

B. Sc. DEGREE (C.B.C.S.S) EXAMINATION, OCTOBER 2018
(2016 Admission Regular & 2015 Admission Supplementary)
SEMESTER V - CORE COURSE (BOTANY)
BO5B05TB - GYMNOSPERMS, PALEOBOTANY AND EVOLUTION

Time : 3 Hours

Maximum Marks : 60

Part A**I. Answer all questions. Each question carries 1 marks****(5x1=5)**

1. What is the nature of endosperm in gymnosperm?
2. What are annual rings?
3. Name a fossil angiosperm.
4. Define organic evolution.
5. Explain ecological isolation.

Part B**II. Answer any Five questions. Each question carries 2 marks****(5x2=10)**

6. List any two similarities and differences between Gymnosperms and Angiosperms.
7. Explain the anatomy of Gnetum leaf.
8. Describe the anatomy of Cycas Stem.
9. Discuss the morphology of coralloid root in Cycas.
10. Explain the morphology of Rhynia sporophyte.
11. Write a short note on Palmoxyton.
12. How is a parallel evolution different from a convergent one?
13. How do chromosomal mutations lead to variations?

Part C**III. Answer any Five questions. Each question carries 5 marks****(5x5=25)**

14. What are the major economic importance of Gymnosperms?
15. Discuss in detail on the anatomy of Cycas coralloid root with a neat diagram.
16. Describe the reproductive characters of Gnetum.
17. Explain the angiosperm characters of Gnetum.
18. Write an account of the objectives of paleobotanical studies and discuss the Indian contribution.
19. Write a note on Rhynia.
20. Explain the theory of transmission of acquired characters.
21. Explain reproductive isolation.

Part D**IV. Answer any Two questions. Each question carries 10 marks****(2x10=20)**

22. Write an account on the economic importance and ecological significance of Gymnosperms.
23. Describe the life cycle of Pinus.
24. Give an account of the formation of fossils and fossil types.
25. Explain Lamark's theory. How did Weismann disprove it?