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Name.....

Reg. No.....

**FIFTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2023**

Botany

**BOT 5B 06—GYMNOSPERMS, PALAEOBOTANY, PHYTOGEOGRAPHY AND
EVOLUTION**

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

Section A

Answer all questions in two or three sentences.

Each correct answer carries 2 marks.

(Ceiling 20 marks)

1. What are spur shoots ?
2. *Gnetum* is considered as an advanced genus in gymnosperms. Comment.
3. What is meant by genetic drift ?
4. Distinguish between manoxylic and pycnoxylic wood.
5. What are petrified fossils ?
6. Give an account of the vascular system in *Rhynia*.
7. Comment on diploxylic condition in *Cycas*.
8. Give an account of age and area hypothesis.
9. Write the major principles of Darwinism.
10. What is meant by vicarism ?
11. Comment on the causes of glaciation.
12. Distinguish between allopatric and sympatric species.

Turn over



Section B

*Answer all questions in a paragraph of about half a page to one page.
Each correct answer carries a maximum of 5 marks.
(Ceiling 30 marks)*

13. Explain the structure of *Pinus* needle with diagrams.
14. Give an account of the morphology of *Lepidodendron*.
15. Explain the structure of ovule of *Cycas*.
16. Write a short note on various phytogeographic zones of India.
17. How genetic variability is created in organisms during organic evolution?
18. Discuss the mechanism of speciation.
19. Give an account of continental drift theory

Section C

*Answer any one in about two pages.
The correct answer carries a maximum of 10 marks.*

20. Explain the economic importance of gymnosperms.
21. Explain the vegetative and reproductive features of *Gnetum* with diagrams.

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