

Botany [MAJOR]

[NEP-CBCS]

B.Sc. First Semester End Examination-2023

PAPER-BOTH-MJ101T

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group A

1. Answer any FIVE questions of the following: 5x2= 10

- a) What are the characteristic features of bacterial nucleus?
- b) What are capsomeres?
- c) Define Heterothallism with example.
- d) Write two diagnostic characters of Oedogonium?
- e) What is petrification?
- f) Where rhizophore is found? State the position of ligule.
- g) Why bryophytes are regarded as amphibious plants?

Group B

2. Answer any FOUR questions of the following: $4 \times 5 = 20$
- a) Describe with diagram about the postfertilization changes and development of Cystocarp of Polysiphonia sp. 5
- b) Describe bacterial conjugation with sketches. What is episome? 4+1
- c) Draw the sketches of longitudinal section of Lycopodium sp. strobilus with diagram. What is cercinate vernation? 3+2
- d) What is polyembryony? How an archegonium of gymnosperm differs from an archegonium of pteridophyte? Describe the morphology of ovuliferous scale of Pinus sp. 2+1+2
- e) What are Leprose, Crustose, Foliose, Fruticose and Filamentous lichen? 1+1+1+1+1
- f) Write short note (any one) 5
- i) Asexual reproduction of fungus.
- ii) Economic importance of fungus

Group C

3. Answer any ONE question of the following: $1 \times 10 = 10$
- a) What are virulent and temperate cycles of bacteriophage? Describe the sexual reproductive structures of Funaria sp. with suitable diagrams. 2+8
- b) Give an outline classification of Bryophyta proposed by Mishler. Write shortly about the types of plant fossils. 5+5