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Reg. No. : .....

Name : .....

# First Semester B.Sc. Degree Examination, August 2021 First Degree Programme under CBCSS

# **Botany**

Complementary Course for Zoology, Home Science and Biochemistry

# BO 1131 – MICROTECHNIQUE, ANGIOSPERM ANATOMY AND REPRODUCTIVE BOTANY

(2019 Admission)

Time: 3 Hours Max. Marks: 80

Draw Diagrams wherever necessary.

#### SECTION - A

- I. Answer all questions. Each carries 1 mark.
- 1. Name a natural stain.
- 2. What are lenticels?
- 3. Give an example for secondary meristem.
- 4. Who proposed the Histogen theory?
- 5. What is quiscent centre?
- 6. Radial arrangement of vascular tissues is common in ————.
- 7. What are passage cells?

- 8. Describe apical cell theory.
- 9. What are bulliform cells?
- 10. The radicle of the embryo develops into

 $(10 \times 1 = 10 \text{ Marks})$ 

### SECTION - B

- II. Answer any eight of the following. Each carries 2 marks.
- 11. What are the components of FAA?
- 12. Give one example each for cytological and histological stains.
- 13. Explain the structure of vascular bundle in dicot stem.
- 14. Explain the classification of meristem based on its origin.
- 15. What are the functions of sclerenchyma?
- 16. Name the components of phloem.
- 17. What is meant by concentric vascular bundles?
- 18. What are tyloses?
- 19. What are annual rings?
- 20. What are synergids?
- 21. Describe double fertilization. What is its significance?
- 22. Explain the structure of pollen grain.

 $(8 \times 2 = 16 \text{ Marks})$ 

#### SECTION - C

- III. Answer any six of the following not more than 120 words. Each question carries 4 marks.
- 23. Explain the structure and function of cambium.
- 24. What are the components of Carnoy's fluid? What is its use?
- 25. Differentiate ring porous wood and diffuse porous wood.
- 26. Give a brief account on secretory tissues.
- 27. Draw a labelled cellular diagram showing the anatomy of monocot leaf.
- 28. Explain the process of periderm formation in plants.
- 29. Differentiate vegetative cell and generative cell.
- 30. Explain the structure of dicot embryo with the help of diagram.
- 31. Explain megasporogenesis.

 $(6 \times 4 = 24 \text{ Marks})$ 

## SECTION - D

- IV. Write an essay on any two of the following. Each carries 15 marks.
- 32. Write an essay on the normal secondary thickening in dicot stem with a labeled cellular diagram.
- 33. Compare and contrast the primary structure of dicot and monocot stem.
- 34. Explain the structure of a mature anther with a labeled diagram.
- 35. Give a brief account of complex tissues. Add a note on types of vascular bundles.

 $(2 \times 15 = 30 \text{ Marks})$