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MEVE-013

M. SC. (ENVIRONMENTAL SCIENCE)

(MSCENV)

Term-End Examination

June, 2026

MEVE-013 : ENVIRONMENTAL

BIOTECHNOLOGY

Time : 3 Hours

Maximum Marks : 100

Note : Answer any **ten** questions. All questions carry equal marks.

1. Explain the role of environmental biotechnology in wastewater treatment. 10
2. Discuss the application of environmental biotechnology in solid waste management. 10
3. Write short notes on the following : 5+5
 - (a) Silage production
 - (b) Organic matter degradation

4. Explain the challenges and mechanism of xenobiotic compound degradation. 10
5. Explain the role of microorganisms in mitigating greenhouse gases. 10
6. Elucidate the importance of forests in carbon sequestration. 10
7. Explain the role of phytoremediation in environmental cleanup. Explain the advantages and disadvantages of phytoremediation. 10
8. Explain the role of microbes in biofuel production. 10
9. Describe the production process and application of bioplastics. 10
10. Explain the bioleaching process with suitable examples. 10
11. Describe the mechanism of tertiary oil recovery process using microbial agents. 10
12. What are biomarkers ? Throw light on the applications of biomarkers in environmental monitoring. 2+8

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13. Write short notes on the following : 5+5

(a) Bio-scrubber

(b) Bio-filter

14. Write short notes on the following : 5+5

(a) Photosynthetic Cyanobacteria

(b) Mushroom Cultivation

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