



GOALTIDE UPSC PRELIMS TEST SERIES 2024- TEST 1 GS ENVIRONMENT

Q1. Consider the following statements regarding one of the major geochemical cycles, the water cycle:

1. Precipitation that falls near the equator is most likely to fall as rain into the ocean.
2. Water vapor is a greenhouse gas that helps to regulate the temperature of the earth's atmosphere.
3. Globally, precipitation far exceeds evaporation.

Which of the above statements is/are correct?

- a. 1 and 2 only
- b. 2 only
- c. 1, 2 and 3
- d. 1 and 3 only

Q2. Which of the following are the biotic components of the environment?

1. Wind
2. Parasites
3. Symbionts
4. Decomposers

Choose from the following options.

- a. 1 and 2 Only
- b. 1, 2, 3 and 4 only
- c. 2, 3 and 4 only
- d. 1, 2 and 3 Only

Q3. Consider the following statements about the major community:

1. They are dependent on neighbouring communities.
2. They depend only on the Sun's energy from outside.

Which of these statements is/are correct?

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

Q4. Consider the following statements about the Structure of a community:

1. A community may have one or several species.
2. The environmental factors determine the characteristic of the community.

Which of these statements is/are correct?

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

Q5. These are the organisms which remain attached to stems and leaves of rooted plants or substances emerging above the bottom mud such as sessile algae and their associated group of animals. These are:

- a. Neuston
- b. Periphyton
- c. Plankton
- d. Benthos

Q6. Which of the following are correctly matched:

1. Oligotrophic - very high nutrients
2. Mesotrophic - moderate nutrients
3. Eutrophic - very low nutrients

Which of these statements are correct?

- a. 1 and 2 Only
- b. 2 and 3 Only
- c. 1 and 3 Only
- d. 2 only

Q7. A lake with an inflow of domestic sewage rich in organic waste may result in:

- a. Drying of the lake very soon due to algal bloom
- b. An increased production of fish due to lot of nutrients.
- c. Death of fish due to lack of Oxygen
- d. Increased population of aquatic food web organisms.

Q8. Which of the following statements is correct?

- a. Dissolved Oxygen of a water body is expected to be high when its temperature is low.
- b. Dissolved Oxygen of a water body is expected to be low when its temperature is high.
- c. Dissolved Oxygen of a water body is expected to be low when its temperature is low.
- d. Dissolved Oxygen of a water body is independent of its temperature.

Q9. Wildlife Protection Act, 1972, provides for which of the following categories of Protected Areas in India?

1. Biosphere Reserve
2. Elephant Reserve
3. World Heritage Site
4. Conservation Reserve

Select the correct code.

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

Q10. Which of the following **are true**?

1. The presence of specific features or certain habits, which enable a plant or an animal to live in its surroundings, is called evolution.
2. The surroundings where an organism lives is called its habitat.
3. Small changes that take place in the body of a single organism over short periods, to overcome small problems due to changes in the surroundings, is called acclimatization.
4. Gradual changes in an organism to survive in an environment is called adaptation

Select the correct codes.

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

Q11. What would happen if phytoplankton of an ocean is completely destroyed for some reason?

1. The ocean as a carbon sink would be adversely affected.
2. The density of ocean water would drastically increase.
3. The food chains in the ocean would be adversely affected.

Which of the above statements is/are correct?

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only

- d. 1, 2 and 3

Q12. What is the correct order of the level of organization of ecology?

- a. Individual, Community, Population, Ecosystem, Biome and Biosphere.
- b. Individual, Community, Population, Biome, Ecosystem and Biosphere.
- c. Individual, Population, Community, Ecosystem, Biome and Biosphere.
- d. Individual, Population, Community, Biome, Biosphere and Ecosystem.

Q13. Consider the following statements regarding food chain in an ecosystem.

1. In an aquatic ecosystem, larger fraction of energy flow through detritus food chain than grazing food chain.
2. In a terrestrial ecosystem, more energy flows through grazing food chain than detritus food chain.
3. Around 90% of energy is lost in energy flow across different trophic levels.

Which of the above statements is/are **incorrect**?

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 1, 2 and 3

Q14. 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 and 2 only
- b. 2 and 3 only
- c. 1 only
- d. 1, 2 and 3

Q15. Which of the following process is/are present in detritus food chain?

1. Fragmentation of dead matter
2. Humification
3. Mineralisation
4. Catabolism

Select the correct answer using the codes given below:

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

Q16. Consider the following statements about various practices in agriculture:

1. Mixed farming is a type of agriculture that involves planting two or more crops simultaneously in the same field.
2. Mixed cropping involves both the growing of crops and the raising of livestock.

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

Q17. Which of the following are impacts of greenhouse gases on river waters?

1. Displacement of cold-water species.
2. Creation of large dead zones (depletion of oxygen)
3. Coral bleaching

Select the correct code.

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 1, 2 and 3

Q18. How is the National Green Tribunal (NGT) different from the Central Pollution Control Board (CPCB)?

1. Both NGT and CBCP have been created by an Act of Parliament, i.e., National Green Tribunal Act, 2010 and Environment Protection Act, 1986 respectively.
2. The NGT provides environmental justice and helps reduce the burden of litigation in the higher courts whereas the CPCB promotes cleanliness of streams and wells, and aims to improve the quality of air in the country.

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

Q19. The Environment Protection Act, 1986 empowers the Government of India to

1. Lays down the procedure for ensuring environment awareness programmes in educational institutions.
2. Lays down procedures and safeguards for the handling of hazardous substances

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

Q20. With reference to agricultural soils, consider the following statements:

1. A high content of organic matter in soil drastically reduces its water holding capacity.
2. Highly fertile soils, containing high organic matter, have more cation exchange capacity.
3. The temperature does not play any role in the growth of crops.
4. Irrigation over a period of time can contribute to the salinization of some agricultural lands.

Which of the statements given above is/are correct?

- a. 2 and 4 only
- b. 1, 2 and 3 only

- c. 2, 3 and 4 only
- d. 4 only

Q21. Consider the following.

1. India enacted Air (Prevention and Control of Pollution) Act
2. United Nations Conference on the Human Environment, Stockholm
3. India Enacted Water (Prevention and Pollution of Pollution) Act

Arrange the above events in chronological order.

- a. 2-1-3
- b. 2-3-1
- c. 3-1-2
- d. 3-2-1

Q22. **Greenhouse effect** is warming due to:

- a. Infra-red rays reaching earth
- b. Moisture layer in atmosphere
- c. Increase in temperature due to increase in carbon dioxide concentration of atmosphere
- d. Ozone layer of atmosphere

Q23. Which one of the following characteristics is widely regarded-as being an important aspect of Sustainable development?

- a. Inter-generational equity
- b. Increasing consumption expenditure
- c. Intra-generational inequity
- d. Increased levels of saving

Q24. In which of the following forms does plants absorbs nitrogen.

1. Atmospheric Nitrogen
2. Urea
3. Nitrates
4. Proteins

Select the correct code.

- a. 1 and 3 only
- b. 2 and 3 only
- c. 2 and 4 only
- d. 3 only

Q25. Which of the following adds / add nitrogen to the soil?

1. Excretion of urea by animals
2. Burning of coal by man

3. Death of vegetation

Select the correct answer using the codes given below.

- a. 1 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 1, 2 and 3

Q26. Water Vapour is the biggest overall contributor to the greenhouse effect. Which of the following is correct regarding increasing rate of water vapour in the atmosphere?

- a. Anthropogenic activities are directly emitting this gas in quantities sufficient to change its concentration in the atmosphere.
- b. Increasing emissions of CO₂ and other greenhouse gases is increasing the amount of water vapour in the air
- c. Temperature inversion causing this phenomenon
- d. water vapour has the ability to absorb both incoming (UV) and outgoing (infrared) radiation.

Q27. The acidification of oceans is increasing. Why is this phenomenon a cause of concern?

1. Oysters and corals will not able to build and maintain their shells and can begin to dissolve
2. The cloud seeding and formation of clouds will be adversely affected.
3. A small change in CO₂ concentration due to acidification severely affects algae and seagrasses ability to prepare food.

Which of statements given above is / are correct?

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 only
- d. 1, 2 and 3

Q28. An altitude of 100 kilometres (62 mi; 330,000 ft) above the Earth's Sea level marks the beginning of space where human travellers are considered astronauts. What is it called?

- a. Appleton–Barnett layer
- b. Karman line
- c. Heaviside layer

d. Van Allen belts

Q29. The injection of fertilizers, soil amendments, and other water-soluble products into an irrigation system is termed as

- Fertilization
- Fertigation
- Drip irrigation
- Foliar feeding

Q30. Which of these has a greater effect on global sea level?

- Melting sea ice
- Melting land ice
- expansion of seawater as it warms

Select the correct code.

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Q31. Most of the Earth's water is found in:

- The Earth's interior
- The atmosphere
- The ocean
- The polar ice caps

Q32. What effects do various aerosols have on the climate?

- Reflect sunlight back into space, cooling the planet
- Provide a platform for water droplets and ice crystals to form and develop into clouds
- Increase the brightness of clouds, making them reflect more solar energy back into space
- Absorb sunlight, heat the surrounding air and prevent cloud formation

Select the correct code.

- 1, 2 and 3 only
- 2, 3 and 4 only
- 1, 3 and 4 only
- 1, 2, 3 and 4

Q33. Consider the following statements.

- The brighter a cloud looks, the less pollution it contains.
- Clouds do both, heat and cool the earth.

Which of the above statements is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Nether 1 nor 2

Q34. Why do levels of carbon dioxide in the atmosphere fall during the summer in the Northern Hemisphere?

- More people live at high latitudes in the Northern Hemisphere and they burn less fossil fuel and wood for heating in the summer.
- People in the Northern Hemisphere drive more in the summer, thus releasing more carbon dioxide into the air.
- The Northern Hemisphere is covered by a significant amount of vegetation. During the summer this vegetation takes up more carbon dioxide, and during the winter, when it decays, it releases more carbon dioxide.
- Now of the above.

Q35. Plants use carbon dioxide and water to make their own food through the process of photosynthesis. When they are performing photosynthesis, plants reflect light strongly in which of the following wavelengths?

- Near-infrared
- Visible
- Ultraviolet
- All of the above

Q36. Why is it difficult for farmers in parts of India and the Middle East to forecast water shortages?

- Monsoon patterns are erratic.
- They rely heavily on underground water.
- The crops they raise need unpredictable amounts of water.
- Demand from population growth differs greatly from year to year.

Q37. Measuring soil moisture (the amount of water in the soil) can help scientists with which of the following:

- Agriculture
- Flood and drought prediction
- Climate variability
- Natural disasters

Select the correct code.

- 1, 2 and 3 only
- 2, 3 and 4 only
- 1, 3 and 4 only
- 1, 2, 3 and 4

Q38. Which of these is not a soil condition indicating high risk of a flash flood during a rainstorm?

- When the soil is saturated and will not permit additional rainfall to infiltrate
- When the soil is sandy with wider spaces between particles
- When the soil is dry but the rainfall rate exceeds the rate the soil can absorb the rainfall
- When the soil has experienced surface alterations because of pavement, compaction or fire

Q39. Which among the following is/are the components of the Green Revolution introduced by the government in the 1960s?

- High Yielding Variety of seeds
- Chemical Fertilisers
- Industrial Pesticides
- Assured Irrigation Facility

Select the correct answer using the code given below:

- 1 only

- 1 and 2 only
- 1, 2 and 3 only
- 1, 2, 3 and 4

Q40. Which of the following contributes to the loss of Soil Biodiversity?

- Agricultural Intensification
- Soil Sealing and Urbanization
- Land use change
- Plastic Pollution

Which of the above statements is/are correct?

- 2, 3 and 4 only
- 1 and 3 only
- 1 and 2 only
- 1, 2, 3 and 4

Q41. Which of the following are the sources of Aerosols in atmosphere?

- Sea Salt particle
- Sulphur Cycle
- Soil Dusts
- Ocean Phytoplankton

Which of the above statements is/are correct?

- 2 and 3 only
- 2 and 4 only
- 2, 3 and 4 only
- 1, 2, 3 and 4

Q42. Consider the following statements regarding **Light Pollution**.

- Light Pollution affects the reproduction of corals.
- Unlike air and water pollution, there are no laws to fight light pollution.
- An increased amount of light at night lowers melatonin hormone production which affect health of organisms.

Which of the above statements is/are correct?

- 1 only
- 1 and 2 only
- 2 only
- 1, 2 and 3

Q43. Which of the following are the reasons for the rise in sea level?

- Thermal expansion of Ocean water

2. Loss of Greenland and Antarctica's ice sheets
3. Building dams and reservoirs
4. Vertical accretion in a mangrove

Which of the above statement is/are correct?

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

Q44. In construction of buildings, the use of which of the following is preferred for ensuring environmental sustainability or to reduce carbon footprint?

1. Mixing of fly ash or slag with cement
2. Phospho-gypsum from fertilizer industry
3. Straw bales
4. Replacing cement and steel in urban construction by wood

Select the correct code.

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

Q45. Consider the major climatic domains.

1. Tropical Zone
2. Temperate
3. Boreal
4. Sub-Tropical

Arrange the above zones in respect of forest cover from highest to lowest.

- a. 1-2-3-4
- b. 1-4-2-3
- c. 1-3-2-4
- d. 2-3-4-1

Q46. Consider the following statements regarding salinity of the ocean waters.

1. Salinity near the equator is low due to heavy rainfall and little evaporation.
2. Salinity near the Tropic of Cancer is high due to huge evaporation and steady trade winds.
3. Within the tropics, the salinity of the open oceans is more significant than that of the closed areas.

4. Salinity in the polar region is very low due to little evaporation and melting of ice.

Which of the statements given above are correct?

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

Q47. Which of the following is/are the possible reasons for the decline in greening (trees and forests) of earth surface?

1. Carbon fertilization
2. Cattle ranching
3. Urbanization and industrialization
4. Shifting Cultivation

Select The correct code.

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

Q48. Which of the following statements is/are correct?

1. Primary succession is always faster than secondary succession.
2. The efficiency of nutrient cycling will increase as succession proceeds towards stability.

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

Q49. Which of the following factors affect cropping pattern in India?

1. Temperature
2. Rainfall
3. Irrigation
4. Size of land holdings

5. Availability of Insurance
6. Availability of Investment

Select the correct answer using the code given below.

- a. 1, 2 and 3 only
- b. 1, 3, 4 and 5 only
- c. 2, 4, 5 and 6 only
- d. 1, 2, 3, 4, 5 and 6

Q50. What are the possible reasons for the increase in stubble Burning?

1. Paddy residue left by harvesters takes more than a month to decompose while farmers don't have sufficient time to sow their next crop, wheat.
2. Paddy residue are harder to chew, has low calorific value and high silica content, all of which makes it unsuitable for use as animal fodder.
3. Increase In the area of paddy cultivation

Which of the above statements is/are correct?

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 1, 2 and 3