAFFIC's mission is to ensure that trade in wild plants and animals is not a threat to the conservation of nature.
16. **A.** World Wide Fund for Nature (World Wildlife Fund) -It is an international non-governmental organization founded in 1961. It works in the field of the wilderness preservation, and the reduction of human impact on the environment. WWF aims to "stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature." The Living Planet Report is published every two years by WWF since 1998. WWF has launched several notable worldwide campaigns including Earth Hour and Debt-for-Nature swap.
17. **B**
18. **B.** Current rules say that coal-fired power plants have to ensure that they curtail sulphur dioxide and nitrous oxide emissions from their smokestack by implementing appropriate technology. While this was to be in place by 2017, it has now been extended to 2022 by MoEF.
19. **C.** Union Ministry of agriculture & Farmers Welfare is responsible for the control of invasive pests & weeds. The most recent was the fall armyworm that destroyed almost the entire maize crop not cotton in the country in 2018.

20. B

21. C. The IUCN Red List of Threatened Species, founded in 1964, is the world's most comprehensive inventory of the global conservation status of biological species. When discussing the IUCN Red List, the official term "threatened" is a grouping of three categories: Critically Endangered, Endangered, and Vulnerable. The pink pages in this publication include the critically endangered species. As the status of the species changes, new pages are sent to the subscribers. 208 Green pages are used for those species that were formerly endangered but have now recovered to a point where they are no longer threatened. With passing time, the number of pink pages continue to increase.

22. B

23. B

24. D. There is a decrease in seawater concentration of methylmercury since the late 1990s. Fish metabolism is temperature dependent. So, as ocean temperature increases, fish experience higher metabolism and more energy obtained from food is spent on maintenance rather than growth.

25. C