

Botany [Honours]

[CBCS]

B.Sc. Third Semester End Examination-2023

(Regular & Supplementary Paper)

PAPER-C5T

ANATOMY OF ANGIOSPERMS

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

Group A

- 1) Answer any FIVE questions of the following: **5x2= 10**
- a. Define cyto differentiation and organogenesis. **1+1**
 - b. What is the meaning of plasmodesmata state its function. **1+1**
 - c. What do you mean by tyloses?
 - d. Write two examples of glandular and two for non-glandular trichomes. **1+1**
 - e. Mention four anatomical adaptations of Xerophytes
 - f. Define ergastic substances.
 - g. What do you mean by “apical meristem and Laticiferous.
 - h. Differentiate between heart wood and sap wood.

(2)

Group B

2. Answer any FOUR questions of the following: $4 \times 5 = 20$
- a) Write the difference between
 - i) Simple and complex tissue
 - ii) Tracheary elements and sieve elements. $2\frac{1}{2} + 2\frac{1}{2}$
 - b) What do you mean by trichomes? Mention their types. What is the function of vascular cambium. $3 + 2$
 - c) Describe about anomalous secondary growth of Aristolochia with diagram.
 - d) Write about Tunica Corpus theory and Histogen theory.
 - e) Describe about development of periderm with diagram.
 - f) Differentiate between
 - i) Ring and diffuse porous wood
 - ii) Early and late wood $2\frac{1}{2} + 2\frac{1}{2}$

Group C

3. Answer any ONE question of the following: $1 \times 10 = 10$
- a) Write about the various types of stomata according to Metcalfe and Chalk with diagram and examples. 10
 - b) Write a note on mechanical tissue distribution and significance. What are the applications of plant anatomy in systematics. $4 + 2 + 4$
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