

ENVIRONMENT

1. Consider the following statements:
 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
2. 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 of the following could be that animal?
 - (a) Indian wild Buffalo
 - (b) Indian wild Ass**
 - (c) Indian wild Boar
 - (d) Indian Gazelle

3. Consider the following:
 1. Photosynthesis
 2. Respiration
 3. Decay of organic matter
 4. Volcanic action

Which of the above add carbon dioxide to the carbon cycle on Earth?

- (a) 1 and 4 only
 - (b) 2 and 3 only
 - (c) 2, 3 and 4 only**
 - (d) 1, 2, 3 and 4
4. 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
5. Which of the following can be found as pollutants in the drinking water in some parts of India?
 1. Arsenic
 2. Sorbitol
 3. Fluoride
 4. Formaldehyde
 5. Uranium

Select the correct answer using the codes given below

- (a) 1 and 5 only
 - (b) 1, 3, 4, and 5 only
 - (c) 2, 4 and 5 only
 - (d) 1, 3 and 5 only**
6. Which of the following can be a possible reason behind deoxygenation of ocean?
 1. Eutrophication
 2. Nitrogen deposition

3. Ocean warming

Select the correct answer using the codes given below

- (a) 1 and 2 only
 - (b) 2 and 3 only
 - (c) 1 and 3 only
 - (d) All of the above**
7. 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 (b) and (c) stated above are correct in this context.
8. If a particular plant species is placed under the schedule VI of The Wildlife Protection Act 1972, what does it imply?
- (a) A license is required to cultivate that plant**
 - (b) Such a plant cannot be cultivated under any circumstances
 - (c) It is a genetically modified plant
 - (d) Such a plant is invasive and harmful to the ecosystem
9. What is 'Greenhouse Gas Protocol'?
- (a) It is an initiative of the United Nations to offer financial incentives to developing countries to reduce greenhouse gas emissions and to adopt eco-friendly technologies
 - (b) It is an international accounting tool for government and business leaders to understand, quantify and manage greenhouse gas emissions**
 - (c) It is an inter-governmental agreement ratified by all the member countries of the United Nations to reduce greenhouse gas emissions to specified levels by the year 2022
 - (d) It is one of the multilateral REDD+ initiatives hosted by the World Bank
10. Which of the following National Parks is unique in being a swamp with floating vegetation that supports a rich biodiversity?
- (a) Bhitarkanika National Park
 - (b) Keibul Lamjao National Park**
 - (c) Keoladeo Ghana National park
 - (d) Sultanpur National park

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11. Helium can be used for which of the followings?

- 1. Cooling satellite instruments
- 2. MRI scanners
- 3. Inflate car airbags
- 4. Scan barcodes

Select the correct answer using the code given below:

- (a) 1 and 2 only
 - (b) 2 and 4 only
 - (c) 1, 3 and 4 only
 - (d) 1, 2, 3 and 4**
12. Consider the following statements regarding Glial Cells:
- 1. They are more numerous than nerve cells in the brain.
 - 2. They are generally smaller than neurons.
 - 3. They aid in recovery from neural injury.

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

13. Polychlorinated Biphenyl, a cause of concern, is used in which of the following?

1. Coolants
2. Transformer oils
3. Hydraulic fluids

Select the correct answer using the code given below:

(a) 1 only

(b) 1 and 2 only

(c) 2 and 3 only

(d) 1, 2 and 3

14. Consider the following statements:

1. Graphene is being used to boost not only the capacity and charge rate of batteries but also the longevity.
2. Graphene is highly inert and so can act as a corrosion barrier between oxygen and water diffusion.

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

15. Consider the following statements:

1. Totipotency is the capacity to generate a whole plant from any cell/explant.
2. Micropropagation is the method of producing thousands of plants through tissue culture.
3. Somatic hybrid plants are genetically identical to the original plant, from which they were grown.

Which of the statements given above are correct?

(a) 1 and 2 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

16. With reference to Nuclear Reactors in India, consider the following statements:

1. The Pressurised Heavy Water reactor (PHWR) is used in the 1st stage of India's Nuclear program, while the Fast Breeder reactor (FBR) is part of the 2nd stage.
2. In the thorium fuel cycle, thorium 232 is transmuted into the fissile isotope uranium 233.
3. In a FBR, Sodium is used as a coolant; while in PHWR, Heavy water is used as a coolant.
4. BHAVINI is a Prototype Fast Breeder Reactor (PFBR) located at the Tarapur power plant.

Which of the statements given above is/are correct?

a) 1 only

b) 1, 2 and 3 only

c) 2 and 3 only

d) 2, 3 and 4 only

17. Which one of the following best describes the term, 'superionic' state?

- a) It is an ionized gas consisting of approximately equal numbers of positively and negatively charged particles.
- b) It is a state of matter that is formed when a gas of bosons is cooled to temperatures to absolute zero.
- c) It is an intermediate state of matter between solid and liquid.**
- d) It is a state of matter that has no fixed shape and no fixed volume.

18. Consider the following statements:

1. Devasthal optical telescope (DOT) is the largest telescope in India for study of celestial objects

at optical wavelengths.

2. Devasthal observatory is located in the Union Territory of Ladakh.

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

19. Consider the following statements:

- 1. New Space India Limited (NSIL) acts as the regulator of non-government space activities in India.
- 2. Indian National Space Promotion and Authorization Centre (IN-SPACe) owns the operational launch vehicles and space assets of ISRO.

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**

20. PM-DevINE project is related to which of the following?

- a) Development of important religious places
- b) **Development of North East region**
- c) Development of ports along the Arabian Sea
- d) Development of inter-state connectivity in northern hill states.

21. The terms, 'ModifiedElephant, Lapsus \$', recently mentioned in the news, refer to

- a) **Hacking groups**
- b) Crossbreed of Asian and African elephant
- c) Crypto currencies
- d) FinTech companies

22. 'Angadia system' recently seen in the news, refers to

- a) A tribal culture to please the god of weather before the sowing of crops.
- b) **A parallel banking practice to send cash from one place to another.**
- c) A system of encrypted messages to signal danger during ancient times in India.
- d) A tribal dance done with fire in the north- eastern region of India.

23. Consider the following statements:

- 1. Dementia is the loss of cognitive functioning like thinking, remembering, and reasoning.
- 2. Alzheimer's Disease is a progressive disease beginning with mild memory loss and can affect a person's ability to carry out daily activities.
- 3. Dementia is a subtype of Alzheimer's disease.

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

24. Consider the following statements

- 1. Monkey pox virus is a DNA virus, like SARS-CoV-2.
- 2. Monkey pox virus mutate frequently as it is a DNA virus.

Choose the incorrect statement/s using the codes given below

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

25. Match the following with respect to IPCC working group

1. Working group I - assesses the physical science of climate change.
2. Working Group II - Impacts, Adaptation and Vulnerability
3. Working Group III - Mitigation of Climate Change

How many above pairs are correctly matched?

- a) Only one pair
- b) Only two pairs
- c) **All the three pairs**
- d) None of the above pairs



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