

M.Sc Sem-3 Examination

502

Biotechnology

November-2024

Time : 2-30 Hours]

[Max. Marks : 70

- Q1 Discuss the environmental laws and policies practiced in India. 14
- OR
- Q1 A. Write a short note on toxicity testing 07
- B. National Green Tribunal and its functionality. 07
- Q2 Enlist the aerobic methods of waste treatment and describe the trickling filter process. 14
- OR
- Q2 A. Highlight biological and physicochemical properties of wastewater. 07
- B. Discuss 'Sludge Disposal'. 07
- Q3 Explain the microbial degradation of saturated and unsaturated aliphatic hydrocarbons 14
- OR
- Q3 A. Write a note on enzymes that play a key role in the degradation of hydrocarbons. 07
- B. Explain the degradation of Aromatic Hydrocarbons. 07
- Q4 Discuss biodeterioration of pharmaceuticals and cosmetic products, methodology used for assessment, and methods of prevention and control 14
- OR
- Q4 A. Write a detailed note on the biodeterioration of petroleum products 07
- B. Write a detailed note on biodeterioration of textiles 07
- Q5 Answer the following (any seven) 14
- 1) What are biomarkers?
 - 2) What are biosensors? Give an example
 - 3) Define bioindicators and cite examples
 - 4) What is COD?
 - 5) What is a fluidized bed reactor?
 - 6) What are communitors?
 - 7) What is catenation?
 - 8) What monooxygenases and dioxygenases?
 - 9) What are CYPs?
 - 10) Define Biodeterioration
 - 11) Aesthetic biodeterioration
 - 12) What is bioburden
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