

**U.G. 1st Semester Examination - 2021**

**BOTANY**

**[PROGRAMME]**

**Course Code : BOT-G-CC-T-01**

**(Biodiversity of Microbes, Algae,  
Fungi and Archegoniate)**

Full Marks : 40

Time : 2½ 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.*

**Answer all the questions.**

1. Answer any **five** of the following: 2×5=10
- Cite two characteristic features of bacterium.
  - What are capsid and capsomere?
  - Name one fresh water and one marine algae.
  - Mention two prokaryotic traits of *Nostoc* sp.
  - What is mycorrhiza? Give one example.
  - Write down the diagnostic characters of Bryophyte.

- Mention one economically important Pteridophyta and its use.
- Name one Indian species of *Cycas* and one of *Pinus* sp.

2. Answer any **two** of the following : 5×2=10
- Name one DNA virus. Diagrammatically represent the lytic cycle of virus. 2+3=5
  - Mention any five economic importance of algae.
  - Give a short note on thallus organization of *Marchantia* sp.
  - What are the angiospermic features of division Gnetophyta?
3. Answer any **two** of the following : 10×2=20
- Schematically represent the life cycle of *Rhizopus* sp. Distinguish between Ascomycota and Basidiomycota based on their reproductive features. 6+4=10
  - Mention four diagnostic features of Sphenophyta. Discuss the reproductive structure of *Equisetum* sp. with suitable sketches. 5+5=10

- c) Define Gymnosperms. Draw and label the male and female cones of *Pinus* sp.  $2+4+4=10$
- d) Comment on :  $2 \times 5 = 10$
- i) Heterocyst
  - ii) Conidia
  - iii) Coralloid root
  - iv) Gemmae cup
  - v) False indusium
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