

**2023**

**AGS 4th Semester Examination**

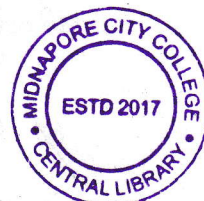
**B.Sc. Hons. in Agriculture**

**Biopesticides and Biofertilizers**

PAPER — AGEN-452

Full Marks : 50

Time : 2 hours



*The figures in the right-hand margin indicate marks.*

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

*Illustrate the answers wherever necessary.*

Answer **all** questions.

1. Answer any **five** questions from the following :  
2×5=10

(a) Define Biopesticides.

/582

(Turn Over)



(2)

- (b) Write down any two symbiotic N-fixing bacteria.
- (c) What is ectomycorrhiza?
- (d) What is nitragin?
- (e) Give two examples of egg parasites.
- (f) Biological N-fixation in legume plants was discovered by whom and in which year?
- (g) Mention two characters of *Azospirillum*.
- (h) Write down any two bio-control agents with their targeted species.

2. Answer any **four** questions from the following :  
5×4=20

- (a) Briefly discuss the types of N-biofertilizers with examples.
- (b) Write down role of *Azolla* as a biofertilizer.
- (c) What are the precautions taken for rhizobium inoculation process?
- (d) Write down the importance of *Rhizobium* in cereal based cropping system.

/582

(Continued)

(3)

- (e) Briefly write the types of biopesticides with example.
- (f) For which crops can you recommend azotobacter?

3. Answer any **two** questions from the following :  
10×2=20

- (a) Write down the effective growing condition for *Rhizobium*, *Azotobacter* and *Azospirillum* inoculation. 10
- (b) Name the types of biofertilizer. What are the advantages of biofertilizer application? 4+6=10
- (c) What do you mean by PSM? What is shelf life? Describe the factors influencing the efficacy of biofertilizers. 2+2+6=10
- (d) What is the mechanism of action of VAM? Briefly describe the production process for liquid biofertilizer. 4+6=10

★★★

Rhizobium      meliloti  
Rhizobium      lupini

AGS/4<sup>th</sup> Sem/AGEC-452/23

BL23(023)—90

