

2121

B.A./B.Sc. (General) Fifth Semester
Industrial Microbiology
IMB-502: Biofertilizers

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. Write short notes on the following:-

- a) Mass Multiplication (2)
- b) Symbiosis (2)
- c) Taxonomy (2)
- d) Nitrogen Fixation (2)
- e) Denitrification (1)

UNIT - I

- II. Discuss the process of nodulation in legumes. (6)
- III. Define Biofertilizers along with their economic importance. (6)

UNIT - II

- IV. Explain the Associative effect of Nitrogen fixing microbes with special reference to *Azospirillum*. (6)
- V. Describe the physiology of *Azotobacter* along with the crop response. (6)

UNIT - III

- VI. What do you mean by Mycorrhiza? Describe various types of Mycorrhiza with examples. (6)
- VII. Explain various Nitrogen fixation factors affecting plant growth. (6)

UNIT - IV

- VIII. How can you assess the Nitrogen fixing ability of different microbes under field conditions? (6)
- IX. Explain Isolation and identification of various Nitrogen fixing microbes. (6)

x-x-x