

1- 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 ?

- (a) Indian wild buffalo
- (b) Indian wild ass**
- (c) Indian wild boar
- (d) Indian gazelle

2- With reference to food chains in ecosystems, consider the following statements:

- 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

3- 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 kilometres 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'

4- 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)

5- Which one of the following is the process involved in photosynthesis?

- (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

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

- (a) Crab**
- (b) Mite
- (c) Scorpion
- (d) Spider

7- With reference to technologies for solar power production, consider the following statements :

- 1. 'Photo voltaics' 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

8- Consider the following pairs :

1. Dampa Tiger Reserve : Mizoram

2. Gumti Wildlife Sanctuary : Sikkim

3. Saramati Peak : Nagaland

Which of the above pairs is/are correctly matched?

(a) 1 only

(b) 2 and 3 only

**(c) 1 and 3 only**

(d) 1, 2 and 3

9- 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 below.

(a) 1 only

**(b) 2 only**

(c) Both 1 and 2

(d) Neither 1 nor 2

10- 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

11- Which of the following chemical is used in preparation of indelible ink used in Elections?

**(a) Silver nitrate**

(b) Silver Iodide

(c) Sodium Chloride

(d) Potassium nitrate

12- Which of the following is correct about ACE-2 receptor?

(a) ACE-2 receptor is found on the corona virus

(b) It carries the RNA from the virus to be injected in the host

**(c) The coronavirus binds on this receptor**

(d) None of the above

13. Which of the following is true with respect to SARS-COV2?

1. It is a DNA virus

2. It has more than one way to enter the host cell

Select the correct code using the codes given below:

(a) 1 only

**(b) 2 only**

(c) Both 1 and 2

(d) Neither 1 nor 2

14- Consider the following statements with regard to virus

1. All viruses have an outer lipid layer that protects them when they are outside the cell.

2. Corona viruses have different structure than rotavirus.

3. Virus is a non-living entity Select the correct option

(a) 3 only

**(b)2 and 3 only**

(c)1 and 3 only

(d)All of the above

15-. Consider the following statements:

1.Genetic code of living beings is stored in DNS

2.Conversion of DNA code into proteins requires mRNA

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

16-With reference to SIRT1 enzyme, consider the following statements:

1.Sirtuin 1 is a protein that in humans is encoded by the SIRT1 gene.

2.It is associated with regulation of metabolic activities.

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

17. With reference to 'LCA TEJAS', consider the following statements:

1.It is completely indigenous aircraft.

2.It has a maximum speed of 3 Mach.

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**

18. With reference to 'ELISA', consider the following statements:

1.It can be used to detect both antibody and antigen in a sample.

2.It has applications in food industry also.

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 with respect to 'Abel Prize:

1.It is conferred recognising the achievements in the field of mathematics

2.It is awarded by International Mathematical Union

Which of the above given statements is/are correct?

**(a)1 only**

(b)2 only

(c)Both 1 and 2

(d)Neither 1 nor

20- Consider the following statements about the response of immune system to the Vaccination:

1.B and T Lymphocytes produce proteins in the bloodstream which fight the pathogens.

2.B and T Lymphocytes are part of innate immunity in human body.

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**

21. Consider the following statements:

1. The development of the Bhakti movement took place in the eleventh century in northern India
2. Guru Ravidas was a devotee of lord Shiva.

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**

22. Consider the following statements:

1. Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
2. Chilika Lake is the largest salt-water lagoon of Asia.

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

23. Consider the following statements regarding 'Genetically Modified Crops':

1. It is a plant breeding process that involves crossing of species of the same genus to provide the offspring of desired traits.
2. DMH-11 mustard is the only Genetically Modified (GM) crop that is allowed in India
3. Council of Scientific and Industrial Research (CSIR) is the apex body that allows for commercial release of GM crops.

Which of the statements given above is/are not correct?

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

24. Consider the following statements:

1. Dissolved Oxygen (DO) is a measure of the amount of free oxygen available in river systems.
2. The higher value of Biochemical Oxygen Demand (BOD) indicates low DO content of water.

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

25. With reference to the Saras Aajeevika Mela 2021, consider the following statements:

1. It is an initiative by the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM).
2. It aims to provide a platform to rural women to showcase their skills and products.

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