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MEVE-13

**M. SC. (ENVIRONMENTAL SCIENCE)
(MSCENV)**

Term-End Examination

June, 2023

MEVE-13 : ENVIRONMENTAL BIOTECHNOLOGY

Time : 3 Hours

Maximum Marks : 100

Note : (i) *Attempt any ten questions.*

(ii) *All questions carry equal marks.*

1. What is environmental biotechnology ? Discuss its scope in environmental protection. 10
2. Differentiate between hazardous and non-hazardous wastes. Explain the process of biodegradation of toxic wastes. 10
3. Explain the waste water treatment using biological methods. 10
4. What is bioremediation ? Differentiate between *ex situ* and *in situ* bioremediation. 10
5. What are bioplastics ? Discuss the significance of bioplastics in environmental management.

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6. What is phytoremediation ? Give its scope, advantages and limitations. 10
7. Give any *four ex situ* bioremediation methods, their advantages and limitations. 10
8. Discuss the role of environmental biotechnology in solid waste treatment. 10
9. What are biofertilizers ? Explain the different types of biofertilizers with their advantages. 10
10. What are lignocellulosic compounds ? Explain the degradation of lignocellulosic compounds. 10
11. What is biofuel ? Describe the process of biofuels production. 10
12. What is environmental monitoring ? Describe the role of biosensors in environmental monitoring. 10
13. What is biobleaching ? Explain the process of biobleaching.
14. Write short notes on the following : 10
 - (a) Bioindicators
 - (b) Plasmid