

(i) Printed Pages : 3

Roll No.

(ii) Questions : 9

Sub. Code :

0	9	8	3
---	---	---	---

Exam. Code :

0	0	3	7
---	---	---	---

B.Sc. (Hons.) Biotechnology 5th Semester
(2122)

ENVIRONMENTAL BIOTECHNOLOGY

Paper : BIOT-502-T

Time Allowed : Three Hours]

[Maximum Marks : 67

Note :— Attempt **FIVE** questions in all, including Question No. I which is compulsory and selecting **ONE** question from each unit. All questions carry equal marks except compulsory question.

I. Explain the following :—

- (a) Effects of noise pollution on human health.
- (b) Green manure as bio-fertilizer.
- (c) Gasohol.
- (d) Primary and secondary treatment of waste water.
- (e) Composting and vermicomposting.
- (f) PM_{10} .
- (g) Hydrocarbons as soil pollutant.
- (h) Biomagnification.
- (i) Photochemical smog
- (j) BOD and COD.

1.5×10=15

UNIT—I

- II. (a) What is air pollution ? Describe various effects of air pollution on human health.
- (b) Describe various methods to control noise pollution. 7,6
- III. (a) Discuss hydrogen as modern fuel and its positive impacts on environment.
- (b) Tabulate difference between Renewable and Non-Renewable energy sources. Discuss impacts of fossil fuels on environment. 7,6

UNIT—II

- IV. (a) Discuss Activated Sludge methods of waste water treatment.
- (b) Describe physico-chemical methods to measure level of pollution in water. 7,6
- V. (a) Explain design and functioning of Upward Flow Anaerobic Sludge Blanket reactor.
- (b) Write a note on Trickling filter. 7,6

UNIT—III

- VI. (a) What is Integrated Pest Management ? Discuss role of resistant plant variety and microbial control in IPM.
- (b) Explain biodegradation of DDT. 7,6

VII. (a) What are Bio-fertilizers ? Describe Rhizobium and Azolla as bio-fertilizers.

(b) Explain biodegradation of Hydrocarbons. 7,6

UNIT—IV

VIII. (a) What is Solid Waste management ? Explain fundamental elements of municipal solid waste management.

(b) Describe in brief Land filling method waste management. 7,6

IX. What are Bio-indicators ? Discuss different types of bio-indicators with suitable examples. 13