B. Sc. DEGREE END SEMESTER EXAMINATION – JULY 2021
SEMESTER – 4: BOTANY (CORE COURSE)
COURSE: **15U4CRBOT4: ANATOMY AND ANGIOSPERM MORPHOLOGY**
(Common for Improvement 2018 admission / Supplementary 2018/2017/2016/2015 admissions)

Time: Three Hours   Max. Marks: 60

I. Answer ALL questions; each question carries 1 mark.
1. Define Palynology.
2. What is a bicollateral vascular bundle?
3. Where do you find bulliform cells?
4. What is a cystolith?
5. Name the parts of a Stamen
6. Define dendrochronology.
7. Name a monocot plant with secondary thickening.
8. Define Apomixis   (1 x 8 = 8)

II. Answer ANY SIX questions; each question carries 2 marks.
9. What is plasmodesmata? What is its function?
10. What is casparian thickening? Where is it found?
11. Distinguish between ring porous and diffuse porous wood.
12. What are tyloses? What is its function?
13. Describe the vascular bundle in a dicot root.
14. What is a sorosis? Give an example.
15. Describe the development of male gametophyte in Angiosperms
16. Explain polyembryony
17. Draw the L.S. of an anatropous ovule and label the parts
18. Differentiate between Monosporic and Bisporic Embryo Sacs   (2 x 6 = 12)

III. Answer ANY FOUR questions; each question carries 4 marks.
19. Write a note on the cell wall thickenings in tracheids.
20. Describe the different types of Placentations
21. Describe the structure of the different types of stomata.
22. Why is phloem called a complex tissue? What are its components?
23. Give an account on the agencies of pollination.
24. Describe the anomalous secondary thickening in Bignonia stem.   (4 x 4 = 16)

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

25. What are meristematic tissues? Give an account on their characteristic features, classification and the theories that describe apical meristems in stems.

OR

26. With diagrams, describe the normal secondary thickening in dicot stem.

27. With examples, describe the different types of fruits.

OR

28. Give an account on the structure and function of the different simple tissues in plants.

(12 x 2 = 24)