

2023

3rd Semester Examination

BOTANY (Honours)

Paper : SEC 1-T

[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.*

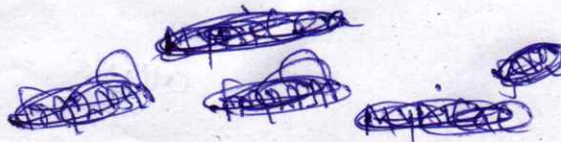
[Biofertilizer]

Group - A

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

1. Define organic farming.
2. Why mycorrhizae are considered as bio-fertilizer?
3. What are inoculants?
4. Mention the role of biofertilizer in agriculture.
5. What are "Actinomycorrhizal symbiosis"?
6. List up atleast four microorganisms, used as bio-fertilizers.

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7. Name two phosphate solubilizing bacteria.
8. What is 'Hertig net'?

**Group - B**

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

9. Discuss the process of isolation. Identification and mass multiplication of *Rhizobium*.  $2+1+2$
10. Discuss the types and methods of vermicomposting.  $2+3$
11. Classify mycorrhizae. Give the role of mycorrhizae on production of crop plants.  $2+3$
12. Give the role of Cyanobacteria (BGA), *Azolla* and *Anabaena* as nitrogen fixers in rice fields.  $5$
13. Give a flow-chart for the recycling of municipal biodegradable wastes.  $5$
14. write notes on (any two) :  $2\frac{1}{2} \times 2$ 
  - (a) Green manuring process
  - (b) Methods for inoculum production of VAM
  - (c) Mass multiplication process of *Azospirillum*.

**Group - C**

Answer any **one** of the following questions :  $10 \times 1 = 10$

15. Discuss the colonization and isolation process of VAM. State the field application of Vermicompost.  $3+4+3$

*azolla*

( 3 )

16. Discuss the importance of phosphat solubilizing microorganisms used as bio-fertilizers. Justify the use of *Rhizobium* sp for Crop enhancement. 5+5
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Or

[Floriculture]

Group - A

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

1. What are defoliation and mulching of gardening?
2. Name two examples of plant growth regulating hormones.
3. Name two famous garden in India.
4. What is vegetative propagation? Mention its advantages.
5. Mention the differences between glass house and shade house.
6. What does it mean by gardening? Mention its types.
7. What is Bonsai? Name a plant used in Bonsai.
8. Name two ideal plants used in hydroponic cultivation.

Group - B

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

9. Write a short note on landscaping of an educational institute.
10. Briefly mention the features of horticultural gardening.
11. What does it mean by floriculture? State its importance.  
1+4
12. Briefly mention the methods of sterilization of soil of garden.

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13. What are seed viability and seed sowing? What is cut flower? Cite two examples. 3+2
14. Write a short note on the factors that affect the flower production in Horticultural plants.

**Group - C**

Answer any *one* of the following questions : 10×1=10

15. Define pest. Mention 4 pest born diseases and their repective symptoms in ornamental plants. Name two chemical pesticides. 1+8+1
16. What is indoor gardening? Name two indoor herbaceous plants. Mention the types of indoor gardening and the factors that affect indoor plants. 1+2+4+3