

2021
B.A./B.Sc. (General) Fifth Semester
Industrial Microbiology
IMB-501: Biodegradation of Wastes and Pollutants

Time allowed: 3 Hours

Max. Marks: 33

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

I. Answer the following:-

- a) Activated Sludge
- b) Trickling filters
- c) Incineration
- d) 3 R's of solid waste treatment
- e) Pit composting

(5x1)

UNIT - I

- II. What is the difference between landfills and sanitary landfills? Explain the components of sanitary landfills and discuss the problems associated with landfills. (7)
- III. What is composting? Is composting compatible with other waste management systems? Explain different methods of composting with their advantages and disadvantages. (7)

UNIT - II

- IV. What is sewage? Why it is called as liquid waste? Explain three physical methods of sewage treatment. (7)
- V. How secondary treatment of liquid waste is different from the tertiary treatment? Explain how will you disinfect the contaminated waste water? (7)

UNIT - III

- VI. What is faecal contamination? Explain the use of microbial indicators for monitoring drinking water quality. (7)
- VII. What is potable water? Explain the advantages and disadvantages of chlorine, sodium hypochlorite and ozone disinfectant of potable water supplies. (7)

P.T.O.

(2)

UNIT – IV

- VIII. Differentiate between biodegradation and bioremediation. Explain the structure and biodegradation of alkyl benzyl sulphonates. (7)
- IX. What is oil spill pollution? How is oil spill affect the environment? Explain the methods of degradation of oil pollutants. (7)

x-x-x

C4KNOWLEDGE SEEKERS