

C 30326

(Pages : 2)

Name.....

Reg. No.....

**FIFTH SEMESTER B.Sc. DEGREE EXAMINATION
NOVEMBER 2017**

(CUCBCSS—UG)

Botany

**BOT 5B 05—GYMNOSPERMS, PALAEOBOTANY, PHYTOGEOGRAPHY AND
EVOLUTION**

Time : Three Hours

Maximum : 80 Marks

Part A

I. Answer the following. All questions are compulsory.

1. Name the xylem element which is absent in Gymnosperms ?
2. What is megasporangium in Gymnosperms ?
3. In Gymnosperms, the outermost layer of the sporogenous tissue forms ——.
4. What type of pollination can be seen in Gymnosperms ?
5. Name a fossil gymnosperm from India.
6. What is vicarism ?
7. Systematically mention the major eras in geological time scale.
8. Who proposed continental drift theory ?
9. Mutation theory was proposed by.....
10. Who used swan neck experiment to disprove theory of spontaneous generation ?

(10 × 1 = 10 marks)

Part B

II. Answer the following. All questions are compulsory.

11. What are coralloid roots?
12. What is Polyembryony.
13. Mention the roles of endosperm in Gymnosperms.
14. What is transfusion tissue?
15. What is Williamsonia?
16. Explain the theory of land bridges.
17. What is migration? Mention its role in phytogeography.
18. What is genetic drift?
19. Write any two valid embryological evidence for organic evolution ?
20. What is Miller's experiment and mention its significance ?

(10 × 2 = 20 marks)

Turn over

Part C

III. Answer any six of the following:

21. Point out the affinities of Gymnosperms with Pteridophytes.
22. Explain the reproductive structures of Gnetum.
23. Discuss the classification of Gymnosperms by Sporne.
24. What is fossilisation ? What are the different types of fossils ?
25. Write a short essay on Lepidocarpon.
26. What is glaciation? Explain its causes and consequences.
27. Explain the theory of evolution by Darwin.
28. Write the contributions of Indian Palaeobotanists.

(6 × 5 = 30 marks)

Part D

IV. Write essay on any two of the following:

29. Explain the life cycle of Pinus with diagram.
30. What is meant by Phytogeographical Zone ? Explain the major Phytogeographical Zones of India.
31. Write an essay on Speciation.

(2 × 10 = 20 marks)