

2017

( 6th Semester )

BOTANY

TENTH PAPER

( **Angiosperm Taxonomy, Anatomy  
and Embryology** )

Full Marks : 55

Time : 2½ hours

( PART : B—DESCRIPTIVE )

( Marks : 35 )

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

1. Give the outline system of classification of angiosperms by Bentham and Hooker. Discuss its merits and demerits. 5+2=7

Or

What do you mean by phylogenetic system of classification of angiosperms? Write in brief the outline system of classification of angiosperms proposed by John Hutchinson. 2+5=7

2. Discuss in brief the evolution of angiosperm. 7

Or

What do you mean by Botanical Garden? Describe any two important Botanical Gardens studied by you. 2+2½+2½=7

3. Describe distinguishing characters of the family Fabaceae. Mention its economic importance. 5+2=7

Or

Describe the floral characters of the following families : 3½+3½=7

(a) Scrophulariaceae

(b) Verbenaceae

4. What is normal secondary growth? How does it differ from anomalous secondary growth? Discuss normal secondary growth in stem. 1½+1½+4=7

Or

What do you mean by xerophyte? Describe anatomical features of xerophytic plants with suitable diagram. 2+5=7

( 3 )

5. What is cross pollination? Discuss contrivances for cross pollination.  $2+5=7$

Or

Define bisporic and tetrasporic embryo sacs. Discuss in brief with diagrams the following embryo sacs :  $1\frac{1}{2}+1\frac{1}{2}+2+2=7$

(a) *Allium* type

(b) *Peperomia* type

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Subject Code : BOT/VI/10

Booklet No. **A**

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Date Stamp .....

**To be filled in by the Candidate**

DEGREE 6th Semester  
(Arts / Science / Commerce /  
..... ) Exam., **2017**  
Subject .....  
Paper .....

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**To be filled in by the Candidate**

DEGREE 6th Semester  
(Arts / Science / Commerce /  
..... ) Exam., **2017**

Roll No. ....

Regn. No. ....

Subject .....

Paper .....

Descriptive Type

Booklet No. B .....

**INSTRUCTIONS TO CANDIDATES**

1. The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.
2. This paper should be ANSWERED FIRST and submitted within 45 minutes of the commencement of the Examination.
3. While answering the questions of this booklet, any cutting, erasing, overwriting or furnishing 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.

Signature of  
Scrutiniser(s)

Signature of  
Examiner(s)

Signature of  
Invigilator(s)

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( 6th Semester )

**BOTANY**

TENTH PAPER

**( Angiosperm Taxonomy, Anatomy and Embryology )**

( PART : A—OBJECTIVE )

( Marks : 20 )

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

SECTION—A

( Marks : 5 )

Put a Tick (✓) mark against the correct answer in the brackets provided : 1×5=5

**1.** Which of the following botanists proposed numerical values for classification of plants?

(a) R. R. Sokal ( )

(b) P. H. A. Sneath ( )

(c) Michel Adanson ( )

(d) A. J. Cole ( )

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( 2 )

2. Which of the following taxonomists for the first time initiated the art of preparation of herbarium?

- (a) Luca Ghini ( )
- (b) Gherardo Cibo ( )
- (c) John Falconer ( )
- (d) Pitton de Tournefort ( )

3. Only one functional and epipetalous stamen is found in the family

- (a) Liliaceae ( )
- (b) Cyperaceae ( )
- (c) Verbenaceae ( )
- (d) Zingiberaceae ( )

4. Which of the following is termed as normal vascular tissue?

- (a) Cambium ( )
- (b) Endodermis ( )
- (c) Cortex ( )
- (d) All of the above ( )

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( 3 )

5. Which one of the following embryonic cells is a part of egg apparatus?

(a) Synergids ( )

(b) Antipodal nucleus ( )

(c) Polar nucleus ( )

(d) None of the above ( )

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SECTION—B

( Marks : 15 )

Write notes on the following in brief :

3×5=15

1. Chemotaxonomy

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( 5 )

2. Importance of field notebook in herbarium preparation

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( 6 )

3. Perianth character of Orchidaceae

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( 7 )

4. Anatomical features of hydrophyte

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( 8 )

5. Nuclear endosperm

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