MASTER OF LIBRARY AND INFORAMTION SCIENCE
(REGULAR MODE)

1st Semester
Paper I: Foundations of Library and Information Science

Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

(Theory)

Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit – I: Libraries as Social Institutions

- Social and historical foundation of Library
- Different types of Libraries – features and functions
- Development of Libraries with special reference to India
- Role of Library in formal and informal education

Unit – 2:   Normative Principles of Library and Information Science

- Laws of Library Science and their implications

Unit – 3:   Laws relating to Libraries and Information Centres

- Library legislation – need and essential features
- Library legislations in India
- Copyright Act, IT Act, Intellectual Property Rights, Delivery of Books (Public Libraries) Act

Unit – 4:   Library and Information Profession

- Librarianship as a Profession
- Professional ethics
- Professional Associations and their role with particular reference to ILA, IASLIC, ALA, BLA, and IFLA

Unit – 5:   Promoters of Library and Information Science

- National level promoters – Raja Ram Mohan Roy Library Foundation, UGC, ICAR and ICMR
- International level promoters – UNESCO

Suggested Readings:

1.   Gardner, Frank M. *Public Library Legislation: A Comparative Study.* Paris: UNESCO, 1971.
2.   Harrison, Colin and Beenham, Rosernary. *The Basics of Librarianship*. 3rd ed. London: Clive-Bingley, 1990.
3.   India Ministry of Education.*Report of the Advisory Committee for Libraries*. Delhi: Manager of Publications, 1959.
4.   Jefferson, G. *Libraries and Society*. London: James Clarks, 1969.
5.   Khanna, J. K. *Library and Society*. Kurukshetra: Research Publications, 1987.
6.   Krishan Kumar. *Library Organization*. New Delhi: Vikas Publications, 1993.
7.   Ranganathan, S. R. *Five Laws of Library Science*. 5th ed. Bangalore: SaradaRanganathan Endowment for Library Science, 2006.
8.   Ranganathan, S. R., ed. *Free Book Service for All: An International Survey, 1969*. Asia Publishing House, 1969.

Paper II: Knowledge Processing, Organization & Retrieval

(Theory)

Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit – 1: Structure of Knowledge

- Universe of Subjects- Definitions and Purpose
- Modes of formation of subjects
- Library Classification- Definition, Need and Purpose
- Mapping of subjects according to CC (Main classes) and DDC (2nd Level Classes)

Unit – 2: Library Classification

- Postulational Approach- Postulates, Facet Analysis, Fundamental Categories, Phase analysis, Principles of Helpful Sequence and Facet Sequence
- Notation- Need, Type and Quality
- Call Number- Class Number, Book Number and Collection Number

Unit-3: Knowledge Organization in different Scheme of Library Classification

- Standard schemes of classification and their feature (CC and DDC)
- Normative principles of classification and their applications

Unit – 4: Bibliographic Description

- Catalogue - Definition, Need and Purpose, Types of Library Catalogue, Physical forms (Conventional and Non-conventional including OPAC).
- Kinds of Catalogue Entries according to CCC and AACR-2.
- Current trends in standardization, description and exchange of information: MARC-21, ISBD, ISO 2709, CCF

Unit – 5: Subject Cataloguing

- Subject cataloguing- Definition, Need, Purpose and Principles of Subject Cataloguing
- Subject heading lists- Sears List of Subject Heading and their feature

Suggested Readings:

1. Chaudhary, G. G. *Modern Information Retrieval Theory*. London: Library Association, 1999.
2. Dhyani, Pushpa. *Theory of Library Classification*. Delhi: VishwaPrakashan, 2000.
3. Foskett, A. C. *Subject Approach to Information*. 5th ed. London: Clive Bingley, 1990.
4. Hunter, E. J. and Bakewell, K. G. B. *Advanced Cataloguing*. London: Clive Bingley, 1989.
5. Krishan Kumar. *Theory of Classification*. 4th rev ed. New Delhi: Vikas Publications, 2000.
6. Ranganathan, S. R. *Prolegomena to Library Classification*. 3rd ed. Bangalore: SaradaRanganathan Endowment for Library Science, 1967.
7. Ranganathan, S. R. *Classified Catalogue Code with Additional Rules of Dictionary Catalogue*. 5th ed. Bangalore: SaradaRanganathan Endowment for Library Science, 1988.

Paper – III   Knowledge Processing, Organization & Retrieval

Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

(Practice)

Note: The paper is divided into 2 Parts. Each part carries 40 marks.

Part – I: Classification of Documents by Latest Available Edition of DDC

Note: There are fifteen Titles. The candidates are required to classify any ten titles.

- Classification of Documents representing Simple Subject, Compound Subject, and Complex Subject, having Common Isolates etc.

Part – II: Cataloguing of Documents by AACR-II

Note: 1.   There are four Titles in Section 1. The candidates are required to catalogue any two titles only.
        2.   There are two Titles in Section 2. The candidates are required to catalogue any one title only.

Section 1:   Conventional Documents

- Documents having Personal Author, Shared Author (s), Collaborator (s)
- Documents published under Pseudonym (s)
- Cataloguing of Corporate Authorship
- Multivolume documents
- Periodical Publications

Both the catalogued documents may be assigned subject headings as per "Library of Congress Subject Headings List"

Section 2:   Non-Book Material

- Atlas- Maps, Globe
- Manuscript
- Musical Works
- Sound Recordings
- Motion Picture and Video Recordings

The catalogued document may be assigned subject headings as per "Library of Congress Subject Headings List"

Suggested Readings:

1.   Dewey, Melvil, and Julianne Beall. *DDC, Dewey Decimal Classification.* 19th ed. Albany, N.Y., U.S.A.: Forest, 1985.
2.   ALA and others. *Anglo-American Cataloguing Rules: AACR.* 2nd rev ed. London: Library Association, 2006.
3.   *Library of Congress Subject Headings*. 4th abridged ed. Washington, D.C.: Library of Congress, Cataloging Distribution Service, 2006.

Paper IV: Information Communication Technologies: Basics

(Theory)

Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit 1:   Hardware Concepts

- Information Technologies: Definition, Need, Scope and Objectives
- Historical development of computers, Generation of Computers, Classification of Computers, Components of Computers, Input Output devices

Unit 2:   Software Concepts

- Operating Systems: Single & Multi-user, Basic features of MS-DOS, MS Windows and LINUX
- Programming Languages: Basic Concepts and Tools
- Algorithm & Flowcharting

Unit 3:   General Application Softwares

- MS Word, MS Excel, MS PowerPoint

Unit 4:   Library Automation

- Library Automation: Definition, Need and Purpose
- Library & Information Management Softwares: WINISIS, Basic features/modules of SOUL

Unit 5:   Computer Applications to Library & Information Works

- Application of Computers to Library House Keeping Operations
- Local Area Network : Basics
- Library Networks in India: DELNET, etc.
- Internet : Basics

Suggested Readings:

1.   Amba, Sanjeevi and Raghavan, K. S. *CDS/ISIS: A Primer*. New Delhi: EssEss Publication, 1999.
2.   Bharihoke, Deepak. *Fundamentals of IT*. 2nded. New Delhi: Excel Books, 2002.
3.   Rajaraman. *Fundamentals of Computers*. 3rded. New Delhi: Prentice Hall of India, 2001.
4.   Rowley, Jennifer. *Computers for Libraries*. 3rded. London: Library Association, 1993.
5.   Sinha, P. K. *Foundations of Computing*. New Delhi: BPB, 2002.
6.   Taxali, R. K. *PC Software for Windows Made Simple*. New Delhi: Tata McGraw-Hill, 1998.

2nd Semester

Paper– V: Management of Library and Information Centres

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Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

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(Theory)

Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit 1:   Management

- Concept, Definition and Scope
- Functions and Principles of Scientific Management
- Management of Change : Concept of Change, Problems of Inducing Change, Techniques of Managing Change
- Total Quality Management : Definition, Concept, Elements

Unit 2:   Planning

- Planning : Definition, Need and Purpose
- System Analysis : Concept, Definition, Need, Library as a System, Performance Evaluation, Project Management
- LibraryBuilding and Infrastructural Planning

Unit 3:   Human Resources

- Organizational Structure
- Standards Relating to Manpower Requirements (Ranganathan's Formula etc.)
- Job Description and Analysis with Reference to Libraries
- Inter-personal Relations
- Training and development

Unit 4:   Library Finance

- Sources of Finance
- Budget : Concept, Definition and Purpose, Techniques for Budget Preparation
- Library Budget Preparation and Budget Management
- Outsourcing : Concept, Definition, Need and Purpose

Unit 5:   Library House Keeping Operations

- Different Sections of Library & Information Centres
- Functions of Different Sections (Resources Development Section – collection development policies of print and e-resources, Processing Section, Periodicals Section, Maintenance Section including conservation and preservation, Circulation Section)
- Library Rules, Stock Verification and Weeding Policies and Procedures
- Types of Reports, Contents and style of Annual Reports
- Library Statistics etc.

Suggested Readings:

1. Krishan Kumar. *Library Management in Electronic Environment*. New Delhi: Har-Anand Publications, 2007.

2. Mittal, R. L. *Library Administration: Theory and Practice*. 5thed. New Delhi: EssEss Publications, 2007.

3. Mookherjee, Subodh Kumar and Sengupta, Beneyendra. *Library Organization and Library Administation.*Calcutta: World Press, 1972.

4. Panwar, B. S. and Vyas, S. D. *Library Management*. Delhi: R. R. Publishing, 1986.

5. Ranganathan, S. R. *Library Manual for Authorities, Librarians and Honorary Library Workers*. 2nd ed. Bombay: Asia Publishing House, 1967.

6. Singh, M. *Library and Information Management: Theory and Practice*. Delhi: IBT, 1983.

7. Singh, R. S. P. *Fundamentals of Library Administration and Management*. Delhi: Prabhat Publications, 1990.

8. Stueart, R. D. and Moran, B. B. *Libraries and Information Center Management*. 2nded. London: Libraries Unlimited, 2007.

Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

(Theory)

Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit 1: Reference Service

- Concept, Definition and Trends
- Methods of Providing Reference Service (Library Orientation and User Education along with goals and objectives).
- Types of Reference Service: Long Range & Short Range

Unit 2:   Knowledge and Information Sources

- Knowledge and Information Sources: Print, Non-print, Electronic
- Categories: Primary, Secondary and Tertiary Information Sources
- Nature, characteristics, utility and evaluation of different types of Information Sources

Unit 3: Knowledge & Information Services and Products

- Knowledge & Information Services: Concepts, Definition, Need and Trends
- Information Services and Products
- Current Knowledge & Information Alerting Services: Need, Techniques and Evaluation
- Bibliographic, Referral, Document Delivery and Translation Services

Unit 4: Information Systems and their Products - I

- National, International and Commercial Information Systems and Services: Background, Services and Products
- National Consortia in India for access to e-Resources: UGC-Infonet, INDEST, CeRA (Consortium of e-Resources in Agriculture)

Unit 5: Information Systems and their Products - II

- AGRIS (FAO database), IAEA database
- Commercial: ScienceDirect, Medline, INSPEC, CABI Abstracts, AGRICOLA, Biological Abstracts, Chemical Abstracts, etc.
- Internet as a Source of e-Information

Suggested Readings:

1.   Foskett, D. J. *Information Service in Libraries*. 2nd ed. Connecticut: Archon Book Hamden, 1967.
2.   Gates, Jean Key. *Guide to the use of Libraries and Information Sources*. 6thed. New York: McGraw-Hill, 1988.
3.   Katz, William A. *Introduction to Reference Work: Reference Service and Reference Processes*. 2 V. 5thed. New York: McGraw-Hill, 1987.
4.   Krishan Kumar. *Reference Service*. 5th reved. New Delhi: Vikas Publications, 2001.
5.   Library Association. *Guidelines for Reference and Information Service in Public Libraries*. London: Library Association, 1999.
6.   Ranganathan, S. R. *Reference Service*. 2nd ed. Bangalore: SaradaRanganthan Endowment for Library Science, 1989.
7.   UshaPawan and Gupta, Pawan Kumar. *SandarbhSewa: SaidhantikAvamKriyatmak*. Jaipur: RBSA, 1994.

Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

(Practice)

Note:The paper is divided into 3 Parts. Part I and II carries 30 marks each and Part III Carries 20 marks.

Part – I: Study and evaluation of information Sources

*   Study and evaluation of Information Sources
*   Compilation of Current Awareness List/ Bibliography/ Content list/ Press Clipping.

Part – II: Classification of Documents by Colon Classification (6th revised edition)

Note: There are fifteen Titles. The candidates are required to classify any ten titles.

*   Classification of Documents representing Simple Subject, Compound Subject, and Complex Subject, having Common Isolates etc.

Part – III: Cataloguing of Documents by Classified Catalogue Code (5th edition with amendments).

Note: There are four Titles. The candidates are required to catalogue any two titles.

*   Documents having Personal Author, Shared Author (s), Collaborator (s)
*   Documents published under Pseudonym (s)
*   Cataloguing of Corporate Authorship
*   Multivolume documents
*   Periodical publications

Both the catalogued documents may be assigned subject headings as per "Sear's List of Subject Headings (Latest edition)"

Suggested readings:

1.   Chandler, G. *How to Find Out: A guide to Sources of Information for All*. 4th ed. Pergamon: Oxford, 1971.
2.   Katz, William A. *Introduction to Reference Work*.7th ed. 2V. New York: Tata McGraw-Hill, 1996.
3.   Krishan Kumar. *Reference Service*. 5th rev ed. New Delhi: Vikas Publications, 1996.
4.   Tripathi, S. M .*Modern Bibliographical Control, Bibliography and Documentation*. Agra: Y.K., 1992.
5.   Ranganathan, S. R. *Colon Classification*. 6th rev. ed. Bangalore: SaradaRanganathan Endowment for Library Science, 1963.
6.   Ranganathan, S R. *Classified Catalogue Code (with additional Rules for Dictionary Catalogue Code)*. 5th ed. Bangalore: SaradaRanganathan Endowment for Library Science, 1988.
7.   Ranganathan, S. R. *Descriptive Account of the Colon Classification*. Bangalore: SaradaRanganathan Endowment for Library Science, 1990.

Paper – VIII: Information Communication Technologies: Basics

Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

(Practice)

Note: This paper is divided into five Units. Each Unit carries equal marks. The candidates are required to perform the activity assigned to them by the examiner.

Unit 1:   WINDOWS (Latest) Operating System

- Basics such asDesktop, My Computer, Control Panel, Windows Explorer, Accessories Applets: Calculator and Paint.

Unit 2:   MS Word (Latest)

- Basics such as Standard Toolbars, Creating a Document, Editing a Document, Formatting a Document, Mail Merge, Printing etc.

Unit 3:   MS PowerPoint (Latest)

- Basics such as Creating Presentation Slides, Animation, Formatting/ Adding Graphics, Slide Show, Customizing and Printing.

Unit 4:   MS EXCEL (Latest)

- Basics such as File creation, Editing, Inserting, Formatting, Printing etc.

Unit 5:   Library Application Software

- Basics of WINISIS/SOUL/e-Granthalaya

Suggested Readings:

1. Amba, Sanjeevi and Raghavan, K.S. *CDS/ISIS: A Primer*. New Delhi: EssEss Publications, 1999.
2. UNESCO. *Mini-Micro CDS/ISIS 3.08: Reference Manual*. New Delhi: NISSAT, 1998.

3rd Semester

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Unit 1: Information and Communication

- Information: Characteristics, Nature, Value and Use of Information
- Conceptual difference between Data, Information and Knowledge
- Communication of Information: Information generation
- Communication channels, models and barriers

Unit 2: Information Science

- Definition, Scope and Objectives
- Information Science as a discipline and its relationship with other subjects

Unit 3: Library, Information and Society

- Genesis, characteristics and implications of Information Society
- Changing role of Library and Information Centers in Society
- Information Industry-Generators, Providers and Intermediaries
- Intellectual Property Act, Right to Information Acts
- Concept of freedom, censorship, data security and fair use policies in relation to information, Right to Information
- International and National Programmers and Policies (NAPLIS) IT and Library UAP

Unit 4: Economics of Information

Unit 5: Information and Management

Suggested Readings:

1. Bell, Daniel. "The Information Society: The Social Framework of the Information Society." *The Computer Age: A Twenty Years View*. Cambridge: MIT Press, 1974.16-211.
2. Martin, William J. *The Information Society*. London: Aslib, 1988.
3. Raja Rammohan Roy Library Foundation and Indian Library Association. *Documents of National Policy on Library and Information System*. Calcutta: The Foundation, 1985.
4. Ranganathan, S. R. "Teaching Library Science". *Library Science with a Slant to Documentation* V.3 (1966): 293-388.
5. Rao, Madan Mohan. *Leading with Knowledge: Knowledge Management Practices in Global Infotech Companies*. New Delhi: Tata McGraw-Hill, 2003.
6. Rowley, Jennifer. *The Electronic Library: Fourth Edition of Computers for Libraries*. London: Association Publishing, 1998.
7. Scammell, Alison, ed. *Handbook of Special Librarianship and Information Work*. 7th ed. London: Aslib, 1997
8. Sharma, Pandey S. K., ed. *Electronic Information Environment and Library Services*. New Delhi: Indian Library Association, 2003.
9. Unesco. *Intergovernmental Conference on Scientific and Technological Information for Development*. Paris: Unesco, 1979.
10. Vickery, Brian C. and Vickery, Alina. *Information Science in Theory and Practice*. London: Butterworths, 1987.

Paper X: Information Analysis, Consolidation and Repackaging

Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit 1:   Abstracting

- Concept, Definition, Types
- Guidelines for preparing Abstract

Unit 2:   Repackaging and Consolidation

- Content Analysis
- Repackaging, formatting, consolidation
- Electronic Content Creation

Unit 3:   Information Products

- Information Products: Concept, Nature, Types, Design
- Development and Marketing

Unit 4:   Indexing Language and Vocabulary Control

- Pre & Post Coordinate Indexing Systems
- Citation Indexing
- Indexing Languages: Types and Characteristics
- Vocabulary Control and Tools of Vocabulary Control
- Structure and construction of and IR Thesaurus
- Auto-Indexing

Unit 5:   Information Retrieval

- I R Models, Search Strategies; Manual /Machine, Feedback and Refining
- Evaluation of Information Retrieval Systems
- Trends in I R Models

Suggested Readings:

1.   Seetharama, S. *Information Consolidation and Repackaging*. New Delhi: EssEss Publications, 1997.
2.   Atherton, Pauline. *Handbook for Information Systems and Services*. Paris: Unesco, 1977.
3.   Bhattacharya, G. and Gopinath, M. A. *Information Analysis and Consilidation: Principles, Procedures and Products; the Working Document for the DRTC Annual Seminar Bangalore, 23-27 Feb 1981*. Bangalore: DRTC, 1981.
4.   Saracevic, T. and Wood, J. S. *Consolidation of Information: A Handbook of Evaluation, Restructuring and Repackaging of Scientific and Technical Information*. Paris: Unesco, 1981.
5.   Seetharama, S. "Modes of Presentation of Information in Information Consolidation Products*". Library Science with a Slant to Documentation*V.22 (1985).

Paper XI: **Information Communication Technologies – Advanced**

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Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

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(Theory)

Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit 1: **Library Automation**

- Planning and Implementation of Library Automation
- Automation of In-house Operations (Acquisition System, Cataloguing, Circulation System, Serials Control System, OPAC and its features, Library Management)

Unit 2: **Database Management**

- DBMS: Concept, Definition and Features
- RDBMS: Concept, Definition and Features, Basics of ORACLE & MySQL

Unit 3: **Communication Technology**

- Fundamentals of Telecommunication Technology: Media, Mode etc.
- Network Types and Topologies : LAN, MAN, WAN
- Local Area Network Topologies & Technologies : Bus, Star, Ring, Token Ring, Ethernet
- Components of LAN: Servers, PCs etc., Network Interface Card, Hubs, Routers, Modems, UPSs
- Network Media: UTP, Co-Axial, Optical Fibre, etc.

Unit 4: **INTERNET: Advanced Features and Tools**

- Connectivity: Dialup, Leased line, ISDN, Wireless
- Protocols & Standards: Concept, FTP, HTTP, OSI,
- Web Tools: Web browsers (Netscape, Internet Explorer, etc.), Search Engines (Google, Yahoo), E-mail
- Web Servers and Internet Security
- Internet Service Providers: BSNL, ERNET Society, National Informatics Centre.

Unit 5: **Digital Libraries**

- Genesis, Definition, Objectives, and Scope
- Storage Media (CDs/DVDs) and Storage Formats (ISO-9660 for DVDs)
- Software and Hardware for digital libraries : OCR, Input capture devices (scanners, digital, movie cameras), Image Editing
- Data Warehousing, Data Mining
- Artificial Intelligence & Expert Systems : Concept, Definition and Features

Suggested Readings:

1. Leon-Garcia, Alberto and Widjaja, Indra. *Communication Networks: Fundamental Concepts and Key Architectures*. Boston: McGraw-Hill, 2004
2. Ackermann, Ernest. *Learning to Use the Internet: An Introduction with Examples and Experiences.* New Delhi: BPB, 1995
3. Chellis, James, Perkins, Charles and Strebe, Mathew. *MCSE: Networking Essential Study Guide*. New Delhi: BPB, 1997.
4. Falk, Bennett. *The Internet Basic Reference from A to Z*. Singapore: BPB Publications, 1996.
5. Forouzan, B. A., Coombs, Catherine and Fegan, S. C. *Data Communication and Networking.* 2nded. New Delhi: Tata McGraw-Hill, 2000.
6. Kashyap, M.M. *Database system: Design and Development*. New Delhi: Sterling, 1993.
7. Leon, Alexis and Leon, Mathews. *Fundamentals of IT*. Chennai: Leon TechWorld, 1999.
8. Panda, K. C. and Gautam, J. N. *Information Technology on the Cross Road: From Abacus to Internet.* Agra: Y. K. Publishers, 1999.
9. Patterson, Dan W. *Introduction to Artificial Intelligence and Expert Systems*. New Delhi: Prentice-Hall of India, 2000.
10. Stallings, William. *Data and Computer Communications*. 6thed. New Delhi: Pearson Education Asia, 2001.
11. Tanenbaun, Andrew S. *Computer Networks*. New Delhi: Prentice Hall of India, 1999.

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Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

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Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit 1:   Electronic Resources and Users

- Features and characteristics of electronic resources.
- Benefits and drawbacks of electronic resources.
- Economies and Politics of electronic publishing.
- Academic and research library users.

Unit 2:   Developing Collection of e-Resources

- Framework, policies and guidelines for collection building
- Collection building process
- Individual titles
- Aggregates and bundles
- Access options
- Ordering and receiving e-resources

Unit 3:   Licensing and User Authentication

- Copyright and fair use.
- Model licenses and guidelines.
- Reviewing and negotiating changes.
- Access management and authentication.
- Preventing misuse.

Unit 4:   Developing e-Resource Access Channels and supporting to Users

- E-resources access channels.
- User centered access.
- Web access.
- Alphabetical lists/ database approach.
- E-resource publicity.
- User training.

Unit 5:   E-Resource Usage Analysis

- Gathering e-Resource Statistics.
- Management Information Needs.
- Standards and Guidelines (COUNTER)
- Processing, Analysis and Presentation of Data.

Suggested Readings:

1. Cole, Jim,et. al. *E-serials Collection Management: Transition, Trends and Technicalities*. London: CRC Press, 2003.
2. Hanson, Ardis and Levin, B. L. *Building a Virtual Library*. Hershey: Information Science Publishing, 2002.
3. Lee, Sul H. *Electronic Resources and Collection Development*. London: RoutlegeKegan Paul, 2003.
4. Katz, Linda S. *Collection Development Policies: New Dimension for Changing Collections*. London: RoultedgeKegan Paul, 2003.
5. Mitchell, Anne M and Surrat, Brain E. *Cataloguing and Organizing Digital Resources: A How to do it Manual for Librarians.* London: Facet Publishing, 2005.
6. Curtis, Donnelyn. *E-journals: How to do it Manual for Building, Managing and Supporting Electronic Journal Collection*. London: Facet Publishing, 2005.
7. Katz, Linda S. *Managing Digital Resources in Libraries*. London: RoutledgeKegan Paul, 2005.

Paper XIII: Information Communication Technologies: Applications (Advanced)

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Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

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(Practice)

Note: The paper is divided into 5 Units. The candidates will be given practical from first four Units while viva-voce will be conducted under fifth Unit. Each practical and viva-voce carry equal marks.

Unit 1:   MS Office Suite 2007

- MS EXCEL: Toolbars, Formatting Formulas, Database Management, Charts and Additional Functions.
- MS ACCESS:Databases, Tables, Queries, Forms and Reports.

Unit 2:   Web Designing with FrontPage

- Introduction to FrontPage, Creating a Web and Web Pages, Lists and Headings, Formatting, Managing Web in the Explorer, Linking, Using Tables, Displaying Images, Getting images with image composer, Creating a consistent look for Web-using Wizards and Templates, Themes, Enhancing Design with Style Sheets, Forms, Publishing the Site.

Unit 3:   Library Softwares (Advanced)

- WINISIS/E-granthalaya/SOUL

Unit 4:   INTERNET

- Searching Information on Internet.

Unit 5:   Viva Voce

Suggested Readings:

1. Courter, Gini and Marquis, Annette. *Mastering Office 2000*. New Delhi: BPB Publications, 1999.
2. Fulton, Jennifer, Kinkoph, Sherri and Kraynak, Joe. *The Big Basic book of Microsoft Office*. New Delhi: Que Pub, 2005.
3. Guy, Hart-Davis. *The ABCs of Word*. 2nded. New Delhi: BPB Publications, 1997.
4. Levine, John and Young, Margaret Levine. *Front Page 98: The Complete Reference*. New Delhi: Tata McGraw Hill, 1998.
5. McCoy, John. *Mastering Web Design*. New Delhi: BPB Publications, 1996.
6. Tauber, Daniel A., Kienan, Brenda and Holzschlag, Molly E. *Mastering Microsoft FrontPage 2000*. New Delhi: BPB Publications, 1999.
7. UNESCO. *CDS/ISIS for Windows: Reference Manual Version 1.5*. Paris: UNESCO, 2004.

Paper XIV: Research Methods and Statistical Techniques

Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit 1: Research

- Concept, Meaning Need and Process of Research
- Types of Research – Fundamental and Applied including inter-disciplinary and multidisciplinary approach
- Research and Development of Scholarship

Unit 2: Research Design

- Concept, Need and Purpose
- Types of Research Design
- Identification and formulation of problem
- Hypothesis : Nominal and Operational definition
- Designing Research Proposal
- Literature search – Print, Non-print and Electronic sources

Unit 3: Research Methods

- Scientific Method, Historical Method, Descriptive Method
- Survey Method and Case Study Method
- Experimental Method and Delphi Method

Unit 4: Research Techniques and Tools

- Questionnaire, Schedule, Interview, 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 Generalization
- Measures of dispersion, variance and covariance
- Standard Deviation
- Graphical presentation of data-bar, pie-line graphs, histograms etc.
- Z-T test –Correlation
- Chi Square Test

Suggested Readings:

1. Charles, Busha H. and Harter, Stephen P. *Research Methods in Librarianship: Techniques and Interpretations*. USA: Academic Press, 1980.
2. Krishan Kumar. *Research Methods in Library and Information Science.* New Delhi: Vikas Publishing House, 1992.
3. Powell, Ronald R. andConnaway, Lynn Silipigni. *Basic Research Methods for Librarians*. 4th ed. USA: Libraries Unlimited, 2004.
4. Rao, I. K. Ravichandra. *Quantitative Methods in Library and Information Science*. New Delhi: Wiley Eastern, 1983.

Paper XV: Technical Writing and Communication Skills

Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

(Theory)

Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit 1: Forms and Parts of Technical Writing

- Various forms of technical writings (Theses, technical papers, reviews, manuals, etc.)
- Parts of Theses and Technical Communications (title page, authorship, contents page, preface, introduction, review of literature, material and methods, experimental results and discussion)
- Guidelines for incorporating tables, illustrations, photographs and drawings with suitable captions
- Summary/writing of abstract, précis

Unit 2: Citation Writing

- Manuals of Styles : Chicago Manual of Styles
- Citation (References, bibliographies, foot notes, appendices, etc.)
- Commonly used abbreviations in the theses and research communications

Unit 3: Grammar Editing

- Grammar (Tenses, parts of speech, auxiliaries and modals, clauses, synonyms, antonyms, punctuation marks etc.)
- Editing and proof reading.

Unit 4: Essentials of Writing - I

- Report Writing
- Official correspondence

Unit 5: Essentials of Writing – II

- Common errors

Note: Group discussion, facing an interview and paper presentation to be covered as assignments)

Suggested Readings:
1. University of Chicago. *Chicago Manual of Styles*. 14thed. New Delhi: Prentice Hall of India, 1996.
2. *Collins' Cobuild English Dictionary*. New Delhi: Harper Collins, 1995.
3. Gordon, H. M. and Walter J. A. *Technical writing.* 5th ed. London: Holt, 1986.
4. Hornby, A. S. *Oxford Advanced Learners Dictionary of Current English*. 8thed. New Delhi: Oxford University Press, 2009.
5. James, H. S. *Handbook of Technical Writing*. NTC Business Books, 2010.
6. *MLA Handbook for Writers of Research Papers*. 7thed. New Delhi: Affiliated East- West Press, 2010.
7. Mohan, K. *Speaking English Effectively.* New Delhi: Macmillan India, 2005.
8. Richard, W. S. *Technical Writing*. New York: Barnes and Noble, 2008.
9. Robert, C., ed. *Spoken English: Flourish Your Language.* New Delhi: Abhishek, 2005.
10. Sethi, J. and Dhamija, P.V. *Course in Phonetics and Spoken English*. 2nded. New Delhi: Prentice Hall of India, 2009.
11. Wren, P. C. and Martin, H. *High School English Grammar and Composition*. New Delhi: S. Chand, 2006.

Paper XVI: **Elective Paper (Select any one)**

Paper XV (a):   **Academic Library and Information System**

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Maximum marks : 80
Pass marks : 40
Time : 3Hrs.

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Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit 1:   Growth of Education and Academic Libraries

- Landmarks in Education since 19th century in India
- Type and functions of special libraries
- Role of academic library in formal and informal system of education
- Growth and development of college and university libraries in India, UK and USA
- UGC and its role in the development of academic libraries (College and University Libraries)

Unit 2:   Collection Development

- Collection development of print material (Books, Periodicals, grey literature, patents, Standards, govt. publications etc.)
- Electronic documents, CD/DVD-ROM databases

Unit 3:   Library Organization and Management

- Library organization and administration
- Personnel Management : Nature, size, selection, recruitment, qualifications, training, professional development responsibilities, and duties
- Administrative organization of library, staff manual, library surveys, statistics, work measurement and standards, their use and effectiveness
- Planning and organization of various information services : CAS, SDI, abstracting and indexing, library bulletin, newspaper clippings, computerized services

Unit 4:   Library Finance

- Determination of finance, sources of finance, types of budget, budget preparation

Unit 5:   Library Building

- Planning, basic elements in the design of academic library buildings
- Furniture and library equipment
- Lighting and fittings

Suggested Readings:

1. American Association of School Librarians.*Standards for School Library Programmes*. Chicago: ALA, 1969.

2. American Library Association. *Personnel Organization and Procedure:A ManualSuggested for Use in College and university Libraries*. 2nd ed. Chicago: ALA, 1978.
3. Baker, David, ed. *Resource Management in Academic Libraries*. London: Library Associations, 2006.
4. Brophy, Peter. *The Academic Library*. London: Library Association, 2008.
5. Chapman, Liz. *Managing Acquisitions in Library and Information Services.* London: Library Association, 2001.
6. Gelfand, M.A. *University Libraries for Developing Countries*. Paris: UNESCO, 2001.
7. Jordan, Peter. *The academic Library and its Users.* London: Gower, 1998.
8. Line, Maurice B, ed. *Academic Library Management.* London: Library Association, 1990.
9. Ranganathan, S. R. *School and College libraries*. Chennai: Madras Library Association. 2008.

Paper XV (b):   **Research and Technical Library and Information system**

<div align="right">

Maximum marks : 80
Pass marks : 40
Time : 3Hrs.
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Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit 1: Growth and Role of Special Libraries

- History and development of special Libraries in UK, USA and India in the twentieth century
- Type and functions of special libraries
- Role of special libraries, relationship with parent organization

Unit 2:   Collection Development

- Collection development of print material (Books, Periodicals, Grey literature, Patents, Standards, Govt. publications, etc.)
- Electronic documents, CD/DVD-ROM databases

Unit 3:   Library Organization and Management

- Library organization and administration
- Personnel Management : Nature, size, selection, recruitment, qualifications, training, professional development responsibilities, and duties
- Administrative organization of library, staff manual, library surveys, statistics, work measurement and standards, their use and effectiveness
- Planning and organization of various information services: CAS, SDI, abstracting and indexing, library bulletin, newspaper clippings, computerized services

Unit 4:   Library Finance

- Determination of finance, sources of finance, types of budget, budget preparation

Unit 5:   Library Building

- Planning, basic elements in the design of academic library buildings
- Furniture and library equipment
- Lighting and fittings

Suggested Readings:

1.   Auger, C. P. *Information Sources in Grey Literature*. 4th ed. London: Bowker, 1998.
2.   Buckettt, J. and Morgan, T.S., ed. *Special Materials in the Libraries*. London: Aslib, 1963.
3.   Chapman, Liz. *Managing Acquisitions in Library and Information Services*. London: Library Association, 2001.
4.   Clapp, V. W. *Features of the Research Library.* Urbana: University of Illinois, 2010.
5.   Grenfell, D. *Periodicals and Serials: Their Treatment in Special Libraries*. 2nd ed. London: Aslib, 1965.
6.   Grogan, N. *Science and Technology: An Introduction to the Literature*. 4th ed. London: Clive Bingley, 1982.
7.   Lewis, C. M., ed.*Special Libraries*. New York: Special Libraries Association, 1963.
8.   Raitt, David, ed.*Libraries for the New Millennium*. London: Library Association,1997.
9.   Scammell, A.W., ed.*Handbook of Special Librarianship and Information Work*. 7thed. London: Aslib, 1997.
10.   Wilkie, Chris. *Managing Film and Video Collections*. London: Aslib, 2009.

Paper XVI (c): Public Library and Information System

Note: The paper is divided into 5 Units. The question paper consists of ten questions (Two questions from each Unit). The candidates are required to attempt five questions in all selecting at least one question from each Unit. All questions carry equal marks.

Unit 1: Growth and Role of Public Libraries

- History and development of Public Libraries in UK, USA and India
- Type and functions of Public Libraries
- Role of Public Libraries in formal and informal education
- Public Libraries and national development.

Unit 2: Collection Development

- Collection development of print material (Books, Periodicals, grey literature, patents, Standards, govt. publications etc.)
- Electronic documents

Unit 3: Library Organization and Management

- Library organization and administration
- Personnel Management : Nature, size, selection, recruitment, qualifications, training, professional development responsibilities, and duties
- Administrative organization of library, staff manual, library surveys, statistics, work measurement and standards, their use and effectiveness
- Planning and organization of various information services such as newspaper clippings, computerized services etc.

Unit 4: Library Finance

- Determination of finance, sources of finance, types of budget, budget preparation

Unit 5: Library Building

- Planning, basic elements in the design of academic library buildings
- Furniture and library equipment
- Lighting and fittings

Suggested Readings

1. Bhatt, R.K. *History and Development of Libraries in India*. New Delhi: Mittal Publications, 1995.
2. Ekbote, GopalaRao. *Public Libraries System*. Hyderabad: Ekbote Brothers,1987.
3. Hage, Christine Lind. *The Public Library Start-Up Guide.* Chicago: American Library Association, 2004.
4. Iyengar, Sreenidhi, ed. *Library Public Relations*. New Delhi: Anmol Publications, 1996.
5. Jain, M. K. *50 Years Library and Information Services in India (1947-98)*. Delhi: Shipra, 2000.
6. Johnson, Alwin. *The Public Library: A Peoples' University*. New York: American Association for Adult Education, 1939.
7. Kalia, D.R. *Guidelines for Public Library Services and Systems*. Calcutta: Raja Rammohan Roy Library Foundation,1990.
8. Liu, Lewis-Guodo, *ed. The Role and Impact of the Internet on Library and Information Services*. Westport: Greenwood Press, 2001.
9. Rath, Pravakar. *Public Library Finance*. New Delhi: EssEss Publications, 1996.
10. Thomas, V. K.*Public Libraries in India: Development and Finance.* New Delhi: Vikas Publications, 2005.
11. Totterdell, Anne. *An Introduction to Library and Information Work*. London: Facet Publishing, 2005.