



বিদ্যাসাগর বিশ্ববিদ্যালয়
VIDYASAGAR UNIVERSITY

Question Paper

B.Sc. Honours Examinations 2021

(Under CBCS Pattern)

Semester - II

Subject: BOTANY

Paper : C 4-T & P

Archegoniate

Full Marks : 60 (Theory-40 + Practical-20)

Time : 3 Hours

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

The figures in the margin indicate full marks.

[Theory]

Group - A

Answer **any two** of the followings:

2×15=30

1. Describe the internal structure of *Riccia* gametophyte with suitable sketches. Illustrate the sporophytic structure of *Marchantia*.
8+7=15
2. Mention the adaptive features acquired by the early vascular plants during their migration from water to land. Write down the salient features of *Cooksonia* and *Rhynia* with suitable sketches. What is synangium?

3+10+2

3. Write down the general characters of gymnosperms. Describe with suitable sketches the different morphological features of *Gnetum*. What is meant by Bars of Sanio?
3+10+2
4. Draw and describe the stem anatomy and strobilus of *Selaginella*. Discuss the morphological nature of rhizophore of *Selaginella*.
(6+6)+3

Group - B

Answer **any one** of the followings: 1×10=10

5. Write briefly about ecological and economic importance of *Sphagnum*.
5+5
6. What is telome? Who proposed the telome theory? Discuss about the telome concept with proper sketches.
2+1+7

[Practical]

Answer **any one** of the followings: 1×20=20

1. Draw and describe the sectional view (vertical) of antheridiophore and archeogoniophore of *Marchantia*. Draw and label the sectional view of different parts of *Anthoceros* sporophyte.
8+8+4
2. Draw and describe the longitudinal section of *Equisetum* strobilus. Write down the important anatomical features of *Selaginella* stem. Draw and describe the spore characters of *Pteris*.
8+8+4
3. Diagrammatically describe the transverse section of *Pinus* needle. Draw and describe the microsporophyll of *Cycas*. Draw and label the sectional (vertical) view of *Gnetum* ovule.
8+8+4
