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**MBE 460**

**II Semester M.Sc. Degree Examination, September/October 2022**  
**(CBCS-PG-CGPA)**  
**MICROBIOLOGY**  
**Bioinoculants (Open Elective)**

Time : 3 Hours

Max. Marks : 70

I. Write short notes on **any five** of the following : **(5×3=15)**

- 1) Nursery inoculants.
- 2) Azolla.
- 3) *Bacillus thuringiensis*.
- 4) Carrier materials.
- 5) Nitrogenase.
- 6) Mycoparasitism.
- 7) Crystal protein.

II. Write a note on **any five** of the following : **(5×5=25)**

- 8) Symbiotic Nitrogen fixation.
- 9) *Metarrhizium*.
- 10) Microbial inoculants.
- 11) Phosphate solubilizers.
- 12) Algae as biofertilizers.
- 13) *Azotobacter*.
- 14) Seedling and soil inoculants.

III. Answer **any three** of the following : **(3×10=30)**

- 15) Explain ISI standards involved in bioinoculant production.
  - 16) Discuss on the types and importance of Mycorrhizae in plant growth promotion.
  - 17) Explain the role of *Trichoderma* as a biocontrol agent.
  - 18) Write an account on history and scope of Bioinoculants.
  - 19) Discuss on the production and application of *Rhizobium* fertilizer.
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