

# Bankura University

## B.Sc 3rd SEMESTER(Honours) EXAMINATION, 2021

Subject: BOTANY

Course ID: 31315

Course Code: SHBOT/305/SEC-1

Course Title: **Biofertilizer**

Full Marks: 40

Time: 2 h

The figures in the margin indicate full marks

Answer all the questions.

### UNIT I

1. Answer *any five* of the following questions: (2X5=10)

- a) What is actinorhizal symbiosis?
- b) Name one symbiotic and one non-symbiotic N<sub>2</sub> fixer.
- c) What do you mean by starter culture?
- d) Mention two properties of carrier which is used in carrier based inoculum preparation.
- e) Name two worm which is used in vermicomposting.
- f) What is ectomycorrhiza?
- g) What is green manuring?
- h) What is *Azolla-Anabaena* association?

### UNIT II

2. Answer *any four* of the following questions: (5X4=20)

- a) Describe the carrier based inoculum preparation of *Azotobacter*.
- b) Describe the isolation process of *Azospirillum*.
- c) Describe the process of application of *Azolla* in rice cultivation.
- d) Describe the benefits of mycorrhiza in agriculture as biofertilizer.
- e) Describe the application of blue green algae (BGA) in rice cultivation.
- f) Describe the recycling of bio degradable municipal waste product.

### UNIT III

3. Answer *any one* of the following questions: (10X1=10)

- a) What is organic fertilizer? Describe the method of inoculums production by VAM.
- b) Describe the isolation process of *Rhizobium* for production biofertilizer. How carrier based *Rhizobium* inoculum preparation can be made.