380/Bot 22-23/31315

B.Sc. Semester-III Examination, 2022-23 BOTANY[Honours]

Course ID: 31315 Course Code: SH/BOT/305/SEC-1
Course Title: Biofertilizer

Time: 2 Hours Full Marks: 40

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

UNIT-I

1. Answer any **five** from the following questions:

 $2 \times 5 = 10$

- a) What is PSM? Cite two examples of PSM.
- b) Mention two disadvantages of biofertilizer.
- c) What do you mean by PGPR?
- d) Mention the carrier materials used to produce *Azospirillum* fertilizer.
- e) Name two species of *Azolla* used to produce biofertilizer.
- f) Why ectomycorrhiza are called 'sheathing mycorrhiza?
- g) Name two green manures.
- h) What do you mean by actinorhizal symbiosis?

UNIT-II

2. Answer any **four** from the following questions:

 $5 \times 4 = 20$

- a) What are Municipal biodegradable wastes? Write short note on methods of making biocompost. 2+3=5
- b) Briefly mention the application of *Azotobactor* as biofertilizer.
- Make a short note on the isolation procedure of VAM.
- d) Mention the process of preparation of *Rhizobium* starter culture.
- e) Briefly describe the *Azolla* cultivation procedure.
- f) What is green manuring? Mention the characters of crop used as green manure.

UNIT-III

3. Answer any **one** from the following questions:

 $10 \times 1 = 10$

- a) What do you mean by *Azolla*-Anabaena association? Mention the procedures of large scale production of cyanobacteria. 2+8=10
- b) What is vermicomposting? Describe the method of vermicomposting and its field application. 2+4+4=10

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