

**RMH001 - RESEARCH METHODOLOGY (Humanities)**

**Unit I : Research preparation and planning** **10 Hours**

Objectives of research – Understanding research and its goals, Critical thinking, Techniques for generating research topics. Topic selection and justification. Techniques involved in designing a questionnaire – Methods of scientific enquiry – Formulation of hypotheses and testing of the same – Development of a research proposal

**Unit II Research Resources** **10 Hours**

Sources of information. Literature search. World Wide Web, Online data bases – search tools. Citation in dices – Principles underlying impact factor – Literature review – Case studies, review articles and Meta analysis – Role of the librarian. Ethical and moral issues in Research, Plagiarism, tools to avoid plagiarism

**Unit III Academic Writing and Presentation** **13 Hours**

Proposal submission for funding agencies, Elements of Style. Organization of proposals, Basic knowledge of funding agencies, Research report writing, Communication skills, Tailoring the presentation to the target audience – Oral presentations, Poster preparations, Submission of research articles for Publication in Reputed journal, Thesis writing and Research report writing. Elements of excellent presentation: preparation, visual and delivery, oral communication skills and oral defence.

**Unit IV Data collection, Analysis and Inference** **15 hours**

**Basic statistical distributions and their applications** : Binomial, Poisson, Normal, Exponential. Weibull and Geometric distributions.

**Sample size determination and sampling techniques** : Random sampling, stratified sampling, systematic sampling and cluster sampling

**Large sample tests and small sample tests** : Student t-test, F test and  $\chi^2$  test and their applications in research studies

**Correlation and Regression analysis – Time series analysis** : Forecasting methods

**Factor analysis, Cluster analysis and discriminant analysis** (Basic ideas only)

**Principles of Experimentation, Basic Experimental designs** : Completely Randomized Design, Randomized Block Design and Latin Square Design. Factorial Designs :  $2^2$ ,  $2^3$  and  $2^4$

**Unit V Application of Research methods in Functional areas of management** **12 hours**

**Application of statistics in functional areas of management** :

**Marketing** : Marketing research, Demand forecasting,

**Finance** : Performance evaluation of mutual funds, Investment analysis – Discounted cash flow techniques and Internal Rate of Return, Project decisions, Stock price fluctuations -

**Operations** : Supply chain management, Inventory control

**HR** : Analysis of job satisfaction, Identification of factors affecting productivity,

**Economics :** Trend in food production, analysis of exports and imports, Analysis of price fluctuations

### **References**

1. Anderson B.H., Dursaton and Poole, M : Thesis and assignment writing, Wiley Eastern 1997
2. Bijorn Gustavii : How to write and illustrate scientific papers ? Cambridge University Press
3. Bordens, K. S. and Abbott, B.B : Research design and Methods, Mc Graw Hill, 2008
4. Graves N, Varma, V : Working for doctorate Toutledge 1997
5. Leedy, P. . : Practical Research – Planning and design, Eighth Edition, Pearson, 2005
6. Walpole, R.A., Myers, R.H., Myers, S.L. and Ye, King : Probability and Statistics for Engineers and Scientists, Pearson Prentice Hall, Pearson Education Inc., 2007
7. Kothari, C.K. [2004], 2.e, Research Methodology – Methods and Technique3s [New Age International, New Delhi]
8. James C. Van Horne, Standford University, Financial Management and Policy, Prentice Hall,
9. James R. McGuigan, R. Charles Moyer, Frederick H. deB. Harris, Managerial economics – applications, strategy and Tactics, Cengage learning, India
10. Philip Kotler, Marketing management Pearson Education, India
11. Modern Production / Operations Management, Elwood S. Buffa & Rakesh Sarin, Wiley India
12. Ronald R. Sims, Organizational success through effective human resources Management, Quorum books, London
13. Ganesan R, Research Methodology for Engineers , MJP Publishers, Chennai. 2011