

2022

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) Define composting.
- b) Which bacteria are commonly used as an indicator of water quality?
- c) Which method is the most effective for the disinfection of potable water?
- d) What is the tolerable level of coliforms in drinking water?
- e) Define oil spill. (5x1)

UNIT - I

- II. How does the incineration of solid waste work? What are its merits and demerits?(7)
- III. a) Differentiate between aerobic and anaerobic composting.
- b) Describe the various types of sanitary landfill methods. (3,4)

UNIT - II

- IV. Differentiate between the primary and secondary sewage treatment. (7)
- V. Write notes on the following:-
 - a) Trickling filtration
 - b) Chlorination (4,3)

UNIT - III

- VI. What are the various sources of faecal contamination of water and how can it be prevented? (7)
- VII. Discuss in detail the various bacterial indicators for water safety. (7)

P.T.O.

(2)

UNIT - IV

- VIII. Describe in detail the biodegradation of Alkyl-Benzyl Sulphonates. (7)
- IX. What are the various factors leading to oil pollution? How can it be prevented?(7)

x-x-x