

BSc DEGREE END SEMESTER EXAMINATION - MARCH 2016
SEMESTER -4: BOTANY (COMPLEMENTARY FOR ZOOLOGY)

COURSE: U4CPBOT4 - ANATOMY AND APPLIED BOTANY

Time: Three Hours

Max Marks: 60

Part A

Answer **all** questions. Each question carries 1 mark.

1. What is stock?
2. What is meant by intergeneric hybridization?
3. Give the names of any two auxins used in tissue culture medium.
4. What are raphides?
5. What is meant by rib meristem?
6. Name the components of phloem.
7. What is meant by fascicular cambium?
8. What are motor cells? (1 x 8 = 8)

Part B

Answer **any six** questions. Each question carries 2 marks.

9. Write a brief account of apogamy and apospory.
10. Comment on parthenogenesis and parthenocarpy.
11. Write a note on T-budding.
12. What is meant by plant introduction? Name the types.
13. Write a note on ray initials and fusiform initials.
14. Differentiate between fibres and sclereids.
15. What are the functions of collenchyma?
16. Explain the structure of vascular bundle in a dicot stem.
17. Differentiate between ring porous wood and diffuse porous wood.
18. Write an account of hydathodes. (2 x 6 = 12)

Part C

Answer **any four** questions. Each question carries 4 marks.

19. Describe the procedure for hybridization.
20. Write an account of somatic embryogenesis.

21. Explain any two theories regarding the organization of shoot apex.
22. Explain the internal structure of a monocot leaf.
23. Write an account of cambium formation and its activity in a dicot root.
24. Write an account of the special adaptations of *Rhizophora*.

(4 x 4 = 16)

Part D

Answer **any two** questions. Each question carries 12 marks.

25. Describe secondary thickening in *Bignonia* stem with suitable diagrams.
OR
26. Give an account of the morphological and anatomical adaptations of xerophytes.
27. Describe vegetative propagation with reference to grafting and layering.
OR
28. Give an account of culture media for tissue culture and its preparation.

(12 x 2 = 24)
