

**Department of Library and Information Science
Punjabi University Patiala**

**SYLLABUS FOR Ph.D ENTRANCE EXAMINATION (2022)
SECTION-A
(RESEARCH METHODOLOGY)**

LIBRARY AND INFORMATION SCIENCE

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.
3. Research Design - Selection of Research Problem, Review of Literature; Formulation of Research Problem; Hypothesis – Formulation, Types and Testing; Sampling Techniques.
4. Methods of Data Collection: Questionnaire, Interview, Observation, Library Records, Scales and Checklist.
5. Data Analysis and Interpretation – Presentation of Data; Statistical Methods/Techniques.
6. Statistical Packages – Spreadsheet, SPSS, Bibexcel, 'R' Statistics.
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.
8. Metric Studies in LIS - Bibliometrics, Scientometric, Webometrics, Altmetrics;
9. Impact Factors – Journal, Institutional and Authors; h-Index, g-Index, i10 Index.
10. Trends in Library and Information Science Research.

**SECTION-B
(SUBJECTIVE)**

LIBRARY AND INFORMATION SCIENCE

1. Data, Information, Knowledge and Wisdom.
2. Information Life Cycle - Generation, Collection, Storage and Dissemination.
3. Communication – Concept, Types, Theories, Models, Channels and Barriers; Trends in Scholarly Communication.
4. IPR and Legal Issues - Categories, Conventions, Treaties, Laws.
5. Plagiarism: Concept and Types.
6. Right to Information Act (RTI); Information Technology Act.
7. National Knowledge Commission; National Mission on Libraries.
8. Historical Development of Libraries in India; Committees and Commissions on Libraries in India.
9. Types of Libraries – Academic, Public, Special and National.
10. Library Legislation and Library Acts in Indian States; The Press and Registration of Books Act; The Delivery of Books and Newspapers (Public Libraries) Act.
11. Professional Associations - National – ILA, IASLIC, IATLIS; International – IFLA, ALA, CILIP, ASLIB, SLA; Role of UGC, RRRLF and UNESCO in Promotion and Development of Libraries.
12. Library and Information Science Education in India.
13. Type of Users - User Studies, User Education.
14. Information Literacy - Areas, Standards, Types and Models; Trends in Information Literacy.

15. Sources of Information - Primary, Secondary and Tertiary; Documentary and Non-Documentary.
16. Reference Sources - Bibliographical, Biographical, Educational, Language and Geographical.
17. Electronic Information Resources-Subject Gateways, Web Portals, Bulletin Boards, Discussion Forums /Groups.
18. Databases: Bibliographic, Numeric, Fulltext, Multimedia; Open Access Databases.
19. Evaluation of Reference Sources and Web Resources.
20. Community Information Services.
21. Reference Service – Concept and Types; Referral Services
22. Alerting Services- CAS, SDI, Inter Library Loan and Document Delivery.
23. Mobile based Library Services and Tools – Mobile OPAC, Mobile Databases, Mobile Library Website, Library Apps, Mobile Library Instructions, Augmented Reality, SMS Alerts, Geo-Location, Reference Enquiry.
24. Web 2.0 and 3.0 - Library 2.0- Concept, Characteristics, Components; Instant Messaging, RSS Feeds, Podcasts, Vodcasts, Ask a Librarian.
25. National Information Systems and Networks: NISCAIR, DESIDOC, SENDOC, ENVIS, INFLIBNET, DELNET, NICNET, ERNET, National Knowledge Network (NKN), Biotechnology Information System Network
26. International Information Systems and Networks: INIS, AGRIS, INSPEC, MEDLARS, BIOSIS, ERIC, Patent Information System (PIS), Biotechnology Information System (BIS).
27. Library Resource Sharing and Library Consortia – National and International.
28. Universe of Knowledge- Nature and Attributes; Modes of Formation of Subjects.
29. Knowledge Organisation- Classification – Theories, Canons, and Principles; Simple Knowledge Organisation System (SKOS), Taxonomies, Folksonomy, Trends in Classification.
30. Standards of Bibliographic Record Formats and Description – ISBD, MARC 21, CCF, RDA, FRBR, Bibframe.
31. Standards for Bibliographic Information Interchange & Communication – ISO 2709, Z39.50, Z39.71.
32. Metadata Standards: Dublin Core; MARC 21, METS, MODES, EAD.
33. Indexing Systems and Techniques: Assigned-Pre-coordinate; Post-Coordinate; Derived-Title-based; Vocabulary Control.
34. Total Quality Management (TQM)- Concepts, Principles and Techniques, Six Sigma; Evaluation of Services of Libraries and Information Centers.
35. Management Information System (MIS), MBO, Change Management, Disaster Management, Crisis Management.
36. Knowledge Management – Principles, Tools, Components and Architecture.
37. Marketing of Library Products and Services – Plan, Research, Strategies, Mix, Segmentation, Pricing and Advertising; Management Consultancy.
38. Internet- Web browsers, WWW, E-mail; Search Engines, Meta and Entity Search engines.
39. Internet Protocols and Standards – HTTP, SHTTP, FTP, SMTP, TCP/IP, URI, URL.
40. Hypertext, Hypermedia, Multimedia, Video conferencing, Virtual Reality, Augmented Technologies.
41. Data Security, Network Security, Firewalls, Cryptographic Techniques, Anti-virus software, Anti-

- spyware, Intrusion Detection System.
42. Barcode, RFID, QR Code, Biometric, Smartcard: Features and Applications.
 43. Digital Library: Genesis, Characteristics, Types, Architecture; Standards, Formats and Protocols, DOI.
 44. Digital Preservation-
Need, Purpose, Standards, Methods, Techniques, Projects (National and International).
 45. Institutional Repositories-Need, Purpose, Types and Tools; Institutional Repositories in India; ROAR, DOAR, SHARPA-ROMIO.
 46. Academic Library and Information System.