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( 6th Semester )

BOTANY

TENTH PAPER

( **Angiosperm Taxonomy** )

Full Marks : 55

Time : 2½ hours

( PART : B—DESCRIPTIVE )

( Marks : 35 )

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

1. Give brief accounts of numerical taxonomy and chemotaxonomy. 3½+3½=7

Or

Give an outline of the system of classification proposed by Engler and Prantl. Mention its merits and demerits. 4+3=7

2. What do you mean by herbarium? Describe briefly the method of preparation and management of herbarium. 2+5=7

Or

What is ICBN? Describe in brief the following important and major rules of plant nomenclature : 2+5=7

- (a) Rank of taxa
- (b) Typification
- (c) Principles of priority
- (d) Effective and valid publication
- (e) Author citation

3. Describe the distinguishing characters of any one of the following families. Mention its floral formula and floral diagram : 5+2=7

- (a) Magnoliaceae
- (b) Euphorbiaceae

Or

Describe the floral characters of any one of the following families. Mention its economic importance : 5+2=7

- (a) Orchidaceae
- (b) Zingiberaceae

( 3 )

4. What do you mean by anomalous secondary growth? Describe with neat labelled diagram any type of anomalous secondary growth in stem studied by you in dicotyledonous plants.  $2+5=7$

*Or*

What do you mean by root-stem transition? Explain its different types with the help of diagrams.  $2+5=7$

5. Describe the development of nuclear and cellular endosperm. Add a note on the function of endosperm.  $5+2=7$

*Or*

Describe about the following in brief :  $3\frac{1}{2}+3\frac{1}{2}=7$

(a) Polyembryony

(b) Zoophily

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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., **2016**  
Subject .....  
Paper .....

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**To be filled in by the Candidate**

DEGREE 6th Semester  
(Arts / Science / Commerce /  
..... ) Exam., **2016**

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)

**BOT/VI/10**

**2 0 1 6**

( 6th Semester )

**BOTANY**

TENTH PAPER

**( Angiosperm Taxonomy )**

( PART : A—OBJECTIVE )

( Marks : 20 )

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

Answer **all** 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 families is considered by John Hutchinson as the most advanced family among Dicotyledons?

(a) Verbenaceae ( )

(b) Lamiaceae ( )

(c) Convolvulaceae ( )

(d) Euphorbiaceae ( )

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( 2 )

2. In arboretum botanical garden only the species of plant grown is

- (a) trees ( )
- (b) bamboos ( )
- (c) orchids ( )
- (d) All of the above ( )

3. Diadelphous condition of stamen is found in the family

- (a) Fabaceae ( )
- (b) Convolvulaceae ( )
- (c) Rutaceae ( )
- (d) Polygonaceae ( )

4. The meristematic tissue that developed between vascular bundles during secondary growth is called

- (a) fascicular cambium ( )
- (b) inter-fascicular cambium ( )
- (c) primary cambium ( )
- (d) None of the above ( )

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( 3 )

5. In angiosperms, the embryo sac represents

(a) male gametophyte ( )

(b) female gametophyte ( )

(c) young sporophyte ( )

(d) future fruit ( )

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( 4 )

SECTION—B

( Marks : 15 )

Write brief notes on the following :

3×5=15

1. Merits of Bentham and Hooker's system of classificaton

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( 5 )

2. Isotype

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( 6 )

3. Economic importance of the family Convolvulaceae

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( 7 )

4. Anatomical adaptations of hydrophytes

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( 8 )

5. Bisporic type of embryo sac

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