**B.Sc. Botany Degree (C.B.C.S.S.) EXAMINATION, March 2016**

**Sixth Semester**

**Core course – Bryology, Pteridology, Gymnosperms and Paleobotany**

(Common for B.Sc. Botany Model I, Model II and B.Sc. Biotechnology and Botany (Double main) Programmes)

(2013 admissions)

Time: Three Hours Maximum marks: 60

**Part A (Short Answer Questions)**

Answer **all** questions.

Each question carries **1** mark

1. What is gemma?

2. What s the function of elaters?

3. What is synangium?

4. Name two aquatic species of ferns

5. What is protocorm?

6. Name a fossil gymnosperm

7. What is pycnoxylic wood?

8. The gymnosperm which shows bars of sanio (8X1=8 Marks)

**PART B**

Answer any **six** questions

Each question carries 2 marks

9. How do rhizoids of mosses differ from those of liverworts?

 10. Mention the evolutionary significance of *Anthoceros* thallus

11. Why bryophytes are known as amphibians of plant kingdom?

12. Distinguish between rhizoids and scales

13. Explain the structure of ligule in *Selaginella*

14. Explain the nature of sporangium in *Pteris*

15. Mention two hydrophytic adaptations of *Equisetum*

16. How fossils are formed

17. Mention two angiospermic characters of *Gnetum*

18. Explain the characters of corollid root (6X2=12 Marks)

**PART C**

Answer any***four*** questions.Each question carriers 4 marks

19. Explain the internal structure of marchantia thallus with labelled diagram

20. Describe structure of sporophyte of *Funaria*

21. Describe structure of a mature prothallus of *Psilotum*

22. Explain the internal structure of rhizome of *Marsilea*

23. Mention Indian contribution to Paleobotany

24. Explain similarities and dissimilarities of *cycas* with Pteridophytes.

(4X4=16 Marks)

 **PART D**

Answer any***two*** *questions*. Each question carries 12 Marks

25. Describe the ecological and economic and horticultural importance of Bryophytes

26. Explain stelar types in Pteridophytes

27. Explain the life cycle of Selaginella with reference to heterospory and seed habit

28. Explain the life cycle of *Pinus* with the aid of schematic diagram

(2X12=24 Marks)