


UNIVERSITY OF MUMBAI

No. UG/३१ of 2015-16

CIRCULAR:-

A reference is invited to the Syllabi relating to the B.Sc. degree program, **vide** this office Circular No. UG/140 of 2010, dated 29th June, 2010 and the Principals of affiliated Colleges in Science are hereby informed that the recommendation made by the Faculty of Science at its meeting held on 22nd June, 2015 has been accepted by the Academic Council at its meeting held on 26th June, 2015 **vide** item No. 4.6 and that in accordance therewith, the revised paper pattern as per Credit Based Semester and Grading System for the Third Year B.Sc. Botany (Sem.V & VI), which is available on the University's web site (www.mu.ac.in) and that the same has been brought into force with effect from the academic year 2016-17.

MUMBAI – 400 032
30th September, 2015


REGISTRAR

To,

The Principals of affiliated Colleges in Science.

A.C/4.6/26/06/2015

No. UG/३१-A of 2015-16

MUMBAI-400 032

30th September, 2015

Copy forwarded with compliments for information to :-

- 1) The Dean, Faculty of Science.
- 2) The Director, Board of Colleges and University Development,
- 3) The Professor-cum-Director, Institute of Distance and Open Learning (IDOL),
- 4) The Controller of Examinations,
- 5) The Co-Ordinator, University Computerization Centre.


REGISTRAR

..PTO

AC 26/06/2015

Item No.4.6

UNIVERSITY OF MUMBAI
T Y B Sc BOTANY SEMESTER V
PLANT DIVERSITY III
PRACTICAL I

Duration: 3 hours

Max.Marks: 50

- Q.1 Perform the given microbiology experiment A **12**
- Q.2 Identify, classify and describe specimens B, C and D. Sketch neat labelled diagrams of morphological/microscopic structures seen in the specimens. **24**
- Q.3 Identify and describe slides/specimens E and F **08**
- Q.4 Journal **06**

UNIVERSITY OF MUMBAI
T Y B Sc BOTANY SEMESTER V
PLANT DIVERSITY IV
PRACTICAL II

Duration: 3 hours

Max.Marks: 50

- Q1. A. Classify specimens A upto its family giving reasons. Give floral formula. Sketch and label L.S. of flower and T.S. of ovary **10**
- Q1. B. Identify the genus and species of specimen B using flora **05**
- Q2. Make a temporary double stained preparation of T.S. of specimen C and comment on the type of secondary growth **10**
- Q3. Perform the Palynology experiment allotted to you **07**
- Q4. Identify and describe slide /specimen E and F **08**
- Q5. Field Report **05**
- Q6. Viva voce **05**

UNIVERSITY OF MUMBAI
T Y B Sc BOTANY SEMESTER V
FORM AND FUNCTION III
PRACTICAL III

Duration: 3 hours

Max.Marks: 50

- Q.1 Make a smear preparation of material A and show the slide to the examiner. Comment on your observations / Expose the giant chromosomes from the salivary glands of *Chironomus* larva. **12**
- Q.2 Perform the experiment B allotted to you (Physiology) **10**
- Q.3 Perform the experiment C allotted to you (Ecology) **10**
- Q.4 From the given data/material D determine test of significance using student's *t*-test/ Regression Analysis/ ANOVA **12**
- Q.5 Journal **06**

UNIVERSITY OF MUMBAI
T Y B Sc BOTANY SEMESTER V
CURRENT TRENDS IN PLANT SCIENCE II
PRACTICAL IV

Duration: 3 hours

Max.Marks: 50

- Q.1 Describe macroscopic/microscopic characters with the help of neat and labelled sketches of specimens A and B. Perform the chemical tests to identify the active constituents.

16

- Q.2 Perform the experiment C allotted to you (Seed sterilization/Callus induction/Encapsulation of axillary buds)

10

- Q.3 Perform experiment D allotted to you **10**
- Q.4 Identify and explain the specimens/photographs E and F **08**
- Q.5 Viva voce **06**

UNIVERSITY OF MUMBAI
T Y B Sc BOTANY SEMESTER VI
PLANT DIVERSITY III
PRACTICAL I

Duration: 3 hours

Max. Marks: 50

- Q.1 Identify, classify and describe specimens A and B. Sketch neat labelled diagrams of morphological/microscopic structures seen in the specimens. **16**
- Q.2 Perform growth curve of *E. coli* / Isolate plasmid DNA and separate using AGE **10**
- Q.3 Perform DNA barcoding of plant material using given data **09**
- Q.4 Identify and describe slides/specimens C, D and E **09**
- Q.5 Journal **06**

UNIVERSITY OF MUMBAI
T Y B Sc BOTANY SEMESTER VI
PLANT DIVERSITY IV
PRACTICAL II

Duration: 3 hours

Max. Marks: 50

- Q.1 Identify, classify and describe specimen A. Sketch neat labelled diagrams of morphological/microscopic structures seen in the specimens. **08**
- Q.2 A. Classify specimen B upto its family giving reasons. Give floral formula. Sketch and label LS of flower and TS of ovary **10**
- Q.2 B. Identify the genus and species of specimen C using flora **05**
- Q.3 Make a stained preparation of specimen D and comment on its ecological anatomy **10**
- Q.4 Identify and describe slides /specimens E, F, G and H **12**
- Q.5 Viva voce **05**

UNIVERSITY OF MUMBAI
T Y B Sc BOTANY SEMESTER VI
FORM AND FUNCTION III
PRACTICAL III

Duration: 3 hours

Max. Marks: 50

- | | |
|---|-----------|
| Q.1 Perform the experiment A allotted to you (Physiology) | 10 |
| Q.2 Make a squash preparation so as to show the stages of mitosis from the pretreated root tips | 10 |
| Q.3 Construct a chromosome map from the given data/Identify the type of mutation and comment | 10 |
| Q.4 Perform the given analysis using computer (Bioinformatics) | 08 |
| Q.5 Prepare the herbal cosmetic | 06 |
| Q.6 Journal | 06 |

UNIVERSITY OF MUMBAI
T Y B Sc BOTANY SEMESTER VI
CURRENT TRENDS IN PLANT SCIENCE II
PRACTICAL IV

Duration: 3 hours

Max. Marks: 50

- | | |
|--|-----------|
| Q.1 Arrange the material A aesthetically | 10 |
| Q.2 Estimate Sulphate/ Phosphate/ Copper/ Lead from the given water sample B | 08 |
| Q.3 Perform the experiment C allotted to you (Economic Botany) | 08 |
| Q.4 Prepare the squash from the given material D | 10 |
| Q.5 Identify specimens E, F, G and H | 08 |
| Q.6 Viva voce | 06 |