

INDIAN STATISTICAL INSTITUTE

Recruitment for posts of Associate Scientist A (*Specialization: Library*)

SECTION II

Syllabus for Online and Skill Tests

- **Data, Information, Knowledge and Wisdom:** Information life cycle, Role of information in planning, management, socio-economic, cultural, educational and technological development; Information society and knowledge society; Communication – concept, types, theories, models, channels and barriers; Trends in scholarly communication, Information industry, IPR and legal issues, Treaties, Laws, Plagiarism, Right to information act (RTI); Information technology act, National knowledge commission; National mission on libraries.
- **Historical Development of Libraries in India:** Historical development, Committees and commissions on libraries in India, Types of libraries, Library legislation and library acts in Indian states; The press and registration of books act; Laws of library science, LIS profession, Professional skills, Competences and ethics; Professional associations – national & international and their roles in promotion and development of libraries; Library and information science education in India, Library - public relations and extension activities, Type of users, User studies, User education, Information literacy.
- **Information Sources- Nature, Characteristics, Types and Formats:** Sources of information – primary, secondary and tertiary; Documentary and non-documentary, Reference sources, Electronic information resources, Databases, Institutional and human resources, Evaluation of reference sources and web resources.
- **Community Information Services:** Reference service – concept and types; Referral services, Alerting services, Mobile based library services, Web 2.0 and 3.0 - concept, characteristics, components, usage; Collaborative services, Web – scale discovery services, National & international information systems and networks, Library resource sharing and library consortia.
- **Universe of Knowledge - Nature and Attributes:** Modes of formation of subjects, Knowledge organisation– classification & cataloguing– theories, cannons and principles; Simple knowledge organisation system (SKOS), Taxonomies, Folksonomy. Mapping of subjects in library classification schemes, Library cataloguing codes, Standards of bibliographic record formats and description, Metadata standards, Indexing and abstracting systems and techniques, Information retrieval system.
- **Management - Principles, Functions and Schools of Thought:** Library and information centers management – book selection tools and principles; Library acquisition, Technical processing, Circulation, Serial control, Maintenance and Stock verification; Preservation and conservation; Human resource management, Financial management, Project management, Library building, Furniture and equipments; Green library building, Management information system (MIS), MBO, Change management, Disaster management, Crisis management, Knowledge management, Marketing of library products and services.

- **Computer Technology - Hardware and Software:** Character representation (ASCII, ISCII, unicode); Computer hardware, software; Storage devices; Input and output devices; Types of software, Programming languages, Telecommunication – transmission channels, mode, and media, standards and protocols, Wireless communication – media, wi-fi, li-fi, satellite communication, mobile communication; Computer networks, Internet – web browsers, www, e-mail; Search engines, Meta and entity search engines; Internet protocols and standards, Data security, Network security, Firewalls, Cryptographic techniques, Anti-virus software, Anti-spyware.
- **Library Automation:** Standards for library automation, Barcode, RFID, QR code, Biometric, Smartcard: features and applications; 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, Content management systems, application of artificial intelligence, Expert systems and robotics in libraries, Ontology – tools (RDF, RDFS, potege); Semantic web, Linked data, Big data, Data mining, Data harvesting.
- **Research - Concept, Purpose, Functions, Scope and Ethics:** Types of research, Research methods, Research design, Methods of data collection, Data analysis and interpretation, Statistical packages, Research report writing and citation tools; Style manuals; Online citation tools; Reference style management tools; Anti-plagiarism tools; Evaluation of research report; Metric studies in LIS, Impact factors – journal, institutional and authors; h-index, g-index, i10 index.
- **Library and Information System:** Academic, Public & special library and information systems; Community information system; Information services and system for persons with disability, children and women.

Sample Questions for the Online Test

Note: For each of the questions there are four suggested answers, of which only one is correct. You will score

*4 marks for each correctly answered question,
0 mark for each incorrectly answered question, and
1 mark for each unattempted question.*

1. Identify the books written by S.R.Ranganathan

- I. Philosophy of library classification
- II. Prolegomena to library classification
- III. Manual of library classification and shelf arrangement
- IV. Library book selection

(a) I, II, III (b) II, III, IV (c) I, III, IV (d) I, II, IV .

2. Identify from the following the correct statements regarding Indian National Bibliography (INB)

- I. Contains bibliographic records of publications in 14 languages of India
- II. Entries in the main part of the INB are arranged in alphabetical order
- III. Contains records of books received by the National Library, Kolkata under the provision of the Delivery of Books Act, 1954
- IV. Library of Congress Subject Heading list is followed to prepare subject headings

(a) I and II are correct (b) III and IV are correct
(c) I and III are correct (d) II and IV are correct

3. Technological Gatekeeper is:

- I. An informal channel
- II. A term coined by T.J. Allen
- III. A term coined by Derek De J. Solla Price
- IV. A formal channel

(a) I and II are correct (b) I and III are correct
(c) II and III are correct (d) III and IV are correct

4. An entry in an Abstracting Journal consists of :

- (a) Bibliographic citation
- (b) An abstract and bibliographic citation
- (c) Annotation
- (d) Bibliographic citation, an abstract and initials of the abstractor

5. Dictionaries and Encyclopedias are considered as documents

(a) Conventional (b) Primary (c) Secondary (d) Tertiary .

6. "A Library Catalogue is a list of books which is arranged on some definite plan" – defined by

(a) J. D. Brown (b) C. A. Cutter (c) S. R. Ranganathan (d) Margaret Mann .

7. **Assertion (A)**: Users can have access to a large number of E-journals through consortia.
Reason (R) : Users are not aware of using web-resources.
- (a) (A) is false and (R) is true
 - (b) (A) is true and (R) is false
 - (c) Both (A) and (R) are true, but (R) is not the right explanation of (A)
 - (d) Both (A) and (R) are false
8. Give the full form of DRM
- (a) Digital Rights Management
 - (b) Document Rights Management
 - (c) Digital Rights Mode
 - (d) Digital Rights Method
9. A subject without isolate idea is called
- (a) Generic
 - (b) Complex
 - (c) Compound
 - (d) Basic
10. Zero Base Budgeting System was propounded by
- (a) Peter F. Drucker
 - (b) P. N. Kaula
 - (c) E. Mayo
 - (d) Pter Phyr
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