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(Pages : 2)

Name.....

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Reg. No.....

**FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2014**

(CUCSS)

Botany

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

Three Hours

Maximum : 36 Weightage

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 × 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 × 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 × 4 = 8 weightage)