

1. Consider the following statements regarding the International Renewable Energy Agency (IRENA):
 1. A state should be a member of the United Nations to gain IRENA membership.
 2. The main institutional governing body of the IRENA is the supreme Council which includes delegates only from the P5 Countries.
 3. The Global Commission on the Geopolitics of Energy Transformation was launched by IRENA.Which of the statements given above is/are correct?
 - a) 2 only
 - b) 1 and 2 only
 - c) **1 and 3 only**
 - d) 1, 2 and 3
2. With reference to Aeroponics, Consider the following statements:
 1. In Aeroponic system, the roots are held in a soilless growing medium, such as coco coir, over which nutrient-laden water is periodically pumped.
 2. Aeroponic system is a closed loop system, using 95% less water than field farming and 40% less than hydroponics.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
3. Which of the following Bioremediation Technologies is/are correctly matched?
 1. Bioventing – Addition of Bacterial cultures to a contaminated medium.
 2. Bioaugmentation – Method of treating contaminated soils by drawing oxygen through the soil.
 3. Biosparging – The injection of air under pressure can enhance biological degradation.Select the correct answer using the codes given below:
 - a) **3 only**
 - b) 2 and 3 only
 - c) 1 and 2 only
 - d) 1, 2 and 3
4. Which of the following statements is/are NOT CORRECT regarding Development of Solar Parks and Ultra Mega Solar Power Projects Scheme?
 1. This scheme supports only those States/UTs which has power deficit in setting up solar parks.
 2. The implementing agency of this scheme is Solar Power Park Developer (SPPD).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
5. Consider the following statements with respect to United Nations Convention to Combat Desertification (UNCCD):
 1. It is the only internationally legally binding framework set up to address the problem of desertification.
 2. The Convention addresses specifically the arid, semi-arid and dry sub-humid areas.
 3. UNCCD collaborates with the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC).Which of the statements given above is/are correct?
 - a) 1 only
 - b) 1 and 2 only
 - c) 2 and 3 only
 - d) **1, 2 and 3**
6. Bhopal gas tragedy has been one of the most deadliest industrial hazards in the history of India. Which of the following gas was released causing the disaster?
 - a) Potassium cyanide
 - b) Potassium isocyanate
 - c) **Methyl isocyanate**
 - d) Phosgene
7. The release of ballast water at the port is considered to be a big ecological hazard because:
 - a) It increases the temperature of the coast by several degrees.
 - b) It causes heavy metal poisoning.
 - c) **It is responsible for transporting alien species to new ecosystems.**
 - d) It reduces the dissolved oxygen in the ocean water.

8. The government has constituted a committee to investigate into illegal cultivation of HT cotton in four states. The HT of HT cotton stands for
- Hybrid transform
 - Herbal treatment
 - Herbicide tolerant**
 - High Tech
9. Which of the following traits should a waste material show to be categorized under Hazardous waste?
- Ignitability
 - Reactivity
 - Corrosivity
 - Toxicity
- Select the correct answer using the code given below:
- 1 and 2 only
 - 3 and 4 only
 - 1, 3 and 4 only
 - 1, 2, 3 and 4.**
10. Consider the following statements.
- An aerosol is a suspension of fine solid particles or liquid droplets, in air or another gas.
 - Examples of anthropogenic aerosols are fog, dust, forest exudates and geyser steam.
 - Examples of natural aerosols are haze, particulate air pollutants and smoke.
 - Aerosol does not have any impact on cloud formations.
- Which of the above statements is/are correct?
- 1 only**
 - 2 and 3 only
 - 4 only
 - 1, 2, 3 and 4
11. Consider the following statements:
- When the light is reflected from a surface, the angle of incidence is generally equal to the angle of reflection.
 - Laws of reflection are applicable to all types of reflecting surfaces except spherical surfaces.
- Which of the statements given above is/are NOT CORRECT?
- 1 only
 - 2 only**
 - Both 1 and 2
 - Neither 1 nor 2
12. Consider the following statements regarding formation of image by a plane mirror:
- Image formed by a plane mirror is always virtual and erect.
 - The image formed is as far behind the mirror as the object is in front of it.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2**
 - Neither 1 nor 2
13. Consider the following statements:
- Conventionally, in an electric circuit the direction of electric current is taken as the same direction of the flow of electrons.
 - Electric current is expressed by the amount of charge flowing through a particular area in unit time.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only**
 - Both 1 and 2
 - Neither 1 nor 2
14. Consider the following statements:
- The electrons are able to travel through a perfect solid crystal smoothly.
 - The motion of electrons in a conductor is very different from that of charges in empty space.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2**
 - Neither 1 nor 2

15. Consider the following statements:

1. Magnetic field is a quantity that has direction but not magnitude.
2. The relative strength of the magnetic field is shown by the degree of closeness of the field lines.

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. Factors that affect the salinity of the ocean waters are

- a) Wind and Ocean Currents only
- b) Wind, Ocean Currents and Fresh Water flow only
- c) Ocean Currents and Fresh Water flow only
- d) Wind, Ocean Currents, Fresh Water flow and Evaporation and Precipitation**

17. Which of the following factors influence the ocean currents

1. Rotation of the Earth
2. Revolution of the Earth
3. Air Pressure and Wind
4. Density of the Ocean Water

Which of the statements given above is/are correct?

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

18. Consider the following statements

1. The shallowest part of the ocean is continental slope which shows an average slope gradient of 1° or even less
2. Deep sea plains are steeply sloping areas of the ocean basins.

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

1. The North Sea, in spite of its location in higher latitudes, records higher salinity due to more saline water brought by the North Atlantic Drift.
2. Baltic Sea, records low salinity due to influx of River waters in large quantity.
3. The Mediterranean Sea, records higher salinity due to high evaporation.
4. In Bay of Bengal, the low salinity trend is observed due to influx of River water by the River Ganga.

Which of the statements given above is/are correct?

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

20. The size and shape of the Waves reveal the origin the wave. Consider the following correlations in this regard:

1. Slow and steady waves originate from faraway places, possibly from another hemisphere.
2. Steep waves are fairly young ones and are probably formed by local wind.

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 with regard to Neap Tide:
1. It occurs when the Earth, Sun and Moon are aligned.
 2. Results in greatest variation between high and low tides.
 3. Neap tides occur during the first and third quarter moon, when the moon appears "half full."
- Which of the statements given above is/are correct?
- a) 1 only
 - b) 3 only**
 - c) 1 and 2 only
 - d) 1, 2 and 3
22. Which of the following landforms are formed by the erosional action of Glaciers?
1. Fjords
 2. Areti
 3. Cirque
 4. V – shape Valley
 5. Moraines
- Select the code from following:
- a) 1, 2 and 3 only**
 - b) 2, 3 and 4 only
 - c) 2, 3 and 5 only
 - d) All of the above
23. Consider the following statements.
1. Wular Lake (Jammu & Kashmir) is the largest freshwater lake in India, formed by tectonic activity.
 2. Lonar in Maharashtra is a volcanic lake.
 3. Lake Chilka is an erosional lake.
- Which of the above statements is/are correct?
- a) 3 only
 - b) 1 and 2 only**
 - c) 1 and 3 only
 - d) 1, 2 and 3
24. Consider the following statements.
1. The lakes formed along rift valleys are deep, narrow and very long.
 2. Water collects in troughs (Valley in the rift) and their floors are often below sea level.
- Which of the above statements is/are NOT CORRECT?
- a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2**
25. Which of the below given are conditions that favour the formation of deltas?
1. Shallow sea, adjoining the delta
 2. Strong current at the river mouth which leads to formation of tides
 3. Active vertical and lateral erosion in the lower course of the river to supply large amount of sediments
- Choose the correct answer using the code below:
- a) 1 only**
 - b) 3 only
 - c) 2 and 3 only
 - d) 1 and 2 only