Course Code: P24MLS11A

Course Name- 3.1(A): RESEARCH METHODS AND TECHNIQUES

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks	
L	Т	P	L+T+P	C1	C2	C3	
5	-	-	5	25	75	100	

# **Objectives**

- To help students learn the basic concepts of research, their types, planning and Methods;
- Make the students become proficient in research methodology, sampling techniques and data collection tools.
- To help the students learn the statistical tools and techniques of analyzing, interpreting and reporting research.
- To Study the referencing and citation manuals and styles
- To enable the students to carry research projects and field survey

# A. Course Outcome (CO)

After completion of the course, students will become familiar with the basic concepts in Library & Information Science.

COs	Course Outcome	Level	Level
CO 1	Understand the various concepts related to research and its types, objectives of doing research, research process	Understand	K2
CO 2	Illustrate the identification of research problems & design.	Apply	К3
CO 3	Know the different methods used to conduct research and examine the research method and techniques	Analyze	K4
CO 4	Exhibit the skills measurement & scaling techniques as well as the qualitative and quantitative data analysis	skill	K6
CO 5	Demonstrate the skills in application of statistics for data analysis and hypothesis testing	Skill	K6

# **B.** Syllabus

#### **Unit-I**

Research: Definition, Objectives, Selection, Concepts, Purpose and Types; Research as Scientific Method, Research Process, Literature Review: Process and types; Search Strategies, Selection and Formulation of Research Problems; Sources of Research Problems, Criterion of Good Research

#### **Unit-II**

Research Design: Definition, Need, Types and Components: Features of Good Research Design, Research Design for Science, Social Science and Humanities; Sampling: Methods and Techniques; Hypothesis: Definition, Types, Formulation and Testing.

# **Unit-III**

Types of Data: Primary and Secondary: Structure and Unstructured: Methods and Tools for Data Collection: Survey, Experimental, Case-Study, Questionnaire, Observation, Interview Schedules and Delphi Technique: Literature Review, Government and Commercial databases, ICT Web enabled Data Collection methods Web Scraping.

#### **Unit-IV**

Analysis of Data: Measures and Scaling Techniques, Multivariate techniques, ANOVA, ANCOVA Presentation of data, Interpretation, Inferences, Tabular, graphical representation; Info graphs- Basics of R, PYTHON, SPSS and SOFA.

# Unit-V

Report Writing: Components and Mechanics of Research Report; Style manuals Tools; Reference Management Systems, Oral Presentations, Plagiarism Detecting Tools.

# **Unit-VI CURRENT CONTOURS (For Continuous Internal Assessment Only):**

Case Studies-Survey-Information Needs: E-resources usage; Research profile compilation-Library website evaluation, Trends in LIS research, AI and SDG.

# **Selected Readings:**

- 1. Busha C H and harter S P. Research Methods in Librarianship. New York: Academic, Publishing House, 1993
- 2. Fowler F J Jr. Survey Research Methods. New Delhi: Sage, 1993
- 3. Glazer J D and Powell R R. Qualitative Research in Information Management.
- 4. Englewood: Libraries Unlimited, 1992
- 5. Goode Wj and Hatt P K. Methods in Social Science Research. Auckland: McGraw-Hill, 1981
- 6. Kin Robert K. Case Study Research: Design and Methods. New Delhi: sage Publications, 1989
- 7. Kraft D H and Royce B R. Operations Research for Libraries and Information Agencies. San Diego, CA: Academic Press, 1991
- 8. Krishnaswamy O R. Methodology for Research in Social Sciences. Delhi: Himalayan
- 9. Lancaster F W.If you want to evaluate Your Library. London: LA, 1993
- 10. Line M B. Library surveys. London: Clive-Bingley, 1967
- 11. McClure Charles R and Hernon Peter Eds. Library and Information Science Research: Perspectives and Strategies for improvement. NJ, Ablex, 1991
- 12. Powell R R. Basic Research Methods for Librarians. Norwood., NJ: Ablex1980
- 13. Simpson I S. How to Interpret Statistical Data. London: LA, 1990
- 14. Slater M. Research Methods in Library and Information Studies. London: LA, 1990.
- 15. Stevens R E (Ed).Research Methods in Librarianship. London: Clive-Bingley, 1971Busha, Charles, H. and Harter, Stephen, S. Research Methods in Librarianship. Techniques and Interpretation. Orlando, Academic press, 1980.
- 16. Charles, H. et.al. Research Methods in Librarianship: Techniques and Interpretations. New Delhi, Sage, 1993.
- 17. Goode.W.J&Hatt.P.K. Method of Social Research. McGraw Hill. Auckland, 1989
- 18. Kothari.C.R.. Research methodology: Ed2 Wishwa. New Delhi, 1990.
- 19. Krishna Kumar: Research methods in library in Social science. Vikas, New Delhi, 1992

- 20. Krishna Swamy, O.R. Methodology of research in social sciences. Himalaya, Bombay, 1993
- 21. Line, Maurice.B. Library surveys; An introduction to the use, planning procedure and presentation of survey. Ed2 Clive Bingley, London, 1982.
- 22. RavichandraRoa, I.K. Quantitative methods in library and information science, Wiley Eastern. New Delhi, 1988.
- 23. Slatter, Margaret, Ed. Research, methods in library and information science. London, L.A, 1990.
- 24. Stevens, Rolland.E. Research methods in librarianship, Clive Bingley, London, 1971.
- 25. Tabuer, M.F and Stephens, I.R. Ed. Library surveys. Columbia University Press, New York, 1968.
- 26. Wilson, E.S. Introduction to scientific research McGraw Hill, New Delhi, 1952.
- 27. Young, P.V. Scientific social surveys and research. Ed4. Prentice Hall of India, New Delhi, 1982
- 28. John W. Creswell. Research Design: Qualitative, and Mixed methods Approaches. Sage Publications, 2013.
- 29. Ranjit Kumar. Research Methodology: a step-by-step guide for beginners. 2014. (Google E-Books)

# C. Mapping of COs with POs & PSOs

Mapping of COs with POs & PSOs										
COs	Programme Outcomes				Programme Specific Outcomes					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	3	3	3	3	3	3
CO2	3	3	3	2	3	3	3	3	3	2
CO3	3	3	3	3	3	3	3	3	3	2
CO4	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	2