



**2020/TDC(CBCS)/ODD/SEM/  
BOTHCC-301T/138**

**TDC (CBCS) Odd Semester Exam., 2020  
held in March, 2021**

**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**

1. Answer any ten of the following questions :

2×10=20

(a) What is permanent tissue? State its functions.

(b) What do you mean by intercalary meristem?

(c) What are companion cells?



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- (d) Define cytodifferentiation.
- (e) Define ergastic substances in plants.
- (f) What is hydathode?
- (g) What do you mean by complex tissue?
- (h) Write about laticifer.
- (i) What is epiblema?
- (j) Define Casparian strip.
- (k) What do you mean by open vascular bundle?
- (l) What is quiescent centre?
- (m) What is annual ring?
- (n) What is axial parenchyma?
- (o) What is secondary wood?
- (p) Write one application of dendrochronology.
- (q) Write the functions of epicuticular waxes.
- (r) What do you mean by adcrustation?
- (s) What is sunken stomata?
- (t) What is aerenchyma?

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SECTION—B

Answer any five questions

2. What is tissue system? Write an account on vascular tissue system with neat sketches. 1+5=6
3. Discuss the applications of anatomy in plant systematics. 6
4. Draw and describe in detail the different types of elements of phloem. 2+4=6
5. Write a note on cytodifferentiation of tracheary elements and sieve elements. 3+3=6
6. Describe the different theories of structural development and organization in root apex. 6
7. Write down the anatomical differences of dicot and monocot leaf with diagrams. 6
8. Write notes on sapwood and heartwood. 3+3=6
9. Write a brief account on structure, function and seasonal activity of cambium. 6
10. Classify trichomes on the basis of their types of cells with examples and diagrams. 6
11. Write in detail the anatomical adaptation of hydrophytes. 6

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