

D 72977

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Name

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2014

(CUCSS)

Botany

**BO 01 CT 03—ANGIOSPERM ANATOMY, EMBRYOLOGY, PALYNOLOGY AND
LAB TECHNIQUES**

Maximum : 36 Weightage

Time : Three Hours

I. Answer the questions very briefly :

- 1 Write a note on seasonal variation in cambial activity.
- 2 Differentiate vascular cambium and **procambium**.
- 3 Comment on the role of cambium in Grafting.
- 4 Enumerate the cell wall constituents and their importance.
- 5 Differentiate between **interfascicular and intrafascicular cambia**.
- 6 Differentiate **porogamy, mesogamy and chalazogamy**.
- 7 Give an account on **polyembryony**.
- 8 Write an account on the nutrition of **embryosac**.
- 9 Comment on the practical applications of ovary culture.
- 10 What is double fertilization? What is its significance ?
- 11 What is **parthenocarpy** ? What are its different types ?
- 12 Comment on nuclear endosperm.
- 13 Write a note on **Milittopalynology**.
- 14 Give a brief account of vital staining.

(14 x 1 = 14 weightage)

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

- 15 Describe the ultra structure of xylem.
- 16 What is **plasmodesmata** ? What are its functions ?
- 17 Write an account of the influence of leaf gap and leaf trace on stele.
18. Briefly explain the development and activity of **phellogen**.
19. Enumerate **the contributions of P.K.K.Nair in the field of Palynology**.

Turn over

- 20 Draw a labelled diagram of T.S. of mature anther.
- 21 Discuss the differences between dicotyledonous and monocotyledonous embryo.
- 22 Write an account on endosperm haustoria.
- 23 Write a note on the genetics of apomixes.
- 24 Give an account of classification of stains.

(7 x 2 = 14 weightage)

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

- 25 Describe the different types of abnormal cambial activity with suitable examples.
- 26 Describe the development of Tetrasporic embryosac in Angiosperms.
- 27 Give an account of the structure and formation of tapetum and discuss its function.
- 28 Give an account of the different types of Microtomes.

(2 x 4 = 8 weightage)