

2071

B.A./B.Sc. (General) Second Semester
Industrial Microbiology
IMB-201: Fundamentals of Microbiology – II

Time allowed: 3 Hours

Max. Marks: 33

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

x-x-x

I. Attempt the following:-

- a) Describe the features of mycoplasma. (3)
- b) What are the various types of flagella? (2)
- c) Explain oxidative level phosphorylation with example. (2)
- d) What do you understand by cell bioreactor? (2)

UNIT - I

- II. Describe the processes involved in downstream processing. (6)
- III. Explain the working of immobilized cell bioreactor. (6)

UNIT - II

- IV. Classify the microorganisms on the basis of their nutrition types. (6)
- V. Explain the various features, examples and application of thermophiles. (6)

UNIT - III

- VI. Discuss advantages and disadvantages of various methods of culture preservation. (6)
- VII. Explain the principle and process of:-
 - a) Lyophilization
 - b) Mineral oil overlaying (3+3)

UNIT - IV

- VIII. Explain the gluconeogenesis in detail. (6)
- IX. Explain the process of nitrogen fixation in the symbiotic system with the help of examples. (6)

x-x-x