

2021/TDC/CBCS/ODD/ BOTHCC-301T/138

TDC (CBCS) Odd Semester Exam., 2021 held in March, 2022

BOTANY

(3rd Semester)

Course No.: BOTHCC-301T

(Anatomy of Angiosperms)

Full Marks: 50
Pass Marks: 20

Time: 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer any ten of the following questions: $2\times10=20$

- 1. What is meristematic tissue? State its functions.
- 2. Write two differences between collenchyma and sclerenchyma.

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(Turn Over)



(2)

- 3. Write one application of plant anatomy in pharmacognosy.
- Define lithocyst.
- 5. What are the different elements of xylem?
- 6. What is plasmodesmata?
- 7. What do you mean by exarch and endarch xylem?
- 8. Write two anatomical features of C-4 plants.
- 9. What do you mean by closed vascular bundle?
- 10. What is tyloses?
- 11. What are ray and axial parenchyma?
- 12. Define sapwood.
- Name two plants where glandular trichomes are found.
- 14. Define anomocytic stomata.
- Write two anatomical adaptations of roots of xerophytes.

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(3)

SECTION—B

Answer any five of the following questions: 6×5=30

- **16.** Discuss the applications of plant anatomy in forensic science.
- 17. Define tissue system. Write an account on 'simple permanent tissues with neat sketches. 1+5=6
- **18.** Write a note on cytodifferentiation of tracheary elements.
- 19. Draw and describe in detail the different types of elements of xylem. 2+4=6
- **20.** Describe different theories of structural development and organization of shoot apex.
- 21. Neatly draw and describe the anatomical structure of a monocot stem. 3+3=6
- **22.** Write a note on development and composition of periderm.
- 23. Write an account on secondary growth in stem.

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- **24.** Write in detail the anatomical adaptations of xerophytes.
- **25.** Classify stomata. Describe all the types with neat sketches.

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