

## II/ BOT (ii)

**2 0 1 4**

**( 2nd Semester )**

**BOTANY**

**SECOND PAPER**

**( Phanerogams )**

*Full Marks : 55*

*Time : 2 hours*

**( PART : B—DESCRIPTIVE )**

**( Marks : 35 )**

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

**1. Answer the following :** **3½+3½=7**

(a) Give an account of the development of embryo in *Pinus*

(b) Why is *Gnetum* regarded as the most advanced gymnosperm? Give reasons.

**Or**

Describe briefly, with suitable diagrams, morphology and reproduction in *Cycas*.

**7**

2. Give distinguishing characters of any one of the following families :

- (a) Cucurbitaceae
- (b) Brassicaceae
- (c) Asteraceae

Mention at least three economically important plants of the family with their scientific names.

7

3. Describe the internal structure of a typical dicot stem with neat labelled diagram.

7

Or

What do you mean by anomalous secondary growth? Describe, with neat labelled diagram, anomalous secondary growth in *Dracaena* stem.

1+6=7

4. Give an account of the development of the embryo of dicot plant with suitable labelled diagrams.

7

Or

Give an account of the female gametophyte development with suitable diagrams.

( 3 )

5. Write notes on any *two* of the following studied by you, mentioning their scientific names and families they belong to :  $3\frac{1}{2} \times 2 = 7$

(a) Cereals-yielding plants

(b) Fats and oil-yielding plants

(c) Pulses-yielding plants

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**2014**

**( 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. Archegonia are absent in**

(a) *Cycas* ( )

(b) *Pinus* ( )

(c) *Gnetum* ( )

(d) All of the above ( )

2. In the family Malvaceae, stamens are

- (a) monadelphous ( )
- (b) diadelphous ( )
- (c) polyadelphous ( )
- (d) syngenecious ( )

3. In which of the following stems, cambium appears in the parenchyma outside the outermost vascular bundles?

- (a) *Dracaena* stem ( )
- (b) *Mirabilis* stem ( )
- (c) *Bignonia* stem ( )
- (d) All of the above ( )

4. The process of double fertilization was discovered by

- (a) Strasburger ( )
- (b) P. Maheswari ( )
- (c) Nawaschin ( )
- (d) Hofmeister ( )

5. In coconut palm, oil is extracted from

- (a) epicarp ( )
- (b) mesocarp ( )
- (c) endocarp ( )
- (d) endosperm ( )

( 4 )

SECTION—B

( Marks : 15 )

Answer the following questions in brief :

3×5=15

1. Give a comparative account of normal and coralloid roots of *Cycas*.

( 5 )

2. What is phellogen? Mention its function.



3. Give a brief account of spikelet inflorescence found in Poaceae

4. What is pollen kit? Mention its function.

( 8 )

5. Write the economic importance of jute briefly.  
Mention its scientific name and family.

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