(6 pages)

S.No. 6456 **P 22 ESCC 1 A**

(For candidates admitted from 2022–2023 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2023

Environmental Science — Core Choice Course

CURRENT ENVIRONMENTAL ISSUES

Time : Three hours Maximum : 75 marks

SECTION A — (20 marks)

Answer ALL questions

I. (A) Choose the correct answer : (5 × 1 = 5)

1. Identify one of the following diseases caused due to the effects of excess fluoride found in the drinking water?

   (a) intestinal infection (b) toothaches

   (c) lung disease (d) fluorosis

2. Which one of the following statement defines the Smog?

   (a) fog and ozone (b) vehicular pollutant

   (c) fog and smoke (d) ozone and smoke

3. Waste utilization will be achieved by using one of the following principle. Identify it from the options.

   (a) reuse, reproduce and recycling

   (b) recover, reuse and recycling

   (c) reuse, reclamation and recycling

   (d) recover, reclamation of reproduce

4. What is the importance attached with the conservation of natural resources?

   (a) extinction of biological species

   (b) disruption of the quality of the environment

   (c) maintaining the ecological processes

   (d) disturbing the ecological balance

5. Identify which one of the following can cause thermal pollution on environment?

   (a) oil spill

   (b) power plants

   (c) death of marine organisms

   (d) residential houses

(B) Fill in the blanks : (5 × 1 = 5)

6. ———— is the second generation of pesticides which poses serious health issues in human being by entering into the food chain.

7. The major air pollutants such as NO_2, SO_2, and SO_3 found to be dissolved in the moisture of atmospheric air are the cause of ————

8. The process of burning of non-biodegradable solid waste may be known as ————

9. ———— in India is one of the 25 biodiversity hotspots of the world.

10. Frequent exposure to excessive noise pollution can cause _____ in human beings.

II. Answer these questions in one or two line: (5 × 2 = 10)

11. What is eutrophication?

12. What do you understand by the term particulate pollutants?

13. Define the term pyrolysis.

14. What are the types of biodiversity?

15. What is radioactive pollution?

SECTION B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b)

16. (a) Explain in detail about the persistent organic pollutants and their impacts on the environment.

Or

(b) Describe in detail about the Exxon Valdez and Torrey Canyon oil tanker accidents and their impacts on the environment.

17. (a) Write an elaborate account on the Chernobyl Disaster and Bhopal gas tragedy and the long term impact caused by these accidents.

Or

(b) Discuss about the different types of pollution and the impacts on the environment and mention about the control methods.

18. (a) Describe in detail about the Love canal episode and its impact on the environment.

Or

(b) Write an elaborate account on the different types of disposable methods for different types of wastes.

19. (a) Explain in detail about the various causes for the loss of biodiversity with appropriate examples.

Or

(b) Discuss in detail about the contributions of the Chipko and Appiko movements in the area of environmental conservation in India.

20. (a) Discuss about the impacts and different type of pollutants arising out of thermal power plants.

Or

(b) Explain about the noise pollution and mention the various noise levels for different environmental categories.

SECTION C — (3 × 10 = 30)

Answer any THREE questions.

21. Describe in detail about the biomagnifications and impacts with reference to the Minamata and Itai-Itai diseases.

22. Discuss about the various factors related to air pollution and their role in climate change mediated global warming and its short term and long term impacts on the environment.

23. Explain about the waste management using composting method and vermicomposting method and its long term effects on the soil health.

24. Write an elaborate account about the available methods associated with *in-situ* and *ex-situ* conservation methods of biodiversity.

25. Discuss about the radioactive pollutants and explain it with reference to the Fukusima Daiichi nuclear disaster.

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