

1-Which one of the following is the national aquatic animal of India?

- (a) Saltwater crocodile
- (b) Olive ridley turtle
- (c) **Gangetic dolphin**
- (d) Gharial

2- Which of the following adds/add carbon dioxide to the carbon cycle on the planet Earth?

- 1. Volcanic action
- 2. Respiration
- 3. Photosynthesis
- 4. Decay of organic matter

Select the correct answer using the code given below.

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

3- Consider the following :

- 1. Bats
- 2. Bears
- 3. Rodents

The phenomenon of hibernation can be observed in which of the above kinds of animals?

- (a) 1 and 2 only
- (b) 2 only
- (c) **1, 2 and 3**
- (d) Hibernation cannot be observed in any of the above

4- consider the following statements:

- 1. It is an autonomous organization under the Ministry of Environment and Forests.
- 2. It strives to conserve nature through action-based research, education and public awareness.
- 3. It organizes and conducts nature trails and camps for the general public.

Which of the statements given above is/are correct?

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

5- In the context of recent advances in human reproductive technology, "Pronuclear Transfer" is used for

- (a) fertilization of egg in vitro by the donor sperm
- (b) genetic modification of sperm-producing cells
- (c) development of stem cells into functional embryos
- (d) **prevention of mitochondrial diseases in offspring**

6- With reference to carbon nanotubes, consider the following statements:

- 1- They can be used as carriers of drugs and antigens in the human body.
- 2- They can be made into artificial blood capillaries for an injured part of human body.
- 3- They can be used in biochemical sensors.
- 4- Carbon nanotubes are biodegradable.

Which of the statements given above are correct?

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

7. Consider the following activities:

- 1- Spraying pesticides on a crop field

2-Inspecting the craters of active volcanoes

3-Collecting breath samples from spouting whales for DNA analysis

At the present level of technology, which of the above activities can be successfully carried out by using drones?

(a) 1 and 2 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

8. Consider the following statements:

1-Genetic changes can be introduced in the cells that produce eggs or sperms of a prospective parent.

2-A person's genome can be edited before birth at the early embryonic stage.

3-Human-induced pluripotent stem cells can be injected into the embryo of a pig.

Which of the statements given above is/are correct?

(a) 1 only

(b) 2 and 3 only

(c) 2 only

(d) 1, 2 and 3

9. Which of the following statements are correct regarding the general difference between plant and animal cells?

1-Plant cells have cellulose cell walls whilst animal cells do not

2-Plant cells do not have plasma membrane unlike animal cells which do

3-Mature plant cell has one large vacuole

Select the correct answer using the code given below:

(a) 1 and 2 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

10. Which of the following are the reasons/factors for exposure to benzene pollution?

1-Automobile exhaust

2-Tobacco smoke

3-Wood burning

4-Using varnished wooden furniture

5-Using products made of polyurethane

Select the correct answer using the code given below:

(a) 1, 2 and 3 only

(b) 2 and 4 only

(c) 1, 3 and 4 only

(d) 1, 2, 3, 4 and 5

11- Consider the following statements about the National Cancer Tissue Bio Bank?

1.It is the initiative of Ministry of Health and Family Welfare

2.It collects cancer tissue sample of patients with their consent.

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

12- Consider the following statements with reference to Rotavirus:

1.Children with rotavirus vaccine are fully immunised against diarrhoea

2.Rotavirus vaccine is provided free of cost as part of the Universal Immunisation Programme

3.It damages the cells of the small intestine so that the body cannot absorb water and nutrients

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

13- Consider the following statements related to Directed Energy Weapons:

- 1. They can work efficiently in cloudy weather.
- 2. It does not require projectile calculations as it is not affected by gravity

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

14- Consider the following statements related to Formaldehyde (Formalin):

- 1. It is used to increase the shelf life of sea food like fish.
- 2. It does not occur naturally in preserved fish.

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- Blackbox Phenomena is related to

- (a) Civil Aviation
- (b) SMART City
- (c) Artificial Intelligence**
- (d) Education

16- With reference to Tuberculosis (TB), consider the following statements:

- 1. It is caused by a virus and is currently not curable but only preventable
- 2. Individuals with latent TB cannot transmit the disease
- 3. It is almost fatal for HIV positive individuals

Select the correct answer from the codes given below:

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

17- With reference to Cannabis/ Marijuana, consider the following statements:

- 1. Its usage for recreational purposes is considered toxic within Ayurveda
- 2. It only has short-term mental impairment, with no long term residual health effects

Which of the statement/s given above is/are correct?

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

18- Consider the following statements related to Measles:

- 1. It is a viral disease which affects the respiratory system.
- 2. Presently, there is no vaccine available for the measles.

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- Which of the following statements about fly ash is/are correct?

1. It is hydrophilic in nature
2. It is a by-product of burning pulverized coal in electric power generating plants.
3. It has no environmental benefits at all. Select the correct answer using the code given below?

(a) 1 and 3 only

(b) 2 and 3 only

(c) 1 and 2 only

(d) None of the above

20- Consider the following statements about Sunspots:

1. They are formed in areas where the magnetic field is very strong.
2. They are comparatively hotter than the other areas on sun's surface.

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 regarding an E-Way Bill:

1. These are mandatory for inter-state transportation of goods valued over Rs. 50,000 with an exception of gold.
2. Under the E-Way Bill rules, the tax officials are empowered to scrutinise the e-way bill at any point during transit to check tax evasion.

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. Oman is bounded by Yemen in the northwest and Arabian Sea in the east.
2. The Musandam Peninsula is Oman's territory located between the Persian Gulf and Gulf of Oman.

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 regarding the Transgender Persons (Protection of Rights) Act, 2019:

1. The act declared transgender persons as the third gender.
2. The act established the National Council for Transgender persons.

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

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

23. The term 'A-76' was recently in the news, it is?

(a) Solar powered two seater airplane

(b) World's largest iceberg

(c) Newly discovered asteroid in Kuiper belt

(d) Advanced fully automatic pistol made by Indian Ordnance Factory Board

24. Consider the following statements regarding National Institute of Social Defence (NISD):

1. It is an Autonomous Body registered under the Societies Registration Act, 1860.
2. It is a central advisory body to the Ministry of Women and Child Development.

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