LIBRARY AND INFORMATION SCIENCE

Unit 1: Library, Information and Society
Library as an institution and its evolution. Library as a social and cultural institution. History of libraries. Library movement in India.

Different types of libraries - functions, objectives, activities and programs.

Communication theories and models. Barriers for communication. Levels of communications – intrapersonal, interpersonal and mass communication.

Five laws of Library Science and its implications on LIS activities.

Library legislation – need, importance and features. Library legislation in India. Study of public library acts in India.

Library and Information Science education in India

Intellectual Property Rights – Concept, copy right, Censorship – Print and Non-print media.

Right to Information Act, 2005

Role of Raja Ram Mohan Ray Library Foundation (RRLF).

Role of professional associations and organizations in library development. Study of ALA, LA, IFLA, FID, UNESCO, ILA, IASLIC, IATLIS.

Unit 2: Management of Libraries and Information Centres
Management : Meaning and definitions. Role, functions and principles of management, Schools of thought in management, Levels of management.

Functional units of libraries

- Acquisitions section – Functions and procedures. Collection development - Selection policies and principles for print and electronic resources. Problems of Collection development for print and electronic resources (including licensing).

- Technical section.

- Circulation section

- Periodical section


- Reference and customer care service.


Annual records. Importance of statistical data.

Library rules and regulations.

**Unit 3: Information resources**

Types of sources: Primary, Secondary & Tertiary- Documentary and non-documentary sources.

Primary sources: Structures and components of Journals; Patents; Technical Reports; Standards and Specifications; Conference Proceedings; Trade literature; Thesis and Dissertations.


Tertiary sources: Directories, Union catalogues etc.

Non-documentary sources: Human and institutional sources of information.

Electronic resources: e-books, e-journals, e-theses, e-databases, Internet resources etc.

**Unit 4: Library Classification**

Library Classification: Definitions, Need, Purpose and Functions.

Universe of knowledge.Modes of formation of subjects.

Types of classification schemes.


Understanding the concept of notation. Types and qualities of notation.

Mnemonics and devices.

Study of schemes of classification. DDC, UDC and CC. Trends in library classification.
Unit 5: Library Cataloguing

Library Catalogue: Meaning, Definition, Need, Purpose, Objectives and Functions. Physical forms and Inner forms of catalogues.

History and development of catalogue codes.

Normative principles: Cannons, laws and principles.

Kinds of entries: Main entry, Added entries, Reference entries, Analytical entries – their structure and uses.

Subject cataloguing: Study of SLSH, LCSH and MeSH.

Study of resource description standards: ISBD, AACR2R.

Meta data: Concepts, Types, Use, Standards - MARC21 and Dublin Core.

Resource sharing of bibliographic data: OCLC and its activities.

Centralized cataloguing, Co-operative cataloguing, Cataloguing at Source, CIP, Union Catalogues.

Consortia approach to metadata. Current developments: OPACs, WebOPACs, Z39.50.

Unit 6: Information Retrieval

Information Retrieval Systems: Basic concepts, definitions, objectives, components and functions.


Vocabulary Control: Vocabulary control – Meaning and importance; Controlled Vs. Free text indexing; Vocabulary control tools – Subject heading Lists, Thesauri, Thesaurofacet, Classarar. Thesaurus construction techniques. Case Study of Controlled vocabularies/ Ontologies such, ERIC, MeSH, INSPEC, UNESCO-IB, Agrovac, UMLS

Unit 7: Information Systems and Services
Information systems: Basic concepts, Meaning, Objectives and Functions.
Components of Information System: Structure, Functions and Services, Libraries, Documentation centres, Information centres, Data centres, Information analysis centres, Clearing houses, Data banks, Data curation centres, Museums, Memories, Institutional repositories, Open archives, Referral and translation Centres, Publishing Houses.

Understanding the user communities: Identification of user communities; Information seeking behavior. User education, User studies.

Study of National Documentation Centres, Information Systems and programmes: NISCAIR, DESIDOC, NASSDOC, ENVIS.

Study of International Information Systems, services, and programmes: CAS, INSPEC, AGRIS, BIOSIS, INIS, MEDLARS.

Resource Sharing and Networks: Consortia- Importance and objectives. Study of information networks: OCLC, INFLIBNET, UGC-INFONET, DELNET, and INDEST.

Unit 8: Research Methods

Foundations of research: Nature, Definition and Objectives of research, Basic concepts of research. Ethics in research. Areas of research in Library and Information Science

Types of research – Basic and Interdisciplinary, Methods of Research- Historical, Descriptive, Case Study, Survey, Comparative, and experimental.

Planning of research: The Planning process; Review of literature. Selection of a problem for research- mode of selection, sources of problems, process of identification, criteria of selection, formulation of the selected problem. Hypothesis – Meaning, types, sources, functions, hypothesis; conceptualization; Research design - Essentials of good research design & its importance, Research design / writing the research proposal.

Research methods: Quantitative and qualitative methods of LIS research: Survey method, Historical method, Observation method, Experimental method, Case-Study method. Delphi method. Sampling & data collection: Sampling techniques/methods, sample design or choice of sampling techniques, sample size, sampling and non-sampling errors. Meaning and importance of data, sources of data, types of data, Use of secondary data

Data collection tools - Questionnaire- types of questions, structured and unstructured questions, Interview schedule – types, merits & limitations; Measurements indices, pilot studies. Observation method. Statistical analysis of data Statistical analysis; measures of central tendency, mean, median & mode; measures of dispersion – Range, intermediate ranges, measures of aggregate dispersion, mean-absolute deviation, the variance and standard deviation & normal distribution. Chi-square test.

Graphical presentation of data and report writing: Meaning & importance, commonly used graphics forms, graphs and charts. Histograms, Frequency polygons, Ogive bar charts, pie charts & pictogram. Organization of reports. Steps in writing research reports, writing style.

Research trends in LIS.

Unit 9: Fundamentals of Information and Communication Technology

Information and Communication Technology – Components, Impact of ICT on society.


Data representation in computers: Number systems, Binary numbers: Binary addition (1’s and 2’s complement methods), subtraction, multiplication and division. Representation of integers, fractions. Character encoding standards – ASCII, EBCDIC, ISCII and UNICODE. Issues with respect to character collation and sorting.

File organization: Sequential, Indexed Sequential and Direct file.

Understanding communication concepts: Digital and analogue signals, Modulation, Frequency, Spectrum, Bandwidth, Multiplexing (FDM, TDM, STDM, and WDM), attenuation, Noise, Asynchronous and synchronous transmission, Simplex, Half-duplex and Full duplex channels.


Fax, E-Mails, telecommunication. Video conferencing, Bulletin Board Service, Videotext, Voice Mail

Internet-Components, Services Browsing-Web browser, Search Engine, Meta-Data, Digital Object Identifies (DOI)

Web 2.0.technologies.

**Unit-10 Library automation and Digital libraries**


Automation of library operations: Acquisitions, Cataloguing, OPACs, Circulation and Serials control.


Content creation – Electronic documents, files and file formats. Study of different file formats. Studying PDF in detail- features of PDF. Born digital and legacy documents. Digitization- scanning,
OCRing and conversion to PDF. Electronic Publishing and scholarly communication, E-journals and e-books

Comparative study of different document types. Digitization.


Open Access Movement and Institutional repositories.