Ph.D. Entrance Test - SYLLABUS - 2019

LIBRARY & INFORMATION SCIENCE

Part - 1

Research Methodology (50 %)

Unit-1 Research
- Concept, Meaning, Need and Process of Research
- Types of Research – Fundamental and Applied including inter disciplinary and multidisciplinary approach, LIS Research in India.

Unit-2 Research Design
- Conceptualisation and Operationalisation
- Types of Research Design
- Identification and Formulation of Problem
- Hypothesis; Nominal and Operational Definition
- Designing Research Proposal
- Ethical aspects of Research
- Literature Search – Print, Non-print and Electronic sources

Unit-3 Research Methods
- Scientific, Historical and Descriptive Methods
- Survey Method and Case Study Method
- Experimental Method and Delphi Method

Unit-4 Research Techniques and Tools
- Questionnaire, Interview and Observation
- Scales and Check lists
- Library Records and Reports
- Sampling Techniques

Unit-5 Data Analysis and Interpretation
- Descriptive Statistics-Measures of Central Tendency: Mean, Mode, Median Tabulation and Generalisation
- Measures of dispersion, variance and covariance, correlation, regression
- Standard Deviation
- Graphical presentation of data- bar, pie, line graphs, histograms etc.
- Inferential Statistics

Unit-6 Research Reporting
- Structure, Style, Contents
- Guidelines for Research Reporting
Part - 2

Core Subject (50%)

Subject: Library and Information Science

Unit – I

1. Data, Information, Knowledge and Wisdom.
2. Information Life Cycle - Generation, Collection, Storage and Dissemination.
3. Role of Information in Planning, Management, Socio-economic, Cultural, Educational and Technological Development.
5. Communication – Concept, Types, Theories, Models, Channels and Barriers; Trends in Scholarly Communication.
6. Information Industry - Generators, Providers and Intermediaries.
7. IPR and Legal Issues - Categories, Conventions, Treaties, Laws.
8. Plagiarism: Concept and Types.
9. Right to Information Act (RTI); Information Technology Act.

Unit – II

1. Historical Development of Libraries in India; Committees and Commissions on Libraries in India.
2. Types of Libraries – Academic, Public, Special and National.
5. Library and Information Science Profession - Librarianship as a Profession, Professional Skills and Competences; Professional Ethics.
7. Library and Information Science Education in India.
8. Library Public Relations and Extension Activities.
9. Type of Users - User Studies, User Education.
10. Information Literacy - Areas, Standards, Types and Models; Trends in Information Literacy.
Unit - III

1. Information Sources - Nature, Characteristics, Types and Formats.
2. Sources of Information - Primary, Secondary and Tertiary, Documentary and Non-Documentary.
3. Primary Information Sources (Print and Electronic) - Journals, Conference Proceedings, Patents, Standards, Theses & Dissertations, Trade Literature.
4. Secondary Information Sources (Print and Electronic) - Dictionaries, Encyclopedias, Bibliographies, Indexing & Abstracting, Statistical sources, Handbooks and Manuals.
5. Tertiary Information Sources (Print and Electronic) - Directories, Year Books, Almanacs.
9. Institutional and Human Resources.
10. Evaluation of Reference Sources and Web Resources.

Unit - IV

2. Reference Service - Concept and Types; Referral Services
3. Alerting Services - CAS, SDI, Inter Library Loan and Document Delivery.
5. Web 2.0 and 3.0 - Library 2.0 - Concept, Characteristics, Components; Instant Messaging, RSS Feeds, Podcasts, Vodcasts, Ask a Librarian
6. Collaborative Services - Social Networks, Academics Social Networks, Social Tagging, Social Bookmarking.
7. Web - Scale Discovery Services
8. National Information Systems and Networks: NISCAIR, DESIDOC, SENDOC, ENVIS, INFLIBNET, DELNET, NICNET, ERNET, National Knowledge Network (NKN), Biotechnology Information System Network
Unit - V

1. Universe of Knowledge - Nature and Attributes; Modes of Formation of Subjects.
3. Mapping of Subjects in Library Classification Schemes – DDC, UDC and CC.
4. Knowledge Organisation: Cataloguing - Cannons and Principles; Centralized and Co-operative Catalogue; Library Cataloguing Codes: CCC and AACR - II.
5. Standards of Bibliographic Record Formats and Description – ISBD, MARC 21, CCF, RDA, FRBR, Bibframe.
7. Metadata Standards: Dublin Core; MARC21, METS, MODES, EAD.
8. Indexing Systems and Techniques: Assigned - Pre-coordinate; Post-Coordinate; Derived- Title-based; Vocabulary Control.

Unit - VI

1. Management - Principles, Functions and Schools of thought.
5. Project Management - SWOT, PEST, PERT / CPM.
7. Library Building, Furniture and Equipments; Green Library Building; Information Commons; Makers Space; Security and Safety.
10. Marketing of Library Products and Services – Plan, Research, Strategies, Mix, Segmentation, Pricing and Advertising; Management Consultancy.
Unit - VII

1. Computer Technology - Character Representation (ASCII, ISCII, Unicode); Computer Hardware, Software; Storage Devices; Input and Output Devices.
2. Types of Software - System Software, Application Software.
3. Programming Languages – Object Oriented, Procedural, High Level, Scripting; Web Languages.
6. Computer Networks - Topologies, Types of Networks – LAN, MAN, WAN.
7. Internet - Web browsers, WWW, E-mail; Search Engines, Meta and Entity Search engines.
8. Internet Protocols and Standards – HTTP, SHTTP, FTP, SMTP, TCP/IP, URI, URL.

Unit – VIII

4. Digital Library: Genesis, Characteristics, Types, Architecture; Standards, Formats and Protocols, DOI.
7. Institutional Repositories - Need, Purpose, Types and Tools; Institutional Repositories in India; ROAR, DOAR, SHARPA-ROMIO.
10. Ontology – Tools (RDF, RDFS, Potege); Semantic Web, Linked Data, Big Data, Data Mining, Data Harvesting.
Unit – IX

1. Research - Concept, Purpose, Functions, Scope and Ethics; Types of Research – Basic and Applied, Interdisciplinary and Multidisciplinary.
2. Research Methods: Historical, Descriptive, Experimental and Delphi.
5. Data Analysis and Interpretation - Presentation of Data; Statistical Methods/Techniques.
7. Research Report Writing and Citation Tools – Structure, Style, Contents, Guidelines; Style Manuals; Online Citation Tools; Reference Style Management Tools; Anti-plagiarism Tools; Evaluation of Research Report.
9. Impact Factors – Journal, Institutional and Authors; h-Index, g-Index, i10 Index.
10. Trends in Library and Information Science Research.

Unit – X

1. Academic Library and Information System.
2. Public Library and Information System.
3. Special Library and Information System.
4. Health Science Library and Information System.
5. Corporate Library and Information System.
6. Agricultural Library and Information System.
7. Engineering and Technological Library and Information System.
10. Information Services and System for Persons with Disability, Children and Women.