

Reg No:.....
Name :.....

K25FY2307

Second Semester FYUGP Botany Examination
APRIL 2025 (2024 Admission onwards)
KU2DSCBOT102 (ANGIOSPERM ANATOMY,
EMBRYOLOGY AND PALYNOLOGY)
(DATE OF EXAM: 28-4-2025)

Time : 90 min

Maximum Marks : 50

Part A (Answer any 6 questions. Each carries 2 marks)

1. What are the two zones of the shoot apical meristem according to the Tunica-Corpus Theory? 2
2. What are radial vascular bundles, and where are they found? 2
3. What is the role of the abscission layer in plants? 2
4. Briefly describe the nodal anatomy 2
5. What is the role of the vascular cambium in secondary growth? 2
6. Describe the structure and function of the stelar cambium. 2
7. What are xerophytes, and how are they anatomically adapted to dry environments? 2
8. Differentiate between monosporic, bisporic, and tetrasporic embryo sac development. 2

Part B (Answer any 4 questions. Each carries 6 marks)

9. Draw a flow chart to understand the classification of meristems based on the position and add a note on meristems of primary and secondary origin. 6
10. Describe the structure and functions of parenchyma and sclerenchyma tissues. 6
11. Explain the floral anatomy of a typical flower 6
12. Discuss the seasonal variation in cambial activity and its impact on wood formation. 6
13. How do halophytes adapt anatomically to tolerate high salinity in their environment? 6

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14. Compare and contrast monosporic, bisporic, and tetrasporic embryo sac development. 6

Part C (Answer any 1 question(s). Each carries 14 marks)

15. Explain the development of the Polygonum type of embryo sac and its role in plant reproduction. 14
16. Describe the techniques used in embryology and palynology and their applications in science and industry. 14