

ICSE 2024 EXAMINATION
SPECIMEN QUESTION PAPER
ENVIRONMENTAL APPLICATIONS

Maximum Marks: 100

Time allowed: Two 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 [].

SECTION A

*(Attempt **all** questions from this **Section**.)*

Question 1

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

[20]

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

- (i) The Taj Mahal and other famous heritage buildings of Agra are being affected by:
- (a) Radiation
 - (b) Water pollution
 - (c) Air pollution
 - (d) Soil pollution
- (ii) Tree breaks are:
- (a) A soil conservation strategy
 - (b) The fallen branches of trees
 - (c) Deforested area
 - (d) A water conservation strategy

- (iii) Auroville was founded by:
- (a) Rajender Singh
 - (b) Mahatma Gandhi
 - (c) Mira Alfassa
 - (d) Sri Aurobindo
- (iv) EURO II is an example of:
- (a) Permissible emission norms by Industry
 - (b) Permissible emission norms by vehicle
 - (c) Permissible emission norms on thermal power plants
 - (d) Permissible emission norms on brick kiln
- (v) A greenhouse gas produced in a landfill:
- (a) Nitrogen
 - (b) Hydrogen chloride
 - (c) Methane
 - (d) Hydrogen sulphide
- (vi) Assertion: Environmental Impact Assessment is mandatory for making roadways and highways.
Reason: Roadways and highways accelerates the economic development of a nation.
- (a) A is true but R is false
 - (b) A is false but R is true
 - (c) Both A & R are true and R explains A
 - (d) Both A & R are true but R does not explain A
- (vii) People of Ladakh usually have Dry Composting Toilets (DCT).
Which of the following statements are TRUE about DCT.
- (a) It is costly
 - (b) It saves water
 - (c) It require electricity
 - (d) It requires chemical cleaners to clean the toilet

(viii) Study the picture and answer the question.



Delhi is one of the most polluted cities in the whole world. Several steps are taken by the Delhi government in controlling and reducing air pollution.

1. Use of CNG
2. Increase in number of private transports.
3. Odd and even number transport for private cars
4. Mass rapid transit

Choose the correct option:

- (a) 1. and 2. only
- (b) 1. and 3. only
- (c) 1., 3. and 4
- (d) All of the above

(ix) With reference to incineration consider the following statements:

Incineration is used for the disposal of:

1. Biomedical waste
2. Bio-degradable waste
3. Nuclear waste
4. Hazardous waste

Choose the correct option:

- (a) 1. and 3.
- (b) 1. and 4.
- (c) 3. and 4.
- (d) Only 1.

- (x) Madhav, a wealthy landlord owns a dairy farm of a small number of good breed of cows. What will be the possible reason for the small number of cows:
- (a) Lack of large area
 - (b) To conserve the soil
 - (c) Lack of money
 - (d) Lack of labour
- (xi) The planning of the Curitiba city is done giving highest priority to:
- (a) Urban development
 - (b) Industrial development
 - (c) Public transport system
 - (d) Smart city development
- (xii) A hand spun cloth is:
- (a) Chiffon
 - (b) Denim
 - (c) Khadi
 - (d) Crepe
- (xiii) The source of electricity generated by large dams is:
- (a) Coal
 - (b) Water
 - (c) Solar
 - (d) Generator
- (xiv) An alternative to timber in building industry is:
- (a) Hemp
 - (b) Recycled timber
 - (c) Bagasse
 - (d) Teak wood

- (xv) A mini hydel power plant can generate electricity:
- (a) More than 100 KW
 - (b) Less than 100KW
 - (c) 10 to 100 KW
 - (d) More than 1000 KW
- (xvi) Reason for recycling of water:
- (a) To meet the growing demand for non-potable water
 - (b) To control soil erosion
 - (c) To control floods
 - (d) To meet the growing demand for potable water
- (xvii) Fluidized bed boilers work on:
- (a) Solid waste
 - (b) Liquid waste
 - (c) Gaseous waste
 - (d) Both solid and liquid waste
- (xviii) Subsidies are:
- (a) Taxes imposed by Government
 - (b) Surcharges on the non-ecofriendly products
 - (c) Financial aid given by a government
 - (d) Fine imposed by government on act committed against the law
- (xix) Construction of _____ causes displacement and dislodgement of people.
- (a) Small dams
 - (b) Mini hydel
 - (c) Large dams
 - (d) Micro hydel
- (xx) Remote Sensing Satellites are placed in:
- (a) Laboratories
 - (b) Under the ground
 - (c) Outer space
 - (d) In a submarine

Question 2

- (i) What is brain drain? [2]
- (ii) What do you mean by North-South divide? [2]
- (iii) Study the picture: [3]



Courtesy by innovative Zone

Created by Dell

- (a) Why there is a ban in the single use plastic?
- (b) State *any two* alternatives to single use plastic items.
- (iv) State *any three* objectives of sustainable development. [3]

Question 3

- (i) Give example of *any two* traditional water harvesting system. [2]
- (ii) What are contour bunds? [2]
- (iii) List *any three* impacts of siltation of waterways. [3]
- (iv) State *any three* health hazards to rural women due to the usage of fuel wood. [3]

SECTION B

(Answer any four questions from this Section.)

Question 4

- (i) What is a watershed management? Describe *any three* aims of watershed management. [5]
- (ii) What is a leachate? State *any three* effects of leachate. [5]
- (iii) Give example of an alternative for timber in paper Industry. [5]
- Why there is a need to find alternatives to timber? (*Any four points*)

Question 5

- (i) Why the secondary treatment in a water treatment plant is called biological treatment? What happens in tertiary treatment? After which stage it is safe to discharge the treated water in water bodies and why? [5]
- (ii) NGOs work for the betterment of the society and environment. In this context state the role of NGOs in Child's Welfare. [5]
- (iii) Explain the working of Cyclone separator. [5]

Question 6

- (i) Enumerate the role of local people in Joint Forest Management? [5]
- (ii) 'Wetlands are vital for human survival.' List *any three* importance of wetlands. Name the international convention for protecting the wetlands. Where was the Convention adopted? [5]
- (iii) What is TTZ? List *any three* legislative measures to protect the Taj Mahal monument. [5]

Question 7

- (i) Bimla is a housewife of a village of Alwar district of Rajasthan. Few years ago, she and other womenfolk of the village had to walk two miles per day to bring water, as there was a scarcity of water in the village. But now they don't have to walk miles for water, water is available in the village for all the village people. [5]
- (a) According to you what is the source of water in the village?
- (b) Why the source of water was not there earlier?
- (c) Who revived that particular source of water in the village?
- (d) Several rivers which went dry earlier, started showing up due to the revival of the water source. Name *any one* of the rivers.
- (ii) Mention *any five* applications of Remote Sensing Satellite. [5]
- (iii) Explain the steps involved in Environmental Impact assessment. [5]

Question 8

- (i) List *any five* issues with large dams. [5]
- (ii) Enumerate *any five* advantages of modern technology. [5]
- (iii) How do we harvest the rain water? Why do we need to harvest the rain water? [5]
(*Any three points*)

Question 9

- (i) Study the picture and answer the questions that follows: [5]



- (a) Where is it situated?
 - (b) List *any four* sustainable practices adopted by the people of Auroville.
- (ii) Suggest *any five* ways to reuse waste. [5]
 - (iii) Write a short note on 'Bubble theory'. [5]