

D 93045

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Name.....

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2015

(CUCSS)

Botany

BO 01 CT 03 – ANGIOSPERM ANATOMY EMBRYOLOGY PALYNOLOGY AND
LAB TECHNIQUES

Time : Three Hours

Maximum 36 Weightage

I. Answer *all* the questions very briefly :

1. Write a critical note on unilacunar node,
2. Explain the origin of cambium in roots.
3. Differentiate between rhytidome and phelloderm.
4. What are plasmodesmata?
5. Differentiate between leaf trace and leaf gap.
6. Differentiate between apogamy and apospory.
7. Describe the structure and function of Endothecium.
8. What is helobial endosperm?
9. Comment on obturator.
10. What are the practical applications of polyembryony?
11. What is endothelium? What is its role?
12. Distinguish between amoeboid and secretory tapetum.
13. Write an account on pollen-kit.
14. What is the purpose of dehydration in fixed materials?

(14 x 1 = 14 weightage)

II. Answer any *seven* questions in not more than 100 words :

15. Describe the differentiation in xylem.
16. Write an account on factors affecting cambial activity.
17. Describe the ultra structure of phloem.
18. Describe the type of stomata found In dicot leaves.

Turn over

19. Give an illustrated account on the development of bisporic embryosac in Angiosperms.
20. Mention the contribution of Erdtman to Palynology.
21. Draw a labelled diagram of monocotyledonous embryo.
22. Explain the post fertilization changes occurring in an embryosac.
23. Write an account on the different types of apomixis.
24. Explain the histochemical methods for localization of lipids.

(7 x 2 = 14 weightage)

III. Answer any *two* questions in not more than 300 words :

25. Give an account of nodal patterns and add a note on phylogeny of nodal patterns.
26. Describe embryo culture technique and write a note on its application.
27. Write an account on pollen-pistil interaction.
28. What is the importance of killing and fixing? Explain the properties of chemical reagents used for killing and fixing.

(2 x 4 = 8 weightage)