

Meeting of Board of Studies
of Zoology

① ⑧

22/02/2013

Syllabus for Coursework/Research Methodology
for M.Phil/Ph.D. in Zoology. ~~as per~~

Pr:

Paper I - Theory
MATERIALS AND METHODS IN ZOOLOGY

Identification and Handling of Biological research material.
Collection of Biological research materials from nature.
Preparation of material as per requirement

Tools and Techniques: @ Microscopy, photometry/
colorimetry, spectrophotometry, pH meter, water
analysis,

(b) Homogenization and centrifugation, chromatography,
Electrophoresis, ELISA

Histological and Histochemical Techniques:

- i. Tissue fixation and staining
- ii. Histochemical techniques to detect carbohydrate, proteins and lipids.
- iii. Enzymes as histochemical reagents

Chromosomal Analysis:

- i. Karyotyping
- ii. Banding Technique

Bioassay - Principles and applications, LC₅₀/LD₅₀,
histopathology, enzyme assay, genotoxicity

Consulting journals, periodicals, abstracts,
reviews and proceedings; Reference cards, lab manuals

Jude 22/2/13

Pran 22/2/13

Sahy 22/2/13

Books Recommended:

Bancroft and Stevens (2002) Theory and practice of histological techniques. Churchill-Livingstone

Lodish et al (2008) Molecular cell Biology. Freeman

Pears (1993) Histochemistry: Theoretical & applied (Vol I, II & III). Churchill-Livingstone

Wilson & Walker (2006). Principles of biochemical and molecular biological techniques. Cambridge Univ. Press.

Westhead et al (2003) Bioinformatics ~~and~~ instant notes. Viva Books (Indian ed.)

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