

1. Consider the following statements regarding

1. Superconductivity is a state in which a material shows very high electrical resistance.
2. Superconducting materials can save huge amounts of energy, and be used to make highly efficient electrical appliances.
3. Superconductivity is possible only at high temperatures.

Which of the above statements is/are correct?

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

2. Consider the following statements regarding Darknet.

1. Darknet refers to the deep hidden internet platform that is used for narcotics sale, exchange of pornographic content and other illegal activities by using the secret alleys of the onion router (ToR) to stay away from the surveillance of law enforcement agencies.
2. Owing to its end-to-end encryption, darknet is considered very tough to crack when it comes to investigating criminal activities being rendered over 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

3. Archimedes Principle refers to

- a) An object remains at rest unless acted upon by a force.
- b) The speed of light in a vacuum is independent of the motion of all observers.
- c) The ability or tendency of something to float in water or other fluids.**
- d) None of the above

4. Consider the following statements regarding Cord blood banking.

1. Cord blood banking involves taking the umbilical cord blood, which is a rich source of stem cells, and preserving it for future use.

2. Stem cells in cord blood can be used to strengthen the immune system during cancer treatments.

3. Stem cells from cord blood can be given to more people and is less likely to cause rejection than those in bone marrow.

Which of the above statements is/are correct?

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

5. Gujral Doctrine of India advocates

- 1. Engaging more proactively with South Asian neighbours
- 2. Suspension of the veto system in the United Nations Security Council
- 3. Complete disarmament by major nuclear powers

Select the correct answer code:

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

6. Third Generation Biofuels refers to biofuel derived from

- 1. Algae
- 2. Food crops
- 3. Methane

Select the correct answer code:

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

7. Consider the following statements.

- 1. Continuous passage of electric current in a circuit produces heat.

2. Electrons are consumed in an electric circuit.

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. Consider the following statements regarding Hydrogen.

- 1. It is highly flammable.
- 2. Hydrogen does not occur in deposits or reserves like fossil fuel.
- 3. Water is the most abundant compound of hydrogen found on earth.

Which of the above statements is/are correct?

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

9. Bangladesh shares land borders with

- 1. India 2. Bhutan
- 3. Myanmar 4. Nepal

Select the correct answer code:

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

10. Consider the following statements.

- 1. India has built Integrated check posts (ICPs) only on the borders with Bangladesh and Nepal.
- 2. On the Indian side, the Integrated check posts are built by the Land Port Authority of India (LPAI), which is under Ministry of Home Affairs.

Which of the above statements is/are correct?

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

11. Bioluminescence is the property of a living organism to produce and emit light. Which of the following organisms show the property of bioluminescence?

- 1. Animals
- 2. Plants
- 3. Fungi
- 4. Bacteria

Select the correct answer code:

- a) 1, 2, 3
- b) 1, 3, 4
- c) 2, 3, 4
- d) 1, 2, 3, 4**

12. Consider the following statements regarding Parasitism.

- 1. Parasitism occurs when two organisms interact, but while one benefits, the other experiences harm.
- 2. Tapeworm attaching itself to the intestine of a cow is an example of Parasitism.
- 3. The parasite always kill the host.

Which of the above statements is/are correct?

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

13. Which of the following are the Biodiversity Hotspots in India?

- 1. Western Ghats
- 2. Himalayas

3. Indo-Bhutan region

4. Sundaland

Select the correct answer code:

a) 1, 2, 3

b) 2, 3, 4

c) 1, 2, 4

d) 1, 2, 3, 4

14. To avoid unfavourable conditions, which of the following enter into diapause, a stage of suspended development.

a) Zooplankton

b) Bears

c) Snails

d) Fish

15. Ecological balance may be disturbed due to the

1. Introduction of new species

2. Natural hazards

3. Anthropogenic pollution

Select the correct answer code:

a) 1, 3

b) 1, 2

c) 2, 3

d) 1, 2, 3

16. Which of the following are recognised as the Ramsar sites in India?

1. Harike Lake

2. Wular Lake

3. Keoladeo National Park

4. Chilika Lake

Select the correct answer code:

- a) 1, 2, 3
- b) 2, 3, 4
- c) 1, 2, 3, 4**
- d) 1, 2, 4

17. Arrange the following ecosystems in decreasing order of net primary productivity

1. Tropical seasonal forest
2. Tropical rain forest
3. Temperate Grassland
4. Woodland and Shrubland

Select the correct answer code:

- a) 2-1-3-4
- b) 2-1-4-3**
- c) 2-4-3-1
- d) 1-2-3-4

18. Consider the following statements regarding Acclimatization.

1. Acclimatization occurs in a short period of time and within the organism's lifetime, whereas adaptation is a development that takes place over many generations.
2. Humans who migrate permanently to a higher altitude naturally acclimatize to their new environment by developing an increase in the number of red blood cells to increase the oxygen carrying capacity of the blood.

Which of the above statements 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. In the aquatic environment, the sediment-characteristics often determine the type of benthic animals that can thrive there.
2. Like humans, plants also have mechanisms to maintain internal temperature.

3. Very small animals are rarely found in polar regions since thermoregulation is energetically expensive for these animals.

Which of the above statements is/are correct?

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

20. A substantial increase in atmospheric aerosols is likely to

- 1. Affect rainfall patterns
- 2. Cut down the destruction of stratospheric ozone significantly
- 3. Increase global warming by large proportions

Select the correct answer code:

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

21. Consider the following statements.

- 1. Sportstar and The Hindu group released a coffee-table book, 'Road to 1000', at the 2022 Sportstar Aces Awards at The Taj Mahal Palace hotel.
- 2. 'Road to 1000' was released by former India cricketers Sunil Gavaskar, Syed Kirmani, Dilip Vengsarkar, Mohammad Azharuddin, Chandrakant Pandit and Nilesh Kulkarni.

Which of the above statements is/are correct?

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

22. Consider the following statements.

- 1. The World Water Day theme 2022 is "Groundwater, Making the Invisible Visible".

2. World Water Day is celebrated globally on 20th March every year. The day aims to highlight the importance of freshwater.

Which of the above statements is/are correct?

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

23. Consider the following statements.

1. India has paid USD 29.9 million in UN regular budget assessments for the year 2022
2. India is currently a non-permanent member of the 15-nation Security Council and its two-year term will end on December 31, 2022.

Which of the above statements is/are correct?

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

24. Consider the following statements.

1. Turkmenistan Capital is Ashgabat and Turkmenistan Currency is Turkmenistani Lira.
2. Serdar Berdimuhamedow has been sworn in as the President of Turkmenistan.

Which of the above statements is/are correct?

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

25. Consider the following statements.

1. Tokyo Olympic gold medallist, Neeraj Chopra claimed the coveted 'Sportstar of the Year (Male)' award at the 2022 Sportstar Aces Awards.
2. Former Indian hockey team captain Ajit Pal Singh was conferred the 'Lifetime Achievement award'.

Which of the above statements is/are correct?

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