B. Sc. DEGREE END SEMESTER EXAMINATION - MARCH/APRIL 2019

SEMESTER – 4: BOTANY (CORE COURSE)

COURSE: **15U4CRBOT4, ANATOMY AND ANGIOSPERM MORPHOLOGY**

(Common for Regular 2017 admission and improvement 2016/ supplementary 2016/2015 admission)

Time: Three Hours   Max. Marks: 60

PART A

I*. Answer **ALL** questions; each question carries **1** mark.*

1. Who proposed apical cell theory?
2. Name the two types of sclerenchyma.
3. Comment on cutin.
4. What are growth rings?
5. What is meant by apposition?
6. What is cork cambium?
7. What is perianth?
8. What is meant by monadelphous stamen?   (1 x 8 = 8)

PART B

II*. Answer **ANY SIX** questions; each carries **2** marks*

9. Explain histogen theory.
10. Classify meristems based on its function.
11. Name the components of xylem.
12. What are bulliform cells? What is its role?
13. What is plasmodesmata? Comment on its function.
14. Write notes on tyloses.
15. Write short notes on any two defects in wood.
16. Explain sorosis with examples.
17. Describe decussate and superposed arrangement of leaves.
18. Distinguish actinomorphic and zygomorphic flower.   (2 x 6 = 12)

PART C

III*. Answer **ANY FOUR** questions; each carries **4** marks*

19. Describe seasoning of wood.
20. Explain the role of cambium in healing of wounds and grafting.
21. Describe different types of stomata.
22. Write an account on external secretory tissues.
23. Write notes on dry dehiscent fruits.
24. Explain submicroscopic structure of cell wall.   (4 x 4 = 16)

PART C

IV. *Answer **ANY TWO** questions; each carries **12** marks*.

25. With the help of suitable diagrams, explain secondary growth in a dicot root.

OR

26. What are the various reasons for anomalous secondary growth in dicotyledons? Describe anomalous secondary growth in *Bignonia* with the help of diagrams.

27. Write an essay on the gross structure of primary and secondary cell walls. Add a note on different types of cell wall thickening in tracheary elements.

OR

28. Explain different types of racemose and cymose inflorescences with examples and schematic diagrams.   (12 x 2 = 24)

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