

2022

BOTANY — HONOURS

Paper : CC-3

(Plant Anatomy)

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 : 2×5
- What is elementary fibril? Mention its function.
 - Define Tunica and Corpus.
 - Distinguish between early wood and late wood.
 - Write a brief note on Tylosis.
 - What do you mean by bicollateral open vascular bundle? Elucidate your answer with a neat schematic diagram.
 - Mention any two applications of plant anatomy in forensic science.
 - Distinguish between albumen and duramen.
 - Define interxylary periderm. Where does it found?
2. Answer **any two** questions :
- With suitable diagram explain the secondary growth of *Tinospora* root. 5
 - Write a note on 'Korper-Kappe' theory with suitable illustrations. 5
 - Comment on the adaptive anatomical features of xerophytes. 5
 - Write a brief note on tension wood. Define secondary growth. Mention the plant group other than angiosperms where it takes place. 3+1+1
3. Answer **any three** questions :
- Briefly describe the modifications and the chemical changes of the cell wall occurs during its growth. 5+5
 - Define stele and vascular bundle. Schematically represent different types of stele. Discuss different theories with respect to stelar evolution. 2+3+5
 - With suitable diagrams describe the different types of stomata. 10
 - What do you understand by anomalous plant secondary growth? Mention its significances. Classify different anomalous growth with suitable example. 2+3+5
 - Distinguish between Procambium, Vascular Cambium and Cork Cambium. Mention two adaptive features of *Nelumbonucifera*. Define a ring porous wood with suitable diagram. Give one example. 6+2+2
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