

**SIXTH SEMESTER B.Sc DEGREE EXAMINATION, APRIL 2017**

**First Degree Programme under CBCSS**

**CORE COURSE( 2014 admission onwards)**

**BOTANY PRACTICALS ---- Model Question Paper**

**PRACTICAL BOTANY – I11**

**(BO1541&BO1542)**

**ANGIOSPERM MORPHOLOGY, SYSTEMATIC BOTANY, ECONOMIC BOTANY,**

**ETHNOBOTANY AND ENVIRONMENTAL STUDIES**

**TIME: 3 Hours**

**Max.Marks: 80**

1. Identify and write notes on **A** with a labeled diagram.

Notes -2, Diagram - 1

(3x1=3marks)

2. Comment on **B**

Notes -2, Diagram -1

(3x1=3marks)

3. (Describe 'C' in technical terms. Draw a labeled sketch of the L.S of flower  
C. Construct a floral diagram and write the floral formula.

(Description 2, Labeled sketch: 2; Floral diagram: 1; Floral formula: 1)

(6x1=6 marks)

4. Refer **D and E** to their respective families, pointing out the class, subclass  
and series with reasons.

(Reasons up to series: 2; Family characters: 4; Identification of family: 1)

(7x2=14marks)

5. Write the generic name and family of **F and G**

(Generic name; 1; Family: 1) (2x2=4marks)

6. Identify the ecological group **H** and write its morphological adaptations.

((Ecological group: 1; Adaptations: 2) (1x3=3 marks)

7. Make a suitable micro preparation of **I**. Write the anatomical adaptation and identify the ecological group.

(Ecological group: 1; Preparation-1, Adaptations: 2) (1x4=4marks)

8. Identify and write notes on **J**

( Identification=1, Notes-2) (1x3=3marks)

9. Write critical notes on **K**

(Binomial-1; Family-1; Morphology-1 Uses -1) (1x4=4 marks)

10. Spot at sight **L and M** (Binomial-1; Family-1; Morphology-1)

(3x2=6marks)

11. Herbarium submission-7; Field Note& Tour report: 3

(10marks)

12. Record: 20 marks (Content-15 marks: Neatness -5 marks)

(20marks)

Grand Total =80 marks

DR.SUSILA KURUVILLA

CHAIRMAN,

BOARD OF STUDIES IN BOTANY (PASS)

## **KEY FOR EXAMINERS**

A. Inflorescence - Mentioned in the syllabus

B. Fruits - - Mentioned in the syllabus

C .Systematic Botany – Twigs with flowers from Polypetalae / Gamopetalae

D and E. --Any two Dicot families – D Twigs with flowers from Polypetalae/  
Monochlamydeae (any one mentioned in the syllabus)

E- Twigs with flowers from Gamopetalae (any one mentioned in the syllabus)

F. Herbarium sheets

G. Herbarium sheets

H. Ecological groups mentioned in the syllabus

I .Ecological groups mentioned in the syllabus

J. Ecosystems –Pictures or diagrams of different ecosystems mentioned in the  
syllabus

K. Ethnobotany -----(Five plants mentioned in the syllabus)

L .Economic Botany – Mentioned in the syllabus

M. Economic Botany – Mentioned in the syllabus

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**BOTANY PRACTICALS ---- Model Question Paper**

**PRACTICAL BOTANY – IV**

**(BO1543&BO1641, BO 1642 &BO 1643)**

**Cell biology, Genetics, Plant physiology, Biochemistry, Molecular biology,  
Horticulture and Plant breeding**

**TIME: 3 HOURS**

**MAX.MARKS: 80**

- I. Make an acetocarmine squash preparation of material **A**. Identify with sketches any two stages of cell division (Metaphase and Anaphase)

Preparation -3, Identification -2, Labeled diagram -2 (7x2=14marks)

2. Work out Problem **B, C, D**

B- 3 marks C-4 marks D- 5 marks (12marks)

3. With the help of a labeled diagram, explain the working of the experiment **E**

Labeled diagram -2 Aim-1 working -3  
(6marks)

4. Comment on **F** with a labeled diagram



## **KEY FOR EXAMINERS**

- A. Onion Root tip
- B. Monohybrid problem including Incomplete dominance
- C. Dihybrid problems
- D. Problems in Interaction of Genes
- E. Physiology Experiments
- F. Physiology Experiments
- G. Biochemistry ( proteins/reducing sugar/sucrose/starch)
- H. Problems based on Chargaff's rule
- I. Horticulture
- J. Garden tools or photographs of tools mentioned in the syllabus
- K. Plant breeding: Inflorescence coming under *Fabaceae/Caesalpinaceae* families.

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The following should also include in the Record of

**PRACTICAL BOTANY – IV : CORE COURSE ( 2014 admission onwards )**

**(BO1543&BO1641, BO 1642 &BO 1643)**

Molecular Biology

1. Draw semi conservative replication of DNA
- 2 .Write problems in Molecular Biology -----Based on Chargaff's rule.

Bioinformatics

1. Prepare the mark list of students in a class using Excel and paste it on the record
2. Study the molecular visualisation of any two of the following biomolecules and paste them on the record

A) Hemoglobin B) Myoglobin C) Immunoglobulin D) Cytochrome E) Rubisco  
using Rasmol.

Horticulture

1. Drawings of the garden tools mentioned in the Syllabus
- 2 .Procedure and drawings of Budding/Layering/Grafting mentioned in the syllabus

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