



# DELHI PUBLIC SCHOOL GAYA

CBSE-Teri Green Olympiad 2019

Sample Paper

Level – 3 (Classes 9 & 10)

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1. Name the atmospheric layer closest to the ground
    - a) **Troposphere**
    - b) Mesosphere
    - c) Thermosphere
    - d) Stratosphere
  2. The most abundant gas on the earth's atmosphere is
    - a) Oxygen
    - b) Carbon
    - c) **Nitrogen**
    - d) Hydrogen
  3. What atmospheric layer has most of the clouds?
    - a) Mesosphere
    - b) Thermosphere
    - c) Exosphere
    - d) **Troposphere**
  4. 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
  5. The study of weather is called
    - a) **meteorology**
    - b) climatology
    - c) aeronomy
    - d) aerology
  6. Which one of the following is NOT a primary layer of the atmosphere?
    - a) Mesosphere
    - b) Troposphere
    - c) **Exosphere**
    - d) Stratosphere
  7. A millimetre of mercury is a manometric unit of pressure, defined as precisely 133.322387415 pascals. What is the symbol for a millimetre of mercury?
    - a) hhMg
    - b) MPA
    - c) **mmHg**
    - d) inHg
  8. Name the atmospheric layer that is completely cloudless and free of water vapor.
    - a) Exosphere
    - b) Troposphere
    - c) **Thermosphere**
    - d) Stratosphere
  9. The ozone layer or ozone shield is a region of Earth's atmosphere that absorbs most of the Sun's ultraviolet (UV) radiation. Which layer of the atmosphere contains ozone layer?
    - a) Troposphere
    - b) Mesosphere
    - c) Thermosphere
    - d) **Stratosphere**
  10. What is the average atmospheric pressure at sea level as defined by the International Standard Atmosphere?
    - a) **101325 pascals**
    - b) 14.6959 pascals
    - c) 1013 pascals
    - d) 984.43 pascals
  11. The non-point pollution of river water involves discharge of pollutants through
    - a) urban sewage drains
    - b) industrial effluents
    - c) **agricultural fields**
    - d) both (a) and (b)
  12. With reference to forest ecosystems, consider the following statements :
    1. The number pyramid is neither inverted nor upward.
    2. The biomass pyramid is inverted.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
  13. Man causes soil erosion through
    1. use of improper ploughing methods.
    2. leaving roots of crop in the field after harvest.
    3. practicing trash farming.
    4. use of heavy machines.Select the correct answer using the codes given below.
    - a) 1, 2 and 3 only
    - b) **1 and 4 only**
    - c) 1, 3 and 4 only
    - d) 1, 2, 3 and 4 only
  14. Which of the following is a part of the biogeochemical cycle ?
    1. soils
    2. plants
    3. atmosphere
    4. oceansSelect the correct answer using the codes given below.
    - a) 1, 2 and 3 only
    - b) 1, 3 and 4 only
    - c) 2, 3 and 4 only
    - d) **1, 2, 3 and 4**

15. Which of the following evidences support the theory of gradual rise in air temperature and consequent global warming?
1. spreading of tropical diseases towards temperate regions.
  2. downward shifting of snow lines of tropical mountains.
  3. freezing of permafrost areas.
- Select the correct answer using the codes given below.
- a) 1 only**  
 b) 1 and 2 only  
 c) 2 and 3 only  
 d) 1 and 3 only
16. In ecological terms, what does the term “standing crop” signify ?
- a) total weight of whole organic matter**  
 b) total weight of heterotrophs  
 c) total area covered by crops  
 d) None of the above
17. Biofuels are fuels extracted from plants and crops and these have various advantages. These include
1. increasing agricultural diversity.
  2. reduced use of fertilizers.
  3. renewable source of energy.
- Select the correct answer using the codes given below.
- a) 1 and 3 only  
**b) 3 only**  
 c) 2 and 3 only  
 d) 1, 2 and 3
18. Which among these would increase carbon dioxide in the atmosphere?
1. deforestation
  2. burning of firewood
  3. automobiles
- Select the correct answer using the codes given below.
- a) 1 and 2 only  
 b) 1 and 3 only  
 c) 2 and 3 only  
**d) 1, 2 and 3**
19. The sources of mercury pollution include
1. coal fired thermal power plants.
  2. supersonic jets.
  3. automobiles.
  4. waste incinerators
- Select the correct answer using the codes given below.
- a) 1, 2 and 3 only  
**b) 1, 3 and 4 only**  
 c) 1 and 3 only  
 d) 1 and 4 only
20. The energy flow in an ecosystem is :
1. unidirectional
  2. non-cyclic
  3. cyclic
  4. bidirectional
- Select the correct answer using the codes given below.
- a) 1 and 2 only**  
 b) 1 and 3 only  
 c) 2 and 4 only  
 d) 3 and 4 only
21. A balanced ecosystem is one in which the
1. number of organisms at all levels is equal.
  2. amount of biomass at all trophic levels is equal.
  3. organisms are interdependent on each other.
- Select the correct answer using the codes given below.
- a) 1 and 2 only  
 b) 2 only  
 c) 3 only  
**d) none**
22. Ozone depletion would impact the plant community in several ways. These include:
1. increase in photosynthesis
  2. decline in water use efficiency
  3. decline in yield of plants
- Select the correct answer using the codes given below.
- a) 1 and 2 only  
 b) 1 and 3 only  
**c) 2 and 3 only**  
 d) 1, 2 and 3
23. With to the IUCN classification, extinct species are those which have been:
1. completely eliminated from wild areas.
  2. completely eliminated from managed areas.
- 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
24. Which among these is/are a cryogenic indicator of climate change ?
1. ice sheets and ice cores
  2. sea level changes
  3. lacustrine deposits
- Select the correct answer using the codes given below.
- a) 1 only**  
 b) 1 and 2 only  
 c) 2 and 3 only  
 d) 1, 2 and 3
25. The Great Indian Bustard is a critically endangered species. Its population has been declining due to
1. habitat loss
  2. frequent poaching
  3. construction of windmills
- Select the correct answer using the codes given below.
- a) 1 only  
 b) 1 and 2 only  
 c) 2 only  
**d) 1, 2 and 3**

26. The National Air Quality Monitoring Programme (NAMP) run by Central Pollution Control Board, monitors which of the following pollutants at all locations?
1. carbon dioxide
  2. sulphur dioxide
  3. oxides of nitrogen
  4. suspended particulate matter
- Select the correct answer using the codes given below.
- a) 1, 2 and 3 only
  - b) 1, 3 and 4 only
  - c) 2, 3 and 4 only**
  - d) 1, 2, and 4 only
27. With reference to Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD), consider the following statements:
1. BOD is a measurement of consumed oxygen by aquatic microorganisms to decompose organic matter.
  2. COD refers to the requirement of dissolved oxygen for the oxidation of organic constituents. 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
28. The ecological processes follow the principle of uniformitarianism. This means:
- a) the ecological processes have a uniform effect
  - b) same physical and biological processes that operates today operated in the past.**
  - c) physical and biological processes operate with a uniform rate
  - d) None of the above
29. Fertilizers are added to supply mainly three nutrients – Nitrogen (N), Phosphorous (P) and Potassium (K). Biofertilizers can supply which of these nutrients?
1. Nitrogen
  2. Phosphorous
  3. Potassium
- Select the correct answer using the codes given below.
- a) 1 only
  - b) 1 and 2 only
  - c) 1 and 3 only
  - d) 1, 2 and 3**
30. Which among the following are mechanical method of soil conservation?
1. bunding
  2. terracing
  3. contour farming
  4. stubble mulching
- Select the correct answer using the codes given below.
- a) 1, 2 and 3 only**
  - b) 1, 3 and 4 only
  - c) 2, 3 and 4 only
  - d) 1, 2, and 4 only
31. Which of the following is/are have been provided for in the Wildlife Protection Act, 1972?
1. National Parks
  2. Wildlife Sanctuaries
  3. Biosphere Reserves
- Select the correct answer using the codes given below.
- a) 1 only
  - b) 1 and 2 only**
  - c) 1 and 3 only
  - d) 2 and 3 only
32. Which of the following Tiger reserves is/are also a National Park ?
1. Manas
  2. Indravati
  3. Namdapha
  4. Sariska
- Select the correct answer using the codes given below.
- a) 1, 2 and 3 only
  - b) 1, 3 and 4 only
  - c) 2, 3 and 4 only
  - d) 1, 2, 3 and 4**
33. The brown haze dome formed in cities is because of which gas?
- a) sulphur dioxide.
  - b) nitrogen oxide.**
  - c) carbon dioxide.
  - d) volatile organic compounds (VOCs).
34. Water in a wetland can be:
1. Fresh
  2. Brackish
  3. Static
- Select the correct answer using the codes given below.
- a) 1 and 2 only
  - b) 1 and 3 only
  - c) 2 and 3 only
  - d) 1, 2 and 3**
35. A biofertilizer helps in increasing the supply of primary nutrients to plants. Which of the following is/are examples of biofertilizers?
1. Azotobacter
  2. Rhizobium
  3. Azospirillum
- Select the correct answer using the codes given below.
- a) 1 and 2 only
  - b) 1 and 3 only
  - c) 2 and 3 only
  - d) 1, 2 and 3**
36. The passenger pigeon, dodo, and stegosaurus are examples of species that are no longer living on the earth. What term is used to describe these?
- a) Extinct species**
  - b) Active species
  - c) Volatile species
  - d) Threatened species

37. A highlight of the annual Earth Day ceremony at the United Nations is the ringing of the Peace Bell. Which country gifted this bell?
- France
  - Japan**
  - Sweden
  - India
38. Which branch under entomology deals with the scientific study of butterflies and moths?
- Scientology
  - Apiology
  - Lepidopterology**
  - Anthropology
39. When rain water comes in contact with the dry earth (containing a certain bacteria) it lets out a pleasant earthy odour. Which word is used to describe “this pleasant smell of rain”?
- Nectar
  - Petrichor**
  - Ambrosia
  - Dust
40. The Jog Falls located in Karnataka is one of the highest plunge waterfalls in India. Which river creates Jog Falls?
- Sharavathi**
  - Mandavi
  - Kalinadi
  - Gangavalli
41. ‘Limnology’ is a study of inland bodies of water and related ecosystems. Limnology divides lakes into three zones: littoral, photic, and profundal. Which of the following zones receives the least light?
- Photic zone
  - Profundal zone**
  - Littoral zone
  - Limnetic zone
42. The term ‘smog’ was first used in 1905 to describe the conditions of fog that contained soot or smoke in it. Smog is basically a combination of various gases with water vapour and dust. Which of the following persons used the word 'smog' for the first time?
- H A Des Voeux**
  - Oscar Auerbach
  - Robert O Becker
  - Robert M Jacobson
43. A “sink hole” is a natural depression or hole in the Earth’s surface underlain with soluble rocks. It may be referred to as a collapse of the ground into a void below caused by which one of the following?
- Tunnelling
  - Water**
  - Volcano
  - Earthquake
44. This book written by former US Vice President Al Gore in 2009 is the sequel to his famous documentary and book An Inconvenient Truth. Name the book.
- Our Choice: A Plan to Solve the Climate Crisis**
  - Earth in the Balance
  - The Riverkeepers
  - Climate Capitalism
45. This indicator is a measure of human demands on the Earth’s ecosystems. It represents the amount of biologically productive land and sea area necessary to supply the resources a human population consumes, and to assimilate associated waste. Identify the term given to this indicator.
- Population footprint
  - Growth footprint
  - Sustainable footprint
  - Ecological footprint**
46. What is a liquid mixture of complex hydrocarbon compounds called?
- Petroleum**
  - Carbon
  - Natural gas
  - Nitrogen
47. Which of the following is pumped out of wells and sent to refineries where it is separated into various components and products?
- Petroleum
  - Crude Oil**
  - Gasoline
  - None of the above
48. Nuclear fission produces daughter nuclei and neutrons. What happens when these neutrons go on to split other nuclei?
- Chain reaction**
  - Reverse reaction
  - Neutral reaction
  - Controlled reaction
49. The breakdown of organic matter in the soil results in the formation of a complex organic substance, which has a characteristic black or dark brown colour and enhances the fertility of the soil. Which part of soil is this?
- Pores?
  - Rocky layer
  - Humus**
  - Bedrock
50. Biosphere reserves are areas of terrestrial and coastal ecosystems which are internationally recognized within the framework of Man and the Biosphere (MAB) Programme. Of the following biosphere reserves which one is located in the states of Tamil Nadu, Kerala, and Karnataka?
- Nilgiri Biosphere Reserve**
  - Kokrek Biosphere Reserve
  - Sundarbans Biosphere Reserve
  - Nanda Devi Biosphere Reserve