

(6 pages)

Reg. No. :

Code No. : 6405

Sub. Code : HBOM 12

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2014.

First Semester

Botany

ANATOMY AND EMBRYOLOGY OF ANGIOSPERMS

(For those who joined in July 2012 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions

Choose the correct answer :

1. The term meristem means
 - (a) Strong
 - (b) Divisible
 - (c) Matured
 - (d) A group of cells
2. The strip of Cambium within the collateral bundles are
 - (a) Intra fascicular
 - (b) Inter fascicular
 - (c) Inter vascular
 - (d) Extra fascicular

3. In exarch xylem the protoxylem is
 - (a) Centrifugal
 - (b) Centripetal
 - (c) Collateral
 - (d) Radial
4. The balloon like outgrowths seen in the lumen of xylem vessels
 - (a) Plasmodesmata
 - (b) Alburnum
 - (c) Tyloses
 - (d) Cork
5. The wood formed in response to various stresses
 - (a) Heart wood
 - (b) Sap wood
 - (c) Hard wood
 - (d) Compression wood
6. Dump-bell shaped stomata is found in
 - (a) Poaceae
 - (b) Rubiaceae
 - (c) Brassicaceae
 - (d) Annonaceae
7. Sporopollenin helps in the formation of _____ in pollen.
 - (a) Exine
 - (b) Intine
 - (c) Integument
 - (d) Embryo



8. The nucellar tissue present below to the embryo Sac is

- (a) Aril (b) Endosperm
(c) Haustoria (d) Hypostase

9. The persistent nucellus in the seed is called

- (a) Periderm (b) Haustoria
(c) Endosperm (d) Perisperm

10. The development of an embryo from an unfertilized egg after the stimulus of pollination is called

- (a) Isogamy (b) Anisogamy
(c) Pseudogamy (d) Oogamy

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

11. (a) Write short notes on apical meristem.

Or

(b) List out the characters and role of procambium.

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12. (a) Brief the structure of lenticel.

Or

(b) Explain the anomalous nature in Dracaena.

13. (a) Explain the structure of stoma with diagram.

Or

(b) Explain tension wood with example.

14. (a) Explain the special structure of ovule.

Or

(b) List out the types of tapetum.

15. (a) Give an account on cytology of endosperm.

Or

(b) List out the significance of double fertilization.

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PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should exceed 600 words.

16. (a) Describe the role of symmetry in plants.

Or

- (b) Describe the structure of root apex.

17. (a) Write an essay on ontogeny of monocot leaf.

Or

- (b) Describe the anomalous structure of Bignonia.

18. (a) List out the mechanical properties of wood.

Or

- (b) Explain the various types of trichomes and hairs.

19. (a) Write an essay on microsporogenesis.

Or

- (b) Give the details of pollen – pistil interactions.

20. (a) Illustrate endosperm haustoria.

Or

- (b) Write an essay on properties of wood.

