

2025

**M.Sc. 3rd Semester Examination**

**PAPER : M250316 (MOOCS)**

**SUSTAINABILITY SCIENCE**

Full Marks : 100

Time : Three Hours

*The figures in the margin indicate full marks.  
Candidates are required to give their answers  
in their own words as far as practicable.*

**Group - A**

Answer any *nine* questions :  $2 \times 9 = 18$

1. What is the concept of 'Capital Stock' model of Sustainable Development?
2. What are the natural drivers of climate change?
3. How many individual goals are included in the sustainable development goals?
4. What is meant by eco-friendly detergents?
5. What is the main purpose of NAPCC in India?
6. What is the Living Planet Index?
7. What are the classification of natural resources based on origin?

P.T.O.

( 2 )

8. Give an example of a sustainability indicator.
9. Define natural resource management.
10. What is meant by landscape ecology?
11. State one main objective of watershed management.
12. What is the role of education in environmental ethics?
13. What is green technology?
14. What is the aim of the National Mission for sustainable agriculture?

**Group - B**

Answer any *five* questions :  $4 \times 5 = 20$

15. Explain any two goals of sustainable development with examples.
16. Briefly discuss the Light Emitting Diode (LED) in connection to the environment.
17. Write a short note on Neolithic epoch.
18. How does agriculture contribute to greenhouse gas emissions?
19. What does Engel's law state?
20. Briefly discuss the factors affecting the changes on landscape diversity.
21. Discuss the role of landscape ecology in managing natural resources.

( 3 )

22. Discuss important pathways to achieve sustainable development at the global level.

**Group - C**

Answer any *four* questions :  $8 \times 4 = 32$

23. Describe the causes of Natural Resource depletion and different approaches for Natural Resource management.
24. What is the concept of watershed management? Discuss the different characteristics of a watershed.  $3+5$
25. Discuss different important factors and drivers of climate change.
26. Explain the concept of eco-friendly life style implications for sustainability.
27. Explain the global challenges of sustainable development and the major strategies to overcome them.
28. Critically discuss the importance and challenges of moving towards green technology in the context of long-term environmental sustainability.

**Internal Assessment : 30 marks**

---