



Syllabus for One Semester Course Work 2010-11 Academic Session

PAPER I- RESEARCH METHODOLOGY (Common for all disciplines)

1. Research

- Objective, Types of research, process and steps in it. Research proposal and concept.
- Research Design- meaning, need, concept and different research designs. Literature survey and review, research design process and error in research.
- Research Modeling- Types of Models, Model building and stages, Data consideration and testing (Sampling, Collection and Analysis), Heuristic and Simulation.

2. Design of Experiments

- Objectives, strategies, Factorial experimental design, Designing engineering experiments, basic principles- replication, randomization, blocking, guidelines for design of experiment.
- Analysis of variance- ANOVA- Basic principle, One way and Two way technique.
- Analysis of Co-variance- ANOCOVA technique.

3. Report writing and Interpretation

- Pre- writing considerations. Meaning and technique of interpretation.
- Different steps in report writing, Formats of report writing, Thesis writing, Formats of publication in Research journals.

References:

1. Montgomery, Douglas C.(2007)5/e, Design and Analysis of Experiments.(Willey, India)
2. Kothari, C. R. (2004). 2/e, Research Methodology- Methods and Technique.(New Age International, New Delhi)
3. Montgomery, Douglas C. and Runger, George C. (2007), 3/e. applied statistics and probability for Engineers. (Willey, India)

PAPER II- COMPUTER APPLICATION (Common for all disciplines)

1. Spreadsheet Tool

- Introduction to spreadsheet application, features and function
- Using formulas and functions, Data storing
- Features for statistical data analysis, Generating charts/ graph and other features.
- Tools used may be Microsoft Excel, Open office or similar tool.

2. Presentation Tool

- Introduction to presentation tool, features and function.
- Creating presentation, Customizing presentation, showing presentation.
- Tools used may be Microsoft power Point, Open office or similar tool.

3. Writing Tool

- M.S.Word
- PDF format
- LaTeX

4. Web Search

- Introduction to Internet, Use of internet and WWW, Using search engine like Google, Yahoo etc.
- Using advanced search techniques.

References:

1. The complete reference Office Xp- Stephan L. Nelson, Gajulia Kelly (TMH)
2. A document preparation system, User's guide and reference manual- Leslie Lamprot. (Addison-Wesley Pub.Co.)

PAPER III- SUBJECT BASED PAPER

The syllabus for this paper is the complete syllabus of NET-2010 in the respective subject. The content of this can be downloaded from the site of UGC-NET--
www.ugc.ac.in/inside/syllabus.html

SCHEME of EXAMINATION: Each theory paper will be of Three Hour duration, carrying 100 Marks. A candidate will have to secure at least 40% marks in each paper and 50% in aggregate to qualify for the Ph. D Registration.
