

FACULTY OF SCIENCE
B.Sc. IV-Semester (CBCS) Examination, June 2018

Subject : Botany

Paper - IV : Plant Anatomy Embryology and Palynology

Time : 3 Hours

Max. Marks: 80

SECTION – A (5 x 4 = 20 Marks)
(Short Answer Type)

Note : Answer any FIVE of the following questions.

- 1 Stomatal types
- 2 Collenchyma
- 3 Heart wood
- 4 Achyranthas stem anatomy
- 5 T.S. of anther
- 6 Anatropous ovule
- 7 Polyembryony
- 8 Ocimum pollen grain

SECTION – B (4 x 15 = 60 Marks)
(Essay Answer Type)

Note: Answer all questions from the following.

- 9 (a) Give a detailed account on complex tissue system.
OR
(b) Write about the theories explaining the organization of shoot apex.
- 10 (a) Describe the wood structure of Teak (*Tecoma grandis*) with illustrations.
OR
(b) Describe the structure, distribution, orientation and types of vascular cambium.
- 11 (a) Describe microsporogenesis and the development of male gametophyte.
OR
(b) Describe the development of monosporic and bisporic types of embryo sac.
- 12 (a) Give a detailed account of Dicot embryo development with suitable diagrams.
OR
(b) Describe the different types of endosperms and their development.
