

**B. Sc. DEGREE END SEMESTER EXAMINATION OCTOBER 2018****SEMESTER 3 : B. Sc. BOTANY (CORE COURSE)****COURSE: 15U3CRBOT3, BRYOLOGY, PTERIDOLOGY, GYMNOSPERMS & PALAEOBOTANY***(For Regular - 2017 Admission and Supplementary / Improvement 2016, 2015 Admissions)*

Time : Three Hours

Max Marks : 60

**PART - A**I. Answer **ALL** questions; each question carries ONE mark.

1. Name an aquatic Liverwort.
2. Smallest bryophyte is .....
3. Name a Bryophyte with pseudo elater.
4. Name a heterosporous aquatic pteridophyte.
5. Name the genus popularly called 'Scouring rush'.
6. What is meant by 'sulphur rain'?
7. Name a Gymnosperm with coralloid roots.
8. What are petrifactions?

(1 x 8 = 8)

**PART - B**II. Answer **ANY SIX** questions; each question carries TWO marks.

9. What are gemmae? Name a genus which produce gemmae.
10. Describe the structure of the thallus of *Anthoceros* .
11. Compare photosynthetic regions of the thalli of *Riccia* and *Marchantia*.
12. Describe the sporangia of *Equisetum*.
13. Briefly describe morphology of rhizophore of *Selaginella* .
14. Give an account of spore dispersal in *Marsilea* .
15. Briefly explain four xerophytic characters of *Equisetum* aerial shoot.
16. Give the features of *Gnetum* which show similarities to Angiosperms.
17. Describe a method for determining age of fossils.
18. Write a note on *Palmoxydon*.

(2 x 6 = 12)

**PART - C**III. Answer **ANY FOUR** questions; each question carries FOUR marks.

19. With help of suitable diagram explain the structure of Sporophyte of *Riccia*.
20. With help of suitable sketches, explain the life cycle of *Anthoceros*.

21. Describe the sporocarp of *Marsilea* with labelled diagrams.
22. Draw a diagram of mature gametophyte of *Pteris* and discuss adaptations for self fertilisation.
23. With the help of a diagram explain the structure of *Cycas* ovule.
24. Give a brief account of the different kinds of fossils. (4 x 4 = 16)

**PART - D**

IV. Answer **ANY TWO** questions; each question carries TWELVE marks.

25. With the help of diagrams describe Antheridiophore and archegoniophore of *Marchantia*.

OR

26. With suitable diagrams, illustrate the life cycle of *Funaria*.

27. With the help of diagrams describe the stellar structure in Pteridophytes.

OR

28. With the help of suitable diagrams describe female cones of *Pinus* and *Gnetum*. Mention the similarities and differences noticed in L.S. of mature ovules of the two genera.

(12 x 2 = 24)

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