UNIVERSITY OF MUMBAI

No.UG/ 543 of 2004

CIRCULAR :

A reference is invited to the scheme of papers at the Bachelor of Science (B.Sc.) degree course under revised pattern vide Pamphlet No. 151 and to this office Circular No. UG/294 of 1998 dated 9th August, 1998 and the Principal of the affiliated colleges in the Faculty of Science are hereby informed that the recommendation made by the Board of Studies in Botany at its meeting held on 25th March, 2004, has been accepted by the Academic Council at its meeting held on 2nd April, 2004 vide item No.4.62 and that in accordance therewith the format of skeleton Paper for Practical Examination in the subject of Botany at the T.Y.B.Sc. examination is as per Appendix and that the same has been brought into force with effect from the first half of the year 2004.

Mumbai 400 032,
22nd December, 2004

for I/c REGISTRAR.

To,

The Principals of the affiliated colleges in the Faculty of Science.

A.C.4.62/02.04.2004

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No.UG/543-A of 2004 22nd December, 2004,

Copy forwarded with Compliments for information to :-

1)The Dean, Faculty of Science,
2) The Chairman, Board of Studies in Botany.

for I/c. REGISTRAR.

P.T.O.

Item No.4.62/02.04.2004

University of Mumbai

T.Y.B.Sc. PRACTICAL EXAMINATION
(Revised Course)

BOTANY-PRACTICAL-I
(Skeleton Paper)
(Microbiology, Algae, Fungi, Bryophyta Pteridophyta)

(Total Marks : 50)

1. Perform the given microbiology experiment A. 6
2. Identify, classify and describe briefly specimens B, C, D,E,F and G Sketch a neat labeled diagram of morphological/ microscopical structures seen in the specimens. 24
3. Identify and describe slides/specimens H,I,J,K and L. 15
4. Journal. 05

Key to Examiners: A Microbiology experiment as per slips
B,C,D,E,F and G Algae, fungi, Bryophyta, Pteridophyta
H,I,J,K and L Algae (includes range of thallus), fungi, plantdiseases, Bryophyta, Pteridophyta and soral arrangements in Pteridophytes.

T.Y.B.Sc. PRACTICAL EXAMINATION
(Revised Course)

BOTANY-PRACTICAL-II
(Gymnosperms, Palcobotany, Angiosperms, Embryology, Palynology, Anatomy)

(Total Marks 50)

1. a) Identify classify and describe briefly specimen A. Sketch a neat labeled diagram of morphological/microscopical structures seen in the specimen 4

b) Describe the morphological features of specimen B. 5
c) Classify specimens C and D upto their respective families giving reasons. Give floral formulae. Sketch labelled diagrams of L.S. of flower and T.S. of ovary. 8
d) Identify the genus and species of specimen E using flora. 5
2. Perform the experiment F allotted to you 6
3. Make a double stained preparation of T. S. of specimen G. Comment on its secondary growth. Sketch and label the parts 8
4. Identify and describe slides/specimens H, I and J 9
5. Viva-voce 5

Key to Examiners : A: Gymnosperm
B : Entire morphology
C and D : Families
E: Genus and Species
F: Embryology/Palynology as per slips
G: Anomalous secondary growth
H.I and J:Gymnosperms, Embryology, Palynology, Anatomy

T.Y.B.Sc. PRACTICAL EXAMINATION
(Revised Course)

BOTANY-PRACTICAL-III
(Physiology, Cytogenetics, Biometry, Environmental Botany)

(Total Marks 50)

1. From the given photomicrgraph Prepare an idiogram and comment on its nature/write DNA sequence/determine the sequence of amino acid in the protein molecule. 7
2. Determine the mean, median and mode/frequency distribution/ standard deviation/coefficient of correlation/chi square test, using plant material B/given data. 10
3. Perform the Physiology/Ecology experiment C allotted to you. Write down your observations and calculations. (Major Physiology/Major Ecology experiment) 15

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4. Perform the Physiology/Ecology experiment D allotted to you. Write down your observations and calculations. (Minor physiology/Minor Ecology experiment) 8
5. a)Journal 5
   b)Field Report 5

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T.Y.B.Sc. PRACTICAL EXAMINATION
(Revised Course)

BOTANY-PRACTICAL-IV
(Current trends in Plant Sciences)

(Total Marks 50)

1. Perform the given experiment A 10
2. Prepare a squash from the given material B 10
3. With the help of neat labeled sketches describe the macroscopic/microscopic structures in specimen C and D. Identify the principle ingredients by means of chemical tests. 16
4. Identify and describe the slides/specimens/photographys E,F and G 9
5. Viva Voce 5

A: Experiments : Study of nitrate reductase from treated and control plants
Extraction of pigments from turmeric, beet and Lawsonia.
Extraction of phenolics from Capsicum
Extraction of alkaloids from Nicotiana
Extraction of sulphur compounds from garlic.

C and D : Medicinal Botany as per theory syllabus
E, F and G : Sources of paper, types of fibres, plants yielding natural dyes and pigments (as per theory). Pharmaceutical aids, health foods as per theory

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