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**3 SEM TDC BOTH (CBCS) C 5**

**2 0 2 1**

( Held in January/February, 2022 )

**BOTANY**

( Core )

Paper : C-5

**( Anatomy of Angiosperms )**

Full Marks : 53

Pass Marks : 21

Time : 3 hours

*The figures in the margin indicate full marks  
for the questions*

1. Fill in the blanks of the following : 1×3=3

(a) Lateral roots are \_\_\_\_\_ in origin.

(b) The hard corky layer of coconut is an example of \_\_\_\_\_ tissue.

(c) The tunica-carpus theory was put forwarded by \_\_\_\_\_.

( 2 )

2. Choose the correct answer from the following :  $1 \times 2 = 2$

- (a) The inactive and passive cell in root apex is known as tunica-carpus/ quiescent centre/calyptragen.
- (b) Primary/Secondary/Lateral/Intercalary meristem helps in increasing girth of plants.

3. Explain any *four* of the following :  $3 \times 4 = 12$

- (a) Importance of plant anatomy in systematics
- (b) Ergastic substances
- (c) Plasmodesmata and pits
- (d) Hydathodes
- (e) Quiescent centre
- (f) Casparian strip

4. Differentiate between any *three* of the following :  $4 \times 3 = 12$

- (a) Root apex and Shoot apex
- (b) Lithocysts and Laticifers
- (c) Heartwood and Sapwood
- (d) Monocot and Dicot stem anatomy
- (e) Meristematic tissue and Permanent tissue



( 3 )

5. What is conducting tissue? Discuss the components and their functions of conducting tissues. 2+10=12

Or

What are the characteristic features of xerophyte? Describe different types of anatomical adaptation of xerophytes giving their salient features. 4+8=12

6. What is cambium? Discuss the role of cambium in secondary growth in plants. 2+10=12

Or

Write explanatory notes on the following : 6×2=12

(a) Kranz anatomy

(b) Types and function of stomata in dicot plant

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