



DELHI PUBLIC SCHOOL NEWTOWN  
SESSION 2023-2024  
FINAL EXAMINATION

CLASS: IX

SUBJECT: ENVIRONMENTAL SCIENCE

FULL MARKS: 80

TIME: 2 HOURS

*Answers to this Paper must be written on the paper provided separately.*

*You will not be allowed to write during the first 15 minutes.*

*This time is to be spent in reading the Question Paper.*

*The time given at the head of this Paper is the time allowed for writing the answers.*

*Attempt all questions from Section A and any four questions from Section B.*

*The intended marks for questions or parts of questions are given in brackets [ ].*

*This question paper consists of 4 printed pages.*

**SECTION A (40 Marks)**

Attempt all questions from this Section

**QUESTION 1**

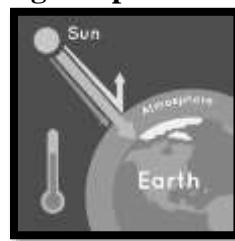
[16]

Choose the correct answers to the questions from the given options.

(Do not copy questions, write the correct answers only.)

- i. Photosynthesis converts light energy to
- a) Mechanical energy
  - b) Chemical energy
  - c) Food energy
  - d) Thermal energy
- ii. Upper atmosphere consists of
- a) Stratosphere
  - b) Thermosphere
  - c) Mesosphere
  - d) Exosphere
- iii. The gas that leaked in Bhopal Gas Tragedy is
- a) MIC
  - b) Methane
  - c) Carbondioxide
  - d) Hydrogen sulphide
- iv. Assertion: Ozone layers protect us from exposure to UVB rays.  
Reason: Scientists have found a hole in the ozone layer in Antarctica.
- a) A is true and R is the correct reason for A.
  - b) A is true but R is not the correct reason for A.
  - c) A is true but R is false.
  - d) A is false but R is true.
- v. Concentration of DO \_\_\_\_\_ with increase in temperature.
- a) Remains same
  - b) Decreases
  - c) Increases
  - d) Neutralizes

vi. Which phenomenon is shown in the given picture?



- a) Global warming
- c) Green house effect
- b) El nino
- d) Surface heating

vii. Statement A: Rapid urbanization is closely associated with growth of informal sector.

Statement B: Growth of urban informal sector is nourished by influx of migrants from rural regions.

- a) Both Statements A and B are correct.
- b) Statement A is correct and Statement B is incorrect.
- c) Statement A is incorrect and Statement B is correct.
- d) Both statements A and B are incorrect.

viii. Match Column 1 with Column 2 and choose the correct option from those given below.

**Column 1**

- i) Years of schooling
- ii) Excessive use of agrochemicals
- iii) Cover crop
- iv) ODS control

**Column 2**

- a) intensive agriculture
- b) minimize weed growth
- c) Montreal protocol
- d) education

- a) i)-d, ii)-c, iii)-a, iv-b
- b) i)-d, ii)-a, iii)-b, iv-c
- c) i)-a, ii)-c, iii)-b, iv-d
- d) i)-b, ii)-d, iii)-a, iv-c

ix. ----- is responsible for 48% of deforestation

- a) Industrialisation
- c) Mining
- b) Subsistence farming
- d) Transportation

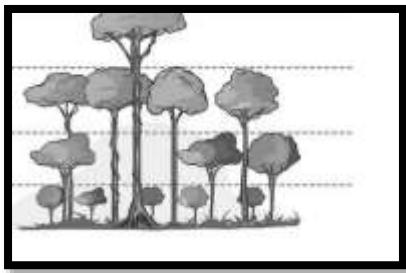
x. \_\_\_\_\_ is not a man made source of water

- a) Canals
- c) Springs
- b) Wells
- d) Pumps

xi. Urban poverty is due to

- a) Poor infrastructure
- b) Social structure
- c) Low income due to excessive competition
- d) Communication problem

The following questions (xiii-xvi) are based on the picture given below. Answer the questions by choosing the correct option.



- xii. This kind of layers are found in
- a) Tropical rain forest
  - b) Temperate rain forest
  - c) Savannah
  - d) Pampas
- xiii. The highest level of plantation is known as
- a) Canopy
  - b) Under storey
  - c) Emergent layer
  - d) Forest floor
- xiv. The least amount of light is received by the plantations in the
- a) Emergent layer
  - b) Under storey
  - c) Canopy
  - d) Forest floor
- xv. The amount of rainfall received by this area is
- a) Low
  - b) Medium
  - c) High
  - d) Dry
- xvi. Tropical grasslands are known as
- a) Savannah
  - b) Steppes
  - c) Pampas
  - d) Veldt

#### **QUESTION 2**

- a) Give two examples of pull factors. [2]
- b) Define Bio-accumulation. [2]
- c) Why is there growing sense of despair amongst the migrants in urban areas? [2]
- d) Define subsistence farming. [2]

#### **QUESTION 3**

- a) What are secondary pollutants? Give an example. [2]
- b) Mention any two threats to deserts. [2]
- c) Mention two ways by which nitrogen cycle gets disrupted. [2]
- d) Give an example of symbiosis found in coral reefs. [2]

#### **QUESTION 4**

- a) What is factory fishing? Is it harmful? Justify. [2]

- b) Write the full forms of PAN and DO. [2]
- c) How oceans get polluted? [2]
- d) Why Puri is warm in winter? [2]

**SECTION –B [40 Marks]**  
**Attempt any four questions from this section**

**QUESTION 5**

- a) Explain the factors responsible for rural poverty. [5]
- b) What are the effects of land pollution? [5]

**QUESTION 6**

- a) Mention the adverse effects of ozone depletion on living organisms. [5]
- b) Differentiate between food chain and food web. Define trophic levels. [5]

**QUESTION 7**

- a) Why did green revolution fail? [5]
- b) Discuss the different reasons responsible for greenhouse effect. [5]

**QUESTION 8**

- a) What are the threats to ocean ecosystem [5]
- b) There are enormous economic losses due to global warming. Explain. [5]

**QUESTION 9**

- a) Although acid rain phenomenon respects no political boundaries, it is believed that the main culprits are old coal burning electric power plants that lack newly legislated anti pollution safeguards in United States.  
Explain how acid rain impacts the ecosystem. [5]
- b) Why Mumbai is prone to acid rain? [5]

**QUESTION10**

Aerosols come from natural means such as dust storms, volcanoes, fires etc. Human activity also contributes aerosol pollution through the alteration of natural surface cover, industrial pollutants, and burning of fossil fuels. Some aerosols reflect sunlight back out into space thereby reducing the amount of solar energy reaching the earth's surface and thus decreasing the effect of the greenhouse gases.

- a) What are aerosols? What are primary and secondary aerosols? Give example of each. [5]
- b) Write any five effects of aerosols on environment and human health. [5]