

2025

M.Sc. 3rd Semester Examination

PAPER : M250305 (MOOCS)

**ECOSYSTEM AND NATURAL
RESOURCES**

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 energy flow in an ecosystem?
2. Define ecocline.
3. What are ecosystem services?
4. What is agrobiodiversity?
5. What are the criteria used to define the character of a biome as a biodiversity hotspot?
6. What is an endemic species?
7. What is the Ramsar Convention?
8. What do you mean by sustainable use of natural resources?

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9. What is soil pH?
10. What is soil porosity?
11. Make a difference between fertile land and fallow land.
12. What is elluviation?
13. Define the field capacity of soil.
14. Why is the usage of alternative energy resources vital towards achieving the goals of sustainable development?

Group - B

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

15. Describe the parameters used to define the water quality.
16. How does the competitive usage of water ensure water security?
17. What are the challenges of harnessing solar and nuclear energy in India?
18. What are the strategies taken by the Union Government of India to meet the growing demand for energy?
19. Write a note on the importance of agrobiodiversity in sustaining the agroecosystem.
20. State the causes of shrinking agrobiodiversity.
21. Write the challenges and opportunities of GM-crops in agriculture.
22. Briefly describe the patterns of biodiversity loss in India.

(3)

Group - C

Answer any *four* questions : 8×4=32

23. Describe the causes and consequences of land degradation.
24. Write, in detail, the processes of laterization.
25. What are the sustainability issues related to mineral and energy resources?
26. Discuss the national portfolios and policy framework for agrobiodiversity conservation.
27. Discuss the causes and consequences of global forest cover change.
28. Explain the method of estimating the ecosystem services.

Internal Assessment : 30 marks
