

D 50558

(Pages : 2)

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.

(1 × 10 = 10 marks)