

Second Year B.Sc., Degree Examinations

September/October 2015

(Directorate of Distance Education)

BOTANY

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

Time: 3 hrs.]

[Max.Marks:75/85

- Instructions :*
- 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 to total of 85 Marks.*
 - 3. One mark questions should be answered in first two pages of the answer book.*
 - 4. Draw neat labelled diagrams wherever necessary.*
 - 5. Question No.V. is compulsory for 85 marks scheme.*

I. Simple answer questions.

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

10X1=10

1. Why Gymnosperms are called naked seeded plants ?
2. Give an example for secondary meristem.
3. What are fossils ?
4. What is green house effect ?
5. Give an example for Lentic ecosystem.
6. Which gymnosperm exhibit anomalous secondary growth ?
7. What is nucellus ?
8. What is polyembryony ?
9. Which is the first cell of the male gametophyte in angiosperms ?
10. What are astrosclereids ?

II. Short answer questions.

Answer any FIVE of the following.

5X3=15

11. Explain the structure of parenchyma cells.
12. Write a note on parasites.
13. Explain T.S. of coralloid roots of *Cycas* ?

Contd...2

14. Mention the controlling measures of water pollution.
15. Explain polygonum type of embryo sac.
16. Classify the meristem on the basis of position.
17. Write a note on food chain.

III. Medium answer questions.

Answer any FIVE of the following.

5X6=30

18. Describe anomalous secondary growth in *Boerhavia* stem.
19. Explain structural adaptations of insect pollinated flowers.
20. Explain dermal tissue system.
21. With labelled diagram explain L.S. of *Pinus* ovule.
22. What is soil erosion? Describe the different causes for soil erosion.
23. What is double fertilization? Explain the events occur during double fertilization.

IV. Long answer questions.

Answer any TWO of the following.

2X10=20

24. Describe structure and function of phloem.
25. Explain structure of anther with labelled diagram. Add a note on male gametophyte.
26. Describe C.S. of *Cycas* leaf and mention Xerophytic adaptations in it.
27. What is Hydrosere? Explain stages of Hydrosere.

V. Compulsory question for 85 Marks scheme only.

Answer any ONE of the following.

1X10=10

28. Describe the development of dicot embryo.
29. Explain T.S. of dicot stem with neat labelled diagram and differentiate dicot stem from monocot stem.
