

Q.P. Code – 50724

Second Year B.Sc. Degree Examination

OCTOBER/NOVEMBER 2014

(Directorate of Distance Education)

Botany

**(DSB 290) Paper II – GYMNOSPERMS, PALEOBOTANY, ANATOMY,
EMBRYOLOGY AND ECOLOGY**

Time : 3 Hours]

[Max. Marks : 75/85

Instructions to Candidates :

- 1) Answer **All** questions.
- 2) Draw diagrams wherever necessary.
- 3) Question No. **V** is **compulsory** for **85** marks scheme **only**.
- 4) Students who have attended **25** marks **I-A** scheme will have to answer for a total of **75** marks.
- 5) Students who have attended **15** marks **I-A** scheme will have to answer for a total of **85** marks.

I. Simple Answer Questions :

Answer in a word or a phrase or a sentence :

10 × 1 = 10

1. In which gymnosperm pavement tissue is present?
2. What is the function of lateral meristem?
3. Who discovered double fertilization?
4. Give one example for ruminant endosperm.
5. What is a lenticel?
6. Define “cleavage polyembryony”.
7. What are fossils?

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8. What is sunken stomata?
9. Mention one National Park.
10. What is afforestation?

II. Short Answer Questions :

Write any **FIVE** of the following :

5 × 3 = 15

11. Explain the causes of deforestation.
12. Draw a neat labeled diagram of T.S. of Monocot leaf.
13. Write a note on orthotropous ovules.
14. Write in brief about lepidodendron.
15. Describe Male cone of Gnetum.
16. Write notes on types of vascular bundles.
17. What is pollination? Mention the types.

III. Medium Answer Questions :

Answer any **FIVE** of the following :

5 × 6 = 30

18. With a neat labeled diagram explain T/S of anther wall.
19. Describe the internal structure of Boerhaavia stem.
20. Explain morphological adaptations found in hydrophytes.
21. What are meristems? Classify Meristems based on function and position.
22. With a neat labeled diagram, explain T/S of needle of pinus.
23. Explain contrivances for cross pollination.

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IV. Long Answer Questions :

Answer any **TWO** of the following :

2 × 10 = 20

24. Explain different stages of Hydrosere.
25. Describe development of crucifer type of dicot embryo.
26. With a neat labeled diagram explain L/S of ovule of cycas and add a note on Microsporophyll.
27. What are complex tissues? Explain its structure and function.

V. **Compulsory** Question for **85** marks scheme only :

Answer any **ONE** of the following :

1 × 10 = 10

28. Explain ground tissue system.
 29. With the help of a neat labeled diagram explain the T.S. of Dicot and Monocot root.
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