Q.P. Code – 50724

Second Year B.Sc. Degree Examination

SEPTEMBER/OCTOBER 2013

(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) *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** *labelled diagrams* **wherever** *necessary.*

5) *Question No.* **V** *is* **compulsory** *for 85 marks scheme* **only.**

I.   Simple Answer Questions :

Answer in a word or a phrase or a sentence :   **10 × 1 = 10**

1.   Which Gymnosperm bear bract scale in cone?

2.   Who proposed Tunica carpus theory?

3.   Define secondary meristematic tissue.

4.   What is chalazogamy?

5.   Define population.

6.   Who discovered the double fertilization?

7.   What is pavement tissue?

        P.T.O.

8. In which geological time Lepidodendron was present?

9. What is Afforestation?

10. Which layer of atmosphere having ozone?

II. Short Answer Questions :
Write any **FIVE** of the following :   **5 × 3 = 15**

11. Write a note on Histogen Theory.

12. Describe the types of concentric vascular bundles.

13. Mention the anatomical differences between monocot and dicot leaf.

14. List out the xerophytic characters of pinus needle.

15. Write a note on contributions of P. Maheswari.

16. What is Endosperm? Mention the types.

17. What are Springwood and Autumn wood?

III. Medium Answer Questions :
Answer any **FIVE** of the following :   **5 × 6 = 30**

18. What are fossils? Describe the types.

19. Write the effect of light on plants.

20. Describe the T.S. of corolloid root.

21. Write a note on :
    (a) Egg apparatus
    (b) Polyembryony

22. Describe structure and functions of phloem.

23. Discuss the contrivances of cross pollination.

IV.   Long Answer Questions :

Answer any **TWO** of the following :   **2 × 10 = 20**

24.   Describe the different types of ovule.

25.   Explain Hydrosere.

26.   Describe the anamolous secondary growth in Boerhaavia stem.

27.   Explain the internal structure of cycas leaflet and mention its xerophytic characters.

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

Answer any **ONE** of the following :   **1 × 10 = 10**

28.   With a neat labelled diagram explain internal structure of young dicot stem.

29.   Describe double fertilization and mention its significance.