

D 72745

(Pages : 2)

Name.....

Reg. No.....

**FIRST SEMESTER M.A./M.Sc./M.Com. DEGREE EXAMINATION
DECEMBER 2019**

(CUCSS)

Botany

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

(2010 Admissions)

Time : Three Hours

Maximum : 36 Weightage

I. Answer the questions very briefly :

- 1 What is Parthenocarpy ? What is its significance ?
- 2 What is the difference between heterospermy and heterosporry.
- 3 Explain the role of cork cambium.
- 4 Comment on cytokinesis.
- 5 Differentiate spring wood and autumn wood.
- 6 Explain leaf trace and branch trace.
- 7 Write a note on the bidirectional activity of cambium.
- 8 Give an account on pollen-pistil interaction.
- 9 Explain the term mounting. Give an example.
- 10 What is maceration ? Describe any *one* method.
- 11 What is dehydration ? Give the names of two dehydrating agents.
- 12 Enlist four reasons for anomalous secondary growth in plants.
- 13 Explain NPC in pollen morphology.
- 14 Explain the process of embedding. Name an embedding agent.

(14 × 1 = 14 weightage, Grades A, B, C, D, E)

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

- 15 Write an essay on the role of anatomical characters in plant taxonomy.
- 16 Explain with examples the recent advances in applied embryology.

Turn over

- 17 Describe with diagrams the process of megasporogenesis.
- 18 What is staining ? Write an account on principles and methods of staining.
- 19 Explain the structure of secondary xylem in relation to water conduction.
- 20 Write an account on the origin and function of primary and secondary cambium.
- 21 Describe the physical and chemical properties of wood.
- 22 Explain polyembryony. Add a note on its significance in agriculture.
- 23 What are the methods of aerospore survey and analysis ?
- 24 Explain with examples the role of pollen morphology in forensic sciences.

(7 × 2 = 14 weightage, Grades A, B, C, D, E)

III. Answer any *two* questions in 300 words each :

- 25 Write an essay on the significance of pollen morphological studies in plant taxonomy.
- 26 Describe the steps involved in the preparation of specimens for microtome sectioning.
- 27 Discuss the embryological characters that contribute to taxonomy.
- 28 Explain with diagrams the anatomy of unifacial and centric leaves.

(2 × 4 = 8 weightage, Grades A, B, C, D, E)