

**Req. No : .....**

**BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2024**  
**2022 ADMISSIONS REGULAR**  
**SEMESTER IV - ZOOLOGY COMPLEMENTARY COURSE 2 (BOTANY )**  
**BO4C01B18 - Anatomy and Applied Botany**

**Maximum Marks : 60**

**I. Answer any Ten questions. Each question carries 1 mark**

**(10x1=10)**

1. Who proposed the Histogen theory?
2. What is plant anatomy?
3. Who proposed Tunica -corpus theory?
4. What are tyloses?
5. Explain hardwood.
6. What is epiblema?
7. Write a brief note on sapwood.
8. Define xerophytes with example.
9. Give an example for a drought-enduring xerophyte.
10. What is meant by apomixis?
11. Name one plant breeding research centre in India.
12. Define callus.

**II. Answer any Six questions. Each question carries 5 marks**

**(6x5=30)**

13. Enumerate the functions of plant cell wall.
14. Differentiate simple and complex tissues. Give one example for each.
15. Mention the role of tyloses in heartwood with a neat diagram.
16. Give a brief account of vascular tissues in the monocot stem.
17. Describe the structure of monocot leaf.
18. Give an account on anatomical adaptations of xerophytes.
19. Draw a neat labelled diagram of the anatomy of Hydrilla stem.
20. Differentiate T-budding and Patch budding.
21. Write an explanatory note on different types of tissue culture.



**III. Answer any Two questions. Each question carries 10 marks**

(2x10=20)

22. Explain the structure of a plant cell wall with labelled diagram.
23. Explain the secondary thickening in dicot roots. How is it different from that of dicot stem? Draw labelled diagrams.
24. Enumerate the anatomical modifications of stem, root and leaves of hydrophytes.
25. What are the advantages and disadvantages of pure-line breeding?