

### Guidelines on selection procedure

1. Only Interview will be conducted for the posts of Scientist D and Scientist E in all the disciplines.
2. Screening test will be conducted for evaluating and recommending the candidates for interview for the posts of Scientific Technical Officer, Scientist-C and Administrative Officer. Top twelve candidates in order of merit will be called for interview. However, if the number of eligible candidates are less than twenty in such cases only interview will be conducted.
3. Written Test should be conducted for the posts of Office Assistant-II, Assistant and Clerk-cum-typist followed by Trade/skill test of English typing on computer. The candidates who acquire minimum 50% in written test will only qualify to appear for skill / trade test (English typing on computer) at 35 WPM net speed. The final selection will be on merit in written test only and have qualified in the typing test.
4. Only written test will be conducted for the post of STA (CS) & (LS) and selection will be on merit of written test only.
5. Trade Test (Dictation for stenography and Typing of the same on Computer) and Written test are Qualifying only for the post of Private/Personal Secretary. The final selection will be based on performance in interview.
6. Combined screening test / written test / skill test / trade test will be conducted for candidates for same posts (as applicable) by pooling all the advertisements. However, separate merit list should be prepared category wise and advertisement wise for further process.
7. Syllabus, question Paper and pattern/selection procedure for various posts is listed as Appendix I, II& III.

Selection methodology for various posts:

<b>Details for Selection Procedure</b>					
Sl. No.	Posts	Selection Pattern	Nos. of MCQ for screening / written test	Total Marks	Duration
1.	Scientist-C (LS) and STO (LS).	Screening test followed by Interview	50	50	60 Min.
2	Administrative Officer (Finance)	Screening test followed by Interview	50	50	60 Min.
3	Private / Personal Secretary	1. Screening Test comprising Skill Test (Dictation at minimum speed of 120 wpm in shorthand and 40 wpm in English typing on computer will qualify for written test followed by interview	50	50	60 Min.
4	STA (CS) & (LS)	Written test only	100	100	120 Min.
5	Sr. Assistant/ Office Assistant-II and Assistant	written test followed by Skill test (Typing on computer)	100	100	120 Min.
6	Clerk cum Typist	Written test and skill test (Typing on computer)	100	100	120 Min.

## Appendix-I

### Administrative Posts

Sl No.	Name of the Post	Pattern/Selection Procedure	Qualifying grade/ Marks etc.	Syllabus for written test/screening test
1.	Administrative Officer (Finance)	1. Screening test and 2. Interview	1. In order of merit top twelve candidates will qualify for interview. 2. Final selection on performance base in interview only.	General English, Numerical ability, Reasoning, General awareness, Knowledge about INFLIBNET Centre, FR/SR, GFR 2017, Establishment & Administration, Conduct Rules 1964, CCS (CCA) Rules 1965, TA Rules, LTC Rules, Leave Rules, HRA Rules, RTI Act 2005, TDS, GST, Balance sheet, Budget, Income Tax matters, GPF, NPS etc. Computerised accounting like MS Excel, Tally etc.
2.	Private / Personal Secretary	1. Trade Test (Dictation for stenography and Typing of the same) on Computer and Written test. Qualifying only. 2. Interview	2. Minimum Net speed of 120 wpm in shorthand and 40 wpm in English typing on computer will qualify for written test. 3. Minimum 50% in written will only be considered as qualified for interview. 4. Final selection on performance base in interview only.	1. General English, Reasoning, Numerical ability, General awareness, Knowledge about INFLIBNET Centre. 2. Stenography test 3. Typing test on computer.
3.	Office Assistant -II	1. Written test 2. Trade Test (Typing) of 10 Minutes on Computer. Qualifying only.	1. Minimum 50% in written will only be considered as qualified for skill/typing test. 2. Minimum Net speed 35 wpm in English on computer will qualify for	1. General English, Numerical ability, Reasoning, General awareness, Knowledge about INFLIBNET Centre, FR/SR, GFR 2017, Establishment & Administration, Conduct Rules 1964, CCS (CCA) Rules 1965, TA Rules, LTC Rules, Leave Rules, HRA, GPF, NPS etc. RTI Act 2005, TDS, Tax matters etc. 2. Typing test on computer.

			<p>final merit list (qualifying only).</p> <p>3. Final selection will be on merit in written test</p>	
4	Assistant	<p>1. Written test</p> <p>2. Trade Test (Typing) of 10 Minutes on Computer. Qualifying only.</p>	<p>1. Minimum 50% in written will only be considered as qualified for skill/typing test.</p> <p>2. Minimum Net speed 35 wpm in English on computer will qualify for final merit list (qualifying only).</p> <p>3. Final selection will be on merit in written test</p>	<p>1. General English, Numerical ability, Reasoning, General awareness, Knowledge about INFLIBNET Centre, FR/SR, GFR 2017, Establishment &amp; Administration, Conduct Rules 1964, CCS (CCA) Rules 1965, TA Rules, LTC Rules, Leave Rules, HRA, GPF, NPS etc. RTI Act 2005, TDS, Tax matters etc.</p> <p>2. Typing test on computer.</p>
5	Clerk-cum-typist	<p>1. Written test</p> <p>2. Trade Test (Typing) of 10 Minutes on Computer. Qualifying only.</p>	<p>1. Minimum 50% in written will only be considered as qualified for skill/typing test.</p> <p>2. Minimum Net speed 35 wpm in English on computer will qualify for final merit list (qualifying only).</p> <p>3. Final selection will be on merit in written test</p>	<p>1. Typing test on computer.</p> <p>2. General English, Reasoning, Numerical ability, General awareness, Knowledge about INFLIBNET Centre.</p>

**Scientific & Technical Posts for Computer Science (Indicative, Syllabus and weightage for written test)**

Sl. No.	Topic	(Weightage %)		
		STA	STO	Scientist-B&C
1	<b>Operating System:</b> Processes, Threads, Inter-process communication, Concurrency, Synchronization, Deadlock, CPU scheduling, Memory management and virtual memory, File systems, I/O systems, Protection and security.	10	10	10
2	<b>Databases:</b> ER-model, Relational model (relational algebra, tuple calculus), Database design (integrity constraints, normal forms), Query languages (SQL), File structures), Transactions and concurrency control.	15	15	20
3	<b>Systems and Software Engineering:</b> information gathering, requirement and feasibility analysis, data flow diagrams, process specifications, input/output design, process life cycle, planning and managing the project, design, coding, testing, implementation, maintenance. Computer	15	15	20
4	<b>Networks and Security:</b> ISO/OSI stack, LAN technologies (Ethernet, Token ring), Flow and error control techniques, Routing algorithms, Congestion control, TCP/UDP and sockets, IP(v4),OSI Model, Application layer protocols (ICMP, DNS, SMTP, POP, FTP, HTTP); Basic concepts of hubs, switches, gateways, and routers. Basic concepts of public key and private key cryptography, digital signature, firewalls	15	15	15
5	<b>Programming and Data Structures:</b> Programming in C; Functions, Recursion, Parameter passing, Scope, Binding; Abstract data types, Arrays, Stacks, Queues, Linked Lists, Trees, Binary search trees, Binary heaps. Programming Languages such as C/C++/PHP/Java/.NET	15	15	15
6	<b>Web technologies:</b> HTML, XML, JSON basic concepts of client-server computing, Scripting, AJAX,	10	15	10
7	General Aptitude / Awareness/ INFLIBNET Awareness	20	15	10

**Scientific & Technical Posts for Library Science (Indicative, Syllabus and weightage for written test)**

Sl No	Topics	(Weightage %)		
		STA	STO	Scientist -B&C
1	<ul style="list-style-type: none"> <li>● Types of Libraries – Academic, Public and Special.</li> <li>● Library Legislation and Library Acts in Indian States; The Press and Registration of Books Act;</li> <li>● Laws of Library Science.</li> <li>● Professional Associations - National – ILA, IASLIC, IATLIS; International – IFLA, ALA, CILIP, ASLIB, SLA; Role of UGC, RRRLF and UNESCO in Promotion and Development of Libraries.</li> <li>● Library and Information Science Education in India</li> <li>● Library Extension Activities</li> <li>● Trends in Library and Information Science</li> </ul>	10	5	5
2	<ul style="list-style-type: none"> <li>● Data, Information, Knowledge and Wisdom.</li> <li>● Information Life Cycle - Generation, Collection, Storage and Dissemination.</li> <li>● Information Science - Relationship with other subjects, Information Society and Knowledge Society.</li> <li>● Communication – Concept, Types, Theories, Models, Channels and Barriers; Trends in Scholarly communication.</li> <li>● IPR and Legal Issues - Categories, Conventions, Treaties, Laws.</li> <li>● Right to Information Act (RTI); Information Technology Act.</li> <li>● National Knowledge Commission; National Mission on Libraries</li> </ul>	10	5	5

3	<ul style="list-style-type: none"> <li>● Information Literacy - Areas, Standards, Types and Models; Trends in Information Literacy</li> <li>● Information Sources - Nature, Characteristics, Types and Formats.</li> <li>● Sources of Information - Primary, Secondary and Tertiary; Documentary and Non-Documentary.</li> <li>● Reference Sources - Bibliographical, Biographical, Educational, Language and Geographical.</li> <li>● Electronic Information Resources - Subject Gateways, Web Portals, Bulletin Boards Discussion Forums /Groups.</li> <li>● Databases: Bibliographic, Numeric, Full text, Multimedia; Open Access Databases.</li> <li>● Evaluation of Reference Sources and Web Resources.</li> <li>● Search and Discovery Services.</li> <li>● Library Resource Sharing and Library Consortia – National and International.</li> <li>● National Information Systems and Networks: NISCAIR, DESIDOC, SENDOC, ENVIS, INFLIBNET, DELNET, NICNET, ERNET, National Knowledge Network (NKN), Biotechnology Information System Network</li> <li>● International Information Systems and Networks: INIS, AGRIS, INSPEC, MEDLARS, BIOSIS, ERIC, Patent Information System (PIS), Biotechnology Information System (BIS).</li> </ul>	10	15	15
4	<ul style="list-style-type: none"> <li>● Type of Users - User Studies, User Education.</li> <li>● Community Information Services.</li> <li>● Reference Service – Concept and Types; Referral Services</li> <li>● Alerting Services - CAS, SDI, Inter Library Loan and Document Delivery.</li> <li>● Mobile based Library Services and Tools – Mobile OPAC, Mobile Databases,</li> <li>● Mobile Library Website, Library Apps, Mobile Library Instructions, Augmented Reality, SMS Alerts, Geo-Location, Reference Enquiry.</li> <li>● Web 2.0 and 3.0 - Library 2.0- Concept, Characteristics, Components; Instant Messaging, RSS Feeds, Podcasts, Vodcasts, Ask a Librarian</li> <li>● Collaborative Services- Social Networks, Academics Social Networks, Social Tagging, Social Bookmarking.</li> </ul>	10	10	10

5	<ul style="list-style-type: none"> <li>● Universe of Knowledge - Nature and Attributes; Modes of Formation of Subjects.</li> <li>● Knowledge Organisation - Classification -Theories, Canons, and Principles;</li> <li>● Simple Knowledge Organisation System (SKOS), Taxonomies, Folksonomy, Trends in Classification.</li> <li>● Mapping of Subjects in Library Classification Schemes – DDC, UDC and CC.</li> <li>● Knowledge Organisation: Cataloguing - Canons and Principles; Centralized and Co-operative Catalogue; Library Cataloguing Codes: CCC and AACR - II.</li> <li>● Standards of Bibliographic Record Formats and Description – ISBD, MARC 21, CCF, RDA, FRBR, Bibframe.</li> <li>● Standards for Bibliographic Information Interchange &amp; Communication - ISO 2709, Z39.50, Z39.71.</li> <li>● Metadata Standards: Dublin Core; MARC21, METS, MODES, EAD.</li> <li>● Indexing Systems and Techniques: Assigned - Pre-coordinate; Post-Coordinate; Derived- Title-based; Vocabulary Control.</li> <li>● Abstracting – Types and Guidelines.</li> <li>● Information Retrieval System – Features, Components, Models and Evaluation.</li> <li>● Ontology – Tools (RDF, RDFS, Protege).</li> </ul>	10	15	15
6	<ul style="list-style-type: none"> <li>● Computer Technology - Character Representation (ASCII, ISCII, Unicode);</li> <li>● Computer Hardware, Software; Storage Devices; Input and Output Devices.</li> <li>● Types of Software - System Software, Application Software.</li> <li>● Telecommunication - Transmission Channels, Mode, and Media, ISDN, PSDN,</li> <li>● Computer Networks - Topologies, Types of Networks – LAN, MAN, WAN.</li> <li>● Internet - Web browsers, WWW, E-mail; Search Engines, Meta and Entity Search engines.</li> <li>● Internet Protocols and Standards – HTTP, FTP, SMTP, TCP/IP, URI, URL.</li> <li>● Hypertext, Hypermedia, Multimedia, Video conferencing, Virtual Reality.</li> <li>● Cloud Computing</li> <li>● Semantic Web, Linked Data, Big Data, Data Mining, Data Harvesting</li> </ul>	10	15	10



7	<ul style="list-style-type: none"> <li>● Library Automation – Areas, Planning, Selection of Hardware and Software,</li> <li>● Implementation and Evaluation; Standards for Library Automation.</li> <li>● Barcode, RFID, QR Code, Biometric, Smartcard: Features and Applications.</li> <li>● Digitization – Planning, Selection of Materials, Hardware, Software, Process, Issues.</li> <li>● Digital Library: Genesis, Characteristics, Types, Architecture; Standards, Formats and Protocols, DOI.</li> <li>● Digital Preservation - Need, Purpose, Standards, Methods, Techniques, Projects (National and International)</li> <li>● Digital Library Initiatives – National and International.</li> <li>● Institutional Repositories - Need, Purpose, Types and Tools; Institutional Repositories in India; ROAR, DOAR, SHERPA-ROMEO.</li> <li>● Content Management Systems – Architecture, Data Integration, CMS Software –</li> <li>● Selection, Implementation and Evaluation.</li> </ul>	10	15	15
8	<ul style="list-style-type: none"> <li>● Research</li> <li>● Types of Research – Basic and Applied, Interdisciplinary and Multidisciplinary.</li> <li>● Research Methods: Historical, Descriptive, Experimental and Delphi.</li> <li>● Research Design - Selection of Research Problem, Review of Literature; Formulation of Research Problem; Hypothesis – Formulation, Types and Testing; Sampling Techniques.</li> <li>● Methods of Data Collection</li> <li>● Data Analysis and Interpretation</li> <li>● Plagiarism: Concept and Types.</li> <li>● Statistical Packages – Spreadsheet, SPSS, Bibexcel, ‘R’ Statistics.</li> <li>● Research Report Writing and Citation Tools – Structure, Style, Contents, Guidelines;</li> <li>● Style Manuals; Online Citation Tools; Reference Management Tools; Evaluation of Research Report.</li> <li>● Metric Studies in LIS - Bibliometrics, Scientometric, Webometrics, Altmetrics;</li> <li>● Impact Factors – Journal, h-Index, g-Index, i10 Index.</li> <li>● Trends in Library and Information Science Research.</li> </ul>	10	10	15
9	General Aptitude / Awareness/Knowledge about INFLIBNET	20	10	10

