

2012
B.A./B.Sc. (General) Third Semester
Industrial Microbiology
IMB-302: Agricultural Microbiology

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) Name any sulphate reducing bacteria with its importance.
- b) Define VAM.
- c) What are bacteroids?
- d) Name two fungal diseases of plants.
- e) What is septicemia?
- f) Which media is used for isolation of Azotobacter. (6x1½)

UNIT – I

- II. How Rhizobium spp. and Azotobacter spp. helps in nitrogen fixation mechanism of plants? (6)
- III. Write short notes on:-
 - a) Bacillus thuringiensis as bioinsecticide
 - b) Azolla as biofertilizers (2x3)

UNIT – II

- IV. What are viral diseases of crops? Explain viral disease of Bhindi with respect to its causative agents, symptoms and control measures. (6)
- V. Describe in detail the symptoms and control measures of Rust of wheat. Explain the methods to control crop diseases. (6)

UNIT – III

- VI. Explain Rinderpest disease of farm animals. (6)
- VII. Write note on:-
 - a) Biomagnification
 - b) Diagnosis and treatment of foot and mouth disease of animal (2x3)

P.T.O.

(2)

UNIT – IV

- VIII. Briefly explain the sulphate reduction pathway. (6)
- IX. Discuss the economic importance of methylotrophs and sulphur utilizing bacteria. (6)

x-x-x