Telephone No: 2419208/2419315/2419219/2419361
Fax: 0821-2419363/2419301

e-mail : registrar@uni-mysore.ac.in
www.uni-mysore.ac.in

UNIVERSITY OF MYSORE

Established: 1916

Vishwavidyanilaya Karyasoudha,
Crawford Hall, Mysore-570 005.

No.AC.2(S)/378/2020-21

Dated: 19.08.2020

NOTIFICATION

Sub: Changes in the scheme of practical examinations for B.Sc. IV semester (DSCB 1.4) and V semester (DSEB 1.1. and 1.3) from the Academic Year 2020-21.

Ref: 1. Decision of Board of Studies in Botany (UG) meeting held on 30.12.2019.
2. Decision of the Faculty of Science & Technology Meeting held on 18.02.2020.
3. Decision of Academic Council meeting held on 18.06.2020.

*****

The Board of Studies in Botany (UG) which met on 18.12.2019 has recommended to revise the scheme of practical examinations B.Sc. IV semester (DSCB 1.4) and (DSEB 1.1 and 1.3) the syllabus of B.Sc. Botany program from the academic year 2020-21.

The Faculty of Science and Technology and Academic Council meeting held on 18.02.2020 and 18.06.2020 respectively have approved the above said proposal and the same is hereby notified.

The revised scheme of practical examination of B.Sc. Botany program is annexed. The contents may be downloaded **from the University Website i.e., www.uni-mysore.ac.in**.

Draft approved by the Registrar

Deputy Registrar(Academic),
Deputy Registrar (Academic)
University of Mysore
Mysore-570 005

To:

1. The Registrar (Evaluation), University of Mysore, Mysore.
2. The Dean, Faculty of Science & Technology, DOS in Psychology, MGM.
3. The Chairperson, BOS in Botany(UG), DOS in Botany, Manasagangotri, Mysore.
4. The Chairman, DOS in Botany, Manasagangotri, Mysore.
5. The Director, College Development Council, Moulya Bhavan, Manasagangotri, Mysore.
6. The Deputy/Assistant Registrar/Superintendent, AB and EB, UOM, Mysore.
7. The P.A. to the Vice-Chancellor/Registrar/Registrar (Evaluation), UOM, Mysore.
8. Office file.

ANNEXURE-1

BOTANY - FOURTH SEMESTER -DSCB- 1.4

SCHEME OF PRACTICAL EXAMINATION - PRACTICAL IV (CBCS) - (MODEL QUESTION PAPER)

CELL AND MOLECULAR BIOLOGY, GENETICS, REPRODUCTIVE BIOLOGY AND PLANT BREEDING

Time: 3 Hours **Max. Marks: 80**

I. **A)** Make a temporary squash preparation Mitosis/Meiosis of the given material, Identify, sketch and label with reasons. Leave the preparation for evaluation. (Preparation-5, Labelled sketch-5) **10 marks**

B) Identify the given stages Mitosis/ Meiosis **5 marks**
(Identification 1 mark, labeled sketch with reasons 4 mark)

II. **C)** Solve the Genetic problem on Monohybrid/Dihybrid cross **5 Marks**

D) Solve the Genetic problem on Interaction of genes **5 Marks**

E) Identify the given Chart (Cytology/Molecular biology/Evolution) **5 Marks**
(Identification 1, reasons 4)

III. **F)** Mount the given material (Pollen/Endosperm/Embryo) **5 Marks**
(Mounting-3, diagrams with reasons-2)

G) Synthetic seed preparation /Micrometry **5 Marks**
(Performance-2, reasons-3)

H) Identify the given slide (TS of Anther/Ovary) **5 Marks**
(Labelled sketch-2, reasons 3)

IV. **I)** Perform Emasculation and Bagging experiments. **5 Marks**
(Performance -3, Reasons 2)

J) Perform the Plant propagation experiment **5 Marks**
Air layering (Gootee)/ trench layering**.**

K) Grafting (approach/Bud/wedge) **5 Marks**
(Conducting/skill – 3each, Reasons-2each)

V) **Viva Voce Examination** (3minutes duration, 2-3 question)..... **10 Marks**

VI) **Class Record**.....**10 Marks**

****

GENETIC PROBLEMS:
Monohybrid Cross

1) In Tomatoes Red fruit color (R) is dominant over yellow (r). A pure red fruited plant is crossed to a yellow fruited one. What will be the appearance of F_1? The F_1 are interbred and produce 320 off springs in the F_2. How many of them will be red and how many yellow? What will be the genotypes of F_2 and in what numbers?
2) In pea plant, Tallness (T) is dominant over dwarfness (t). A tall pea crossed with dwarf produces offerings of which 50% are tall and 50% are dwarf. What are the genotypes of the parents ?

Dihybrid Cross

1) In garden pea, yellow seed color (Y) is dominant over green (y) and round seed shape (R) is dominant over wrinkled (r). The character pair segregate separately. A pure yellow wrinkled variety is crossed to a pure green round. Give the phenotypes and genotypes of F_1 and phenotypic ratio of F_2 generation.
2) In garden pea, tall (T) is dominant over dwarf (t) and red flower color (R) is dominant over white (r). A tall red plant is crossed to a dwarf white plant. Give the genotypes of P_1 and F_1 generations. Give the phenotypic ratio of F_2.

PROBLEMS ON INTERACTION OF FACTORS

1. In maize, the aleurone color (seed color) is expressed due to the effect between two different gene pairs. A maize variety with purple colored corn (AACC) is crossed to colorless corn (aacc). Give the phenotype and genotype of F_1 and F_2 generations. What will be the phenotypic ratio in F_2 generation?

2. Two white flowered strains of the sweet pea (*Lathyrus odoratus*) were crossed, producing an F1 with only purple flowers. Random crossing among the F1 produced 96 progeny plants, 53 exhibiting purple flowers and 43 with white flowers.

a) What phenotypic ratio is approximated by the F2?
b) What type of interaction is involved?
c) What was the probable genotype of the parental strains?

****

BOTANY - FIFTH SEMESTER - DSEB- 1.1

SCHEME OF PRACTICAL EXAMINATION - PRACTICAL - V (CBCS) - (MODEL QUESTION PAPER)

TAXONOMY OF FLOWERING PLANTS

Time 3 Hours **Max. Marks 80**

I. Assign the plants **A, B**, **C & D** to their respective Families, giving reasons-
(Polypetalae, Gamopetalae, monochlamydeae & Monocot)
(Family name & classification-2, Characters with important diagrams-6)

8X4=32 Marks

II. Describe the plant **E** in technical terms.....**8 marks**

III. Draw the floral diagram with floral formula of **F**.....**8 marks**
(floral diagram -6, floral formula-2)

IV. Submission of Five herbarium sheets.....**5Marks**

V) Tour Report.....**10 Marks**

VI) Class Record.....**10 Marks**

****

BOTANY - FIFTH SEMESTER - DSEB- 1.3

SCHEME OF PRACTICAL EXAMINATION - PRACTICAL - V
(CBCS) - (MODEL QUESTION PAPER)

PLANT PROPAGATION TECHNIQUES

Time 3 Hours **Max. Marks 80**

I. Demonstrate the Experiment **A** .....**10 Marks**

(Grafting-Whip, Tongue, Wedge, T-budding, Air layering-any one)

II. Comment on **B** and **C** .....**5X2=10 Marks**

(Agricultural Implements)

III. Comment on **D,E, F** and **G**.....**5X4=20 Marks**

(Bone meal/Wood ash/Pear mass/Vermi compost)

IV. Media preparation/Inoculation **H**.....**10 Marks**

V. Comment on **I** and **J** .....**5X2=10 Marks**

(Multiple shoots, Somatic embryo and Callus)

VI. Industrial Visit Report/Viva........**10 Marks**

VII. Class Record.....**10 Marks**

****