



# Faculty of Science

## End Semester Examination May 2025

### BT3AE03 Environmental Science

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

**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
<b>Q1.</b>	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					
<b>Q2.</b>	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					
<b>Q3.</b>	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					
<b>Q4.</b>	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					
<b>Q5.</b>	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					
<b>Q6.</b>	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					
<b>Q7.</b>	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					
<b>Q8.</b>	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 reduce the impact of disasters and ensure a quick recovery
 ☐ To ignore the effects of disasters on the population
 ☐ To promote economic growth after a disaster
- Q10.** The primary causes of deforestation is- 1    5    1
- ☐ Preservation of biodiversity
 ☐ Increased wildlife population
 ☒ Expansion of agricultural land and logging
 ☐ None of the above

**Section 2 (Answer all question(s))**

**Marks CO BL**  
2    1    2

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

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

- Q12.** Describe Environment Protection Act. Also state its purpose and applications. 3    1    2

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

- Q13. (a)** What are the major objectives of Environmental Management Systems? 5    1    1

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

(OR)

- (b)** Define environmental sustainability and sustainable development.

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

**Section 3 (Answer all question(s))**

**Marks CO BL**  
2    2    2

- Q14.** Explain soil erosion and its impact on agriculture.

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

**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 volcanoes- 1.5 mark Explanation for Flood- 1.5 marks Explanation for cyclone- 1.5 marks	8

**Section 4 (Answer all question(s))**

Marks CO BL

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

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))**

Marks CO BL

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

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

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