

Second Year B.Sc., Degree Examinations

December 2017

(Directorate of Distance Education)

BOTANY

DSB290: Paper II: Gymnosperms, Paleobotany, Anatomy, Embryology and Ecology

Time: 3 hrs.]

[Max.Marks:75/85

Instruction to the Candidates :

- 1. Students who have attended 25 Marks IA scheme will have to answer for total of 75 marks.*
- 2. Students who have attended 15 Marks IA scheme will have to answer for total of 85 marks.*
- 3. One mark questions should be answered in first two pages of the answer book.*
- 4. Draw neat diagram wherever necessary.*
- 5. Q.No. V is compulsory for 85 marks scheme.*

I. *Simple answer questions :*

10 X 1= 10 Marks

Answer in a word, or a phrase or a sentence.

- 1. Name the type of pollination in Gymnosperm.*
- 2. What is epistomatic condition? Give one example.*
- 3. Who is the father of Indian Paleobotany?*
- 4. Expand IUCN.*
- 5. What is enucleated cell? Give one example.*
- 6. Define the term Mesogamy.*
- 7. In which Gymnosperm ovuleferous scales are present.*
- 8. What is Food web?*
- 9. Name any two epiphytes.*
- 10. What is pollen kitt?*

II. *Short answer questions :*

Answer any FIVE of the following.

5X 3= 15 Marks

- 11. Mention any three primitive features of cycas.*

Contd...2

12. Classify the meristematic tissue based on origin.
13. Write a note on annual rings.
14. Write a brief note on the types of Tetrads.
15. Mention the morphological adaptations of halophytes.
16. Write a brief note on significance of paleobotany.
17. Mention any five national parks in Karnataka.

III. *Medium answer questions :*

Answer any FIVE of the following.

5X6= 30 Marks

18. How do you distinguish between the different types of ovules?
19. Explain the development of dicot embryo.
20. Describe the morphological and Anatomical adaptations of Xenophytes.
21. Write the interpretation theories of Gnetum female cone.
22. Explain the morphological features of the plant body of pinus.
23. Distinguish between the external structure of cucurbita stem with grass stem.

IV. *Long answer questions :*

2X10=20 Marks

Answer any TWO of the following.

24. Explain the Anomalous secondary growth in Boerhaavia stem.
25. Explain monosporic embryosac development.
26. Justify the statement that the order Gnetales is advanced group in the gymnosperms.
27. Explain Hydrosere.

V. *Compulsory question for 85 marks scheme only. Long answer questions.*

Answer any ONE of the following.

1X10=10 Marks

28. Explain glandular tissue system.
29. Distinguish between the ovules of cycas and gnetum.

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