

Total number of printed pages-4

1A (Sem-1/ITEP) BOT01 MJ

2025

BOTANY

(Major)

Paper : BOT0100104-N

(Plant and Microbial Diversity)

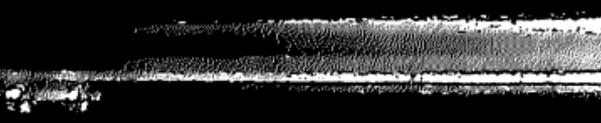
Full Marks : 45

Time : 2 hours

The figures in the margin indicate full marks for the questions.

1. Answer the following questions : (**all** are **compulsory**) 1×5=5

- (a) What are coacervates?
- (b) What is the cell wall composition of fungi?
- (c) Which form of lichen looks like crust on rocks?
- (d) What is Epipetalous?
- (e) What is capsid?



2. Answer the following questions : **(any five)**
2×5=10

- (a) Explain the role of Cyanobacteria in coralloid roots.
- (b) Define mycobiont and phycobiont.
- (c) What kind of atmosphere existed on primitive earth?
- (d) Describe the distribution of pigments found in algae and mention their functions.
- (e) What is the function of asci in Ascobolus?
- (f) Differentiate between Lamiaceae and Orchidaceae.
- (g) What are the basic structural components of a virus?
- (h) State the characteristics of Archaeobacteria.
- (i) Write the demerits of natural system of classification.
- (j) Define racemose inflorescence with suitable example.
- (k) Write the name of *two* commercially important plants of Orchidaceae.

3. Write short notes on : **(any four)** 5×4=20

- (a) Baltimore system of classification of virus.
- (b) "Viruses are biologist puzzle" – justify the statement.
- (c) State the nutritional types of bacteria.
- (d) Cymose type of inflorescence.
- (e) Major classes of fungi as per 'Ainsworth's' classification.
- (f) Whittaker's *five* kingdoms classification system with suitable example.
- (g) What are hyphae? Explain the types of hyphae based on the presence of septa.
- (h) General morphology of Chara with suitable diagram.



4. Write **any one** of the following : 10×1=10

- (a) Discuss the affinities of gymnosperm with pteridophytes and angiosperms.
- (b) Write a note on economic importance of lichen. Why lichen are called pollution indicators?

- (c) Write in detail about TMV and Bacteriophage with suitable diagram.
- (d) Give a detail account on life history of poliovirus.

