

Forestry Syllabus for Ph. D. Course

Paper I Research Methodology

- I. A brief history of scientific process.
- II. Formulation of research problem, objectives and hypothesis, acquiring data/ information/ coding, editing and validating data/ observation, techniques of presentation, paper writing and report generation.
- III. Computer application, experimental design, sampling and data structures, use of software.
- IV. Instrumentation and safety measures, laboratory, field and computer hazards, handling of instruments and presentations.

Paper II Recent advances in Forestry

- I. Recent advances in forestry- an introduction.
- II. Various disciplines of forestry.
- III. Forest and impact of climate change.
- IV. Research methods and sampling techniques for various disciplines of forestry viz. Agro-forestry, plantation forestry, watershed management, seed science & technology, regeneration and natural resource management (NRM).
- V. Forestry and its relation to industries. Use of GIS and Remote Sensing and computer application in forestry.
- VI. Basic statistics used in forestry, measures of central tendency, dispersion, co relation, regression and analysis of variation and various software used in data analysis.
- VII. Important instruments used in forestry research.

Paper III Seed Science and Technology

- I. Tree morphology in brief.
- II. Gymnosperm and Angiosperm seed.
- III. Physical characters of seed.
- IV. Germination and treatment in seed.
- V. Seed dormancy.
- VI. Seed legislation

OR

Paper III Forest Ecology, Biodiversity and Climate Change

- I. Ecology, Biodiversity & climate change.
- II. New dimension in ecological research.
- III. Natural resources and their management.
- IV. Biodiversity uses and conservation.
- V. Ecology and climatic change.
- VI. Impact of climate change on biodiversity.
- VII. Climate change process and mitigation approaches.