



RANI CHANNAMMA UNIVERSITY, BELAGAVI.

**DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE
UNDER THE SCHOOL OF APPLIED SCIENCES**

PH.D. ENTRANCE TEST SYLLABUS

w.e.f.

ACADEMIC YEAR 2024-25 ONWARDS

Library and Information Science

Section- A

Unit-1

Data Information and knowledge and wisdom- Data, information & knowledge Social Foundations of Libraries- Social function and Library- Role of Library in formal and non-formal education. Modern concept of library and Information science Normative Principles - Five laws and its implication Library Legislation - Karnataka Public Library Act – 1965- Delivery of books (public libraries) and newspaper Act 1954 – 1956- IPR, Copy Right, RTI. Library and Information Profession - Philosophy of Librarianship and Professional Association and Institution- National- ILA, IASLIC, IATLIS- International- FID, IFLA, ALA, Promoters Of LIS- National Level - RRLF, NKC- International Level – UNESCO

Unit-2

Methods of Knowledge Organisation- Library Classification: meaning, definition, need and purpose- Knowledge Classification, Book classification differences - Species of Library Classification Theory of Classification- General theory of classification - Classification terminology- Normative principle of classification - Three planes of works, Devices, Mnemonics, Five fundamental categories- Notation: meaning, definition and types Classification Schemes- Standard schemes of classification and their features: CC, DDC, UDC.- Major contributions of Ranganathan to classification theory Bibliographic Description- Catalogue: meaning, definition, need, purpose and functions of library catalogue.- Physical forms: Inner forms and Outer forms- Different kinds of entries- Forms of entries: card catalogue to OPAC\Cataloguing Codes and Practices - History and development- AACR2 (latest edition)- Standardisation of bibliographic description: ISBD, FRBR, CCF,MARC, ISO-2709, RDA- Co-operative cataloguing, Union cataloguing Normative Principles of Cataloguing- Canons- Laws - Principles

Unit -3

Introduction to Information Sources- Information Sources: Meaning, Definition, Nature, Evolution, Characteristics, Functions, Importance and Criteria for Evaluation: Types of Information Sources- Primary, Secondary and Tertiary sources of information.- Documentary Sources and Non –Documentary Sources, Human and Institutional sources,- Non–print and Electronic sources. Primary Sources (Print and Electronic Versions)- Periodicals, Technical reports, Patents, Standards and Specifications, Theses and Dissertations, Conference and Seminar proceedings, Trade literature, etc. Secondary Sources (Print and Electronic Secondary Sources (Print and Electronic Versions)- Dictionaries, Encyclopedias, Yearbooks and Almanacs, Biographical sources, Bibliographies, Geographical sources, Current sources, and Statistical information sources, Handbooks and Manuals, etc. Tertiary Sources (Print and Electronic Versions)- Directories, Guides to reference sources, Bibliography of bibliographies, Monographs, Union catalogues, Textbooks, etc. Non documentary Sources and their Electronic

Versions Human Sources: Technological gatekeepers, invisible colleges, consultants, experts/resource persons, personal home pages, representatives of firms, and others. bInstitutional / Organizational Sources: Government ministries and departments, R& D organizations, learned societies, publishing houses, archives, data banks, information analysis centers, referral centers, Institutional web sites, etc. Non – Print and Electronic Sources- Microforms, Audio visual materials, Optical media based databases, Online databases, Internet sources, List servers, Subject gateways, USENET, etc

Unit -4

Information Technology- Meaning, Definition, Evolution, Scope and Components. Introduction to Computer- Historical developments, Characteristics, Applications, Generations and Classification of Computer. Computer Architecture - Components of a Computer: Central Processing Unit, Input and Out put devices, Internal and external storage devices. Software- System software: Purpose, Operating systems; MSDos, Microsoft Windows, Linux, UNIX, Open Source Operating systems.- Application Software: Word processors, Spreadsheets, Internet browsers, Software suites, Database programs, Anti-virus programs, Sharewares, Web design tools, HTML Editors. Programming languages. Data Representation - Binary code, Bit, Byte, Standards-ASCII, ISCII (Indian Script code for Information exchange), UNICODE. File Organization- File concepts, methods, functions, Sequential, Inverted, Indexed sequential and other methods. Overview of Programming Languages - Machine, Assembly and High level Programming languages - Algorithms and flow-charting

Library Automation (Theory) Introduction to Library Automation- Concept, Need, areas of Library Automation and history of library automation Infrastructure requirements- Manpower, Financial, Hardware, software, Furniture & Equipment's- Library automation feasibility study; Planning and preparation of work station Integrated Library Management System: Study of Functionalities of subsystem - Acquisition, Cataloguing, Circulation, Serials control System Library software packages- SOUL, EasyLib, LIBSYS, NIC-E-Granthalaya. Web-based library automation- Definition, nature, scope, importance- Study of Koha and NewGenLib Computerized Library & Information Services- Planning, design, development and implementation of Computerized library and information services Library automation in India & Trends in library automation- Situation, issues & Problems - Advent of Internet, Web-based OPACs, Libraries as portals, ISO ILL protocol, Cooperative library networks, Digital libraries, Interoperability of systems, open

Unit-5

Internet Resources & Web Technology: Genesis, Components and Development- WWW, Relevant W3 Standards- Network Protocols: TCP/IP, FTP etc- Web 2.0 and Semantic Web.

Internet Software Tools- Web Browsers,- Search Engines- Meta Search Engine, Federated Search Engines- Web Servers (IIS, TOMCAT, Apache etc.)- Protocols URL, Open URL, IP Address, ISP (BSNL etc.) Internet/Network Based Information Services- E-mails, Tele Conferencing, Tele Text, Video Text,- LIS Forum, Use Net, BBS etc- Building and Maintenance of Internet Resources.

Web Designing Tools- Mark-up Languages (HTML, DHTML, XML, Java) Web designing software Evaluation of Web Sites and Web Resources- Website evaluation- Compilation of web resources- Webometrics- Internet and Web security- Internet and web Security-Cyber laws

Unit-6

Management of Library and Information System- Concept, Definition and Scope;- Management styles and approaches;- Management schools of thought;- Functions and Principles of Management; their application to Library and Information Centres. - Organizational Structure Library House Keeping Operations- Different Sections of Library and Information Center and their functions- Collection Development and Management Policies, Procedures- Book selection and acquisition – purpose, need and functions.Principles of book selection.- Technical Processing,- Serials Control, Circulation Control- Maintenance etc. Stock Verification – Policies, Procedures and methods- Online Bookshops – Identification, Advantages.Online bookshops Vs. Traditional Book Shops. URLs.- Archiving – conservation – preservation, Print and non-print materials. Human Resource Planning and Management- Job Description and Analysis, Job Evaluation;- Inter-personal Relations;- Recruitment procedures;- Motivation, Delegation, Decision Making- Training and Development- Performance Appraisal- Leadership Qualities Financial Management- Importance, Sources of Finance- Resource Mobilization,- Budgeting Techniques and Methods – PPBS, Zero Based Budgeting- Budgetary Control- Cost Effectiveness and Cost Benefit Analysis- Out sourcing, Evaluation of Library and Information Centres- Performance Measurement- Management of Information System (MIS): concept, use.- Project Management, PERT / CPM, Total Quality Management (TQM)-- Definition, Concept, Elements- Use of Technology- Technology Management- Risk Management, Contingency Management Planning and Reporting- Concept, Definition, Need and Purpose; Types- Policies and Procedures, MBO- Building and Space Management in Libraries and Information Centres- Library Statistics: Purpose and Types.- Library Committees: Importance, Functions and Types.- Library Rules and Regulations: Purpose and Preparation.- Reporting: Types of Reports, Annual Report – Compilation, contents and style;

Unit-7

Information Systems: Basic Concept, Types, Characteristics and components. Libraries, Documentation and Information Centres, DataBanks, Information Analysis Centres, Referral centers, ClearingHouses.Planning, Designing and Evaluation of National and International

Information Systems.National Information Systems and Services: NAPLIS (National Policy on Library and Information Systems), NISCAIR, DESIDOC, NASSDOC, SENDOC, DELNET, INFLIBNET, UGC sponsored information centers and services. International Information Systems and Services: UNESCO-PGI, AGRIS, INIS, INSPEC, ERIC, DEVSIS, MEDLARS, SPINES, ICSU. Reference Service- Meaning, Definitions and Scope- Types of Reference Service: Short range and long range- Virtual Reference service- Information Alerting Services, CAS, SDI, etc. Document Delivery Service- Need & Importance, Types- Document Delivery Services of INFLIBNET, DELNET

Unit-8

Information and Communication Studies: Information, Knowledge and Data- Information: Characteristics, Nature, Value and Notion of Information- Data: Types, Nature and Characteristics Features- Knowledge: Types, Nature, Value and Characteristics features.- Inter-relationship of Data, Information and Knowledge. Communication:- Information Generation and Communication- Channels and Levels of Communication- Barriers of Information Communication- Communication Modes and Models Information Science- Introduction to Information Science - Origin, Development and Evolution of Information Science- Theoretical Foundations and Framework of Information Science- Physical and Cognitive Paradigms- Education for Library and Information Science .Information Society - Genesis, Development and Evolution of Information Society- Changing Role of Library and Information Centres in the Information Society- Information Industry: Content creation, content organization and content communication (Generators, Providers and Intermediaries). Issues of Information Society - Social, Political Issues: Policies relating to Information- Right to Information - Intellectual Property Rights - Concept of Freedom, Censorship, Data Security and Fair use. - National and International information policies and programmes- UAP, UBC- Information Technology Taskforce and its objectives.

Economics of Information and Information Economics- Economics of Information and Information Economics- Information as a Resource and Factor of Production- Economics of Information Sources and Production

Unit-9

Library and Users: Information Users and their Information Needs- Categories of Information Users Academic Community - Teachers and Students scientists and Technologists R & D Personnel, Other Professionals, Planners, Policy Makers, Ethnic Groups etc., - Information Needs – Definition, and Models- Information Seeking Behaviour: Models and Procedures. User Studies- Importance, Planning and Organization of User Studies in different environments.- Methods, Techniques and strategies of user studies - Sampling, interview, questionnaire, diary and observation methods. Techniques of Library and Information Centres Use studies - Use studies in different types of Libraries: different

user groups and disciplines. - Quantitative and qualitative techniques, Information studies.- Survey methods – proforma method, interview and record analysis methods including citation studies. Information Literacy- Definition, need and scope- History and evolution – Library / bibliographic instructions, library tour, initiation to a freshman, library orientation and user education. Methods and Techniques – Lectures, Tutorials- Use of A-V aids, programmed instructions in specified disciplines, resource based instructions etc. - Information Literacy models .Global perspectives - National and International standards, guidelines and policies. - Selective study of Information Literacy missions, forums and taskforces. Information Literacy and Lifelong Learning- Integration of information literacy in different levels of education –current trends.

Unit-10

Scientometrics: Concept of Scientometrics- Concept, Meaning, Definition, Scope, Need and Purpose of Librametrics to Cybermetrics: an overview Citation Analysis- Meaning and Definition- Origin of Citation and Citation Studies- Bibliographic coupling, co-citation- SCI, SSCI, A&HCI, Google Scholar .Bibliometrics/scientometrics- Genesis, Scope, Definitions and Applications- Science Indicators- Mapping of Science Bibliometric Laws- Bradford’s Law- Zipf’s Law - Lotka’s Law Growth of Literature Studies- Growth of Literature- Growth Models: Exponential Model, Logistic Model, Power Model, and Gompertz Model- Obsolescence of Literature. Science Productivity- Authorship Studies- Collaboration Studies- Techniques of Authorship Studies Informatics and Webometrics - Informetrics: Genesis, Scope and Definitions- Webometrics: Genesis, Scope, and Applications- Application in the evaluation of websites and evaluation parameters.

Unit -11

Digital Library Development- Development, trends of Digital Information- Nature, Objectives- Characteristics, Born Digital- Advantages, Disadvantages. Digital Technologies- Design and Organizations- Architecture- Interoperability, Compatibility- Protocols and standards. Digital Library Initiatives- National and International initiative- Development with reference to libraries.- Electronic thesis and Dissertations (ETD) Scholarly- communication- Digital Resource Management- Identifying, accessing and processing- Storage and retrieval - usage of digital resource- Metadata Harvesting OAI-PMH- Digital Preservation and Conservation- DRM issues-. Digital Library Software- Digital Library Softwares in detail- Open Source Softwares- Digital Library open course were- DL in networked world. Digital preservation and archiving- Digital Data formats- Digital Preservation issues. Developing a digital library using Dspace/Greenstone/Eprints

Section -B

Unit –1.

Research Methodology

Research- Concept, Meaning, Need and Process of Research; - Types of Research – Fundamental and Applied including interdisciplinary and multidisciplinary approach; - Role of Research in the Development of Scholarship;

Unit – 2.

Research Design- Conceptualization and Operationalization - Types of Research Design;
- Identification and Formulation of problem; - Hypotheses; Nominal and Operational Definition;
- Designing Research Proposal; - Ethical aspects of Research; - Literature search – print, non-print and electronic sources.

Unit – 3.

Research Methods- Scientific Method- Historical Method- Descriptive Method; - Survey Method and Case Study Method- Experimental Method and Delphi Method

Unit – 4.

Research Techniques and Tools_ Questionnaire; - Schedule; - Interview; - Observation; - Scales and check lists; - Library and Record and Reports, - Sampling Techniques

Unit– 5.

Data Analysis and Interpretation- Descriptive Statistics – Measure of Central Tendency; Mean, Mode, Median, - Tabulation and Generalization Measures of dispersion, Variance and covariance, - Standard Deviation- Graphical presentation of data – Bar, pie, line-graphs, Histograms etc. - Regression – linear and non-linear. - Chi Square Test, - Sociometry,

Unit-6

Research Reporting - Structure, Style, Contents- Guidelines of Research Reports, Style Manual – Chicago – MLA-APA etc. E-Citation and Methods of Research Evaluation
