

**U.G. 3rd Semester Examination - 2021****BOTANY****Course Code : BBOTCCHC 301****Course Title: Anatomy of Angiosperms**

Full Marks : 30

Time : 2 Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*1. Answer any **ten** questions from the following:

1×10=10

- a) What is aerenchyma?
- b) Mention the name of various elements of xylem.
- c) What are tyloses?
- d) Define dendrochronology.
- e) Cite an example of plant containing laticiferous tissue.
- f) Define plastochrone.
- g) What is the chemical composition of middle lamella?

- h) What is torus?
- i) Define phytotomy.
- j) Mention the chemical composition of a cork cell.
- k) What is bicollateral vascular bundle?
- l) What is vestured pit?
- m) What do you mean by bast fibre?
- n) Compare between lysigenous duct and schizogenous duct.
- o) Define casparian strips.

2. Answer any **five** from the following: 2×5=10

- a) What do you mean by anomalous secondary growth? Give example.
- b) Distinguish between ring porous and diffuse porous wood.
- c) Define apoplast and symplast.
- d) Distinguish between late wood and early wood.
- e) What is Kranz anatomy?
- f) Differentiate between exarch and mesarch xylem.
- g) Compare between intraxylary and interxylary phloem.

- h) Discuss four anatomical adaptations of xerophyte.
3. Answer any **two** from the following:  $5 \times 2 = 10$
- a) Describe Tunica-Corpus theory of apical meristem. Mention the merits of this theory.  
4+1
- b) With suitable diagram comment on the anomalous secondary growth in *Aristolochia*.
- c) What do you mean by extra-stelar secondary growth? Discuss its different components with suitable diagram. 2+3
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