

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Describe Phloem tissues with suitable diagrams.

Or

- (b) Explain the theories of Meristems.

17. (a) Compare the internal morphology of monocot leaves with dicot leaves.

Or

- (b) Write an essay on Dicot stem with sketch.

18. (a) Describe the various stages of secondary thickening of dicot root.

Or

- (b) Explain the stages of anomalous secondary growth of *Dracaena*.

19. (a) Elaborate the types of nodes with diagrams.

Or

- (b) What are the epidermal tissues? Explain its types.

20. (a) Describe various steps in double staining.

Or

- (b) Enlist the scope and importance of Microscopy.

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CMBO 21

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2022.

Second Semester

Botany — Core

PLANT ANATOMY AND MICRO TECHNIQUES

(For those who joined in July 2020 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which one is a water conducting tissue?  
(a) Xylem (b) Phloem  
(c) Collenchyma (d) Sclerenchyma
2. Meristematic tissue is a \_\_\_\_\_ tissue.  
(a) Conducting (b) Permanent  
(c) Temporary (d) Secretory
3. Casparian bands are seen in \_\_\_\_\_.  
(a) Epidermis (b) Endodermis  
(c) Pericycle (d) Phloem



4. Open vascular bundles are seen in \_\_\_\_\_  
 (a) Dicot stem (b) Dicot root  
 (c) Monocot stem (d) Monocot root
5. How many numbers of protoxylem or phloem bundles are present in dictor root?  
 (a) 2 to 9 (b) 1 to 5  
 (c) 2 to 6 (d) 2 to 8
6. Abnormal/anomalous secondary growth occurs in  
 (a) Boerhaavia (b) Ginger  
 (c) Wheat (d) Sunflower
7. Trilacunar node is present in  
 (a) Aralia (b) Azadirachta  
 (c) Justicia (d) Pongamia
8. The space found above the leaf trace is  
 (a) Leaf gap (b) Lacuna  
 (c) Pit (d) Pit membrane
9. Photograph which is taken from microscope is known as  
 (a) Macrograph (b) Monograph  
 (c) Micrograph (d) Pictograph
10. Which of the following is an azodye?  
 (a) Safranin (b) Haematoxylin  
 (c) Aniline blue (d) Orange G

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PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Define Meristems. Give short notes on its types.  
 Or  
 (b) Explain in brief about simple tissues.
12. (a) Illustrate the structure of dicot Root.  
 Or  
 (b) Illustrate the internal morphology of dorsiventral leaf.
13. (a) Illustrate the normal secondary growth of dictor stem.  
 Or  
 (b) How does anomalous secondary growth takes place in Boerhaavia?
14. (a) Explain in brief about Hairs.  
 Or  
 (b) Write short notes on stomatal types.
15. (a) Explain the principle and working mechanism of simple microscope.  
 Or  
 (b) How do you prepare sample for permanent slide?

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