(For the candidates admitted from 2012-2013 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

First to Fourth Semester

Applied Microbiology

BIOFERTILIZER AND BIOMANURE TECHNOLOGY

Time: Three hours Maximum: 75 marks

SECTION A — $(5 \times 5 = 25 \text{ marks})$ Answer ALL questions.

1. (a) Explain the various types and uses of biofertilizer.

Or

- (b) Write an account on sulphur cycle.
- 2. (a) Briefly describe the cultivation of Azolla.

Or

(b) Writ the various types of field application method of Azospirillum.

3. (a) Give an account on Endomycorrhizae.

Or

- (b) Explain the morphology of VAM fungi.
- 4. (a) Write short notes on vermi compost.

Or

- (b) Give an account on saw dust.
- 5. (a) Write the field application of Rhizobium.

Or

(b) Write about the biomanure production.

SECTION B — $(5 \times 10 = 50 \text{ marks})$

Answer ALL questions.

6. (a) Write an essay on Biological nitrogen fixation.

Or

- (b) Describe in detail about the nitrogen cycle.
- 7. (a) Write an essay on Rhizobium as biofertilizer.

Or

(b) Explain the field application of cyanobacterial biofertilizers.

8. (a) Explain in detail about mass production of VAM.

Or

- (b) Write a detailed account on VAM associations and highlight their significance.
- 9. (a) Write about the various farm yard manures.

Or

- (b) Explain in detail about the biodegradation of organic compounds.
- 10. (a) Describe the Azolla as green manure cum biofertilizer.

Or

(b) How are biofertilizers and manures applied to soil, seeds and leaves?