# RIMT UNIVERSITY

Course: M. Phil/ Ph. D Program Year (2017)

Syllabus: Research Methodology (Non-Statistical & Statistical)

TIME: 3 Hours

Marks: 100
Internal: 40
External: 60

## Section-A

Research, Meaning, Nature and Scope. Types of Research, Methods of Research, Methodologies of Research, Views of different scholars in Research. Research Topics, Reasoning and its importance and application of research. Research Hypothesis, Types of Hypothesis, Formulation of Hypothesis. Parameters and Variables in Research. Research Designs, Types of Research Designs, Applications of Research Designs, Sample and Sampling procedures and designs, Methods of Sampling- Probability and Non Probability of Sampling Techniques. Determination of Sample Size, Data information, Sources of Data Collection, Primary & Secondary Data, Data Collection Methods both Primary and Secondary. Processing of Data, Editing Coding and Tabulation of Data and Data Analysis.

## Section-B

Literature Review, Purpose of review, what to review in literature, how to review, sources of review Methods of literature review. Identification of Research Problems, Identification of Research Gaps, formulation of research objectives. How to write synopsis, steps involved in writing synopsis, References, Bibliography, Difference between References and Bibliography. Writing of Research proposals, Research Reports or Thesis/research Summary, research Abstracts and Research Papers: Meaning Need and Characteristics, significance steps, layout/ format, Mechanics and precaution for writing Research Reports. Preparing Research papers for Journals, Seminars and Conferences.

## Section C

Research Ethics- Role of Ethics, Ethics a reality or a myth, New Developments / Advancements in Ethics including rules regulations and legislations / Laws environmental issues and Ethics. Ethical communication, organization/ NGO copy rights royalty intellectual property rights, reproduction of published material, plagiarism, Testing Plagiarism with the help of Software,      situation and acknowledgement and reproductivity and accountability. Reproduction of Published Material.

## Section -D

Measures of Central Tendency, Calculation of Arithmetic Mean Median and mode in case of individual discrete and continuous series, merit and demerits, Dispersion, Meaning Significance and types, Calculation of Mean Deviation and Standard Deviation in case of individual, discrete and continuous series. Merit and Demerits of Mean and Standard Deviation Lorenz Curve, Co-efficient of variations (CV) Correlation Definition, Correlation Types, Correlation and Causation, Methods of Correlation- Scattered diagram, graphic method, Karl Pearson co-efficient of correlation. Co-efficient of correlation and probable error. Regression analysis, types of regression analysis, difference between correlation and regression, regression lines, regression equations, (Y or X) and (X or Y).

## Section-E

Tests of significance for large samples and small samples, students t-distribution, properties, and t-distributions and the t-levels applications of the t-distribution chi-square test and goodness of fit, F-test and Z test, analysis of variance, Non-Parametric test The Mann – Whitney test, Krushal Wallias test and other non parametric test with the help SPSS uses and its applications. Analysis of Qualitative Data Techniques such as Scaling methods and other Techniques, Reliability and Validity and Measurements.

Recommended books:

1. Fisher, R.A, statistical methods for research workers, Oliver and Boyd ltd, London UK
2. Gupta, S.P, statistical methods, Sultan Chand and sons, Educational publishers, New Delhi
3. Allen, R.G.D, statistical for Economics (Hutchinson)
4. Blair, Morris M. Elementary statistics (Henry Holt and Co.)
5. C.R, Kothari, research methodology.
6. Smith and Smith, business and economic statistics, South Western publishing co.