

Code No.: 7224

Sub. Code: C 12 B

M.Sc. DEGREE EXAMINATION, NOVEMBER 2008.

First Semester

Botany – (CBCS)

Paper III – ANATOMY AND EMBRYOLOGY OF ANGIOSPERMS

(For those who joined in July 2008 and afterwards)

Time: Three hours

Maximum : 75 marks

PART A - (10 x 1 = 10 marks)

Answer ALL questions.

Comment/Describe/Write short notes/Define the following:

1. Tunica – Carpus theory.
2. Quiescent centre.
3. Libriform fibers.
4. Anomalous secondary growth in Bignonia.
5. Knots in wood.
6. Non-storied wood.
7. Pollen dimorphism.
8. Self incompatibility.
9. Chalazal haustorium
10. Apomixis.

PART B – (5 x 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).

11.(a) Illustrate histogen theory.

Or

(b) Write the correlation between meristems and differentiation.

12.(a) Give an account of lenticels.

Or

(b) Explain anomalous secondary growth in Aristolachia.

13. (a) What is reaction wood? Explain its importance.

Or

(b) Mention the mechanical properties of wood.

14. (a) Pollen-Pistil interaction – Discuss.

Or

(b) List out the barriers of fertilization.

15. (a) Define parthenocarpy. Write its significance.

Or

(b) Explain the biochemical changes during maturation of fruit.

PART C – (5 x 8 = 40 Marks)

Answer ALL questions choosing either (a) or (b)

16.(a) Write an essay on root apical meristem.

Or

(b) Explain the origin and structure of vascular cambium.

17. (a) Give an account of phloem and its elements.

Or

(b) Illustrate the anomalous secondary growth in Dracaena.

18. (a) Discuss the types and phylogenetic trends of nodes.

Or

(b) Write an essay on stomata.

19.(a) Elucidate the development of pollen.

Or

(b) Illustrate the different types of embryosac development.

20.(a) With suitable examples, explain polyembryony.

Or

(b) Histogenesis of monocot embryo- Discuss.