

2025

(FYUGP)

(3rd Semester)

BOTANY

(MINOR)

Paper Code : BCC-M3

(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

1. Describe the structure and modifications of stem (both aerial and underground). 10

OR

2. Explain the different mechanisms of fruit and seed dispersal and other agents with examples. 10

3. Write short notes on the following : 10

(a) Hydathodes (FYUGP)

(b) Types of aestivation (3rd Semester)

OR

4. Describe the structure of a typical angiosperm flower. Explain the relative position of floral parts. 10

5. Explain the structure and function of xylem and phloem in plants. 10

OR

6. Write short notes on the following : 10

(a) Secretory tissues (PART : B-D)

(b) Protective systems (PART : A)

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

(a) Tunica-Corpus theory

(b) Structure and function of cambium

OR

8. Discuss the arrangement of primary tissues in dicot stem with labelled diagram. 10

to be filled in by (3C) candidate

BSc / BCom / BBA / BCA

9. Write short notes on any two of the following : $5 \times 2 = 10$

- (a) Modified leaves
- (b) Types of inflorescence
- (c) Types of vascular bundles
- (d) Periderm

INSTRUCTIONS TO CANDIDATES

1. The Booklet No. of this script should be quoted in the answer script except for descriptive type questions and answers.
2. This paper should be ANSWERED FIRST and submitted within 1 (one) Hour of the commencement of the Examination.
3. When answering the questions of this booklet, any writing, erasing, over writing or scratching more than one answer is prohibited. Any rough work, if required, should be done only on the main answer Book. Instructions given in each question should be followed for answering that question only.

To be filled
Candidate

BA / BSc / BCom

3rd Semester

Examination, 2

Roll No.

Regn. No.

Subject

Paper

Descriptive

Booklet No. 3

2025

(FYUGP)

(3rd Semester)

BOTANY

(MINOR)

Paper Code : BCC-M3

(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. Aerial roots are found in

(a) Orchid ()

(b) Podostemum ()

(c) Rafflesia ()

(d) Mangrove ()

2. A phyllode is a modified

- (a) stem ()
- (b) root ()
- (c) leaf ()
- (d) fruit ()

3. Vivipary is an adaptation in mangroves for

- (a) seed dispersal by water ()
- (b) rapid germination in saline soil ()
- (c) attraction of animals for dispersal ()
- (d) prevention of seed predation ()

4. Phylloclades are characteristics of

- (a) *Asparagus* ()
- (b) *Bryophyllum* ()
- (c) *Opuntia* ()
- (d) *Euphorbia* ()

5. When ovary is superior, the condition is called

- (a) hypogyny ()
- (b) epigyny ()
- (c) perigyny ()
- (d) syncarpy ()

6. Twisted aestivation is seen in

- (a) mustard ()
- (b) China rose ()
- (c) *Pisum sativum* ()
- (d) cotton ()

7. In Papilionaceous corolla, the largest petal is called

- (a) wing ()
- (b) keel ()
- (c) standard/vexillum ()
- (d) sepal ()

8. Which of the following is a living mechanical tissue?

- (a) Collenchyma ()
- (b) Xylem vessel ()
- (c) Sclerenchyma ()
- (d) Phloem fibre ()

9. The vascular bundle in monocots is

- (a) bicollateral, open ()
- (b) collateral, open ()
- (c) collateral, closed ()
- (d) amphicribal ()

10. Resin ducts in *Pinus* are formed by

- (a) lysigenous origin ()
- (b) schizogenous origin ()
- (c) both schizogenous and lysigenous origin ()
- (d) secretion of phloem parenchyma ()

11. The waxy layer present on the outer surface of epidermis is

(a) cellulose ()

(b) cutin ()

(c) lignin ()

(d) suberin ()

12. Laticifers are associated with

(a) transport of water ()

(b) secretion of latex ()

(c) photosynthesis ()

(d) guttation ()

13. In Tunica-Corpus theory, tunica is responsible mainly for

(a) surface growth ()

(b) volume growth ()

(c) formation of vascular tissue ()

(d) formation of cortex ()

11. The way in which the epidermis is

14. Which is not a function of cambium?

- (a) Secondary xylem formation
- (b) Secondary phloem formation
- (c) Primary tissue formation
- (d) Increasing girth of stem/root

12. Laticifers are associated with

13. In Turric-Corpus theory, turric is responsible mainly for

15. Activity of cambium during spring produces

- (a) late wood
- (b) early wood
- (c) heartwood
- (d) sapwood

(Marks : 10)

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

1. Stilt roots with examples

14. 2. Difference between simple and compound leaves

(Marks : 10)

Write on any five of the following in few sentences : $5 \times 2 = 10$

1. Soil roots with examples

15. A part of the

3. Types of placentation

4. Floral formula and floral diagram

5. Collenchyma

6. Difference between tracheids and vessels

7. Korper-Kappe theory

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