

**ICSE 2023 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 answer and write the correct option.

[20]

- (i) Technological measure used to control acidic as well as SPM.
- (a) Cyclone separator
  - (b) Wet Scrubber
  - (c) Electrostatic Precipitator
  - (d) Bag Filter
- (ii) The Taj Mahal and other famous heritage of Agra are being affected by:
- (a) Ozone depletion
  - (b) Water pollution
  - (c) Acid rain
  - (d) Soil pollution

- (iii) Which one of the following is not an advantage of CNG?
- (a) Reduces air pollution.
  - (b) Conserves fossil fuel.
  - (c) It is not easily available in rural areas.
  - (d) It is cheaper than the fossil fuel.
- (iv) Choose the *incorrect* statement with regard to the catalytical converter:
- (a) It reduces the array of emissions from an internal combustion engine.
  - (b) It uses a catalyst to convert Nitrogen dioxide to Nitrogen and Oxygen.
  - (c) Helps in reducing consumption of fossil fuels.
  - (d) Converts carbon monoxide to carbon dioxide.
- (v) Which of the following wastes is needed to be disposed carefully as they remain dangerous for thousands of years?
- (a) Biomedical wastes
  - (b) Agricultural waste
  - (c) Radioactive wastes
  - (d) Municipal waste
- (vi) Check dams or embankments built in Rajasthan to collect rainwater during monsoon are known as:
- (a) Baoli
  - (b) Temple pond
  - (c) Johads
  - (d) Eris
- (vii) Tree breaks are:
- (a) The trees are planted on right angle to the prevailing wind.
  - (b) The fallen branches of trees.
  - (c) Cutting of trees.
  - (d) Clearing a forested area.

- (viii) Soil management ensures:
- (a) Maximum crop production at maximum cost.
  - (b) Maximum crop production at minimum cost.
  - (c) Minimum crop production at minimum cost.
  - (d) Minimum crop production at maximum cost.
- (ix) Which of the following has the aim of conservation and sustainable utilization of wetland?
- (a) Kyoto Protocol
  - (b) Ramsar Convention
  - (c) Basel Convention
  - (d) Geneva Convention
- (x) Natural resource depletion can occur due to:
- (a) Over population
  - (b) Under population
  - (c) Sustainable development
  - (d) Appropriate development
- (xi) The main stake-holders of community forestry are:
- (a) State government
  - (b) Central government
  - (c) Local people
  - (d) Forest officials
- (xii) Overgrazing is:
- (a) Repeated grazing on the same field.
  - (b) Grazing on different pieces of land.
  - (c) Grazing in stall.
  - (d) Alternate grazing on different pieces of field.

- (xiii) The general slowdown of economic activities in a country is:
- (a) Recession
  - (b) Brain drain
  - (c) Increased GDP
  - (d) National deb
- (xiv) Sustainable development does not promote:
- (a) Construction of large dams.
  - (b) Conservation of natural resources.
  - (c) Concern for future generation.
  - (d) Pro-stable economic growth.
- (xv) Panchayati Raj is:
- (a) A form of state government.
  - (b) Decentralized governance.
  - (c) Royal governance.
  - (d) Urban governance.
- (xvi) A non-polluting fuel and produced by organic matter:
- (a) CNG
  - (b) Biogas
  - (c) Coal
  - (d) Charcoal
- (xvii) Thermal power plant causes:
- (a) Soil erosion
  - (b) Soil pollution
  - (c) Land degradation
  - (d) Air pollution

(xviii) EIA is not mandatory for which developmental activities:

- (a) Poultry and Food industry
- (b) Iron and steel industry
- (c) Mining
- (d) Construction of dams.

(xix) Natural Resource accounting does not include:

- (a) Cost of acquiring natural resource
- (b) Exploration of natural resource
- (c) Accounting of natural resource depletion
- (d) Exporting the natural resource

(xx) Activated sludge is for treating:

- (a) Toxic gases
- (b) Waste water
- (c) Nuclear waste
- (d) Municipal solid waste

### Question 2

- (i) What is meant by judicious use of inputs in agriculture? [2]
- (ii) Why is community forestry so important in India? [2]
- (iii) What are catalytic converters? Give *one* advantage. [3]
- (iv) *The next World War would be fought for water.* Justify the statement. [3]

### Question 3

- (i) Mention *any two* ways how waste accumulation affects terrestrial and aquatic life. [2]
- (ii) Give *two* reasons why we need legislation to control air pollution. [2]
- (iii) What is Khadi? Give *two* reasons why we should adopt Khadi? [3]
- (iv) What is eco-friendly technology? Give *two* examples of eco-friendly technology you can use in your daily life. [3]

## SECTION B

(Answer **any four** questions from this **Section**.)

### Question 4

- (i) Discuss *any five* soil conservation strategies that you would implement as a farmer in hilly region. [5]
- (ii) Enumerate the role of local people in Joint Forest Management? [5]
- (iii) As a responsible citizen of the country what measures would you take to reduce the use of plastic in your locality? [5]

### Question 5

- (i) Mention *any four* significances of wetlands. Name a convention of international importance on wetland. [5]
- (ii) *YWCA is an NGO for women*. What would be the aims of such NGOs? [5]
- (iii) What is EIA? What are the advantages of conducting EIA before starting an industry? [5]

### Question 6

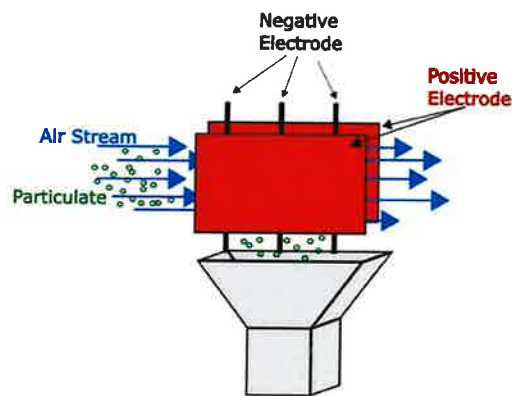
- (i) There is a North-South divide on depletion of natural resources. What are the points of contention of the Northern countries on argument that the Southern countries cause more depletion of natural resources? [5]
- (ii) Distinguish between the following: [5]
  - (a) Biodegradable and non-biodegradable wastes (*Two points*)
  - (b) Indigenous and modern technologies (*Three points*)
- (iii) What is Johad? Explain how it changed the life of people in Rajasthan. [5]

### Question 7

- (i) State *any five* reasons as to why we need to conserve water. [5]
- (ii) What is TTZ? List *any three* legislative measures to protect the Taj Mahal monument. [5]
- (iii) List the effects of globalization on the environment. [5]

### Question 8

- (i) Why remote sensing satellite is considered a good tool? [5]
- (ii) Air pollution is a major problem in metropolitan cities. Discuss the measures taken by Legislation to reduce air pollution with reference to Delhi city. [5]
- (iii) Study the diagram and answer the questions. [5]



- (a) Name the air pollution control device.
- (b) What type of pollution can be controlled by this device?
- (c) Which type of industry would benefit from this device?
- (d) Explain the working principle of this device.

### Question 9

- (i) What is 'Ramsar Convention'? When and where was it adopted? What are the main objectives of the Convention? [5]
- (ii) 'Curitiba is globally known for its traffic management'. Mention *any five* ways how traffic is managed in Curitiba? [5]
- (iii) State any five sustainable practices adopted by Auroville. [5]