3 SEM TDC BOTH (CBCS) C 5

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(Nov/Dec)

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) Companion cells are always associated
   with the _____.

   (b) Velamen tissue is found in the roots of
   _____.

   (c) Elongated tube-like dead cells with
   tapering end are known as _____.

(*Turn Over*)

(2)

2. Choose the correct answer from the following : 1×2=2

   (a) Histogen theory was proposed by Hanstein / Schmidt / Robert Hooke / Esau.

   (b) In a dicot stem, cork cambium originates from epidermis / pericycle / cortex / vascular bundles.

3. Explain any *four* of the following : 3×4=12

   (a) Importance of plant anatomy in systematics

   (b) Pits and plasmodesmata

   (c) Hydathodes

   (d) Tunica-Corpus theory

   (e) Bicollateral vascular bundles

   (f) Epicuticular waxes

4. Differentiate between any *three* of the following : 4×3=12

   (a) Shoot apex and Root apex

   (b) Fibrous and Sclereids

   (c) Open vascular bundle and Closed vascular bundle

   (d) Heartwood and Sapwood

5. What is stomatal apparatus? Explain the structure and functions of cells of stomatal apparatus. Give labelled diagrams. 2+8+2=12

Or

With suitable diagrams, discuss the anatomical structure of dicot stem. 4+8=12

6. With suitable sketches, discuss the anatomical adaptations of hydrophytes. 4+8=12

Or

Write explanatory notes on any *two* of the following : 6×2=12

(a) Adcrustation and Incrustation

(b) Lenticels

(c) Glandular and Non-glandular trichomes

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