

Exam.Code:0002

Sub. Code: 0184

1058

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. 1 which is compulsory and selecting one question from each Unit.

x-x-x

I. Attempt the following:-

- a) What is significance of culture collection centre.
- b) Differentiate between algae and fungi?
- c) What is nitrification?
- d) What are actinomycetes? Give their significance.
- e) Explain the process of ammonification.
- f) What are thermophilic microflora?

(6x1½)

UNIT – I

II. Draw a well labeled ultra-structural diagram of:

- a) A Fungal cell
- b) An Algal cell

(3,3)

III. What is fermentation? Give the flow-sheet for the process. Discuss the downstream process of the fermentation process.

(6)

UNIT – II

IV. Describe the types of microorganisms based on their nutrition.

(6)

V. Discuss the diversity of psychrophiles.

(6)

UNIT – III

VI. Write notes on the following:-

- a) Culture preservation by mineral oil
- b) Culture preservation in liquid nitrogen

(3,3)

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VII. Write notes on the following:-

- a) Ultrafreezing
- b) Significance of stability of the preserved culture

(3,3)

UNIT - IV

VIII. Discuss the symbiotic nitrogen fixation.

(6)

IX. Write notes on the following:-

- a) Kreb's cycle
- b) Nitrification

(3,3)

x-x-x

UNIT - I

UNIT - II

UNIT - III