

2019

BOTANY — HONOURS

Paper : CC - 3

Full Marks : 50

*The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer **any five** questions from the following :
 - (a) What is quiescent centre? 2
 - (b) Distinguish between blind pit and half bordered pit. 2
 - (c) What is aerenchyma? Where is it found? 1+1
 - (d) Distinguish between ring porous and diffuse porous wood. 2
 - (e) Distinguish between intraxylary and interxylary phloem. 2
 - (f) Define plastochron. 2
 - (g) Define apoplast and symplast. 1+1
 - (h) Differentiate between exarch and endarch xylem. 2

2. Answer **any two** questions from the following :
 - (a) With suitable diagram comment on the anomalous secondary growth in *Tecoma* stem. 5
 - (b) Write a note on stellar evolution. 5
 - (c) Write a brief account on the application of plant anatomy in forensic science. 5

3. Answer **any three** questions from the following :
 - (a) Explain the organisation of shoot apex and root apex in the light of tunica-carpus and Körper-Kappe theories respectively. 5+5
 - (b) What are mechanical tissues? Explain the principles governing their distribution in plants. 2+8
 - (c) Elucidate the different stomatal types according to Stebbins and Khush. Distinguish between stomata and hydathode. 8+2
 - (d) Write a brief account on the chemical constituents of the cell wall of vascular plants. Give an overview of its ultra-structure. 5+5
 - (e) With the help of diagrams discuss the anatomical adaptive features in xeric plants. 10