

ICSE 2024 EXAMINATION
SPECIMEN QUESTION PAPER
ENVIRONMENTAL SCIENCE

Maximum Marks: 80

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

[16]

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

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

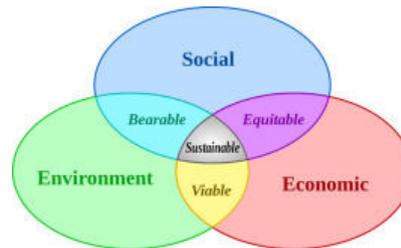
- (i) Which one of the following is a technique for controlling soil erosion?
- (a) Contour ploughing
 - (b) Reforestation
 - (c) Energy Plantation
 - (d) Use of inorganic fertilizers.
- (ii) The device which reduces air pollution from vehicles is:
- (a) Spark plug
 - (b) Catalytic converter
 - (c) Scrubber
 - (d) Plate Tower

- (iii) The objective of community forestry is:
- (a) planting trees on the slopes of mountains
 - (b) forming self-help groups
 - (c) planting of trees by villagers on common lands and share the products
 - (d) replacing use of wood with other products.
- (iv) In-situ conservation is a means:
- (a) to provide a habitat for animals in the zoo.
 - (b) to protect and restore species in National parks and Sanctuaries.
 - (c) to conserve species that do not survive in the wild.
 - (d) to maintain endangered plants and animals under artificial conditions.
- (v) The statistical study of human population with reference to size, density and other statistics is known as:
- (a) Population ratio
 - (b) Demography
 - (c) Census
 - (d) Anthropology
- (vi) Choose the correct pair from the following:
- (a) Tarun Bharat Sangha → Gajendra Singh
 - (b) Ralegaon Siddhi → Anna Hazare
 - (c) Chipko Movement → Durga Bai
 - (d) Sukhomajri → Anna Hazare
- (vii) Which form of electricity generation causes the most environmental damage?
- (a) nuclear energy
 - (b) solar energy
 - (c) thermal energy from coal
 - (d) geothermal energy

- (viii) The organisms responsible for composting and breaking down of dead organic matter are:
- (a) Earth worms
 - (b) Microorganisms
 - (c) Scavengers
 - (d) Tape worms

(ix) The figure given alongside refers to the scheme of:

- (a) Economic development
- (b) Social life development
- (c) Environment conservation
- (d) Sustainable development



- (x) Assertion(A): Three quarters of the world's population is inadequately fed so there is hunger and malnutrition in the developing countries.

Reason(R): The factors of food shortage in the developing countries are poverty, unsuccessful agriculture and inequal distribution in food supply.

- (a) A is true and R is not the correct reason for A.
 - (b) A is false and R is not correct reason for A
 - (c) A is false but R is true
 - (d) Both A and R are true.
- (xi) Statement A: The Multinational Companies can be controlled by NGOs to take responsibility of the environmental issues.

Statement B: NGOS are profitable organizations.

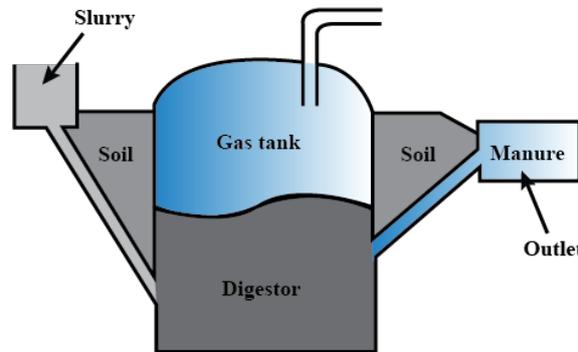
- (a) Both statements A and B are correct.
- (b) Statement A is correct, and Statement B is incorrect
- (c) Statement A is incorrect and Statement B is correct
- (d) Both statements A and B are incorrect.

(xii) Match Column 1 with Column 2 and choose the correct option from those given below?

COLUMN 1	COLUMN 2
1. Montreal Protocol	A. Focuses on International waters and its diversion.
2. CITES	B. Check on greenhouse gases emission.
3. GEF	C. Conservation of endangered species.
4. Kyoto Protocol	D. Control of CFCs to prevent Ozone depletion.

- (a) 1 – A 2 – B 3 – C 4 – D
- (b) 1 – B 2 – C 3 – B 4 – A
- (c) 1 – D 2 – C 3 – A 4 – B
- (d) 1 – C 2 – A 3 – D 4 – C

The following questions (xiii to xvi) are based on the figure given below. Answer these questions by choosing the correct option.



(xiii) The figure shows a structure from which a fuel is generated. Name the fuel generated from this structure.

- (a) Gasoline
- (b) Biodiesel
- (c) Biogas
- (d) LPG

- (xiv) What is the main component of this gas that is generated from the above structure?
- (a) Methane
 - (b) Oxygen
 - (c) Ammonia
 - (d) Carbon dioxide
- (xv) How is this fuel obtained? It is obtained:
- (a) by burning of coal
 - (b) by decomposition of agricultural waste, cow dung and leaves.
 - (c) by breaking down of crude oil
 - (d) by decomposition of sugar cane molasses
- (xvi) How is the manure produced utilized?
- (a) It is used as a pesticide in the soil to kill pests.
 - (b) It is sprayed on fruits to make them ripe faster.
 - (c) It is mixed with soil to make it rich with air.
 - (d) It is used as fertilizer to make the soil rich with nutrients.

Question 2

- (i) India hosts 4 biodiversity hotspots: the Himalayas, the Western Ghats, the Indo-Burma region and the Nicobar group of Islands. What is Biodiversity hot spots? [2]
- (ii) Mention two factors that cause food shortage in developing countries. [2]
- (iii) Why is kerosene, as a fuel, more popular in rural India than urban area? [2]
- (iv) Mention two measures that can be taken to control the undue changes in the climate? [2]

Question 3

- (i) What are tree crops? How are they useful? [2]
- (ii) Write the expanded form of IPM and what is the aim of this program? [2]
- (iii) Give two reasons for loss of Biodiversity. [2]
- (iv) What is radioactive fallout? Why is it dangerous? [2]

Question 4

- (i) What is the difference between Sanitary land fill and Incineration? [2]
- (ii) What is debt trap? Which countries are affected by this, the developed or the developing ones? [2]
- (iii) What was the significance of UN's International Conference on Population and Development Conference, 1994? Where was it held? [2]
- (iv) What does GEF stand for? What is its role at international level? [2]

SECTION B

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

Question 5

- (i) Discuss five ways by which you can reduce air pollution from vehicles through traffic management. [5]
- (ii) Define waste management. Explain the role of 3Rs in waste management. [5]

Question 6

- (i) Why is energy conservation important? Write two advantages and two disadvantages of solar energy. [5]
- (ii) The farming technique of conservation tillage is widely practiced in agriculture. What is conservation tillage? Write three advantages and two disadvantages of this technique. [5]

Question 7

- (i) Secondary cities can play a major role to reduce pressure on metropolitan cities. Suggest five measures which can be developed in the secondary cities to stop migration of people into metro cities. [5]
- (ii) What are green buildings. Write any four features of it. [5]

Question 8

- (i) How can you reduce deforestation? Suggest five ways to combat deforestation. [5]
- (ii) What do you understand by Global interdependence? Suggest three ways by which international cooperation can help in achieving a sustainable future. [5]

Question 9

- (i) What effect does population explosion has on the environment and human health? [5]
- (ii) What are the advantages of allowing a Multinational Company to set up its operation in the host country? Write two advantages and three disadvantages of MNC in the host country. [5]

Question 10

Read the following abstract and answer the questions that follow.

As the world becomes more and more urbanized, it's important to understand the effects this has on both people and nature.

Cities are engines of growth, but they also come with a cost. In this blog post, we'll explore some of the ways urban populations can impact our environment and our health. Urbanization is changing our planet – for better or for worse?

(Source) May 16, 2022 | Global Issues, Social Issues, Sustainability

- (a) Write two causes which make people move to cities? [5]
What impact does Urbanization have on the environment of the city?
- (b) Explain IUCN and write its role in categorizing and marking the species for conservation. [5]