

B.Sc. Semester - 3 (NEP-2020) Examination

OCT/NOV-2025

BOT: Archegoniate (Major-6)

Time: 2:00 Hours

Marks:50

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Que.1(A) Answer in details (any one) (08)
- 1) Describe the various methods of vegetative reproduction in bryophytes with suitable diagrams.
 - 2) Give an outline chart of bryophytes classification by Rothmaler and discuss the distinguishing characters of classes.
- Que.1(B) Answer in brief (Any One) (04)
- 1) Point out the main affinities of bryophytes with pteridophytes.
 - 2) Write a short note on the alternation of generations in bryophytes.
- Que.2(A) Answer in details (Any one) (09)
- 1) With the help of a labelled diagram, explain the structure of the antheridiophore in *Marchantia*.
 - 2) Give an illustrated account of the sporophyte of *Funaria*.
- Que.2(B) Answer in brief. (any one) (04)
- 1) Write a note on the internal structure of the *Marchantia* thallus.
 - 2) Discuss the industrial uses of bryophytes.
- Que.3(A) Answer in details (any one) (08)
- 1) What are vascular cryptogams? Write an important characteristic features of pteridophytes.
 - 2) Describe the morphology and spore-bearing organs in *Nephrolepis* with suitable diagrams.
- Que.3(B) Answer in brief (Any One) (04)
- 1) Write a note on the position and structure of the strobilus in *Equisetum*.
 - 2) Explain the internal structure of the aerial shoot of *Equisetum* with a labelled diagram.
- Que.4(A) Answer in detail (Any one) (09)
- 1) Explain the morphology of the leaf and the internal structure of the leaflet in *Cycas*.
 - 2) Describe the male strobilus in *Cycas* with suitable diagrams.
- Que.4(B) Answer in Brief (Any One) (04)
- 1) Discuss the similarities and dissimilarities between gymnosperms and angiosperms.
 - 2) Write a note on the coralloid root of *Cycas*.
