

1. Choose the false statement among the following statements:

- (a) The productivity of the oceans is 110 billion tons as it occupies more than two-third of the surface.
- (b) The annual net primary productivity of the whole biosphere is approximately 170 billion tons (dry weight) of organic matter.
- (c) Primary productivity depends on the plant species inhabiting a particular area. It also depends on a variety of environmental factors, availability of nutrients and photosynthetic capacity of plants.
- (d) Gross primary productivity minus respiration losses, is the net primary productivity.

2. With reference to detritus food chain (DFC), Consider the following statements:

- 1. Decomposers are also known as saprotrophs.
- 2. Dead plant remains such as leaves, bark, flowers and dead remains of animals, including fecal matter, constitute detritus.
- 3. Detritivores break down detritus into smaller particles. This process is called fragmentation.

Select the correct answer using the code given below.

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

3. Among these which is not an abiotic component of an ecosystem?

- (a) Climate
- (b) Water
- (c) Minerals
- (d) Microorganisms

4. Consider the following statements:

- 1. Consumers are called as Autotrophs.
- 2. The duration of sun exposure is the photo-period.
- 3. Producers are also called as Heterotrophs.

Which of the statements given above is/are correct?

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

5. With reference to Chemosynthesis, consider the following statements:

1. The synthesis of organic compounds from inorganic compounds using energy stored in inorganic substances such as sulphur, ammonia, and hydrogen. Energy is released when these substances are oxidised by certain organisms.
2. Organisms at the bottom of oceans and in dark caves develop their food through the process of Chemosynthesis.

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

6. With reference to productivity, consider the following statements:

1. Primary production is defined as the amount of biomass or organic matter produced per unit area over a time period by plants during photosynthesis.
2. The rate of biomass production is called productivity.
3. Net primary productivity of an ecosystem is the rate of production of organic matter during photosynthesis.
4. Secondary productivity is defined as the rate of formation of new organic matter by consumers.

Which of the statements given above is/are correct?

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

7. With reference to the 13th COP of Convention on the Conservation of Migratory Species of Wild Animals (CMS), held in 2020, which of the following statements is/are correct?

CMS is an environment treaty of UN.

It is the only global convention specializing in the conservation of migratory species.

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) None of the Above

8. With reference to the UNFCCC Meeting in Madrid (COP-25), which of the following statements is/are correct?

1-It led to the finalization of Article 6 of the Paris Climate Deal.

2-There was a broad agreement on Compensation for Loss and Damage issue.

3-Agreement on enhanced gender action plan was finalized.

Select the correct answer using the code given below.

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

9. Which of the following are not included as "Wetlands" by the Ramsar convention:

1-Marshes

2-Flood plains

3-Peatlands

4-Corals

5-Man-made wetlands

Select the correct answer using the code given below.

- (a) 1, 3 and 5 only
- (b) 4 and 5 only
- (c) 2, 4 and 5 Only
- (d) None of the Above

10. Biodiversity forms the basis for human existence in the following ways:

1-Soil formation

2-Prevention of soil erosion

3-Recycling of waste

4-Pollination of crops

Select the correct answer using the codes given below:

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

11. Which of the following genetically modified (GM) crop/crops is/are legally allowed to be cultivated in India?

- 1. GM Mustard
- 2. Bt Cotton
- 3. Bt Brinjal

Select the correct answer using the code given below.

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

12. With reference to the Anti-microbial resistance, consider the following statements:

- i. Antimicrobial resistance, which is also referred to as drug resistance, results in formation of Super bugs.
- ii. It happens when microorganisms change when they are exposed to antimicrobial drugs used to treat the infections they cause.
- iii. India is home to several drug-resistant bugs which are spreading fast and have been noticed even in the operation theatres and intensive care units (ICUs) of several well-regarded hospitals.

Which of the above statements is/are correct?

- (a) i and ii only
- (b) ii and iii only
- (c) i and iii only
- (d) i, ii and iii

13. Which one of the following best describes 'Google Station', that was in news recently?

- a) It is a R&D project of Google with the mission of providing Internet access to rural and remote areas
- b) A public Wi-Fi platform
- c) A Wi-Fi speaker that can be stationed at your home or office to effortlessly manage every-day tasks
- d) 3D Mapping service

14. With reference to Agni-V Missile, which of the following statements is/are correct?

- i. It is India's first intercontinental ballistic missile.
- ii. It is a surface to surface, nuclear capable ballistic missile.
- iii. It can deliver one-tonne nuclear warheads about 15000 km away.

Select the correct answer using the code given below.

- (a) i only
- (b) ii and iii only
- (c) i and ii only
- (d) i, ii and iii

15. What is "Perseverance" which was recently in the news?

- a) a satellite launched by ISRO to study about the Himalayas

- b) a next-generation meteorological satellite launched by JAXA
- c) space observatory launched by Japan
- d) A Mars Rover, part of NASA's Mars Exploration Programme

16. With reference to the Thirty Meter Telescope (TMT), which of the following statement/s is/are correct?

- i. It will help scientists detect black holes which may be residing in far-off galaxies.
- ii. A total of 8 organizations from different parts of the world are a part of the construction of the Thirty Meter Telescope.

Select the correct answer using the code given below.

- (a) i only
- (b) ii only
- (c) Both i and ii
- (d) Neither i nor ii

17. With reference to India's geographical information system 'Bhuvan', consider the following statements:

- i. Bhuvan offers detailed imagery of Indian locations with resolution of up to one meter.
- ii. It allows users to view 2D and 3D images along with information on terrain and water resources.
- iii. It acts as a platform for hosting government data and could be used a tool for urban design, contour mapping and mapping.

Which of the statements given above is/are correct?

- (a) i and iii only
- (b) ii only
- (c) i and ii only
- (d) i, ii and iii

18. What is/are the unique feature/s of 'BrahMos' cruise missile, a joint venture between India and Russia?

- i. Brahmos is a single-stage missile with only a solid propellant booster engine.

ii. At present the missile has a flight range of 600 kilometers.

iii. India and Russia started the development of BrahMos in 1998, which is based on the Russian Yakhont anti-ship missile.

Select the correct answer using the code given below.

(a) i and ii only

(b) iii only

(c) i and iii only

(d) i, ii and iii

19. With reference to 'Internet Corporation for Assigned Names and Numbers (ICANN)', recently in the news, which of the following statement is/are correct?

i. ICANN is the United Nations specialized agency for information and communication technologies.

ii. The ICANN sets and publishes regulations and standards relevant to electronic communication

and broadcasting technologies of all kinds including radio, television, satellite, telephone and the Internet.

Select the correct answer using the code given below.

(a) i only

(b) ii only

(c) Both i and ii

(d) Neither i nor ii

20. With reference to the European Organization for Nuclear Research (CERN), which of the following statements is/are correct?

i. At CERN, physicists and engineers are probing the fundamental structure of the universe.

ii. The CERN laboratory sits astride the Austria-Germany border near Vienna.

iii. India became an associate member of the CERN in 2016.

Select the correct answer using the code given below.

(a) i only

(b) ii and iii only

(c) i and iii only

(d) i, ii and iii

21-Consider the following statements:

1. It is also listed under Particularly Vulnerable Tribal Groups (PVTGs) by the government of India.
2. It is a pre-neolithic, negrito tribe.
3. They are protected under the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956.

The above statements most appropriately explain which of the following tribes?

(a) Sentinelese

(b) Kol

(c) Karbi

(d) Gond

22. Consider the following statements:

1. It is India's first indigenously produced medium-range Surface to Air missile.
2. It is a part of the integrated guided-missile development programme.
3. It is a supersonic nuclear-capable missile.

The above statements most appropriately explain which of the following missiles?

(a) Akash

(b) Astra

(c) Brahmos

(d) Helena

23. Monpa Handmade Paper Industry is mainly based in which of the following states?

(a) Assam

(b) Manipur

(c) Meghalaya

(d) Arunachal Pradesh



24. With reference to the Moringa, consider the following statements:

1. It is a fast-growing, drought-resistant tree native to the Indian subcontinent.
2. It is used as traditional herbal medicine and also for water purification.

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 Agriculture Technology Management Agency, consider the following statements:

1. It is a registered society responsible for technology dissemination at the district level.
2. It is funded 50% by the Central Government and 50% by the State Government.

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 | A | 10 | D | 19 | D |
| 2 | C | 11 | A | 20 | C |
| 3 | D | 12 | D | 21 | A |
| 4 | B | 13 | B | 22 | A |
| 5 | C | 14 | C | 23 | D |
| 6 | B | 15 | D | 24 | C |
| 7 | C | 16 | C | 25 | A |
| 8 | B | 17 | D |    |   |
| 9 | D | 18 | B |    |   |