

1. Consider the following statements regarding

1. Permafrost store about double the amount of carbon present in the atmosphere.
2. In the solid state of Permafrost, microbial decomposition of organic materials is stalled and as the Earth warms microbes become active and the greenhouse gases drift upwards.

Which of the above statements is/are correct?

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

2. Mosses is a bioindicator. What do you understand by this statement?

1. It reflects changes to ecosystems such as pollution.
2. It cannot be cloned or genetically engineered.
3. It does not contain mRNA.

Select the correct answer code:

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

3. With reference to the evolution of living organisms on earth, which of the following is the correct sequence of evolution?

- a) Spiders-Snakes-Corals-Horses
- a) Spiders-Snakes-Corals-Horses
- c) Corals-Spiders-Snakes-Horses
- d) Horses-Spiders-Snakes-Corals

4. Which of the following statements best describes biotic potential?

- a) It refers to the potential biomass of a population measured as dry weight per unit area.
- b) It refers to the maximum reproductive capacity of an organism under optimum environmental conditions.
- c) It refers to the possible functional roles a species can play in an ecosystem.

d) It refers to the minimum population of a species required to sustain a food web.

5. When ocean temperatures get too hot, corals often experience 'bleaching' events. What does this mean?

a) Plants and animals living in the vicinity of corals die

b) Corals move towards cooler waters

c) Corals submerge themselves completely under water, starving themselves of sunlight and air to breathe

d) The symbiotic nature of the relationship between a certain plant and animal breaks down

6. Consider the following statements.

1. States and Union Territories with more than 50 per cent of their land under forest cover can undertake compensatory afforestation in other states.

2. According to the Forest (Conservation) Act, 1980, each time forest land is diverted, the project proponent has to pay the state for the ecosystem services lost due to diverting forest land.

Which of the above statements is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

7. Consider the following statements regarding Compensatory Afforestation Fund and Compensatory Afforestation Fund Management and Planning Authority (CAMPA) Act, 2016.

1. The law establishes the National Compensatory Afforestation Fund under the Public Account of India, and a State Compensatory Afforestation Fund under the Public Account of each state.

2. The law says that land selected for afforestation should preferably be contiguous to the forest being diverted so that it is easier for forest officials to manage it.

Which of the above statements is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

8. Central Ground Water Authority (CGWA) has been constituted under

- a) Environment (Protection) Act, 1986
- b) Hazardous waste Handling and management act, 1989
- c) Public Liability Insurance Act, 1991
- d) Water (Prevention and Control of Pollution) Act, 1974

9. Consider the following statements.

- 1. Wildlife Protection Act (WPA) empowers the Central government to declare any wild animal, including those in Schedule I & II of the WPA, to be vermin for specified area and period.
- 2. Wildlife Protection Act authorizes Chief Wildlife Warden to permit hunting of certain wild animals only if they cannot be captured or translocated.

Which of the above statements is/are correct?

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

10. Consider the following statements regarding National Board for Wildlife.

- 1. National Board for Wildlife is a Statutory Organization constituted under the Environment (Protection) Act, 1986.
- 2. It has the power to review all wildlife-related matters and approve projects in and around national parks and sanctuaries.
- 3. The NBWL is chaired by the Union Environment Ministry.

Which of the above statements is/are correct?

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

11. Active Noise-cancelling headphones primarily work by

- a) Sending a mirror sound wave inside the headphone speakers
- b) Radiating sound waves externally (to the headphone) to block any incoming sound
- c) Passively blocking all the noise coming inside the microphone

d) Both (a) and (b)

12. Arrange the following commonly used fuels in terms of calorific value:

a) Coal < Wood < Biogas < Hydrogen

b) Wood < Coal < Biogas < Hydrogen

c) Wood < Biogas < Coal < Hydrogen

d) Coal < Biogas < Wood < Hydrogen

13. Consider the following statements regarding Tuberculosis.

1. The bacterium that causes tuberculosis is called Mycobacterium tuberculosis.

2. Chest X-ray cannot be used as a screening tool for Tuberculosis.

Which of the above statements is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

14. How is the phenomena of gravitational lensing helpful for astronomers?

1. It helps them to investigate how new stars are born.

2. It is useful to estimate the amount and distribution of dark matter in the universe.

Select the correct answer code:

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

15. Consider the following statements regarding High-Temperature Proton Exchange Membrane (HTPEM) technology.

1. It takes nuclear fuel as the input and produces heat and water as its bi-products

2. It is suitable for distributed stationary power applications like small offices and commercial units.

Which of the above statements is/are correct?

a) 1 only

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

16. Astronauts have to wear special protective space suits filled with air when they go to the moon or outer space. This is because of the

- 1. Lack of air pressure in these regions
- 2. Very cold temperature in these regions
- 3. Dangerous radiation in these regions

Select the correct answer code:

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

17. Consider the following statements regarding Asteroid Impact Deflection Assessment (AIDA).

- 1. It is a joint research mission between NASA and SpaceX.
- 2. It aims to study the viability of destroying an asteroid by crashing a spacecraft into its surface.

Which of the above statements is/are correct?

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

18. In order to stay over the same location on the Earth, a geostationary satellite must be directly above the

- a) Tropic of Cancer
- b) Either North or South Pole
- c) Equator
- d) Tropic of Capricorn

19. Consider the following statements regarding Gravitational waves (G-waves).

1. G- Waves can pass through any intervening matter without being scattered significantly.
2. They can be observed in the merger of two black holes.
3. All movement of matter in space create G-waves that can be easily noticed by satellites.

Which of the above statements is/are correct?

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

20. Consider the following statements regarding Neutrinos.

1. They can be weaponized.
2. Human body cannot tolerate exposure to Neutrinos.
3. They are completely massless.

Which of the above statements is/are correct?

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

21. Consider the following statements regarding BWF lifetime achievement award

1. BWF gives Prakash Padukone lifetime achievement award
2. The former world no 1 has already been honoured with the Badminton Association of India's (BAI) Lifetime Achievement Award in 2019

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

22. Consider the following statements:

1. Part XXI of the Indian Constitution deals with the temporary, transitional and special provisions.
2. This part of the constitution formed the basis of Special Status of J&K.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 and 2

23. Consider the following statements regarding Indian Film Personality of the Year award

1. Hema Malini, Praseen Joshi to be awarded Film Personalities of the Year at IFFI
2. Malini is a two-time Member of Parliament from Mathura, and Joshi was appointed by the government as the chairperson of the Central Board of Film Certification (CBFC) in 2020.

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

24. Which among the following organisations publishes the Digital Payments Index?

- (a) Reserve Bank of India
- (b) National Payment Corporation of India
- (c) NABARD
- (d) Bank Bureau Board

25. Consider the following statements:

1. National Youth Day is celebrated to commemorate the birth anniversary of Swami Vivekanand.
2. The National Youth Festival is organised by the Ministry of Youth Affairs and Sports.

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

ANSWER SHEET

1	C	10	C	19	A
---	---	----	---	----	---

2	A	11	A	20	D
3	C	12	B	21	B
4	B	13	A	22	C
5	D	14	C	23	A
6	B	15	B	24	A
7	C	16	B	25	C
8	A	17	D		
9	B	18	C		