Paper – I	Research Methodology
Unit I	Research
1.1	Definition, meaning, need, types
1.2	Kinds of research: diagnostic descriptive, exploratory,
	explanatory
1.3	Research Ethics
1.4	Research methods in LIS
1.5	Content analysis & field study
Unit II	Typology for Literature search
2.1	Typology for Literature search
2.2	Components of scientific methods
2.3	Formulation of research problems
Unit III	Data Collection, Organisation, Analysis and Interpretation
3.1	Data Collection Tools and Techniques : sampling observation,
	Questionnaire, Interview, schedule
3.2	Data organization : Tabulation, Graphical representation
3.3	Measurement and Scaling Techniques
Unit IV	Research Design
4.1	Types of research design, historical design, descriptive design
4.2	Formulation of hypothesis
4.3	Synopsis writing
Unit V	Research in Librarianship
5.1	Writing Research Report : Structure, Style, Contents and
	Citation
5.2	Close and Open Access Research Publications
5.3	Electronic Thesis and Dissertation
5.4	Tends in LIS Research –Global, National

Paper – II	Library and Information Centre : Planning and Management
Unit I	Management
1.1	Concept and Definition
1.2	Various schools of management thought (Classical, scientific etc.)
1.3	Recent managerial philosophies and practices
Unit II	Human Resource Management
2.1	Personnel Management
2.2	Human relation
2.3	Communication & managerial skill
2.4	Crisis & time management
Unit III	Financial Management
3.1	Planning & Methods
3.2	Budget & its various methods
3.3	Cost effective & cost benefit analysis
Unit IV	Performance evaluation & knowledge management
4.1	Evaluation of library services & products
4.2	SWOT, TQM, Re-engineering of library services
4.3	Concept & role of knowledge management
Unit V	Recent Management Techniques
5.1	Outsourcing
5.2	Six Sigma
5.3	Mind mapping
5.4	Brain storming
5.5	Other recent techniques

Paper III	Information and Communication Technology :
	Applications
Unit I	Information Technology
1.1	Concept and historical development
1.2	Role of ICT in developing Library and Information Centres
1.3	Librarianship 2.0
Unit II	Network
2.1	Infrastructure for development of computer network (operating
	system Linux, Windows) hardware/software, network protocols,
2.2	Planning of Computer Networks in Library and Information
	Centers
2.3	Network & Internet Security
Unit III	Digital Library
3.1	Concept and historical development
3.2	Definitions, need, merits and demerits
3.3	Institutional Repositories : Digitization concept and process,
3.4	Intellectual Property Rights Issues
3.5	Metadata Standards in Digital Libraries, OAI-PMH, Digital
	Preservation
3.6	Open Source Software (Dspace/Eprints)
3.7	Content Management (Drupal/Joomla)
3.8	Consortia (J-gate, Infonet, Jstor)
Unit IV	Information Literacy
4.1	Concept and need
4.2	Method of imparting Information Literacy Programmes
4.3	Content of Information Literacy Programmes
4.4	ACRL Standards for Information Literacy
Unit V	Recent Technologies
5.1	Web 2.0, Subject Gateways, Portals, RFID, Storage Media, Open
	URL
5.2	Multimedia Technologies
5.3	Statistical Analysis Software Tools (SPSS),
5.4	Citation Management Tools (Zotero/Mendeley), Altmetrics
5.5	HTML/XML in libraries