

# Syllabus of Pre-Ph.D. course work Subject: ZOOLOGY Paper I : Research Methodology

- Unit I Review of literature: Review Process and Bibliography, Locating Literature Publications (scientific database: science direct and pubmed), Publication Ethics, Research Plan and its Components, Difficulties in Biological Research, Identification and formation of Research Problem.
- Unit II Materials and Methods, Details required about the Materials, General Guidelines and Brief idea about Safety, Hazards and Precautions in Laboratory, Animal Handling and Ethics, Methods of Testing Hypothesis, Methods of Research (sampling, commonly used techniques like chromatography, spectroscopy, centrifugation etc.)
- Unit III Writing results of Research Proposal, Report and Research Paper: Voice, Tense and Style, Sequence, Structure, Content and Data Analysis, Preparation of Tables, Introduction and Placement of Table, Table Format, Preparation of Figures, Types and Selection of Figures, Placement of Figures, Numbering and Caption of Tables and Figures, Preparation of Statistical Diagrams, Preparation of Photographs and Micrographs.
- Unit IV Writing Abstract, Summary, Synopsis and Discussion: Abstract and Keywords, Summary, Synopsis of Research Plan, Paper and Thesis, Style and Sequence of Discussion, Structure and Content of Discussion, Format of Discussion.
- Unit V Preparing for Oral Presentation: Preparation of Script, Presentation using AudioVisual Aid, Ethical, Legal and Social Issues in Research, A Brief idea about FundingAgencies (DST, DBT, CSIR, UGC), Role of IPR in Research and development.

Books Recommended:

- 1. Research Methodology- G. R. Basotia and K. K. Sharma
- 2. Research Methodology- C. H. Chaudhary, RBSA Publication

## Paper-Second : Basic Computer Application

#### Unit-One

Computer Fundamentals, What is Desktop PC System? Working of a Monitor, Keyboard, Mouse, Hard Disk, Compact Disk and Printer

#### Unit-Two

Working with the Control Panel Customize your Desk top Working with files and folders

## Unit-Three

Features of MS-Word Working with MS-Word, Formatting documents and texts

## Unit-Four

Introduction to Excel and Power Point Presentation

### Unit-Five

Working on Internet and e-mail