

## U. G. 6th Semester Examination 2022

### BOTANY (Honours)

Paper Code : SEC-2

[CBCS]

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* of the following: 2×5=10
  - (i) What do you mean by green manuring?
  - (ii) Mention the differences between biofertilizers and chemical fertilizers.
  - (iii) What do you mean by mass multiplication?
  - (iv) What are diazotrophs? Name two of them.
  - (v) Write down the full form of PGPR and PGPF.
  - (vi) Differentiate between biodegradable and non-biodegradable wastes.
  - (vii) What is actinorhizal symbiosis?
  
2. Answer any *four* of the following: 5×4=20
  - (i) What is algalization? Give a brief account of the significant role of cyanobacteria in paddy cultivation. 1+4
  - (ii) Briefly enumerate the municipal waste management emphasizing various composting methods. 5
  - (iii) Give a brief account on methods of vermicomposting and its field application. 3+2
  - (iv) Justify *Rhizobium* as a wonder biofertilizer and crop promoter. 5
  - (v) What are carrier-based inoculants? Briefly discuss the properties of an ideal carrier material. 1+4
  - (vi) Write a short note on the biological control of plant pathogens. 5
  - (vii) What do you mean by PSM? Write a short note on phosphate solubilizing bacteria in context with plant growth enhancement. 1+4

[P.T.O.]

3. Answer any *one* of the following:

10×1=10

- (i) Briefly characterize the different types of mycorrhizal associations mentioning the name of their fungal partner. Explain the roles of arbuscular mycorrhizal fungi in plant nutrition, growth and yield. 6+4
- (ii) What is PGPR? State the role and significance of PGPR as a plant growth enhancer. Add a note on its harmful aspects. 2+6+2
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