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3 SEM TDC BOTH (CBCS) C 5

2024

(Nov/Dec)

BOTANY

(Core)

Paper : C-5

(Anatomy of Angiosperm)

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 :

1×3=3

(a) The concept of 'continuing meristematic residue' was given by ____.

(b) The cells which possess cystoliths are known as ____.

(c) Sunken stomata is a characteristic of ____.

(2)

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

(a) Tissue formed by cambium in the event of any injury is

(callus or wound tissue / secondary xylem / secondary phloem / None of the above)

(b) The root cap is formed by

(dermatogen / vascular cambium / calyptragen / wound cambium)

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

(a) Scope of plant anatomy in forensics

(b) Continuing meristematic residue

(c) Seasonal activity of cambium

(d) Adaptation of epiphytes

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

(a) Anatomy of dicot leaf and monocot leaf

(b) Simple permanent tissue and complex permanent tissue

(c) Axial parenchyma and ray parenchyma

(d) Anatomy of hydrophytes and xerophytes

(e) Sapwood and heartwood

(3)

5. What do you mean by plant tissue system? Write the different types of tissue system found in plants and write their functions.

$2 + 10 = 12$

Or

What is periderm? Explain the different components of periderm. Differentiate periderm from bark.

$2 + 6 + 4 = 12$

6. Write about the various theories of differentiation of root-apical meristem. Give diagram.

$9 + 3 = 12$

Or

Write explanatory notes on the following :

$6 \times 2 = 12$

(a) Epidermal tissue system and the various structures associated with it

(b) Cytodifferentiation of tracheary elements and sieve elements

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