

2015

( 2nd Semester )

BOTANY

SECOND PAPER

( Phanerogams )

Full Marks : 55

Time : 2½ hours

( PART : B—DESCRIPTIVE )

( Marks : 35 )

*The figures in the margin indicate full marks  
for the questions*

1. Describe the morphology and reproduction  
in *Pinus*. 7

Or

Give the general characteristic features of  
gymnosperms.

2. Write down the distinguishing characteristics  
of any one of the following families : 7
- (a) Ranunculaceae
  - (b) Solanaceae
  - (c) Malvaceae

G15—700/236a

( Turn Over )

3. Describe the anatomy of a monocotyledonous root with neat labelled diagram. 7

Or

Explain the anomalous secondary growth in *Mirabilis* with labelled diagram.

4. What are the different types of endosperm? Briefly describe the development of any one. 2+5=7

Or

Write an account on the development of monocot embryo with suitable diagrams. 7

5. Give brief notes on any *two* of the following mentioning their scientific names, families and their uses :  $3\frac{1}{2} \times 2 = 7$

- (a) Beverage-yielding plants
- (b) Timber-yielding plants
- (c) Spices-yielding plants

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( 2nd Semester )

**BOTANY**

SECOND PAPER

( **Phanerogams** )

( PART : A—OBJECTIVE )

( Marks : 20 )

*The figures in the margin indicate full marks for the questions*

SECTION—A

( Marks : 5 )

Select the correct answer by putting a Tick (✓) mark in the brackets provided : 1×5=5

1. Gymnosperms do not have

(a) stem ( )

(b) leaf ( )

(c) fruit ( )

(d) root ( )

2. The type of fruit in Poaceae is

- (a) caryopsis ( )
- (b) achene ( )
- (c) berry ( )
- (d) capsule ( )

3. Amphivasal vascular bundles are present in

- (a) *Mirabilis* stem ( )
- (b) *Bignonia* stem ( )
- (c) *Dracaena* stem ( )
- (d) *Boerhaavia* stem ( )

4. The megaspore mother cell undergoes meiosis to form

- (a) 2 haploid megaspores ( )
- (b) 3 haploid megaspores ( )
- (c) 4 haploid megaspores ( )
- (d) 5 haploid megaspores ( )

5. The plant part used as beverage in coffee is

(a) leaf ( )

(b) bark ( )

(c) seed ( )

(d) All of the above ( )

( 4 )

SECTION—B

( Marks : 15 )

Answer the following questions in brief :

3×5=15

1. What are manoxylic wood and pycnoxylic wood?

2. Write the differences between the vascular bundles of dicot and monocot stem.

3. Write down the characteristics of flowers of Cucurbitaceae.

Answer the following questions in brief:

1. What are manoxylic wood and pycnoxylic wood?

4. What are microspores?

Mention the scientific name of a central-styled plant.

(2nd Semester)

**BOTANY**

**SECOND PAPER**

(Phanerogama)

**(PART - A—OBJECTIVE)**

(Marks: 20)

The figures in the margin indicate full marks for the questions

**SECTION—A**

(Marks: 6)

Select the correct answer by putting a Tick (✓) mark in the brackets provided:

1. Gymnosperms do not have

(a) stem ( )

(b) leaf ( )

(c) fruit ( )

(d) root ( )

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5. Mention the scientific names and families of three cereal-yielding plants.

(a) Caryopsis

(b) Achene

(c) Berry

(d) Capsule

3. Amphiblastular bundles are present in

(a) *Mirabilis jalapa*

(b) *Bignonia* stem

(c) *Dracopis* stem

(d) *Doernandria* stem

4. The megaspore mother cell undergoes meiosis to form

(a) 2 haploid megaspores

(b) 3 haploid megaspores

(c) 4 haploid megaspores

(d) 5 haploid megaspores \*\*\*