

Indicative Syllabus and Weightage of Marks for Screening Test for the post of Scientist-B (LS)

Sl No	Topics	Weightage in %
1	<ul style="list-style-type: none"> ● Types of Libraries – Academic, Public and Special. ● Library Legislation and Library Acts in Indian States; The Press and Registration of Books Act; ● Laws of Library Science. ● Professional Associations - National – ILA, IASLIC, IATLIS; International – IFLA, ALA, CILIP, ASLIB, SLA; Role of UGC, RRRLF and UNESCO in Promotion and Development of Libraries. ● Library and Information Science Education in India ● Library Extension Activities ● Trends in Library and Information Science 	5
2	<ul style="list-style-type: none"> ● Data, Information, Knowledge and Wisdom. ● Information Life Cycle - Generation, Collection, Storage and Dissemination. ● Information Science - Relationship with other subjects, Information Society and Knowledge Society. ● Communication – Concept, Types, Theories, Models, Channels and Barriers; Trends in Scholarly communication. ● IPR and Legal Issues - Categories, Conventions, Treaties, Laws. ● Right to Information Act (RTI); Information Technology Act. ● National Knowledge Commission; National Mission on Libraries 	5
3	<ul style="list-style-type: none"> ● Information Literacy - Areas, Standards, Types and Models; Trends in Information Literacy ● Information Sources - Nature, Characteristics, Types and Formats. ● Sources of Information - Primary, Secondary and Tertiary; Documentary and Non-Documentary. ● Reference Sources - Bibliographical, Biographical, Educational, Language and Geographical. ● Electronic Information Resources - Subject Gateways, Web Portals, Bulletin Boards Discussion Forums /Groups. ● Databases: Bibliographic, Numeric, Full text, Multimedia; Open Access Databases. ● Evaluation of Reference Sources and Web Resources. ● Search and Discovery Services. ● Library Resource Sharing and Library Consortia – National and International. ● National Information Systems and Networks: NISCAIR, DESIDOC, SENDOC, ENVIS, INFLIBNET, DELNET, NICNET, ERNET, National Knowledge Network (NKN), Biotechnology Information System Network ● International Information Systems and Networks: INIS, AGRIS, INSPEC, MEDLARS, BIOSIS, ERIC, Patent Information System (PIS), Biotechnology Information System (BIS). 	15
4	<ul style="list-style-type: none"> ● Type of Users - User Studies, User Education. ● Community Information Services. ● Reference Service – Concept and Types; Referral Services ● Alerting Services - CAS, SDI, Inter Library Loan and Document Delivery. ● Mobile based Library Services and Tools – Mobile OPAC, Mobile Databases, 	10

	<ul style="list-style-type: none"> ● Mobile Library Website, Library Apps, Mobile Library Instructions, Augmented Reality, SMS Alerts, Geo-Location, Reference Enquiry. ● Web 2.0 and 3.0 - Library 2.0- Concept, Characteristics, Components; Instant Messaging, RSS Feeds, Podcasts, Vodcasts, Ask a Librarian ● Collaborative Services- Social Networks, Academics Social Networks, Social Tagging, Social Bookmarking. 	
5	<ul style="list-style-type: none"> ● Universe of Knowledge - Nature and Attributes; Modes of Formation of Subjects. ● Knowledge Organisation - Classification -Theories, Canons, and Principles; ● Simple Knowledge Organisation System (SKOS), Taxonomies, Folksonomy, Trends in Classification. ● Mapping of Subjects in Library Classification Schemes – DDC, UDC and CC. ● Knowledge Organisation: Cataloguing - Canons and Principles; Centralized and Co-operative Catalogue; Library Cataloguing Codes: CCC and AACR - II. ● Standards of Bibliographic Record Formats and Description – ISBD, MARC 21, CCF, RDA, FRBR, Bibframe. ● Standards for Bibliographic Information Interchange & Communication - ISO 2709, Z39.50, Z39.71. ● Metadata Standards: Dublin Core; MARC21, METS, MODES, EAD. ● Indexing Systems and Techniques: Assigned - Pre-coordinate; Post-Coordinate; Derived- Title-based; Vocabulary Control. ● Abstracting – Types and Guidelines. ● Information Retrieval System – Features, Components, Models and Evaluation. ● Ontology – Tools (RDF, RDFS, Protege). 	15
6	<ul style="list-style-type: none"> ● Computer Technology - Character Representation (ASCII, ISCII, Unicode); ● Computer Hardware, Software; Storage Devices; Input and Output Devices. ● Types of Software - System Software, Application Software. ● Telecommunication - Transmission Channels, Mode, and Media, ISDN, PSDN, ● Computer Networks - Topologies, Types of Networks – LAN, MAN, WAN. ● Internet - Web browsers, WWW, E-mail; Search Engines, Meta and Entity Search engines. ● Internet Protocols and Standards – HTTP, FTP, SMTP, TCP/IP, URI, URL. ● Hypertext, Hypermedia, Multimedia, Video conferencing, Virtual Reality. ● Cloud Computing ● Semantic Web, Linked Data, Big Data, Data Mining, Data Harvesting 	10
7	<ul style="list-style-type: none"> ● Library Automation – Areas, Planning, Selection of Hardware and Software, ● Implementation and Evaluation; Standards for Library Automation. ● Barcode, RFID, QR Code, Biometric, Smartcard: Features and Applications. 	15

	<ul style="list-style-type: none"> ● Digitization – Planning, Selection of Materials, Hardware, Software, Process, Issues. ● Digital Library: Genesis, Characteristics, Types, Architecture; Standards, Formats and Protocols, DOI. ● Digital Preservation - Need, Purpose, Standards, Methods, Techniques, Projects (National and International) ● Digital Library Initiatives – National and International. ● Institutional Repositories - Need, Purpose, Types and Tools; Institutional Repositories in India; ROAR, DOAR, SHERPA-ROMEO. ● Content Management Systems – Architecture, Data Integration, CMS Software – ● Selection, Implementation and Evaluation. 	
8	<ul style="list-style-type: none"> ● Research ● Types of Research – Basic and Applied, Interdisciplinary and Multidisciplinary. ● Research Methods: Historical, Descriptive, Experimental and Delphi. ● Research Design - Selection of Research Problem, Review of Literature; Formulation of Research Problem; Hypothesis – Formulation, Types and Testing; Sampling Techniques. ● Methods of Data Collection ● Data Analysis and Interpretation ● Plagiarism: Concept and Types. ● Statistical Packages – Spreadsheet, SPSS, Bibexcel, 'R' Statistics. ● Research Report Writing and Citation Tools – Structure, Style, Contents, Guidelines; ● Style Manuals; Online Citation Tools; Reference Management Tools; Evaluation of Research Report. ● Metric Studies in LIS - Bibliometrics, Scientometric, Webometrics, Altmetrics; ● Impact Factors – Journal, h-Index, g-Index, i10 Index. ● Trends in Library and Information Science Research. 	15
9	<ul style="list-style-type: none"> ● General Aptitude / Awareness/Knowledge about INFLIBNET 	10



Administrative Officer (P&A)