

(i) Printed Pages : 3

Roll No.

(ii) Questions : 9 Sub. Code :

2	5	9	4	4
---	---	---	---	---

Exam. Code :

0	4	3	6
---	---	---	---

**M.Sc. Bio-Technology 2nd Semester
(2055)**

ENVIRONMENTAL BIOTECHNOLOGY

Paper-MBIO-204

Time Allowed : Three Hours]

[Maximum Marks : 80

Note :— Attempt **FIVE** questions in all. Q. No. 1 is compulsory.
Select **ONE** question from each unit. All questions carry
equal marks.

1. (a) Define London Smog.
- (b) What is MPN ?
- (c) Give names of anaerobes involved in secondary wastewater treatment.
- (d) Differentiate between Biosensor and Bioindicators.
- (e) What is BOD ? How is it applied ?
- (f) Define Biofertilizers. Give examples.
- (g) Define Thermal inversion.
- (h) Define Degradative plasmids. 2×8=16

UNIT—I

2. (a) What are Air Quality standards ? How is Air Quality monitored ? 8
- (b) Write a note on diffusion of air pollutants. 8
3. (a) Discuss the fate of pesticides in soil. 8
- (b) Discuss methods for bacteriological analysis of soil. 8

UNIT—II

4. (a) Give methods used for measurement of water pollution. 8
- (b) Write the working principle of Activated Sludge treatment. 8
5. Describe effluent characteristics and treatment strategies for Dairy and Distilleries. 16

UNIT—III

6. (a) List factors contributing to Recalcitrance of Xenobiotics and their decay behaviour. 8
- (b) Discuss microbial degradation of aromatic hydrocarbons. 8
7. Write notes on :
 - (a) Bioremediation of Polluted Soil.
 - (b) Integrated Pest Management. 8+8

UNIT—IV

8. (a) Discuss about sources and characteristics of Municipal Solid Waste. 8
- (b) Write a note on Bioleaching and its application in biotechnology. 8
9. (a) Discuss principle of Remote sensing and GIS and application in Ecological mapping. 8
- (b) What are Bioplastics ? Discuss environmental significance and properties. 8