

Seat No. : _____

AE-129

April -2018

B.Sc., Sem.- VI

310 : Biotechnology

(Environmental Biotechnology)

Time : 3 Hours]

[Max. Marks : 70

1. Answer any **two** of the following : **14**
- (A) Explain the process of composting for the treatment of solid waste.
 - (B) Define BOD and discuss its importance in liquid waste treatment.
 - (C) Write a short note on "Safety in final disposal of liquid waste".
 - (D) Discuss the anaerobic sludge digester.
2. Answer any **two** of the following : **14**
- (A) Discuss the methods for the bioremediation of marine oil contamination.
 - (B) Explain the bioventing approach for bioremediation of hazardous waste.
 - (C) Discuss different parts of a bioreactor with their applications.
 - (D) Describe the microbial approach for the bioremediation of dye-wastes.
3. Answer any **two** of the following : **14**
- (A) Describe the process and need for desulphurization of coal.
 - (B) Write a short note on 'Heap Percolation' for mineral recovery.
 - (C) Discuss the methods for the recovery of Copper.
 - (D) Explain the production of Hydrogen as a fuel.
4. Answer any **two** of the following : **14**
- (A) Discuss different methods for the conservation of biodiversity.
 - (B) Elaborate the microbial risk assessments and control.
 - (C) Describe the factors for global warming.
 - (D) Write a short note on 'Integrated pest management'.

5. Answer in brief :

14

- (1) Define Biofilm.
- (2) Enlist the name of tests for drinking water.
- (3) Define Containment.
- (4) What is Bioslurping ?
- (5) Define Bioavailability.
- (6) What is Biomagnification ?
- (7) Define Biopilling.
- (8) Argue for hydrocarbons as fuel.
- (9) Define biometallurgy.
- (10) What is MEOR ?
- (11) What are algal bloom ?
- (12) What are the elements of risk assessment ?
- (13) Enlist green house gases.
- (14) What are sea-weeds ?