

2024
B.A./B.Sc.
Second Semester
CORE – 4
BOTANY
Course Code: BOC 2.21
(Archegoniate)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Write a note on the unifying features of archegoniate and their transition to land habit. 14
2. Write notes on the following: 7×2=14
 - (a) Range of thallus organization in bryophytes
 - (b) Early land plants

UNIT-II

3. Explain in detail the reproductive structures in *Anthoceros* with the help of appropriate diagrams. 14
4. Write notes on the following: 7×2=14
 - (a) Anatomy of *Marchantia* thallus
 - (b) Archegonial branch of *Sphagnum*

UNIT-III

5. Explain in detail, the morphology and anatomy of the sporophyte of *Selaginella* with appropriate diagrams. 14
6. Write notes on the following: 7×2=14
 - (a) Heterospory
 - (b) Economic importance of pteridophytes

UNIT-IV

7. Write notes on the following: 7×2=14
(a) Structure of ovule of *Cycas* with proper diagram
(b) Male and female cones of *Pinus*
8. (a) “*Gnetum* as an angiosperm”. Justify it. 7
(b) Write notes on the economic importance of gymnosperms. 7

UNIT-V

9. Differentiate between the following: 7×2=14
(a) Eras and periods of geological time scale
(b) Compression and impression fossils
10. Give an account of the dominant flora in different geological ages. 14
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