

UG/5th Sem(H)/23/(CBCS)

2023

BOTANY (Honours)

Paper Code : BOTH SEC-1

[Biofertilizer]

Full Marks : 40

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

1. Answer any *five* questions of the following : $2 \times 5 = 10$

- (i) Define Hartig net.
- (ii) Define ammonification.
- (iii) Give the full form of BCA and BGA.
- (iv) Mention two advantages of using biofertilizers over chemical fertilizers.
- (v) Write down the importance of root nodule in plants.
- (vi) What is actinorhizal symbiosis?
- (vii) What is PGPF? Cite an example.

2. Answer any *four* questions of the following : $5 \times 4 = 20$

- (i) Write short note on organic farming.

(2)

- (ii) What is Mycorrhiza? Describe briefly the Ecto-endomycorrhizal symbiosis with a suitable diagram. 1+4
- (iii) Explain mass cultivation of *Azotobacter*.
- (iv) Write down the isolation and inoculum preparation of VAM.
- (v) Briefly discuss the factors affecting the production of Green manure.
- (vi) Elaborate on the various methods of biocomposting.
- (vii) What is vermicompost? How is vermicomposting useful in agriculture? 2+3

3. Answer any *one* question of the following : $10 \times 1 = 10$

- (i) Give an account on *Azolla* and *Anabaena azollae* association with special reference to nitrogen fixation in rice cultivation. 5+5
- (ii) Differentiate between SAR and ISR. What do you mean by Cyanobacteria? Give a general account on role of Cyanobacteria as biofertilizer. 4+2+4

P.T.O.