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UNIVERSITY OF MUMBAI

No.UG/ 93 of 2006

CIRCULAR:

A reference is invited to the scheme of papers at the B. Sc. degree course under revised pattern vide pamphlet No. 141 and to this office circular No.343 of 2004 dated 16th August, 2004 and the Principals of the affiliated colleges in the faculty of science are hereby informed that the recommendation made by the Board of studies in Zoology at its meeting held on 10th January, 2006 has been accepted by the Academic council at its meeting held on 10th February, 2006 vide item No. 4.3 and that in accordance therewith the paper pattern in the subject of Zoology (Fishery Biology, Marine Science and Economic Entomology)(Theory and practical) (Applied Components) at the T.Y. B.Sc. examination is as per Appendix* and that the same will be brought into force with effect from the examination to be held in the first half of 2006.

Mumbai 400 032
31st March, 2006

(Signature)
for REGISTRAR.

To,

The Principals of the affiliated colleges in the faculty of Science
A.C.4.3/10.02.06

No.UG/ 93A of 2006

31st March, 2006

Copy forwarded with compliments to the :-

- 1) The Dean, Faculty of Science
- 2) Chairman, Board of Studies in Zoology

(Signature)
for REGISTRAR.

Copy to :

The Director, Board of College and University Development, Deputy Registrar (Eligibility and Migration), the Director of students Welfare, the Personal Assistants to the Vice-Chancellor, the Pro-Vice-Chancellor, the Registrar and the Assistant Registrar Administrative sub-centre, Ratnagiri, for information.

The O.S.D. cum- Controller of Examinations (10 copies), the F. & A.O. (Accounts Section), Fort (2 copies), Record Section (5 copies), Publication Section (5 copies), D.R., Enrolment (2 copies), D.R. (Statistical Unit), D.R., Accounts Section, Vidyanagari, (2 copies), D.R. (Aff. Section) (2 copies), A.R., A.A. Unit (2 copies), He is requested to treat this as action taken report on the concerned resolution adopted by the Academic Council/Management Council referred to in the above Circular and that no separate A.T.R. will be sent in this connection. A.R., CONCOL (1 copy), BUCTU (2 copies), In-charge, C.C.F. (1 copy), D.R., I.D.E. (10 copies), D.R., P.R.O., (1 copy), Supdt., Thesis Section (2 copies), Supdt., P.G. Section (2 copies), Secretary, MUASA (1 copy), Dy. Acctt. (Unit V) (1 copy), Receptionist (1 copy), Telephone Operator (1 copy).



10/02/06

UNIVERSITY OF MUMBAI



QUESTION PAPER PATTERN FOR T.Y.B.SC. IN ZOOLOGY (APPLIED COMPONENT)

(with effect from the examination to be
held from first half of 2006)

DURATION: 4 Hrs.

MAXIMUM MARKS: 40

PRACTICAL-I

- Q. 1. Extract and estimate the amount of fat (Lipid) from the given tissue sample. (8)
- OR
- Q. 1. Estimate the amount of Dissolved Oxygen /Silicates from the given water sample. (8)
- Q. 2. Dissect open the fish and comment on its mode of feeding with the help of gut content and gill structure. (7)
- OR
- Q. 2. Estimate the amount of Phosphates/ Nitrites from the given water sample. (7)
- Q. 3. Identify and describe with reference to fisheries 8 Specimens (a, b, c, d, e, f, g, h) (16)
a, b, c, d –marine fishes, e-freshwater fish, f- Crustacean
g- Mollusc, h- Identify and describe ecological adaptations of intertidal organism.
- Q. 4. Field/Excursion report. (4)

- Q. 5. Journal. (5)

PRACTICAL-II

- Q. 1 Estimate fecundity of the given fish and submit a report. (9)
- Q. 2. Demonstrate the technique for preparation of Knots/Hitches/Bends (Any 2) (5)
(a) _____ (b) _____
- Q. 3 Identify any describe with reference to fisheries: 8 Specimens (a, b, c, d, e, f, g, h) (16)
a and b – 2 Crafts, c and d - 2 Gears (Nets)
e - Identify and describe with reference to fish pathology
f - Identify, describe and comment on economic importance of molluscan shell.
g - Identify and comment on the mode of respiration.
h - Identify and describe the economic importance of given alga.
- Q. 4. Viva voce based on Aquarium Project (5)
- Q. 5. Journal. (5)

Theory-Each paper shall have 8 questions. Students are to attempt any 4 questions.

PATTERN FOR **MARINE SCIENCE** PRACTICAL EXAMINATION

DURATION: 4 Hrs.

MAXIMUM MARKS: 40

PRACTICAL-I

- Q.1. Estimate the amount of Sulphates/Silicates/Nitrates/Carbon dioxide/Salinity from the given water sample. (10)
- Q.2.(A). Make a temporary preparation of any 5 planktonic organisms from the given sample. Identify & make a report. (5)
- (B). Estimate plankton density of the given sample, by displacement or settlement method. (5)
- Q.3. Identification- (a to h) (16)
2-instruments, 6-adaptations of marine organisms.
- Q.4. Field Report (2)
- Q.5. Journal (2)

PRACTICAL-II

- Q.1. Estimate Primary productivity/BOD/COD of the given sample. (14)
- Q.2. Analyze the given data for length-weight relationships of the given fish Sample. (10)
- OR
- Q.2. Measure ova diameter & plot a frequency polygon for a given fish ovary. (10)
- OR
- Q.2. Isolate the pituitary from a given fish & make a temporary preparation of fish scales/otoliths. (10)
- Q.3. Identification- (a to f) (12)
2-fin fish, 1-mollusc, 1-crustacean, 1-molluscan shell, 1-alga.
- Q.4. Field Report (2)
- Q.5. Journal (2)

Theory-Each paper shall have 8 questions. Students are to attempt any 4 questions.

T. Y. B. Sc. ZOOLOGY-APPLIED COMPONENT 2005-06
PATTERN FOR **ECONOMIC ENTOMOLOGY** PRACTICAL
EXAMINATION

DURATION: 4 Hrs

MAXIMUM MARKS: 40

PRACTICAL-I

Q.1. Dissect housefly so as to expose its _____ (8)

Q.2. Make a temporary preparation of:

- (a) _____ of _____ (4)
(b) _____ of _____ (4)

(Halteres of housefly, Legs of housefly/honey bee/cockroach/beetle,
head sclerites of cockroach/housefly, cornea of cockroach/housefly,
mouthparts of bed bug/moth/butterfly, antennae of cockroach/
beetle/ant/housefly)

Q.3. Identification: (16)

- a to d - Identify, classify giving reasons & describe.
e to f - Identify & give economic importance.
g - Identify & give its economic importance.
h - Identify & comment on its adaptations.

Q.4. Viva voce (4)

Q.5. Journal (4)

PRACTICAL-II

Q1. (a) Calculate the Lc50 of the given insecticide on an appropriate insect & make a report. (8)

Q.1. (b) Demonstrate the effect of the given insecticide on an insect & make a report. (5)

Q.2. Identification: (10)

- a - Identify & describe the type of metamorphosis.
(Silk worm/honey bee/Culex/Musca)
b - Identify giving its economic importance.
c & d - Identify & comment on its status as a pest.
e - Identify & comment on its role in disease transmission.

Q.3. Submission of insect specimens. (5)

Q.4. Viva voce (4)

Q.5. Journal & Field work. (4+4)

Theory-Each paper shall have 8 questions. Students are to attempt any 4 questions.