2024

(FYUGP)

(3rd Semester)

BOTANY

(Minor)

Paper Code : BCC–M–3

(Morphology and Anatomy of Angiosperms)

Full Marks : 75 *Pass Marks* : 40%

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

UNIT—I

1. Write a detailed note on the types and modification of root. 10

OR

2. Write a note on the structure and classification of fruits.

UNIT—II

3. Write short notes on the following : 5+5=10

   (a) Flower as a modified shoot

   (b) Types of placentation

OR

4. What are cohesion and adhesion of floral parts? Write a note on the relative position and numeric plan. 5+5=10

UNIT—III

5. Define tissue. Write a note on the structure and function of complex tissue. 2+8=10

OR

6. Write short notes on the following : 5+5=10

   (a) Types of vascular bundle

   (b) Simple tissue

UNIT—IV

7. Write a detailed note on the theories on apical organization. 10

OR

8. Write short notes on the following : 5+5=10

(a) Histogen theory

(b) Arrangement of primary tissues in monocot leaves

UNIT—V

9. What is secondary growth? Write a note on the secondary growth in stem. 10

OR

10. Write notes on the following : 5+5=10

(a) Seasonal activity of Cambium

(b) Earlywood and Latewood

★★★

2024

(FYUGP)

(3rd Semester)

BOTANY

(Minor)

Paper Code : BCC–M–3

(Morphology and Anatomy of Angiosperms)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

Put a Tick (✓) mark against the correct answer in the brackets provided : 1×15=15

1. Clinging root is found in

(a) Podostemon ( )

(b) Orchid ( )

(c) Trapa ( )

(d) Screwpine ( )

2. Pneumatophores occur in plants of

(a) marshy soil ( )

(b) saline soil ( )

(c) water ( )

(d) sandy soil ( )

3. Leaves are modified into tendrils in

(a) Parkinsonia ( )

(b) pea ( )

(c) Ranunculus ( )

(d) oxalis ( )

4. Which of the following is incorrectly matched?

(a) Calyx—outermost whorl of the flower ( )

(b) Corolla—brightly coloured to attract insects ( )

(c) Gynoecium—composed of stamens ( )

(d) More than one of the above ( )

5. Diadelphous stamens are found in

(a) china rose and citrus ( )

(b) china rose ( )

(c) citrus ( )

(d) pea ( )

6. A sterile stamen is called

(a) staminode ( )

(b) stigma ( )

(c) apocarpous ( )

(d) syncarpous ( )

7. Casparian strips are found in

(a) epidermis ( )

(b) endodermis ( )

(c) exodermis ( )

(d) pericycle ( )

8. Fibres associated with phloem are

(a) wood fibres ( )

(b) bast fibres ( )

(c) hard fibres ( )

(d) surface fibres ( )

9. Vascular bundles in dicot stem are

(a) closed, conjoint and endarch ( )

(b) open, conjoint and endarch ( )

(c) closed, conjoint and exarch ( )

(d) open, conjoint and exarch ( )

10. A dicot root can be identified by

(a) exarch vascular bundles ( )

(b) endarch vascular bundles ( )

(c) presence of numerous xylem bundles ( )

(d) presence of large pith ( )

11. In shoot meristem, protoderm gives rise to

(a) pith ( )

(b) pericycle ( )

(c) phloem ( )

(d) epidermis ( )

12. The theory proposed by Hanstein was

(a) histogen theory ( )

(b) apical cell theory ( )

(c) tunica-corpus theory ( )

(d) cell theory ( )

13. The Casparian rings are found in

(a) monocot root ( )

(b) dicot root ( )

(c) monocot stem ( )

(d) dicot stem ( )

14. The annual rings are bands of

(a) spring wood and autumn wood ( )

(b) secondary xylem and primary xylem ( )

(c) xylem and phloem ( )

(d) secondary phloem and primary phloem ( )

15. The function of cork cambium is to produce

(a) only cork ( )

(b) only secondary cortex ( )

(c) only cambium ( )

(d) both cork and secondary cortex ( )

SECTION—II

(*Marks* : 10)

Write on any *five* of the following in few sentences : 2×5=10

1. Tap roots

2. Phyllotaxy

3. Types of aestivation

4. Hydathodes

5. Apical cell theory

6. Sapwood and heartwood

7. Dendrochronology

★★★