

153. Library and Information Science

1. LIBRARY, INFORMATION AND MANAGEMENT

Philosophy and Ethics of Librarianship.

Library as a Social Institution: Functions of the Library. Role of the Library in Formal and Informal Education.

Professional Education and Librarianship. Library Education in India.

Five Laws of Library Science.

Types of Libraries : National, Public, Academic, and Special. National Library, Kolkata;

Resource sharing: Resource sharing programmes.

Library Consortia in India.

Library Legislation – Need, Purpose and Advantages.

Library Legislation in India. Detailed Study of A. P. Public Library Act.

Intellectual Property Rights(IPR). Copyright Act.

Delivery of Books Act. UNESCO Public Library Manifesto.

Nature of Information:

Data, Information & Knowledge. Information : Nature, Types, Characteristics, Properties. Information Explosion. Information Society. Information Science. Information Industry.

Information Communication:

Information Cycle. Types of Communication, Communication Models (Theories). Scientific Communication. Formal and Informal Channels of Communication. Barriers of Communication of Information. Information Literacy. Marketing of Information. Knowledge Management & Digital Libraries and Institutional Repositories

Informetrics:

Citation: Citation Analysis. Librametry, Bibliometrics and Scientometrics, Webometrics. Bibliometric Laws. Zipf's Law, Bradford's Law, Lotka's Law.

Library Management

Management: Functions and Principles of Management and their applications in Libraries. Scientific Management.

Routine & workflow in different libraries / sections. Principles and theories of book selection.

Selection and Acquisition. Book Selection Tools. Online Bookshops.

Serials Management. Methods of Recording. Problems in Serials Acquisition.

Methods of Stock verification.

Schools of management. Management Styles.

Planning Library and Information Centres: Planning process, SWOT Analysis.

Performance Evaluation of Library and Information Centres.

Management Information Systems (MIS).

Management by Objectives: (MbO):

Human Resource Management: H R Planning, staffing, job analysis, job description, job evaluation, staff recruitment; selection, training and development. Inter personal relations.

Motivation : Concept, Theories.

Management of Change: Impact, Strategies, Organisation Culture.

Financial Management: Resource Mobilisation.

Budgeting Methods: PPBS and Zero-based. Budgetary Control.

Outsourcing.

Quality Management: ISO-9000. TQM its Application in Libraries.

2. INFORMATION RETRIEVAL SYSTEMS (LIBRARY CLASSIFICATION, CATALOGUING, INDEXING SYSTEMS, ETC.)

Library Classification – Meaning, Need and purpose of classification.

Formation, Structure and Development of Subjects

Dewey Decimal Classification (DDC); Universal Decimal Classification (UDC).

General Theory of Classification. Ranganathan's contribution.

Five Fundamental Categories : PMEST.

Isolates -- -- Common Isolates – Kinds of Common Isolates, Special Isolates, Auxiliary Schedules. Principles of Helpful Sequence . Notation: Types. Call Number -- Class Number, Book Number – Types of Book Numbers, Collection Number.

Library Cataloguing

Library Catalogue: Objectives and functions.

Types of Library Catalogues: Physical and Inner Forms

Syllabus for Ph.D. Eligibility Test -2016

Subject Cataloguing: Lists of Subject Headings – LCSH and SLSH
OPAC. Web Based Catalogues.
Use of Internet in Cataloguing. OCLC and WorldCat.
Standardization in Cataloguing. Standards -- ISBD (M), ISBD (S) and ISBD (G).

Indexing Systems

Indexing Languages, Types, Characteristics.
Thesaurus: Structure and functions.
Pre and post-coordinate indexing.
Chain Indexing, PRECIS. Uniterm, Keyword and Citation Indexing.
Computer based indexing systems.
Standards for Bibliographic Description: MARC, CCF and MARC 21.
Metadata: Features of MARC, Dublin Core.
Data Mining, Data Warehousing.
Digital Object Identifier (DOI)
Information Retrieval: Methods – manual and automated. Search processes and strategies.
Boolean Logic. Preparation of query.
Computerized Information Services: Machine Translation. Computerized Abstracting. Natural Language Processing.

3. RESEARCH METHODOLOGY

Basic and applied research, Team Research, Relay Research.
Scientific method. LIS Research in India.
Research Design: Problem identification, formulation.
Hypothesis: Formulation, Types, Verification of Hypothesis.
Methods of Research: Survey, descriptive, comparative, historical, experimental, case study and Delphi technique.
Data Collection Methods: Questionnaire, Interview and Observation.
Sampling methods and techniques
Methods and Tools of Data Analysis
Descriptive Statistics – Measures of Central Tendency : Mean, Median, Mode. Measure of Central distendency : Standard Deviation. Graphical Presentation of data : Bar diagrams, Pie-chart, Line Graphics, Histograms
Testing of Hypothesis : Chi-square test & T-test.
Writing research report: Contents of report, presentation of findings. Style Sheets

4. INFORMATION SYSTEMS, REFERENCE & INFORMATION SOURCES AND SERVICES

Reference Service: Types of reference service – Ready Reference Service and Long Range Reference Service. Reference Process. Reference service vis-à-vis Information Service.
Current Awareness Service, SDI and Referral service.
Information Sources. Evaluation of reference sources.
Reference Sources: Dictionaries, Encyclopedias, Almanacs, Yearbooks, Directories, Handbooks, Manuals, News-Summaries, Concordances, Biographical, Geographical Information Sources, Electronic Resources
Bibliographies: General, Special, National (INB and BNB), Trade, subject.
Information Systems and Programmes
Types, Characteristics of an Information System.
Kinds of Information Systems: Libraries, Documentation Centres, Information Centres, Data Banks, Information Analysis Centres, Referral Centres, Clearing Houses, Archives, Reprographic and Translation Centres: their functions and services.
Planning and Design of a National Information System:
NAPLIS (National Policy on Library & Information Systems), NATIS, National Information Policy (NIP). Planning Design of National Information System (NATIS).
Global Information Systems: UNESCO-PGI, INIS, AGRIS, INSPEC, MEDLARS.
Information Products and Services: Types with examples.
Information Products Vs Services.
Information Services – Bibliographic, Document Delivery, Alert.
Information Providers (Vendors): DIALOG, STN, Derwent, UMI, BLDSC, ISI.

5. LIBRARY AUTOMATION, NETWORKING AND INFORMATION TECHNOLOGY

Computers: Functions, and how a computer works.
Types of Computers. Generations of computers.
Components of Computers: Hardware – Input – Output devices. Storage devices, Ports.
Types of software, Program, Algorithm, Flow Charting.
Optical Storage Devices: CD and DVD. Multimedia.
Data Processing – Batch, Online and Time Sharing.
Programming Languages : Machine, Assembly and Higher level.
Algorithm, Program. Flow Charting
Computers in Library & Information Centres.
Library Automation: Areas of Automation.
Hardware and Software selection and Implementation.
Barcode Technology.: Types of barcodes : Dumb / Generic barcode and smart barcode – their application. Code 39.
RFID (Radio Frequency Identification)
Networking: Concept, need and advantages. Basic components of network.
Network Topologies – Star, Ring, Bus, Hierarchical, Tree and Complete. Wireless Networking.
Types of Networks – LAN, MAN, WAN.
Networks: General – ERNET, NICNET, INFONET. Library Networks: OCLC, INFLIBNET.
Internet: Concept, Features, Services. Search Engines and Meta Search Engines. Web Browsers. Internet Security.
Internet Reference Resources
Hypertext, Hypermedia. Markup Languages – HTML, XML.
Web Content Development / Content Creation for Web. Web Design - Concept, Software.
Information Technology
Information Technology: Components of IT, Hardware – Developments. Software – Operating Systems – Single User, Multi User. Types of Application Software. Electronic Information: Electronic / Digital Information. Digital Collection, Digital Rights Management. Digitization. Software & hardware used for digitization. e-documents. Preservation and archiving of e-resources. Weblogs. Wikis, Wikipedia.
Communication Tools and Techniques: Fax, E-mail, Tele Conferencing, Video Conferencing, Voice Mail. Hyper Text and Hyper Media. List Serve / Electronic groups. Open Source and Proprietary Software. Wireless Communication: Networking, WAP / Wireless Internet, WLL, Cellular Communication.