



K17U 0615

Reg. No. : .....

Name : .....

**IV Semester B.Sc. Degree (CBCSS – Reg./Supple./Imp.)**  
**Examination, May 2017**  
**(2014 Admn. Onwards)**  
**CORE COURSE IN BOTANY/PLANT SCIENCE**  
**4B04 BOT/PLS : Bryology, Pteridology, Gymnosperms and**  
**Palaeobotany**

Time : 3 Hours

Total Marks : 40

**SECTION – A**

Answer **all**.

1. Archegonia are absent in  
a) Cycas                      b) Pinus                      c) Nephrolepis                      d) Gnetum
2. Stele in Marsilea is  
a) Protostele                      b) Amphiploic siphonostele  
c) Meristele                      d) Dictyostele
3. Sporophytic generation is dominant in  
a) Selaginella                      b) Funaria                      c) Anthoceros                      d) Marchantia
4. Stigmarian system is characteristic of  
a) Lyginopteris                      b) Lepidodendron  
c) Rhynia                      d) Lepidocarpon                      **(4×1=4)**

**SECTION – B**

Answer **any eight**.

5. What are carinal canals ?
6. With a neat labelled sketch explain the morphology of *Psilotum*.
7. Write an account on different types of fossils.

P.T.O.



8. *Cycas* leaf is used widely for decorative purposes. Give reasons.
9. Draw and describe the structure of the male cone of *Gnetum*.
10. Describe protonema with the help of a diagram.
11. Write notes on Rhizophore.
12. Draw a neat labelled diagram of female cone *Pinus*.
13. With the help of a diagram, explain the structure of *Nephrolepis gametophyte*.
14. Discuss the advanced characters exhibited by the sporophyte of *Anthoceros*.
15. What is meant by Sulphur dust ?
16. Differentiate between the elaters of *Marchantia* and that of *Equisetum*. (8×2=16)

## SECTION – C

Answer any four.

17. Discuss the post fertilisation changes in *Marchantia*.
18. Enumerate the economic importance of gymnosperms.
19. Explain the morphology of *Lepidodendron*.
20. Describe the structure of the sporocarp.
21. How is the sporophyte of *Riccia* different from that of *Funaria* ?
22. Explain the affinities shown by pteridophytes to gymnosperms. (4×3=12)

## SECTION – D

Answer any one.

23. Write in detail the method of reproduction in *Funaria* with suitable diagrams.
  24. With the help of suitable diagrams describe the life cycle and alternation of generation in *Selaginella*.
  25. Describe the sporophyte structure and life cycle in *Cycas*. (1×8=8)
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