

Faculty of Science

End Semester Examination May 2025

BT3AE03 Environmental Science

Programme	:	B. Sc.	Branch/Specialisation	:	BT
Duration	:	3 hours	Maximum Marks	:	60

Note: All questions are compulsory. Internal choices, if any, are indicated. Assume suitable data if necessary. Notations and symbols have their usual meaning.

Section 1 (Answer all question(s))

- | | Marks CO BL |
|---|---|
| | 1 1 1 |
| Q1. What is the main objective of environmental studies? | 1 1 1 |
| <input type="radio"/> To study the scientific aspects of the environment
<input type="radio"/> To promote economic growth | <input checked="" type="radio"/> To understand human interaction with the environment and address environmental issues
<input type="radio"/> To focus solely on climate change |
| Q2. Which of the following is the main purpose of the Environment Protection Act of 1986 in India? | 1 1 1 |
| <input type="radio"/> To promote industrial growth
<input type="radio"/> To regulate air pollution | <input checked="" type="radio"/> To provide a framework for the protection and improvement of the environment
<input type="radio"/> To ensure economic development in urban areas only |
| Q3. Which of the following is a major cause of soil erosion? | 1 2 1 |
| <input type="radio"/> Afforestation
<input type="radio"/> Rain water harvesting | <input checked="" type="radio"/> Overgrazing and deforestation
<input type="radio"/> None of the above |
| Q4. Which of the following is an example of a renewable source of energy? | 1 2 1 |
| <input type="radio"/> Coal
<input checked="" type="radio"/> Wind energy | <input type="radio"/> Natural gas
<input type="radio"/> Oil |
| Q5. Which of the following is a long-term effect of water pollution on aquatic ecosystems? | 1 3 1 |
| <input type="radio"/> Increased fish population
<input type="radio"/> Increased water clarity | <input checked="" type="radio"/> Death of aquatic organisms due to reduced oxygen levels
<input type="radio"/> Increased biodiversity |
| Q6. Which of the following best describes the effect of noise pollution on human health? | 1 3 1 |
| <input type="radio"/> Improved sleep quality
<input type="radio"/> Enhanced concentration and productivity | <input checked="" type="radio"/> Increased risk of cardiovascular diseases
<input type="radio"/> No effect on human health |
| Q7. What is the composition of the earth's atmosphere? | 1 4 1 |
| <input checked="" type="radio"/> 78% oxygen, 21% nitrogen, 1% other gases
<input type="radio"/> 21% oxygen, 78% carbon dioxide, 1% other gases | <input type="radio"/> 87% nitrogen, 11% oxygen, 1% other gases
<input type="radio"/> 21% nitrogen, 78% oxygen, 1% other gases |
| Q8. What is the primary cause of global warming? | 1 4 1 |
| <input type="radio"/> Increase in volcanic eruptions
<input type="radio"/> Afforestation | <input checked="" type="radio"/> Human activities, particularly the burning of fossil fuels
<input type="radio"/> The natural variation of earth's climate |

Q9. What is the major goal of disaster management?

1 5 1

- To prevent all types of disasters from occurring
- To ignore the effects of disasters on the population

- To reduce the impact of disasters and ensure a quick recovery
- To promote economic growth after a disaster

Q10. The primary causes of deforestation is-

1 5 1

- Preservation of biodiversity
- Expansion of agricultural land and logging

- Increased wildlife population
- None of the above

Section 2 (Answer all question(s))

Q11. Write the importance of public awareness in environmental protection.

Marks CO BL
2 1 2

Rubric	Marks
Public awareness-1 mark	2
Importance- 1 mark	

Q12. Describe Environment Protection Act. Also state its purpose and applications.

3 1 2

Rubric	Marks
Explanation of Act- 2 marks	3
Purpose and application- 1 mark	

Q13. (a) What are the major objectives of Environmental Management Systems?

5 1 1

Rubric	Marks
Definition - 2 mark	5
Objectives and Application- 3 mark	

(OR)

(b) Define environmental sustainability and sustainable development.

Rubric	Marks
Definition-1mark	5
Concept of sustainable development- 2 marks	
Application- 2 marks	

Section 3 (Answer all question(s))

Q14. Explain soil erosion and its impact on agriculture.

Marks CO BL
2 2 2

Rubric	Marks
Define soil erosion- 1 mark	2
Impact on agriculture- 1 mark	

Q15. (a) What are the main causes of deforestation? How does it impact the environment?

8 2 1

Rubric	Marks
What is deforestation?- 1 mark Causes - 3 marks Impact on environment- 4 marks	8

(OR)

- (b)** Give a brief explanation of natural disasters, including earthquakes, volcanoes, floods, and cyclones.

Rubric	Marks
Definition- 2 mark Explanation for earthquake- 1.5 mark Explanation for volcanos- 1.5 mark Explanation for Flood- 1.5 marks Explanation for cyclone- 1.5 marks	8

Section 4 (Answer all question(s))

Q16. Discuss the harmful effects of noise pollution on human health and environment.

Marks CO BL
3 3 2

Rubric	Marks
Define Noise pollution- 1 mark effects on human health- 2 marks	3

Q17. (a) Explain land pollution, its causes, effects, and methods for controlling it.

7 3 2

Rubric	Marks
Definition- 1 mark Causes-2 marks Effects-2 marks Methods to control 2 marks	7

(OR)

- (b)** Discuss the impacts of industrial activities on air and water pollution.

Rubric	Marks
Define air and water pollution- 2 marks General causes- 2 marks Effect of industrial activities- 3 marks	7

Section 5 (Answer all question(s))

Q18. Discuss the importance of earth's atmosphere in making it the only biosphere in the solar system.

Marks CO BL
4 4 2

Rubric	Marks
Define atmosphere- 1 mark role of atmosphere- 3 marks	4

Q19. (a) Describe the impact of climate change on weather patterns.

6 4 2

Rubric	Marks
Explanation of climate change- 2 marks	
Change in weather pattern explain- 4 marks	6

(OR)

- (b)** Discuss the role of greenhouse gases in global warming. What are the human activities which contribute to their increase concentration in the atmosphere?

Rubric	Marks
Explain green house gases- 1 mark	
Role in global warming- 2 mark	
Humans contribution to rising temperature- 3 marks	6

Section 6 (Answer any 2 question(s))

Marks CO BL

Q20. What is solid waste management? Discuss its importance in urban planning.

5 5 1

Rubric	Marks
definition solid waste- 1 mark	
Definition waste management-1 mark	
Importance in urban planning- 3 marks	5

Q21. Describe disaster management and different types.

5 5 1

Rubric	Marks
Definition of Disaster management- 2 marks	
Different types-3 marks	5

Q22. Discuss acid rain and its impacts on human communities and agriculture.

5 5 1

Rubric	Marks
Acid rain- 2 marks	
Its Impact- 3 marks	5
