

2024

1st Semester Examination (CCFUP : NEP)
BOTANY

Paper : MJ 1-T (Single Core Major)

(Plants and Microbial Diversity & its Evolution)

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.*

Group - A

Answer any *five* questions . $2 \times 5 = 10$

- 1 What do you mean by Lysogenic cycle?
2. State the structure of T4 phage.
3. Name the cell wall components of Bacteria.
4. Distinguish between flagella and pili.
5. What is stromatolite? Mention one significance of it.
6. What types of sex organs are globule and nucule?
7. Name two economic uses of lichen.
8. Name two Indian species of *Pinus*.

PT.O.

Group - B

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

9. Draw a structure of SARS-COV 2 and label it. 5
10. What is transduction? Differentiate general from special transduction. 2+3
11. Differentiate nannandrous from macrandrous species of *Oedogonium*. 2.5+2.5
12. Mention the general characters of Ascomycetes and Basidiomycetes. 2.5+2.5
13. Mention the structural features of archegoniophore of *Marchantia*. Give a labelled diagram of the antheridiophore of this genus. 2+3
14. Draw a structure of *Gnetum* male cone. Mention the angiospermic characters of *Gnetum*. 2+3

Group - C

Answer any **one** question : $10 \times 1 = 10$

15. What is mycorrhiza? Write briefly about arbuscular mycorrhiza. Mention the importance of mycorrhizae in forestry and horticulture. Give the economic use of *Sphagnum*. 2+2+3+3
16. Who first described *Rhynia* and from where? Draw and describe the strobilus of selaginella. What is ligule? Give two examples of plant fossils with their mode of preservation. 2+4+2+2