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BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2024 2022 ADMISSIONS REGULAR

SEMESTER IV - CORE COURSE (BOTANY)

BO4B04B18 - Pteridology, Gymnosperms and Paleobotany

Time: 3 Hours

Maximum Marks: 60

Part A

I. Answer any Ten questions. Each question carries 1 mark

(10x1=10)

- 1. What are bulbils?
- 2. Differentiate between isophyllous and anisophyllous condition.
- 3. Name a species of Psilotum.
- 4. What is a raphe?
- 5. Name a pteridophyte which is used as biofertilizer in paddy fields.
- 6. Which are the two types of scale leaves seen in Pinus?
- 7. What is the type of pollination in gymnosperms?
- 8. What are haplocheilic stomata?
- 9. Name a gymnosperm plant having mycorrhizal association.
- 10. Which is the famous drug obtained from the genus Ephedra?
- 11. Distinguish between compression and impression.
- 12. Differentiate between molds and casts.

Part B

II. Answer any Six questions. Each question carries 5 marks

(6x5=30)

- 13. How has heterospory led to seed habit in Pteridophytes? Explain with an example.
- 14. What are sori? Describe the sori in Pteris.
- 15. Explain the use of Pteridophytes as food with examples.
- 16. Explain the structure of the fertile megasporophyll of Pinus.
- 17. Explain any five distinguishing features of Cycas.
- 18. Explain the structure of microspore of Pinus.
- 19. Describe the uses of gymnosperms as food, medicine and in industry.
- 20. How do you determine the evolutionary history with the help of Paleobotany?
- 21. What are fossil fuels? How are they formed? Give examples.

Part C

III. Answer any Two questions. Each question carries 10 marks

(2x10=20)

- 22. With suitable examples explain the salient features of pteridophytes.
- 23. Compare the cones of Lycopodium, Selaginella and Equisetum with diagrams.
- 24. Write an essay on affinities of gymnosperms with pteridophytes and angiosperms.
- 25. How are fossils formed? Describe the different types of fossils.

