

JAI NARAIN VYAS UNIVERSITY, JODHPUR
FACULTY OF SCIENCE
SYLLABI FOR PAPER I: RESEARCH METHODOLOGY

Max. Marks: 100

Min. Pass Marks: 50

Duration of Course work: 42 periods/hour

Duration of Examination: Three Hours

Unit -I : Concepts of Research - 9 Lectures

1. Meaning, Scope and Objectives of Research
2. Basic, applied and action research
3. Definition and Selection of Research problem/topic
4. Justification of selected problem/topic
5. Literature Survey and reference collections.

Unit -II: Research Design - 8 Lectures

1. Meaning, need, features and functions of research design
2. Approaches to be used in solving problems.
3. Basic principles of experimental design and setting up of experiments/survey.
4. Time-frame, variables, control and standard.

Unit- III: Hypothesis - 8 lectures

1. Meaning, functions, types and formulation of Hypothesis
2. Hypothesis testing for small samples
3. Hypothesis testing for large samples
4. Errors in testing of Hypothesis
5. Analysis of variance – one way and two way classification

Unit -IV: Research Ethics and Research Funding - 8 lectures

1. Research ethics
2. Safety measures
3. Preparation of Project Proposal and Scientific writing
4. Funding agencies for research projects.

Unit- V: Computer in Research - 9 lectures

1. Overview of computer system.
2. Working with MS-Word, Excel and Power – Point.
3. Designing tables and graphs.
4. Internet utility – searching for books, reviews and research paper
5. Evaluation of citation and Impact Factor,