M.Lib.I.Sc (Two-Year Programme) Department of Library and Information Science, UCA&SS, OU

RESTRUCTURED CHOICE BASED CREDIT SYSTEM – SCHEME OF THE EXAMINATION

(FROM THE ACADEMIC YEAR 2017-19)- I Semester

Sl. No.	Course Code	Course Name	Course Type	Instruction hrs/week	Duration of Exam	Max. Marks		Total Marks	Credits
						Internal Assessment	Semester Exam		
1	MLS- 101	Library & Society	CC	5	3	20	80	100	5
2	MLS -102	Library Classification (Theory)	CC	5	3	20	80	100	5
3	MLS -103	Library Cataloguing (Theory)	CC	5	3	20	80	100	5
4	MLS -151	Library Classification Practice: DDC-20th Edition	CC	8	3	-	100	100	4
5	MLS -152	Library Cataloguing Practice: AACR-2R Monographs & Serials	CC	8	3	-	100	100	4
6		Tutorials		2			25	25	1
		TOTAL		33		60	465	525	24

M.Lib.I.Sc (Two-Year Programme) Department of Library and Information Science, UCA&SS, OU

RESTRUCTURED CHOICE BASED CREDIT SYSTEM – SCHEME OF THE EXAMINATION

(FROM THE ACADEMIC YEAR 2017-19) -II Semester

Sl. No.	Course Code	Course Name	Course Type	Instruction hrs/week	Duration of Exam	Internal Assessment	Semester Exam	Total Marks	Credits
1	MLS - 201	Library Management	CC	5	3	20	80	100	5
2	MLS - 202	Introduction to Computers	CC	5	3	20	80	100	5
3	MLS - 203	Reference and Information Sources and Services	CC	5	3	20	80	100	5
4	MLS -251	Library Classification Practice: UDC-IME-2nd Edition	CC	8	3	-	100	100	4
5	MLS- 252	Library Cataloguing Practice: AACR-2R Non-Book Materials	CC	8	3	-	100	100	4
6		Tutorials		2			25	25	1
		TOTAL		33		60	465	525	24

M.Lib.I.Sc (Two-Year Programme) Department of Library and Information Science, UCA&SS, OU

RESTRUCTURED CHOICE BASED CREDIT SYSTEM – SCHEME OF THE EXAMINATION

(FROM THE ACADEMIC YEAR 2017-19)

III Semester

Sl. No.	Course Code	Course Name	Course Type	Instruction hrs/week	Duration of Exam	Max. Marks		Total Marks	Credits
						Internal Assessment	Semester Exam		
1	MLS- 301	Information and Communication	CC	5	3	20	80	100	5
2	MLS- 302	Information Retrieval Systems (Theory)	CC	5	3	20	80	100	5
3	MLS -303	Research Methods for Library and Information Science	CC	5	3	20	80	100	5
4	MLS -351	Elective **A. Information Technology (IT)** B. College and University Libraries	DSE	4	3	20	80	100	4
5	MLS -352	Elective **A. Basics of Computer Software (Practice)** B. Metadata (Practice) C. Information Sources (ID)	SEC	4	3	-	100	100	4
		Tutorials		2			25	25	1
		TOTAL		25		80	445	525	24

M.Lib.I.Sc (Two-Year Programme) Department of Library and Information Science, UCA&SS, OU

RESTRUCTURED CHOICE BASED CREDIT SYSTEM – SCHEME OF THE EXAMINATION

(FROM THE ACADEMIC YEAR 2017-19)

IV Semester

Sl. No.	Course Code	Course Name	Course Type	Instruction hrs/week	Duration of Exam	Max. Marks Internal Assessment	Max. Marks Semester Exam	Total Marks	Credits
1	MLS-401	Management of Library and Information Centers	CC	5	3	20	80	100	5
2	MLS-402	Library Automation and Networking	CC	5	3	20	80	100	5
3	MLS-403	Software for Library Automation	CC	5	3	-	100	100	5
4	MLS-451	Elective A. Information Systems and Programmes B. Research and Technical Libraries	DSE	4	3	20	80	100	4
5	MLS-452	Elective A. Digital Libraries B. Information Literacy C. Project	SEC	4	3	20	80	100	4
		Tutorials: Seminar/Field Visits/Group Discussions		2			25	25	1
		TOTAL		25		80	445	525	24
Project Oriented Dissertation : In lieu of One Theory / Practice Paper (i.e. 4 Credits)									

M.Lib.I.Sc (Two -Years Programme)
Department of Library and Information Science
Osmania University, UCA&SS,O.U

SEMESTER SYSTEM

(RESTRUCTURED CHOICE BASED CREDIT SYSTEM – SYLLABUS AND SCHEME OF THE EXAMINATION)

OSMANIA UNIVERSITY

100 YEARS

Centenary Celebrations
1917-2017

(FROM THE ACADEMIC YEAR 2017-2018)

(FIRST SEMESTER)

Paper- MLS 101: LIBRARY & SOCIETY (CC)

Unit-1:

Nature and purpose of Librarianship.

Ancient and Modern Libraries, Philosophy and Ethics of Librarianship. Attributes of Profession. Librarianship as Profession.

Library as a Social Institution: Functions of the Library. Role of the Library in Formal and Informal Education. Information and Society, Community Information Services, Role of the Library in improvement of reading habits. User Studies and User Education.

Professional Education and Librarianship.

Unit-2:

Five Laws of Library Science – Implications – Examples. – Relevance to present technological environments.
Types of Libraries : National, Public, Academic, and Special. Their objectives, Functions, Services (Reference Service, Current Awareness Service, SDI, Bibliographic, Indexing and Abstracting, Referral Service, etc.).   Study of Select libraries – National Library, Kolkata; Library of Congress; British Library (London),; Connemera Public Library (Chennai); Delhi Public Library; National Science Library; State Central Library. Types of Material : Printed and Electronic Documents.

Unit-3:

Library Development. Ancient, Medieval and Modern Libraries. Library Movement in India. Library Movement in Andhra Pradesh with particular reference to Library Movement in Telangana State.

Library Cooperation / Resource sharing: Concept, need, purpose, areas of resource sharing, Resource sharing programmes. Impact of IT on Resource Sharing.

Library Consortia – Definition, purpose, functions. Consortia in India.

Unit-4:

National & International Organizations:

Professional Associations : IFLA, CILIP, ALA, ILA, SLA, ASLIB, NASSDOC, DESIDOC, IASLIC, IATLIS, APLA, ALSD: Objectives, Functions, Activities.
Organizations : UNESCO, NISCAIR -- Objectives, Programmes and activities.

Unit-5:
Legislation – Need, Purpose and Advantages.
Library Legislation in India: Need, Purpose and Advantages, Attempts for Library Legislation, Model Library Act in India. Detailed Study of A. P. Public Library Act : Overview of Library Acts in India – Tamilnadu, Karnataka, Maharashtra, West Bengal,Manipur, Kerala, Haryana, Mizoram, Goa, Gujarat, Uttaranchal, AND Orissa.

IPR (Intellectual Property Rights).
Delivery of Books Act. Copyright Act. Censorship.   UNESCO Public Library Manifesto-Standards for Public Libraries.
Library Education in India : Historical Development, levels of courses. Present Trends.

Select Reading:

1. Khanna (JK): *Library & Society*. Kurukshetra : Research Publications, 1987.

2. Ekbote (Gopal Rao): *Public Library System.* Hyderabad : Ekbote Brothers, 1987.

3. Mithal (RL): *Library Administration : Theory & Practice*. 5th Ed. Delhi : Metropolitan, 1984.

4. Ranganathan (SR): *Five Laws of Library Science*. Delhi : UBS, 1957.

5. Sharma (Pandey SK): *Development of Public Libraries in India*. New Delhi : Ess Ess.

6. IFLA : *Standards for Library Service*. 2nd Ed. Munich : Verlag, 1977.

7. Davis (DW): *Public libraries as cultural and social centres.* New York : Scarecrow, 1975.

8. Venkatappaiah (V): *A. P. Library Act* (in Telugu). Vijayawada : Navaratna, 1985.

9. Venkatappaiah (V): *Indian library legislation*. 2v. New Delhi : Daya, 1990.

10. Shera (JH): *The Foundations of education of librarianship*. Bombay : Asia, 1970.

11. *India, Advisory Committee for Libraries, Report.* Delhi : Manager of Publications, 1959.

12. Krishna Kumar: *Library Organization*. Delhi : Vikas, 1986.

13. Withers (FN): *Standards for Library Service: An International Survey*. Paris: Unesco, 1974.

14. Ranganathan (SR) and Neelameghan (A), Ed. *Public Library System*. Bangalore : Sarada Ranganathan Ednowment, 1972.

15. Venkatappaiah (V). *A. P. Granthalayodyamam* (Telugu), Vijayawada : Navaratna, 1985.

16. Krishnaji (J) and others: *Telugu Seemalo Granthalaya Pragathi*. Chittoor : K. B. Reddy, 1983.

17. Rout (RK): *Library legislation in India.* New Delhi : Reliance, 1991.

18. *Ekbote (Gopal Rao) Committee Report*. Hyderabad : Govt. of Andhra Pradesh, 1978.

19. Sahai, Srinath: *Library and community*. New Delhi : Today & Tomorrow.

20. Laxman Rao (N), Vishwa Mohan (V) and Sudarshan Rao (S) Ed. *Changing Dimensions of dLIS Education,* Hyderabad : IATLIS, 2001.

21. Kumar (PSG). Ed. *Indian Encyclopedia of Library & Information Science*. New Delhi : S. Chand & Co., 2001.

22. Vashisthj (CP). Ed. *Library movement and Library Development in India*. Delhi : ILA, 1994.

23. Sharma (Pandey S.K.): *Library & Society.* New Delhi: Ess Ess Publications, 1987.

24. Kumar (PSG): *A Student's Manual of Library & Information Science*, Delhi : BR Publishing House, 2002.

25. Graham P. Cornish : *Interpreting the law for libraries, archives and information services*, Rev. 3rd edn. London : Facet Publishing. 2001.

26. Sandy Norman (Ed) : *Copyright in further and higher education libraries* . 4th Edn. London : Facet Publishing, 1999.

27. Stella Pilling & Stephanie Kenna (Eds). *Cooperation in action: Collaborative Initiatives in the World of Information*. London : Facet, 2002.

28. Sandy Norman. *Practical Copyright for Information Professional*. London : Facet, 2001.

Paper- MLS 102: Library Classification (Theory) (CC)

<u>Unit-1:</u>

Library Classification – Meaning, Need and purpose of classification.

Terminology – Need and purpose. Important terms in Classification.

Normative Principles.

Five Laws of Library Science – Implications.

Formation, Structure and Development of Subjects:

<u>Unit-2:</u>

Species of Classification Schemes : Enumerative Classification (EC): Almost enumerative Classification (AEC): Almost Faceted Classification (AFC): Rigidly Faceted Classification (RFC): Freely Faceted Classification (FFC).

Brief study of major schemes viz: Decimal Classification (DC); Universal Decimal Classification (UDC); Library of Congress Classification (LC); and Colon Classification (CC).

<u>Unit-3:</u>

General Theory of Classification. Ranganathan's contribution.

Main Class – Canonical Class and Basic Class.
Five Fundamental Categories : PMEST.
Isolate -- Common Isolate – Kinds of Common Isolates, Special Isolates, Auxiliary Schedules.
Facet Analysis -- Postulates pertaining to Fundamental Categories.
Phase Analysis – Phase, Intra-facet & Intra-array relations.

<u>Unit-4:</u>

Principles of Facet Sequence, viz. Wall-Picture Principle, Whole-Organ Principle, Cow-Calf Principle, Act and Action – Actor – Tool Principle.

Principles of Helpful Sequence (8):

Different devices to form foci in an array. Chronological Device (CD); Geographical Device (GD); Subject Device (SD); Alphabetical Device (AD); Mnemonic Device (MD); Facet Device (FD); Super Imposition Device (SID); Classic Device (CLD); Telescoping of array.

<u>Unit-5:</u>

Notation -- Definition, Development, Types, Structure, Quality and functions.

Canons for Classification, Idea plane (15) -- Canons for characteristics (4); Canons for succession of characteristics (3); Canons of Array (4); Canons for Chain (2); Canons for Filiatory sequence (2). Verbal Plane (4):- Notational Plane (24) -- Basic Canons for notation (12): Canons for mnemonics (5); Canons for growing universe (4); Canons for Book Classification (3).Call Number -- Class Number, Book Number – Types of Book Numbers, Collection Number.Relevance of Classification in the context of Computerized / Digital Libraries.
Trends in Library Classification.

Select Reading:

1. Chan, Luis M. *Cataloguing and Classification*. 2nd ed. New York : McGraw Hill, 1995.

2. Foskett, A. C. *The subject approach to Information*. 3rd Ed. London : Clive Bingley, 1977.

3. Krishna Kumar. *Theory of Classification*. New Delhi: Vikas, 1980.

4. Maltby, A. Ed. *Classification in the 1970s*. London : Clive Bingley.

5. Maltby, A. *Sayers Manual of Classification for Librarians.* Ed.5. London : Andre Deutsch, 1975.

6. Mills, J. *Modern Outline of Library Classification*. Bombay : Asia, 1962.

7. Needham, C. D.: *Organisation of knowledge in Libraries*. 2nd Rev. Ed. London : Andre Deutsch, 1971.

8. Raju, A. A. N. *Decimal, Universal Decimal and Colon Classification : A Study in Comparison*. Delhi : Ajanta, 1984.

9. Ranganathan, SR. *Prolegomena to Library Classification*. Ed. 3. Bombay : UBS, 1967.

10. Ranganathan, SR. *Elements of Library Classification*. Ed. 2. Bombay : UBS, 1966.

Paper- MLS 103: Library Cataloguing (Theory) (CC)

Unit-1:

LIBRARY CATALOGUE:
    Definition, need, objectives and functions.

LIBRARY CATALOGUE & SIMILAR OTHER TOOLS:
    Bibliographies, indexes, accession lists and shelf list.

TYPES OF LIBRARY CATALOGUES:
    Physical / Outer forms: (Book, Sheaf, Card, Computerized Catalogues, Microform Catalogues)

    Inner forms (Dictionary, Classified and Alphabetico-Classed).

Unit-2:

AACR-2R and CCC : Features.

DIFFERENT TYPES OF CATALOGUE ENTRIES AND THEIR FUNCIONS:

    Main Entry, Added Entries, (including Book Index Entries, Class Index Entries).
    Reference Entries -- Cross Reference Entry and Cross Reference Index Entry.
    Elements of information in each type of Entries.

NORMATIVE PRINCIPLES – Laws, Canons and Principles.

Unit-3:

SUBJECT CATALOGUING : Concept, purpose.
SUBJECT INDEXING : Tools and techniques. Meaning, Objectives of subject entries; Methods of subject analysis and assigning of Subject Headings – Standard Lists of Subject Headings -- LC subject headings and Sears List of Subject Headings. Chain Procedure. Thesaurus.

Indexing techniques: Meaning, purpose. Pre-coordinate indexing – Chan indexing, PRECIS, KWIC, and KWOC. Post-coordinate indexing – Uniterm Indexing. Citation Indexing.

Unit-4:

CENTRALISED CATALOGUING:

Meaning and objectives. Pre-natal cataloguing, cataloguing in publication / cataloguing in source. Database as a source of cataloguing.

UNION CATALOGUES: Definition, use and functions.
OPAC. Web Based Catalogues.
Use of Internet in Cataloguing – OCLC, LC, CORC (Cooperative Online Resource Cataloguing). World Cat.
Impact of IT on Cataloguing.

Unit-5:

STANDARDIZATION IN CATALOGUING – Need, Purpose.
Standards -- ISBD (M), ISBD(S) AND ISBD (NBM).

METADATA – Concept. Metadata Vs Catalogue. MARC, MARC 21.
FILING AND ARRANGEMENT OF CATALOGUE ENTRIES: Classified and Alphabetical. Rules for filing of Entries. Trends in Cataloguing.

Select Reading:

1. Chan, Lois Mai.   *Cataloguing and Classification*, ISE. New York: McGraw Hill, 1995.

2. Girja Kumar and Krishan Kumar. *Theory of Cataloging*. 5th ed. New Delhi : Vikas, 1988.

3. Needham, CD. *Organisation of knowledge and libraries: an introduction to classification and cataloguing.* 2nd ed. London : Andre Deutsch, 1971.

4. Sengupta, B. *Cataloguing : its theory and practice*. 3rd ed. Calcutta : World Press, 1975.

5. Sharp, Henry A. *Cataloguing : a Text book for use in libraries*. 4th ed. London : Grafton, 1948.

6. Tripathi, SM. *Modern cataloguing theory and practice*. 2nd ed. Agra : Shivlal Agarwal & Co. 1978.

7. Vishwanathan, CG. *Cataloguing : Theory and practice*. 5th ed. Lucknow : Print House, 1983.

8. Rajan, TN. *Indexing techniques*. Calcutta : IALIC, 1981.

9. Guha, B. *Documentation and information.* 2nd ed. Calcutta : World Press, 1983.

10. Hunter, EJ. *Computerized Cataloguing*. London : Clive Bingley, 1985.

11. Coats, EJ. *Subject cataloguing*. London : LA, 1960.

12. *ALA Rules for filing Catalog Cards*. Chicago : ALA, 1968.

13. Hunter, EJ and Bakewell, KGB. *Cataloguing.* 2nd rev. ed. London : Clive Bingley, 1983.

14. Wynar, Bhohdan S. *Introduction to Cataloguing and Classification*. 7th ed. Littleton : Libraries Unlimited, 1985.

15. Choudhary, GG. *Information retrieval systems*. Calcutta : IASLIC, 1995.

16. Krishan Kumar. *Cataloguing*. New Dehi : Har Anand, 1993.

17. Chakrborthy, AR and Chakraborthy, B. *Indexing : Principles, processes and producers*. Calcuttqa : World Press, 1984.

18. Varma, AK. *Trends in subject indexing*. Delhi : Mittal, 1984.

19. J. H. Bowman. *Essential Cataloguing.* London : Facet, 2003.

Paper- MLS 151: (CC)
Library Classification (Practice) – DDC 20th Edition

Construction of Class Numbers for Documents of different disciplines / subjects using DDC 20th Edition.

Select Reading:

1. Dewey (Melvil): *Dewey Decimal Classification*. Ed.20, 4 Vols. New York, Forest Press, 1989.
2. Raju, AAN : *Dewey Decimal Classification (DDC-20) : Theory and Practice*. Madras, TR, 1995.
3. Batty, CD. *An introduction to 20th Ed. Of DDC*. London : Clive Bingley.
4. Kumar, PSG: *Practical guide to DDC 20*. Nagpur : Datson, 1990.
5. Satija, MP and Comaromi, Jolun P. *Introduction to the practice of DDC 20*. New Delhi : Sterling.
6. Uppal, OP. *Practical procedure of classification according to CC and DDC*. Patiala : Madaan.
7. *Manual of the use of the DDC* : 20th ed. New York : Forest Press.

Paper- MLS 152: (CC)
Library Cataloguing (Practice) – AACR-2R – Monographs & Serials

Preparing Catalogue Entries (Main, Added and Reference Entries) for Books (Monographs) and Serials.

Select Reading:

1. *Anglo-American Cataloguing Rules*. 2nd rev. edn. London : Library Association, London : Facet Publishing, 2002.
2. *Sears List of Subject Headings* 14th Ed. New York: Wilson.
3. Hunter, Eric J. *Examples illustrating AACR-2* (1988) revision. London : LA, 1989.
4. Maxwell, Margaret F. *Handbook for AACR-2 (1988) revision.* Chicago: ALA, 1989.
5. Krishan Kumar: *An introduction to AACR-2*. New Delhi : Vikas, 1990.
6. Sehgal, RL. *Cataloguing Manual – AACR-2*. New Delhi: Ess Ess.
7. *Anglo-American Cataloguing Rules.* 2nd rev.ed. London : LA, 1988.

Paper- MLS 201: LIBRARY MANAGEMENT (CC)

Unit-1:

Management:
Concept and Development of Management. Managements Vs Administration. Characteristics of Management. Functions of Management. Principles of Management and their applications in Libraries. Scientific Management.

Routine & work flow in different libraries / sections.

Selection & Acquisition: Book Selection – Purpose & Need – Functions of Acquisition Section – Characteristics, Methods, Principles and theories of book selection. Acquisition Policies & Programmes – Book Selection Tools. Ordering. Book Trade. Good Offices Committee (GOC).

Online Bookshops – Identification, Selection and acquisition of documents. Advantages. Online Bookshops Vs traditional Bookshops. Example URLs.

Unit-2;

Technical Section: Processing – Classification & Cataloguing. Authority File.

Maintenance: Open Access Vs Closed Access. Principles of Stacking – Shelving Methods.

Preservation – Concept, Purpose and Methods.

Circulation: Gate Register; Registration of Members, , Reservation of books; overnight issue, Inter-library loan, Charging and discharging methods; Day Book System, Ledger System, Browne System, Newark System, etc.

Library Buildings – Planning. Role of Librarian.

Unit-3:

Reference & Information Services.
Serials Management – Acquisition, Organisation, Methods of Recording. Problems in Acquisition.

Stock verification : Purpose and Importance – Methods.

Library Records: Purpose and Types of Records.

Work Flow : Flow Charts, Symbols, Coordination of Work Flow.

Unit-4:

Human Resource Management:
H.R. Planning. HR Policies – Job Analysis, Job Description, Job Evaluation, Job Specification. Supervision, Control & Execution. Staffing – Categorization of Staff. Staff Development. Recruitment Methods.

Financial Management:

Sources of Finance – Generation of financial resources.   Budgeting – Line, PPBS, ZBB. Accounting.
Budgetary Control.

<u>Unit-5:</u>

Library Statistics : Purpose and Types.

Library Committees: Concept, Importance , Functions. Types of Committees.

Library Rules & Regulations -- Purpose, Preparation.
Public Relations. Publicity & Extension Activities. Types of Extension Services.

Information Technology – Use for Effective Library Management.

<u>Select Reading:</u>

1.   Evans, G. Edward: *Management Techniques for Librarians*. 2nd edition. New York, Academic Press, 1983.

2.   Katz, WA: *Collection Development, the selection of materials for libraries*. New York, Holt, Rinohart & Winston, 1980.

3.   Lock, RN: *Library Administration*, Ed.3. New York, Philosophical Library, 1965.

4.   Mittal, RL*: Library Administration*: Theory and Practice, Ed.5, Delhi, Metropolitan, 1984.

5.   Narayana, G. J. *Library and Information Management*.   New Delhi : PHI, 1991.

6.   Ranganathan, SR: *Library Administration*, Ed. 2, Bombay, Asia, 1959.

7.   *Scientific Management of Libraries*. In *Library Trends.* V2, N3 Jan, 1954.

8.   Sharma, J.S.: *Library Organization*, New Delhi, Vikas, 1978.

9.   Spiller, David: *Book Selection: An Introduction to Principles and practice*. Rev.ed.2. London, Clive Bingley,1974.

10. Krishan Kumar. *Library Administration and Management*. 2nd ed. New Delhi : Vikas, 1987.

11. Seetharama, S. *Guidelines for planning of libraries and information centers*. Calcutta : IASLIC, 1990.

12. Krishan Kumar. *Library Manual*. New Delhi : Vani, 1985.

13. Peter Clayton and G. E. Gorman: *Managing Information Resources in Libraries and Information Services: Collection Management in theory and practice*. London : Facet Publishing, 2001.

Paper- MLS 202: Introduction to Computers (CC)

Unit-1:
INFORMTION TECHNOLOGY:
Concept and components. Computers & Communication.

COMPUTERS:
Meaning, use, functions, Characteristics and Capabilities. How a computer works.
General computer terminology.
Impact on society and Library & Information Centres.
Communication : Analog & Digital Signals. Transmission Media.

Unit-2:
TYPES OF COMPUTERS: Historical Development.
Generations of computers – Characteristics.
Analogue, Digital and Hybrid Computers.
Super, Mainframe, Mini and Micro, Laptop and PDA.

DATA AND INFORMATION. Data Representation and File Organization – Binary Code, Bit, Byte.
Standards – ASCII, ISCII (Indian Script Cod for Information Interchange), and EBCDIC. UNICODE.
Data Hierarchy.

Unit-3:
COMPONENTS OF COMPUTERS: Hardware – Input – Output devices. Storage devices, CPU. Ports.
Software – Purpose. Types of software. Development -- Program, Algorithm, Flow Charting.

OPTICAL STORAGE DEVICES: CD and DVD. MULTIMEDIA: Purpose and Use. Data Processing – Batch,
Online and Time Sharing.

Unit-4:
PROGRAMMING LANGUAGES : Machine, Assembly and Higher level. Algorithm, programme. Flow
Charting Compilers and Translators. OPERATING SYSTEMS : Windows, Application software.
APPLICATION SOFTWARE : MS-Word, MS-Access – Features. NETWORKING: Concept and Types.
INTERNET – Browsing. Browsers – Concepts and Examples. Services, Facilities.
WWW, Information Searching, URL.

Unit-5:
COMPUTERS IN LIBRARY & INFORMATION CENTRES.

Library Automation – Purpose, planning. Areas of Automation – Acquisition, Catalogue, Circulation,
Serial and Administration.

Hands on Experience to work with Computers with Windows (OS) and M.S.Word (Word processing).

Browsing Internet, Creating mail address Observation of an Automated Library.

Select Reading:

1. Jain, VK: *O-level module 1: Computer fundamentals*. 2nd ed. Delhi : BPB Publications, 1994.

2. Sinha, PK: *Computer fundamentals: concept, systems and applications.* 2nd ed. New Delhi : BPB
    Publications, 1992.

3. Mehta, Subhash and Mahata, Bhavana. *Quick Computer Course*. New Delhi : Galgotia, 1995.

4. Croucher, Phil. *Communications and networks*. 2nd ed. New Delhi.   Affiliated East West, 1995.

5. Basandra. *Understanding computers through common sense*. New Delhi : Galgotia.

6. Gear. *Introduction to computers*. New Delhi : Galgotia.

7. Rajaraman, V. *Fundamentals of Computes*. New Delhi : PHI, 1995.

8. Chao, Chien C. *Introduction to the micro computer and its applications*. New Delhi : Galgotia, 1995.

9. Keren, C and Perlmutter, L. Ed. *The application of mini and micro computes in information, documentation, and libraries*. Amsterdam : Elsevier, 1995.

10. Deenadayalu, R. *Computer Science*. 2 Vols. New Delhi : TMH. 1990.

11. Botto, Francis. *Multimedia, CD-ROM and Compact disc : a guide for users and developers*. New Delhi : Galgotia, 1993.

12. Waixel, Bob and McKellen. *A beginner's guide to the PC.* Delhi : Affiliated East West Press, 1995.

13. Basandra, Suresh K. *Computers today*. New Delhi : Galgotia, 2002.

14. Satyanarayana, NR. *A Manual of Computerisation in Libraries*. New Delhi : Wishwa Prakashan, 1995.

15. G. G. Chowdhruy and Sudatta Chowdhury : *Searching CD-ROM and Online Information S9ources*. London : Facet Publishing, 2001.

16. Satish Jain. *Information Technology : `O' Level made Simple*. New Delhi : BPB, Latest Edition (All modules).

17. V. K. Jain. *Information Technology : `O' Level*. New Delhi : BPB, Latest Edition (All modules).

18. Williams, Briank; Sawyer, Stacey and Hutchinson, Sarah E. *Using Information Technology : A practical Introduction to computers and Communiction*. New Delhi : TMH, (latest edition)

19. Curtin, Dennis P. & others. *Information Technology: The breaking wave*. New Delhi : TMH, Latest Edition.

20. Leon, Alexis & Leon, Mathews. *Fundamentals of Information Technology*. Chennai : Leon Tech World, Latest Edition.

21. Radhakrishna P. *Computers and Information Technology*. Hyderabad : Hitech, Latest Edition.

Paper- MLS 203: Reference & Information Sources and Services (CC)

Unit-1:
REFERENCE SERVICE:
Definition, need, scope. Reference service in public libraries, special libraries and academic libraries. Types
of reference service – Orientation of a freshman, Ready Reference Service and Long Range Reference Service. Reference Process. Information Kiosks.

Unit-2:
INFORMATION SERVICES:
Definition, need, scope. Reference service vis-à-vis Information Service.

Methods of dissemination of information – Current Awareness Service.   SDI.   Referral.

KINDS OF REFERENCE AND INFORMATION SOURCES; Information Sources – Documentary & Non-Documentary, Primary, Secondary and Tertiary Sources. Evaluation of reference sources. Searching Information from different Reference Tools / Sources -- Strategies.

Unit-3:
REFERENCE SOURCES:
Dictionaries, Encyclopedias, Almanacs, Year Books, Directories, Handbooks, Manuals, News-Summaries, Concordances, Biographical, Geographical Information Sources, Electronic Resources

Unit-4:
BIBLIOGRAPHY:
Meaning, scope, functions.
Kinds: Enumerative / Systematic, Analytical, Historical, Textual, and Descriptive.
Types: Retrospective and Current. General, Special, National (INB and BNB), Trade, subject.
Preparation of bibliographies. Documentation list. BIBLIOGRAPHIC CONTROL -- Meaning, purpose, UBC and UAP.

Unit-5:
ABSTRACTING SERVICES:
Abstract : Meaning, use. Types : Indicative and informative. Parts of an Abstract.
Abstracting Services / Products. – Examples from different subjects.
INDEXING SERVICES
Index : Meaning, use. Indexing Services / Products – Examples from Different Subjects -- Citation Indexes. Citation of Documents – Purpose.

Select Reading:

1. Katz, A: *Introduction to Reference Work*. 2V. 6th Ed. New York : McGraw Hill. 1992.

2. Katz. Bill and Tarr, Andrea: *Reference and Information Services, a reader.* N.J.: The Scarecrow Press, 1978.

3. Krishan Kumar: *Reference Service*. New Delhi : Vikas, 1989.

4. Ranganathan, SR. *Reference Service and Bibliography*, Ed.2. Bombay : UBS, 1960.

5. Shores, L. *Basic Reference Sources*. Chicago : ALA, 1954.

6. Guha, B. *Documentation & Information*. 2nd Ed. Calcutta: World Press, 1983.

7. Bunch, Allan. *Basics of information work*. London : Clive Bingley, 1964.

8. Davinson, Donald. *Bibliographic Control*. London: Clibe Bingley, 1975.

9. Shera, JH and Egan, ME. *Bibliographic organization*, Chicago.

10. Austbery, Ray. *Bibliography and book production*. Oxford : Pergamon, 1967.

11. Kawatra, P.S. *Fundamentals of documentation with special reference to India*. New Delhi : Sterling, 1982.

12. Bose, H. *Information Service: Principles and Practice*. New Delhi: Sterling, 1986.

13. *International and National Library and information services: A review of some recent developments*, *1970-80*. Oxford : Pergamon Press, 1982.

14. Coblans, Herbet. *Librarianship and documentation : An International Perspective*. London : Andre Deutsch, 1974.

15. Stokes, Roy. *Esdaile's manual of bibliography.* London: Allen & Unwin, 1954.

16. Helprin, Laurence B, (Ed). *Towards foundation of information science*. White Plains, N.Y.: Knowledge Industry, 1985.

17. Girija Kumar and Krishan Kumar. *Bibliography.* New Delhi : Vikas.

18. Chakraborti, ML. *Bibliography : Theory and Practice.* 3rd rev.ed. Calcutta : World Press, 1987.

19. Roy, Paul Mohan. *Systematic bibliography*. 2nd ed. Jaipur: Printwell, 1984.

20. Murthy, AT. *Document Bibliography*. New Delhi : Metropolitan, 1979.

Paper- MLS 251: (CC)

Library Classification (Practice) – UDC IME 2nd Edn.

Construction of Class Numbers for Documents of Different Disciplines / Subjects using UDC (IME), 2nd Ed.

Select Reading:

1. *UDC (IME) : BS 1000M*. 2 pts. London : BSI, 1993.

2. Mellwaine, IC and Buxton, A: *Guide to the use of UDC*. The Hague : FID 1993. (FID occasional paper, 5).

3. Raju, AAN. *UDC (IME) (1985): A Practical and self instruction manual*. Madras : TR Publications, 1991.

Paper- MLS 252: (CC)

Library Cataloguing (Practice) – AACR-2R, Non-Book Materials

Preparing Catalogue Entries (Main, Added and Reference Entries) for Non-Book Materials (Cartographic Materials, Manuscripts, Printed Music, Sound Recordings, Motion Pictures & Video Recordings, Graphic Materials, Computer Files and Micro Forms). Creating Meta Data for non-book materials

Select Reading:

1. *Anglo-American Cataloguing Rules*. 2nd rev. edn. London : Library Association, 1998.
2. *Sears List of Subject Headings*. 17th Ed. New York : Wilson. 2000.
3. Hunter, Eric J. *Examples illustrating AACR-2* (1988) revision. London : LA, 1989.
4. Hunter, Eric, J. *Examples illustrating AACR-2* (1988) revision.
5. Maxwell, Margaret F. *Handbook for AACR-2* (1988) revision. Chicago : ALA, 1989.
6. Krishan Kumar : *An introduction to AACR-2*. New Delhi : Vikas, 1990.
7. Sehgal, R. L. *Cataloguing manual – AACR-2*. New Delhi : Ess Ess.
8. *Anglo-American Cataloguing Rules.* 2nd rev. ed. London : LA., 1988.
-00-

PAPER-MLS 301: INFORMATION AND COMMUNICATION (CC)

Unit-1: Nature of Information:

o   Data, Information & Knowledge : Definition, scope, use.
o   Information : Nature, Types, Characteristics, Properties, Use and Value.
o   Information and Social Change.
o   Information Explosion.
o   Information Society : Genesis, Characteristics, Implications.
o   Information Science : Definition, Scope and linkages with other disciplines / Subjects.
o   Information Industry.

Unit-2: Information Communication:

o   Information Cycle : Information Generation, Collection, Storage, Forms, Transfer and Dissemination of Information.
o   Communication : Definition, Concept, Types, Communication Models (Theories). Shannon Theory; Lasswell's Theory; Gerbner's Theory, Schramm Theory. Communication Media.
o   Scientific Communication.
o   Formal and Informal Channels of Communication. Information Intermediaries : Invisible Colleges, Information Exchange Groups, Technological Gate-keepers, Information Brokers / Consultants.
o   Barriers of Communication of Information.
o   Information Literacy
o   Information Filtering

Unit-3: Economics of Information:

o   Information needs. Information Seeking Behaviour : Concept, methods, need and purpose.
o   User Studies: Concept, purpose, methods, its application in libraries.
o   Information as Commodity and Resource.
o   Information Production and distribution.
o   Marketing of Information : Market Analysis, Market Segmentation, Marketing Mix, Marketing Audit.
o   Intellectual Property Rights (IPR). Copyright.   Right to Information. Censorship.

Unit-4: Knowledge Management & Digital Library:

o   Knowledge Management. Definition, Characteristics. Principles, Functions, Activities.
o   Document Management : Concept. Document Management vs Knowledge Management. Management of Electronic Resources.
o   Content Management.
o   Digital Library : Concept, use, advantages, design and development.
o   Digital libraries – Institutional Repositories – Need, purpose, material to be included and limitations.
o   Virtual Library : Concept.
o   Virtual Learning – Online learning, interactive techniques.
o   e-learning.

Unit-5: Informetrics:

o   Citation: Citation Analysis, Bibliographic Coupling.
o   Librametry, Bibliometrics and Scientometrics, Webometrics : Concept, Scope, Usefulness.
o   Bibliometric Laws – Bradford, Lotka and Zipf.

Select Readings:

1. Narayana, G.J. _Library & information management._ New Delhi, Prentice-Hall of India, 1991.
2. Kumar, P.S.G.: _Fundamentals of Information Science_, New Delhi, S. Chand & Co. Ltd., 1998.

3. Kumar, P.S.G.: _A Students Manual of library and Information Science_ (two volumes Bound in one). Delhi, B. R. Pub. Corporation, 2002.

4. Prasad, H. N. _Information needs and users_. Varanasi : Indian Bibliographic Centre, 1992.
5. Prasher, R. G. _Information and its Communication_. New Delhi : Medallion Press, 1991.

6. Singhal, Aravind and Rogers, EM. _India's information revolution_. New Delhi : Sage, 1989.

7. Cawkell, A.E., Ed. _Evolution of an Information Society_. London : ASLIB, 1987.

8. Harris, S. _Human Communication_. New Delhi : BPB Publications, 1992.

9. Atherton, Pauline. _Handbook for information systems and service_, Paris: Unesco, 1977.

10. Garvey, William D. _Communication: the essence of science - facilitating information exchange among libraries, scientists, engineers and students_. Oxford: Pergamon Press,1979.

11. McGarry, K.J. _The changing context of information: an introductory analysis_. London: Bingley, 1981.

12. Machlup, F. & Mansfield, Uma, eds. _The study of information: Interdisciplinary messages._ New York: Wiley, 1983.

13. Meadows, A. J. _Communication in science_. London: Butterworths.

14. Cronin, Blaise, ed. _The marketing of library and information services_. (Aslib Reader, Vol.4). London: Aslib, 1981.

15. Galatin, Malcolm & Laiter, Robert D, eds. _Economics of Information_. London: Nijhoff, 1981.

16. Roberts, Stephen A. Ed. _Costing and the economics of library and information services_ . London: Aslib, 1984.

17. Chorafas,D. N. _Knowledge revolution._ 1968.

18. Garvey, W. D. _Communication, the essence of science_. 1978.

19. McGarry, K. J. _Communication, knowledge and the information_. 1975.

20. Machlup, F. _Knowledge: its creation, distribution and economic significance_. VI, 1980, V2, 1982; V3. 1984.

21. Masuda, Y. _The information society._ 1980.

22. Rozsa, G. _Scientific information and society_. 1973.

23. Wolpert, S.A., Wolpert, J. F. _Economics of information. 1986._

24. Crawford, Marshall Jean. _Information broking: a new career in information work._ London: LA, 1988.

25. Gurnsey, John and White, Martin. _Information consultancy. London: Clive Bingley, 1989._

26. Graham P. Cornish : _Copyright : Interpreting the law for libraries, archives and information services_. Rev. 3rd ed. London : Facet Publishing, 2001.

27. Sandy Norman (Ed): *Copyright in Further and Higher Education Libraries*. 4th Edn. London : Facet Publishing 1999.

28. Rowley, J. E. : *The Electronic Library*. 4th Edn of Computers for Libraries. London : Facet Publishing, 1998.

29. John Feather : *The Information Society: A study of continuity and change*. 3rd Edn. London : Concept Publishing, 2000.

30. James Dearnley and John Feather : *The Wired World: An introduction to the theory and practice of the information society*. London : Facet Publishing, 2001.

31. Angela Abell and Nigel Oxbrow. *Competing with knowledge: The information professional in the knowledge management age*. London : Facet Publishing, 2001.

32. Eileen Elliott de Saez. *Marketing concepts for libraries and information services*. 2nd Edn. London: Facet Publishing, 2002.

33. Barbara Allan. *E-learning and Teaching in library and Information Services*. London : Facet Publishing, 2002.

34. Malwad,NM and others. Digital Libraries : Dynamic store house of digitized information. New Delhi : New Age, 1996.

35. Leona Carpenter, Simon Shaw & Andrew Prescott. *Towards the Digital Library.* London : LA, 1998.

36. Peter Brophy. *The Library in the 21st Century: New Services for Information Age*. London : LA, 2001.

37. Susan Hornby & Zoe Clarke (Ed). *Challenge and change in the Information Society*. London : Facet Publishing, 2002.

38. Joan Feather. *Communicating knowledge*. London : Facet Publishing, 2002.

39. G. G. Chowdhury. *Introduction to Digital Libraries*. London : Facet Publishing, 2003.

40. Eileen Elliott De Saez. *Marketing Concepts for Libraries and Information Services.* London : Facet Publishing, 2002.

41. W. R. Bikowitz. *Knowledge Management*. Delhi : PHI, 2000.

PAPER-MLS 302: INFORMATION RETRIEVAL SYSTEMS (THEORY) (CC)

Unit-1:
Information Storage and Retrieval (IR) Systems:
Concept, components, IR tools.

Information Analysis, repackaging and consolidation : Concept, purpose.
Content Creation / Content Development.
Indexing:
Concept. Principles / general theory of indexing.
Content Analysis : Meaning, Purpose. Application in LICs.

Unit-2:
Indexing Languages, types, Characteristics.
Vocabulary control – natural and controlled languages. Semantics and Syntax.

Library Classification Schemes: UDC and CC.
Thesaurus – Structure and functions. Design / Construction of Thesaurus.
Subject Headings – LCSH and SLSH – Structure and Functions.

Unit-3:
Indexing Techniques:
Syntactical problems. Pre and post-coordinate indexing.
Chain Indexing, PRECIS. Uniterm, Keyword and Citation Indexing.
Computer based indexing systems and methods (Automatic Indexing).

Unit-4:
Bibliographic Description:
Standards for bibliographic Description: ISBDs, MARC, CCF and MARC 21. EAD (Encoded Archival Dscription).

METADATA: Concept, Formats – Features of MARC, IAFA, Templates, Dublin Core, TELURC, FGDC --- Detailed Study of any two formats. Protocols – Features – SODA, SMARTS. Metadata vis-à-vis Internet.

Data Mining, Data Warehousing.

DIGITAL OBJECT IDENTIFIER (DOI): Concept, Origin, application, principles for issuance of DOI.
Principles for the application of DOI. DOI Foundation, procedure for registration.

Unit-5:
Information Retrieval:
Retrieval methods – manual and automated. Search processes, and strategies. Boolean Logic.
Preparation of query, steps in search strategy. Search tools – search engines, meta-search engines.
Subject directories, subject guides, specialized data bases, etc.,. Criteria for evaluation of IR Systems.

Computerized Information Services: Machine Translation. Automatic Indexing. Computerized Abstracting. Natural Language Processing.

Select Readings:

1. Unesco. CCF. Paris : Unesco. 1988.

2. Jean Atchison & Alan Gilchrist. *Thesaurus construction: a practical manual*. London: Aslib. 1972.

3. A. C. Foskett. *The subject approach to information*. 4th ed. London : Bingley, 1982.

4. F. Wilfrid Lancaster. *Information retrieval systems: Characteristics, testing and evaluation*. 2nd ed. New York: Wiley, 1979.

5. F. W. Lancaster & L. C. Smith. *Compatibility issues affecting information systems and services*. Paris: Unesco,1983.

6. Jennifer E. Rowledy. *Organising knowledge: an introduction to information retrieval*. Aldorshot: Gower, 1987.

7. P. Simmons & A. Hopkins. CCF: The Common communication format. *Paris: Unesco, 1984.*

8. C. J. Van Rijsbergen. *Information retrieval*. 2nd ed. London: Butterworths, 1970.

9. B. C. Vickery. *Techniques of information retrieval*. London: Butterworths, 1970.

10. Atchison, J. Gilchrist, A: *Thesaurus construction, a practical manual*. 1972.

11. Austin, D. Precis, *A manual of concept analysis and subject indexing*. 2nd ed. 1984.

12. British Standards Institutions: *BS 1000M: 1993, Universal Decimal Classification IME, 1993.*

13. Chernyi, A. I. *Introduction to information retrieval theory*. 1973.

14. Cleaveland, D. B., Cleveland, A. D. *Introduction to Indexing and Abstracting.* 1983.

15. Gostello, J. C. *Coordinate indexing.* 1966.

16. Dym, E. D. *Subject and information analysts*. 1985.

17. Kochen, M. (Ed). *Principles of information retrieval*. 1974.

18. Lancaster, F. W. *Information retrieval systems, characteristics, testing and evaluation.* 1968.

19. Lancaster, F.W. *Indexing and Abstracting in Theory and Practice*. London : Facet Publishing, 2003.

20. G. G. Chowdhruy. *Introduction to Modern Information Retrieval*. 2nd edn. London, Facet Publishing, 2003.

21. Alex Berson, Stephen Smith & Kurt Thearling. *Building data mining applications for CRM.* New Delhi : TMH, 2000.

22. G. E. Gorman, (Ed). *Metadata applications for Management*. London : Facet Publishing, 2003.

23. Mary A. Burke. *Organization of multi-media Resources: Principles and Practices of Information Retrieval.* Alder Shot : Gower, 1999.

PAPER-MLS 303: RESEARCH METHODS FOR LIBRARY AND INFORMATION SCIENCE (CC)

Unit-1:
Research:
Definition, need and purpose. Basic Concepts: Validity, reliability, Objectivity, Subjectivity. Variables: Dependent, Independent and Intervening. Logic : Induction and Deduction. Intuition.

Types – Basic and applied. Interdisciplinary & multidisciplinary, Team / Group Research, Relay Research. Scientific method. LIS Research in India.

Unit-2:
Research Design:
Aims and objectives. Scope and limitations. Problem identification, formulation and statement of the problem.

Hypothesis:
Definition, meaning, formulation. Types: Descriptive, relational and explanatory, Null-Hypothesis. Verification.

Unit-3:
Methods of Research:
Survey, descriptive, comparative, historical, experimental, case study and Delphi technique.

Unit-4:
Methods of data collection:
Types of data – Primary and Secondary.
Data Collection Methods: Primary data – Questionnaire, Interview and Observation.

Scales and Check Lists.
Secondary data – Historical / recorded.

Sampling methods and techniques:
Probability sample: Simple Random sampling, systematic, stratified. Non-probability sample: Quota, Accidental, purposive, incomplete. Cluster and multi-state sampling. Sample size, bias, error.

Unit-5:
Methods and Tools of Data Analysis:
Problem measure, reliability, validity, Descriptive Statistics – Measures of Central Tendency : Mean, Median, Mode. Measure of Central distendency : Standard Deviation. Graphical Presentation of data : Bar diagrams, Pie-chart, Line Graphics, Histograms, Inferential Statistics : Measure of Association : Co-efficient of Correlation.
Testing of Hypothesis : Chi-square test & T-test.

Software for Statistical Analysis – SPSS – Features.

Writing research report:
Structure & Contents of report, presentation of findings. Style Sheets, Citation of Print, Electronic and Internet sources.

Select Readings:

1. Charles H. Busha & Stephen, P. Harter. *Research Methods in Librarianship: Techniques and Interpretation*. New York: Academic Press, 1980.

2. Marurice, B. Line. *Library surveys: an introduction to the use, planning procedure and presentation of surveys*. 2nd ed. London : Bingley, 1982.

3. Nick Moore & Martin Hesp. *The basics of writing reports etcetera*. London: Bingley, 1985.

4. Goode (William J) and Hatt (Paul K). *Methods in Social Research*. New York: McGraw-Hill Book Company, INC. 1952.

5. Gopal (M.H.): *An Introduction to Research Procedure in Social Sciences*. New Delhi, Vikas, Pub. House, 1992.

6. Simpson, J. L. *Basic Research Methods in Social Sciences*. The Art of empirical investigation. 1969.

7. Stevens Rolland E. *Research Methods in Librarianship*. London, Bingley, 1971.

8. Powell, Ronad, R. *Basic research methods for librarians*. Norwood: Ablex, 1985.

9. Krishnaswami, O.R. *Methodology of Research in Social Sciences*. Bombay : Himalaya,1993.

10. Ravichander Rao, I.K. *Quantitative Methods for Library and Information Science.* New Delhi : Wiley Eastern, 1983.

11. Mary Lee, Bundi. *Reader in Research Methods for Librarianship*. -- : Greenwood Press.

PAPER- MLS 351 (A) Elective: INFORMATION TECHNOLOGY (IT) (DSE)

Unit-1:
Information Technology:
o   Concept, definition and components of IT
o   Client -- Server Technology : Concept, Use.   Different types of Servers – File Server, Proxy Servers, Web Servers, Print Server, Database Server, etc.
o   Strategic Management of Technology
o   Trends in Hardware and Software Developments.
o   Software – Open Source and Proprietary – Implications, Advantages of using different types of Software.

Unit-2:
Communication Technology:
o   Telecommunications – Signals: Analog and Digital. Modem – types, use.
o   Switching Systems : Concept, Purpose, Types -- Circular, Message and PSS. Gateways , Ethernet, Hub/Switches.
o   Communication Media – Twisted Pair, Coaxial, Optic Fibres, Satellite Communication, VSAT, Microwave. Bandwidth, Multiplexing. ISDN.
o   Data Communication Concepts – Parallel & Serial; Synchrnous & Asynchrnous; Simplex, Half Duplex and Full Duplex.

Unit-3:
Electronic Information:
o   Electronic / Digital Information.
o   Digital Collection, Digital Rights Management.
o   Digitization – Concept, Procedures and Problems. Input devices – OCR, Scanners, Cameras. Software & hardware used for digitization. Image Formats (JPEG, GIF / BMP).   Audio Formats (MPEG, MP3, WAV).   Image Editing.
o   e-documents: Concept of e-books and e-journals. Trends in Production and availability of e-documents. Impact on Libraries and Information Centres and Users.
o   Preservation and archiving of e-resources.
o   Web logs. Identification and creation of Blogs. Wikies, Wikipedia.

Unit-4:
Communication Tools and Techniques: An overview:
o   Fax, E-mail, Tele Tex, Videotext, Tele Conferencing, Video Conferencing, Voice Mail. Hyper Text and Hyper Media. List Serve / Electronic groups.
o   Wireless Communication: Concept – Networking, WAP / Wireless Internet, WLL, Cellular Communication.
Internet Communication and Expert Systems.
o   Internet Communication : Internet as a communication tool. Facilities for communication. Features and Developments.
o   Internet Connectivity – Dial up, leased, microwave, cable modem, ISDN, Digital Subscriber Lines (DSL). Other related issues.
o   Data Security : Concept, need, purpose. Virus – Definition, effect. Security Methods, Firewall, Anti-virus software. SPAM. IDS (Intrusion Detection System).

Select Readings:

1.   Dowlin, K. *The electronic library*. New York : Neal Schuman, 1984.

2.   Forester, T., Ed. *The information technology revolution*. Oxford: Blackwell, 1985.
3.   Kelleher, Kathleen & Cross, Thomas B. *Teleconferencing: Linking propel together electronically.* Englewood Cliffs: Printice-Hall, 1985.

4. King, Donald W., ed. *Telecommunications and libraries: a primer jfor libraries and information managers*. White Plains : Knowledge Industryu, 1981.

5. Vervest, Peter. *Electronic mail and message handling*. London: Printer, 1985.

6. Zorkoczy, Peter and Heap, Nicholas. *Information technology: an introduction.* 4th ed. London: Pitman, 1995.

7. *The Hindu speaks on information technology*. Madras : Kasturi & Sons, 1993.

8. Goucher, Phil. *Communications and Networks*. 2nd ed. New Delhi: Affiliated East-West, 1995.

9. Rich, Elaine and Knight, Kevin. *Artificial Intelligence*. 2nd ed. New Delhi: TMH, 1994.

10. Kaul, H. K. *Information Networks: An Indian experience*. New Delhi : Virgo, 1992.

11. Chadha, R. K. and Gupta, S. R. Eds. *Information Technology*. New Delhi : Sarita, 1995.

12. Black, U. *Emerging communication technologies*. New Delhi : PHI, 1994.

13. Jeffcote, J. *Multimedia in practice*. New Delhi : PHI, 1994.

14. Ford, Nigel. *Expert Systems and artificial intelligence : An information manager's guide*. London : LA, 1991.

15. Alberico, Ralph and Micco Mary. *Expert Systems for reference and information retrieval*. West port : Meckler, 1990.

16. Bandhyopadhyay, S. *Information Technology for growth and prosperity*. New Delhi : TMH, 1994.

17. Vishwanathan, T. *Communication Technology*. New Delhi : TMH, 1995.

18. Kennedy, George. *Electronic communication systems*, 3rd ed. New Delhi : TMH,1991.

19. Sinclair, Ian R. *Multimedia on PC*. New Delhi : BPB,1995.

20. Botto, Francis. *Multimedia, CD-ROM & compact disc : a guide for users and developers*. New Delhi : Galgotia, 1993.

21. Rastogi, P. N. *Knowledge engineering and expert systems*. New Delhi : BPB, 1994.

22. Basandra Suresh, K. *Computers today*. New Delhi : Galgotia, 2002.

23. Harries, Steve. *Networking and telecommunications for information systems: an introduction to information networking*. London : LA, 1993.

24. Stuart D. Lee. *Digital Imaging: A practical handbook*. London : Facet Publishing, 2000.

25. Williams, Briank; Sawyer, Stacey and Hutchinson, Sarah E. *Using Information Technology : A practical Introduction to computers and Communiction*. New Delhi : TMH, (latest edition)

26. Curtin, Dennis P. & others. *Information Technology: The breaking wave*. New Delhi : TMH, Latest Edition.

27. Leon, Alexis & Leon, Mathews. *Fundamentals of Information Technology*. Chennai : Leon Tech World, Latest Edition.

28. Radhakrishna P. *Computers and Information Technology*. Hyderabad : Hitech, Latest Edition.

29. Phil Bradley. *The Advance Internet Searcher's Handbook*. 2nd Edn. London : LA, 2002.

30. Ray Horak. *Communication Systems and Networks.* 2nd Ed. New Delhi : IDG, 2000.

31. Peter Jackson. *Introduction to Expert System*. Horlow : Addison Wesley, 2000.

32. Nils J. Nilsson. *Artificial Intelligence : A New Synthesis.* Singapore. Harcourt, 2000.

33. Internet Complete, 2nd Ed. New Delhi : BPB, 2000.
34. H.M. Deitel, P. J. Deitel and T. R. Deitel. *Internet and World Wide Web: How to Programme*. Delhi : Addison Wesley, 2001.
35. *Digital Library Tool Kit*. 3rd Ed. Santa Clara : Sun Micro Systems, 2003.
36. *Digital Library Technology Trends*. Santa Clara : Sun Micro Systems, 2002.
37. Alison Cooke. *A Guide to finding Quality Information in the Internet*. 2nd Ed. London : Facet, 2001.
38. Marlyn Deegan & Simon Tanner. *Digital Futures: Strategies for the Information Age*., London : Facet, 2001.

39. Phil Bradley. *Getting and staying noticed on the Web*. London : Facet, 2002.

40. R. David Lankes & Others (Eds): *Implementing Digital Reference Services : Setting Standards and making it real*. London : Facet, 2002.

41. G. E. Gorman (Ed). *The Digital Factor in Information & Library Services*. London : Facet, 2002.

PAPER-MLS 351 (B) Elective: COLLEGE AND UNIVERSITY LIBRARIES (DSE)

Unit-1:
College Libraries: Definition, Objectives, Functions and Services. Organization and Management of College Libraries. Different Sections and their functions.
Evaluation of services. HR Planning and Development. College Library Collection.

Unit-2:
University Libraries: Definition, Objectives, Functions and Services. Organization and Management of University Libraries. Different Sections and their functions.
Evaluation of services. HR Planning and Development. Staff Formula. Standards for Academic Libraries. University Library Collection.

Unit-3:
Collection Development. Book Selection Principles and Procedures. Book Selection tools. College and University Library Committees. Reference Collection. Indexing and Abstracting Services. Bibliographic and Full-Text databases.
Extension services and Public relations in college and University Libraries. Inter-Library Loan Services.

Unit-4:
UGC and Academic Libraries in India. Commissions and Committees on Academic Libraries. INFLIBNET, UGC-INFONET. ERNET, OCLC. Consortia for Academic Libraries.

Planning and developing – Building, Collection, infrastructure, services of College and University Libraries. Collection evaluation. IPR issues. Citation analysis. Impact factor, H-Index, Altmerix.
Development of College and University Libraries in India.

PAPER—MLS 352 (A) Elective: BASICS OF COMPUTER SOFTWARE (Practice) (SEC)

Unit-1:
Operating System – Windows / LINUX (Hands on experience with one Operating System)
Unit-2:
MS-Word, MS-Excel, MS-Power Point
(Hands on experience in document creation, editing, printing, etc.)
Unit-3:
HTML, and XML
Developing a HTML Document
Unit-4:
Searching Information on any of the subjects: Science, Social Sciences, Medical, Engineering, etc.

PAPER—MLS 352 (B) Elective: METADATA (Practice) (SEC)

Unit-1: Metadata Initiatives. Dublin Core Elements.
Unit-2: Identification and creating Metadata of different documents
Unit-3: OAI/PMH (Hand on experience)
Unit-4: Metadata Standards (MODS and METS)

PAPER-MLS 352 (C) Elective: Information sources (ID)

Unit-1:
Information : Definition, need, types, cycle/flow
KINDS OF REFERENCE AND INFORMATION SOURCES; Information Sources – Documentary & Non-Documentary, Primary, Secondary and Tertiary Sources. Evaluation of reference sources.
Searching Information from different Reference Tools / Sources – Strategies.

Unit-2:
REFERENCE SOURCES IN THE FIELDS OF SOCIAL SCIENCES:
Dictionaries, Encyclopedias, Almanacs, Year Books, Directories, Handbooks, Manuals, News-Summaries, Concordances, Biographical, Geographical Information Sources, Electronic Resources with particular reference to Open Access sources.

Unit-3:
BIBLIOGRAPHY:
Meaning, scope, functions.
Kinds: Enumerative / Systematic, Analytical, Historical, Textual, and Descriptive.
Types: Retrospective and Current. General, Special, National (INB and BNB), Trade, subject.
Preparation of bibliographies. Documentation list. BIBLIOGRAPHIC CONTROL -- Meaning, purpose, UBC and UAP.

Unit-4:
ABSTRACTING SERVICES:
Abstract : Meaning, use. Types : Indicative and informative. Parts of an Abstract.
Abstracting Services / Products. – Examples from different subjects.
INDEXING SERVICES
Index : Meaning, use. Indexing Services / Products – Examples from Different Subjects -- Citation Indexes. Citation of Documents – Purpose.

Select Reading:

1. Katz, A: *Introduction to Reference Work*. 2V. 6th Ed. New York : McGraw Hill. 1992.
2. Guha, B. *Documentation & Information*. 2nd Ed. Calcutta: World Press, 1983.
3. Shera, JH and Egan, ME. *Bibliographic organization*, Chicago.

4. Girija Kumar and Krishan Kumar. *Bibliography.* New Delhi : Vikas. 1993.

5. Krishan Kumar, Reference service, New Delhi : Vikas. 2007.
6. A. C. Foskett. *The subject approach to information*. 4th ed. London : Bingley, 1982.
7. F. Wilfrid Lancaster. *Information retrieval systems: Characteristics, testing and evaluation*. 2nd ed. New York: Wiley, 1979.
8. Jennifer E. Rowledy. *Organising knowledge: an introduction to information retrieval*. Aldorshot: Gower, 1987.
9. C. J. Van Rijsbergen. *Information retrieval*. 2nd ed. London: Butterworths, 1970.
10. B. C. Vickery. *Techniques of information retrieval*. London: Butterworths, 1970.
11. Chernyi, A. I. *Introduction to information retrieval theory*. 1973.
12. Kochen, M. (Ed). *Principles of information retrieval*. 1974.
13. Lancaster, F. W. *Information retrieval systems, characteristics, testing and evaluation.* 1968.

- Offered for students of other Departments.

(FOURTH SEMESTER)

PAPER-MLS 401: MANAGEMENT OF LIBRARY AND INFORMATION CENTRES (CC)

Unit-1:
Management: Concept, definition, nature and purpose. Schools of management. Management Styles.
Planning Library and Information Centres: Need and purpose, planning process, procedures, steps and factors.
SWOT Analysis : Concept, Use. Role of Effective Communication on Management.

Unit-2:
Systems Theory: Concept, Components analysis, evaluation and design. Library as a System, Subsystems of a Library.
Performance Evaluation of Library and Information Centres.
Management Information Systems (MIS) : Concept, Use.
Project Management : Definition, Objectives, Scope, Organisational Planning, Stages.

Unit-3:
Work Studies: Flow chart and Gantt Charts. PERT / CPM.
Work environment – Internal and External.
Management by Objectives: (MbO): Concept and relevance to LICs.
Decision making:
Concept, problems, aids. Decision Process.
Delegation of Authority:
Authority, Responsibility and Accountability – Concept, guidelines and barriers.

Unit-4:
Human Resource Management:
H R Planning, staffing, job analysis, job description, job evaluation, staff recruitment; selection, training and development. Inter personal relations.
Work relationships: Supervision, Control, Leadership, , Group Dynamics and Performance Evaluation.
Motivation : Concept, Theories.
Management of Change : Concept, need for change, Impact, Strategies, Organistion Culture, Promoting Change.

Use of Information Technology for Effective Management.

Unit-5:
Financial Management:
Resource Mobilisation.
Budgeting Methods: PPBS and Zero-based. Budgetary Control.
Cost Effectiveness and Cost Benefit Analysis.
Cost Accounting : Concept and Use.
Outsourcing.
Quality Management:
Quality : Concept, application in LICs. Quality Management, Quality Audit, Customer Satisfaction Vs Quality Management. Norms / guidelines. ISO-9000.
TQM : Definition, Scope, Purpose. Application in Libraries.

Select Readings:

1. John Cowley, Personnel management in libraries. London: Bingley, 1982.

2. Blaise Cronin, ed. *Information management; from strategies to action*. London. Aslib, 1985.

3. G. Edwaqrd Evans. *Management techniques for librarians*. 2nd ed. New York: Academic Press, 1983.

4. Noragh Jones & Peter Jordan. *Staff management in library and information work.* Aldershot: Gower, 1982.

5. Donald W. King, ed. *Key papers in the design and evaluation of information systems*. White Plains: Knowledge industry, 1978.

6. Donald Mason. *Information management*. Stevenage: Peregrinus, 1978.

7. Narayana, G. J. *Library and Information management*. New Delhi : PHI, 1991.

8. Chapman, Edward A. Pierre, Paul L. St. and Lubans, John, Jr. *Library Systems Analysis guidelines*. New York : Wiley-Inter-Science, 1970.

9. Bryson, Jo. *Effective library and information center management*. Aldershot : Gower, 1990.

10. Roberts, Stephen A., Ed. *Costing and the economic of Library and Information Services*. London : ASLIB, 1988.

11. Rizzo, J. R. *Management for librarians : Fundamentals and issues.* West Port : Green Wood Press, 1980.

12. Lancaster, F. W. *The measurement and evaluation of library services*. Washington : Information Resources Press, 1977.

13. Lancaster, F. W. *If you want to evaluate library*. London : LA, 1988.

14. Ellis, Debbie and Norton, Bob. *Implementing BS5750 ISO9000 in Libraries.* London : Aslib, 1993.

15. Underwood, Peter G. *Managing change in libraries and information services: a systems approach*. London : Clive Bingley, 1990.

16. MacLachalan, Liz. *Making project management work for you*. London : LA, 1996.

17. Thornhill, Adrian and others. *Managing changeUI. Delhi* : Addison Wesley Longman, 2000.

18. Stephen P. Robbins & David A. Decenzo. *Fundamentals of Management.* Delhi : Pearson Education, 2001.
19. Roshan Raina. *TQM in Library & Information Services*. New Delhi : Infuse, 1999.

20. V. Rama Raman. *Analysis and Design of Information Systems.* New Delhi : PHI, 1991.
21. Elias M. Awad. *Systems Analysis and Design*. New Delhi : Galgotia, 1995.

22. Barbara Allan : *Project Management : Tools and Techniques for Today's LIS Professional*. London : Facet Publishing 2003.

23. John M. Cohn. *Planning for Integrated Systems and Technologies : A how to do it manual for Librarians*. 2nd rev.ed. London : Facet, 2002.

PAPER-MLS 402: LIBRARY AUTOMATION AND NETWORKING (CC)

Unit-1:

Library Automation:
Definition, need, purpose and advantages. Automation Vs Mechanization.
Areas of Automation – Acquisition, Cataloguing, Access to Catalogue (OPAC), Circulation and Serial Control.

Unit-2:
Planning for Automation Procedure:
Steps in Automation: Developing a basic Technology Plan.
Identifying goals and objectives, Describing existing library services and technology, Feasibility Study, Assessing needs and priorities, Preparing strategic Plan, Hardware and Software selection and Implementation.

Barcode Technology: Meaning, need, purpose and advantages. Types of barcodes : Dumb / Generic barcode and smart barcode – their application. Code 39.

RFID (Radio Frequency Identification)

Unit-3:
Networking and Networks:

Networking: Concept, need and advantages. Basic components of network.
Network Topologies – Star, Ring, Bus, Hierarchical, Tree and Complete. Wireless Networking.

Types of Networks – LAN, MAN, WAN.

Networks: General and Bibliographic.
General – ERNET, NICNET, INFONET.
Library Networks: OCLC, INFLIBNET, DELNET : Their objectives, Functions, Services and Activities.

Unit-4:
Internet: Concept, Features, Services.
Search Engines – Concept. Types – Search Engines and Meta Search Engines, Advantages in using Search Engines..

Internet: Internet Searching. Web Browsers – Purpose, Functions, Facilities available with different Browsers. Sample Search by using Internet Explorer and Netscape. Internet Security.

Internet Reference Sources: Identification, accessing. Various sources useful for librarians in providing Reference Services with examples.

Evaluation of Internet Information Sources – Need, Methods / Techniques.

Protocols: Definition, Concept. Types – General - TCP / IP, OSI. Other Protocols: SMTP, Telnet, FTP, HTTP, Z39.50.

Unit-5:
Hypertext, Hyper media. Markup Languages – HTML, XML,– Features.
Web: Concept, Usefulness. Content Development / Content Creation for Web.
Web Design – Methods / Techniques, Steps. Software – Flash, Macromedia, MS-Front page, Dream Weaver.

Select Readings:

1. *Planning for library automation: A Practical Handbook* / John M. Cohn, Ann L. Kelsey and Keith Michael Fiels – London : Library Association, 1998.
2. *Computer Networks* / Andrew S. Tanenbanum. – 3rd ed. – New Delhi : Prentice-Hall of India, 1997.
3. *Library Networks: An Indian Experience* / H. K. Kaul. – New Delhi : Virgo Publications, 1992.
4. *Information Networks in India* : Problems and Prospects / Kausik Bose / New Delhi : Ess Ess Publications, 1994.
5. *The Internet* / Mac Bride – London : Hodder Headline, 1995.
6. Internet 6 in 1 / Joe Kraynak and Joe Harbraken. – New Delhi : Prentice-Hall of India, 1998.
7. *Handbook of Libraries, Achieves and Information Centres in India* / Edited by B. M. Gupta (et al) – New Delhi : Information Industry Publications, 1987. Vol.5 : Information Technology, Industry and Networks.
8. Snell. NED. *Teach yourself the INTERNET in 24 hours*. 3rd ed. Indian Polis: Sams, 1999.
9. Haywood, Trenor. *Only connect: Shaping networks and knowledge for the new Millennium* East Grinstead: Bowker-Saur, 1999.
10. *How to promote your website efficiently*. Aslib, 1999.
11. Cooper. Michael D. *Design of Library Automation System: File Structure, Data Structures and Tools*. New York: John Wiley, 1996.
12. Lovecy, Ian. *Automating library procedures: a survivor's handbook*. London : Library Association, 1984.
13. Reynolds, Dennis. *Library automation: Issues and applications*. New York: Bowker, 1985.
14. Collier, Mel. *Local area networks: the implications for library and information science*. London: Bnritish Library, 1984.
15. Satyanarayana, N. R. *A manual of computerization of libraries.* New Delhi: Viswa Prakashan, 1995.
16. Gopinath, M.A. and Rama Reddy, E., ed. *Information access through networks.* Hyderabad: Book Links, 1996.
17. Bose, Kaushik. *Information Networks in India: Problems and Prospects*. New Delhi : Ess Ess, 1994.

18. Page, A. J. *Relational databases : Concepts, Selection and implementation*. New Delhi : Galgotia, 1994.

19. Harries, Steve. *Networking and telecommunications for information systems: an introduction to information networking*. London: LA, 1993.

20. Jean Warland & Praveen Varaiya. *High Performance Communication Networks*. Singapore : Harcourt, 2000.

21. C. Xavier. *World Wide Web Design with HTML.* New Delhi : TMH, 2000.

22. Dilip C. Naik. *Internet Standards and Protocols*. New Delhi : PHI, 2001.

23. G. G. Chowdhury and Sudatta Chowdhury. *Information Sources and Searching on the World Wide Web.* London : Facet Publishing, 2001.

24. Alan Poulter, Gwyneth Tseng and Goff Sargent : *The Library and Information Professional's Guide to the World Wide Web.* London : Facet Publishing, 1999.

25. Alan Poulter, Debgra Hiom and Gwyneth Tseng. *The Library and Information Professional's Guide to the Internet*. 3rd Ed. London : Facet Publishing, 2000.

26. Catherine Sheldrick Ross, Kirsti Nilsen and Patricia Dewdney. *Conducting the Reference Interview*. London : Facet Publishing, 2002.

24. Michael D. Cooper. *Design of Library Automation Systems : File Structrures, Data Structures, and Tools*. John Wilehy & Sons, 1996.

25. John M. Cohn, Ann L. Kelsey, Keith Michael Fiels. *Planning for Integrated Systems and Technologies: A How-to-do-it manual for Librarians*. Neal-Schuman.

26. John M. Coln, AnnL Kelsey, Keith Michael Fiels. *Planning for Automagtion : A How-to0-do-it for Librarian.* 2nd Ed. [S.I.] : Neal-Schuman, 1997.

27. Thomas R. Kochtanek [and] Joseph R,. Mathews*. Library Information Systems : From Library Automation to distributed information access solution*. [S.I] Libraris Unlimited, 2002.

28. R. S. Kochan and K. N. Sudarshan. *Library Automation.* [S.I] : APH, 1997.

29. Joan I. Trany. *Library Automation for Library Technicians: An Introduction*. Scarecrow, 1986.

30. William Saffady. *Introduction to Automation for Librarians.* ALA, 1999.

31. Paul Pedley. *The invisible Web : Searching the hidden parts of the Internet*. London : Aslib, 2001.

PAPER—MLS 403: SOFTWARE FOR LIBRARY AUTOMATION (CC) Practice

Unit -1:
Bibliographic Database Management Systems – Concepts.

CDS/ISIS and WINISIS – Concept, features
(Hands on experience)

Unit – 2
Integrated Library Management Software – concept

LIBSYS, SOUL, NEWGENLIB, Koha
(Observation and hands on experience of any one software)

Unit-3:
Database – Concept, structure, use and features.

RDBMS - Concept, structure, use and features

SQL / MySQL / MS-Access (Hands on experience in creation of database)

Unit-4:
Searching through Internet – e-journals –subscribed, consortia and free

Internet Resources using search engines.
World Wide Web (WWW) – Institutional and Individual Websites

Note: The Practical Examination paper would consist of two parts Part – I: Short notes for 40 Marks for (the first one hour) and Part – II Practical questions for 60 Marks for (the remaining two hours)

PAPER-MLS 451 (A) Elective: INFORMATION SYSTEMS AND PROGRAMMES (DSE)

Unit-1:
Information Organisation as a system:
Basic concepts, Components, Types, Characteristics of an Information System.
Kinds of Information System:
Libraries, Documentation Centres, Information Centres, Data Banks. Information Analysis Centres.
Referral Centres, Clearing Houses, Archives, Reprographic and translation Centres – their functions and services.

Unit-2:
Planning and Design of a National Information System:
NAPLIS (National Policy on Library & Information Systems)
Concept, Functions and objectives of NATIS. National Information Policy (NIP).
Planning Design of National Information System (NATIS).
National Information Systems:
NISCAIR, DESIDOC, NASSDOC, SENDOC, CORD, NCSI, NISSAT, ENVIS : Structure, functions and services.

Unit-3:
Regional Information Systems:
ASTINFO, APINESS and SAARC (SDC).
Global Information Systems:
UNESCO-PGI, INIS, AGRIS, INSPEC, MEDLARS, UNIDO-IIS, SPINES, ICSU.

Unit-4:
Information Products and Services:
Concept, Definition. Types with examples.
Information Products Vs Services.

Information Products: Institutional, Commercial.

Information Services – Bibliographic, Document Delivery, Alert (CAS & SDI).
Marketing of Information Products and Services.

Information Providers (Vendors):   DIALOG, STN, Derwent, Data Star, UMI, Silver Platter, BLDSC, ISI.

Select Readings:

1. Atherton, P. *Handbook of Information Systems & Services.* Paris, Unesco, 1977.

2. Harvey, J. M. *Specialised information centers*, 1976.

3. India. *National Committee on Science and Technology: Science and Technology Plan 1974-79* draft. 2 Paris. 1974.

4. *Information Services in India*. Seminar Papers, 10th IASLIC Conference, Kanpur, 1982.

5. Lazar, P. *India-National information system for science and technology*, 1972.

6. *Library and information services in India: assessment and effectiveness*; 34th ILA Conference, Calcutta, 1988.

7. *Marketing of library and information services*, 13th IASLIC Seminar, Calcuta. 1988.

8. Bernadas, A. et al: *Information systems; theoretical and formal aspects*, 1985.

9. UNESCO, ICSU, UNISIST, *Study report on the feasibility of World of Science information System*. 1971.

10. Vickery, B.C. *Information Systems*. 1973.

11. Bose, Kaushik. *Information networks in India: Problems and Prospects*. New Delhi : Ess Ess, 1994.

12. Kaul, H.K. *Information Networks: an Indian experience*. New Delhi : Virgo, 1992.

13. Parida, Baman. *Studies on information systems, services and programs in India and abroad*. Delhi : Ajanta, 1993.

14. Wiesman, Herman. *Information Systems, Services and Centres*. New York: Becker & Hyes, 1972.

PAPER-MLS 451 (B) Elective: Research and Technical Libraries (DSE)

Unit-1:
Research and Technical Libraries (Special Libraries): Definition, Objectives, Functions and Services. Organization and Management of Research and Technical Libraries.
Evaluation of services. HR Planning and Development. Development of Research and Technical Libraries in India.

Unit-2:
Collection Development. Special Collections: Research Reports, Patents, Standards and Specifications, Indexing and Abstracting Services. Bibliographic and Full-Text databases. Documentation Centres, Information Centres, Information Analysis / Evaluation Centres, Referral Centres, Data Centres – Their Objectives, functions, and services.

Unit-3:
Information Systems: NISSAT, NISCAIR, DESIDOC, NASSDOC, CORD, SENDOC – their objectives, functions and services. National Agricultural Library, National Medical Library, National Science Library of India – their functions and services.

Unit-4:
Planning and developing – Building, Collection, infrastructure, services of Research and Technical Libraries. Collection evaluation. Content creation and development. IPR issues. Citation analysis. Impact factor, H-Index, Altmerix.

PAPER—MLS 452 (A) Elective: Digital Libraries (Theory) (SEC)
Unit-1:
Digital Libraries – Concept, Definitions, Need and Purpose
Characteristics of Digital Libraries. Architecture of Digital Libraries.
Digital Library Resources and Services
Development of Digital Libraries

Unit-2:

Digital Library initiatives in India and the major Digital Libraries initiatives in UK, USA and in the world Design and Development of Digital Libraries Metadata, Dublincore, Taxonomies, ontologies and their use Best Practices and case studies of Digital Libraries Evaluation of Digital Libraries

Unit-3:
Digitization and its process
Different types of File Formats, Text Formats, Image Formats, Audio Formats, Video Formats, Born Digital, Mark up Languages, SGML, HTML, DHTML, XML
Open Source Materials, Gateways and Portals

Unit- 4
Access and User Interfaces to Digital Libraries
Resource Discovery Search Engines, Search Tools and Techniques, Boolean Operators, Fuzzy Logic, Information Visualization Copy right, Security, Privacy, Intellectual Property Rights (IPR) issues and Plagiarism

Select Readings:

1. Lesk, Michael. *Understading Digital Libraries*. 2nd edition. USA : Elsevier, 2005.

2. Witten Ian H., Bainbridge, David [and] Nichols, David M. *How to build a digital library.* 2nd Edition. Elsevier Publications. 2010.

3. Kresh, Diane. *The whole digital library handbook.* USA: Council on Library and Information Resource, 2007.

4. Karen, Calhoun. *Exploring digital libraries.* Neal Schuman Publishers, 2014.

5. Terry, Reese and Kyle, Benerjee. *Building digital libraries.* Neal Schuman Publishers, 2007.

6. Baker, David (2004). The Strategic Management of Technology: A Guide for Library and Information Services. Oxford: Chandos Publishing.

7. Bawden, David and Blakeman, Karen (1990). Going automated : implementing and using information technology in special libraries and information units. London :

8. Aslib. Barnes, Susan J (ed.). (2004). Becoming a Digital Library. New York :

9. Marcel Dekker. Borgman, Christine L.(2001). From Gutenberg to the Global Information Infrastructure: access to information in the networked world. Cambridge: MIT Press.

10. Brophy, Peter (2001). The Library in the Twenty-First Century: new services for the information age. London: Library Association.

11. Chowdhury, G G and Chowdhury, Sudatta (2003). Introduction to digital libraries. London : Facet Pub.

12. Cooper, Michael D.(1996). Design of Library Automation Systems: File Structures, Data Structures and Tools. New York: John Wiley.

13. Deegan, Marilyn & Tanner, Simon : (2002) Digital futures : strategies for the information age. London : Library Association.

14. Gorman, G E (ed.). (2002). The Digital Factor in Library and Information Services. London :

15. Hughes, Lorna M. (2004). Digitizing Collections: Strategic Issues for the Information Manager. London:Facet Ingram,

16. Peter (2001). Networking in Easy Steps. New Delhi: Dreamtech press.

17. International Conference on Digital Libraries 2004: Knowledge Creation, Preservation, Access and Management. (2004). (24-27, February 2004, New Delhi). 2 vols. New Delhi: TERI

18. Jordal, Gregory (1992). Networking: the productivity. New Delhi: Sterling Info Technologies.

19. Judge, Peter and Gerrie, Brenda (eds). (1996). Small scale bibliographic databases. Sydney: Academic Press.

20. Lancaster, F W & Sandore, Beth (1997) Technology and management in library and information services. London : Library Association.

21. Lankes, R. David(ed.) (2003). Implementing Digital Reference Services: setting standards and making it real. London: Facet Publ.

22. Lee, Stuart D (2001) Digital imaging : a practical handbook. London : Facet Publications.

23. Lesk, Michael (1997). Practical digital libraries : books, bytes and Bucks. San Francisco: Morgan Kaufmann.

24. Limb, Peter (2004). Digital dilemmas and solutions. Oxford : Chandos Publ.
Marks, Kenneth and Nielson,

25. Steven P. (1991). Local area networks in libraries. Westport : Meckler.

26. Meadows, Charles T. (1992). Text Information Retrieval Systems. San Diego: Academic Press.

27. Michell, Anne M and Surratt, Brian E.(2005): Cataloguing and organizing digital resources: a how-to-do it manual for libraries. London: Facet Publ.

28. Noerr, Peter (1999). The Digital Library Toolkit.
http://webdoc.hwdg.de/ebook/aw/1999/sun/noerrfinal.pdf Parekh,

29. Harsha (1999). Internet in the Scholarly Communication Process. Mumbai: Knowledge Ware Association.

30. Parekh, Harsha & Sen, Bharati (2001). Introduction to digitization – a librarian's guide. Mumbai : SHPT School of Library Science.

31. Rowley, Jennifer (1993). Computers for libraries. London :

32. William (1994). Introduction to Automation for Librarians. Chicago: American LibraryAssociation.

33. Sportack, Mark A. (1998). Networking Essentials. New Delhi :

34. Techmedia. Sridevi, J. and Vijay Laxshmi (2004) Model of digital library. New Delhi :

PAPER—MLS 452 (B) Elective: Information Literacy (SEC)

Unit-1:
Information Literacy – Concept, Definitions, Need and Purpose
Information Literacy skills
Information Literacy Programmes in Public, Academic and Special Libraries

Unit-2:
Information Literacy: Developments and Trends
Information Searching skills and preservation techniques
Information Literacy Standards

Unit- 3:
Information Searching with Databases, web Resources and Search Engines
Different Types of Web Searching skills like, academic websites and commercial websites
Designing and Developing Information Literacy Programmes

Unit-4 :
Information Literacy Initiatives and Programmes in India and different countries
Information Literacy case studies
copy right laws and Intellectual Copy Right Issues.
Plagiarism, Plagiarism software

Select Readings

1. Scott, Lanning. *Concise guide to information literacy.* USA : Libraries Unlimited, 2012.

2. Grassian, Esther S. and Kaplowitz, Joan R. *Information literacy instruction theory and practice.* 2nd ed. Neal-Schuman Publishers, 2009.

3. Handley Holly Carla List, Ross Heller Elin, Gonya O'Hara. *Alison Armstrong Information literacy and technology.* 5th ed. Kendall Hunt Publishing, 2013.

4. Gwenn, Wilson. *100% information literacy success. 3rd ed.* USA : Cengage Learning, 2015.

PAPER-MLS 452 (C): PROJECT (Project Oriented Dissertation) : In lieu of One
Theory/Practice Paper (i.e. 4 Credits)

M.Lib.I.Sc (Two-Year Programme) at PG Centre, Jogipet

RESTRUCTURED CHOICE BASED CREDIT SYSTEM – SCHEME OF THE EXAMINATION

(FROM THE ACADEMIC YEAR 2017-19)- I Semester

Sl. No.	Course Code	Course Name	Course Type	Instruction hrs/week	Duration of Exam	Internal Assessment	Semester Exam	Total Marks	Credits
						Max. Marks			
1	MLS- 101	Library & Society	CC	5	3	20	80	100	5
2	MLS -102	Library Classification (Theory)	CC	5	3	20	80	100	5
3	MLS -103	Library Cataloguing (Theory)	CC	5	3	20	80	100	5
4	MLS -151	Library Classification Practice: DDC–20th Edition	CC	8	3	-	100	100	4
5	MLS -152	Library Cataloguing Practice: AACR-2R Monographs & Serials	CC	8	3	-	100	100	4
6		Tutorials		2			25	25	1
		TOTAL		33		60	465	525	24

M.Lib.I.Sc (Two-Year Programme) at PG Centre, Jogipet

RESTRUCTURED CHOICE BASED CREDIT SYSTEM – SCHEME OF THE EXAMINATION

(FROM THE ACADEMIC YEAR 2017-19) -II Semester

Sl. No.	Course Code	Course Name	Course Type	Instruction hrs/week	Duration of Exam	Max. Marks Internal Assessment	Semester Exam	Total Marks	Credits
1	MLS - 201	Library Management	CC	5	3	20	80	100	5
2	MLS - 202	Introduction to Computers	CC	5	3	20	80	100	5
3	MLS - 203	Reference and Information Sources and Services	CC	5	3	20	80	100	5
4	MLS -251	Library Classification Practice: UDC-IME-2nd Edition	CC	8	3	-	100	100	4
5	MLS- 252	Library Cataloguing Practice: AACR-2 Non-Book Materials	CC	8	3	-	100	100	4
6		Tutorials		2			25	25	1
		TOTAL		33		60	465	525	24

M.Lib.I.Sc (Two-Year Programme) at PG Centre, Jogipet

RESTRUCTURED CHOICE BASED CREDIT SYSTEM – SCHEME OF THE EXAMINATION

(FROM THE ACADEMIC YEAR 2017-18)

III Semester

Sl. No.	Course Code	Course Name	Course Type	Instruction hrs/week	Duration of Exam	Max. Marks		Total Marks	Credits
						Internal Assessment	Semester Exam		
1	MLS- 301	Information and Communication	CC	5	3	20	80	100	5
2	MLS- 302	Information Retrieval Systems (Theory)	CC	5	3	20	80	100	5
3	MLS -303	Research Methods for Library and Information Science	CC	5	3	20	80	100	5
4	MLS -351	Elective **A. Information Technology (IT)** B. College and University Libraries	DSE	4	3	20	80	100	4
5	MLS -352	Elective **A. Basics of Computer Software (Practice)** B. Metadata (Practice) C. Information Sources (ID)	SEC	4	3		100	100	4
		Tutorials		2			25	25	1
		TOTAL		25		80	445	525	24

M.Lib.I.Sc (Two-Year Programme) at PG Centre, Jogipet

RESTRUCTURED CHOICE BASED CREDIT SYSTEM – SCHEME OF THE EXAMINATION

(FROM THE ACADEMIC YEAR 2017-19)

IV Semester

Sl. No.	Course Code	Course Name	Course Type	Instruction hrs/week	Duration of Exam	Max. Marks Internal Assessment	Semester Exam	Total Marks	Credits
1	MLS-401	Management of Library and Information Centers	CC	5	3	20	80	100	5
2	MLS-402	Library Automation and Networking	CC	5	3	20	80	100	5
3	MLS-403	Software for Library Automation	CC	5	3	-	100	100	5
4	MLS-451	Elective **A. Information Systems and Programmes** B. Research and Technical Libraries	DSE	4	3	20	80	100	4
5	MLS-452	Elective **A. Digital Libraries** B. Information Literacy C. Project	SEC	4	3	20	80	100	4
		Tutorials: Seminar/Field Visits/Group Discussions		2			25	25	1
		TOTAL		25		80	445	525	24
Project Oriented Dissertation : In lieu of One Theory / Practice Paper (i.e. 4 Credits)									

M.Lib.I.Sc (Two -Years Programme)

Department of Library and Information Science

PG Centre, Jogipet. Osmania University,

SEMESTER SYSTEM

(RESTRUCTURED CHOICE BASED CREDIT SYSTEM – SYLLABUS AND SCHEME OF THE EXAMINATION)

(FROM THE ACADEMIC YEAR 2017-2018)

(FIRST SEMESTER)

Paper- MLS 101: LIBRARY & SOCIETY (CC)

Unit-1:

Nature and purpose of Librarianship.

Ancient and Modern Libraries, Philosophy and Ethics of Librarianship. Attributes of Profession. Librarianship as Profession.

Library as a Social Institution: Functions of the Library. Role of the Library in Formal and Informal Education. Information and Society, Community Information Services, Role of the Library in improvement of reading habits. User Studies and User Education.

Professional Education and Librarianship.

Unit-2:

Five Laws of Library Science – Implications – Examples. – Relevance to present technological environments.
Types of Libraries : National, Public, Academic, and Special. Their objectives, Functions, Services (Reference Service, Current Awareness Service, SDI, Bibliographic, Indexing and Abstracting, Referral Service, etc.). Study of Select libraries – National Library, Kolkata; Library of Congress; British Library (London),; Connemera Public Library (Chennai); Delhi Public Library; National Science Library; State Central Library. Types of Material : Printed and Electronic Documents.

Unit-3:

Library Development. Ancient, Medieval and Modern Libraries. Library Movement in India. Library Movement in Andhra Pradesh with particular reference to Library Movement in Telangana State.

Library Cooperation / Resource sharing: Concept, need, purpose, areas of resource sharing, Resource sharing programmes. Impact of IT on Resource Sharing.

Library Consortia – Definition, purpose, functions. Consortia in India.

Unit-4:

National & International Organizations:

Professional Associations : IFLA, CILIP, ALA, ILA, SLA, ASLIB, NASSDOC, DESIDOC, IASLIC, IATLIS, APLA, ALSD: Objectives, Functions, Activities.
Organizations : UNESCO, NISCAIR -- Objectives, Programmes and activities.

Unit-5:
Legislation – Need, Purpose and Advantages.
Library Legislation in India: Need, Purpose and Advantages, Attempts for Library Legislation, Model Library Act in India. Detailed Study of A. P. Public Library Act : Overview of Library Acts in India – Tamilnadu, Karnataka, Maharashtra, West Bengal,Manipur, Kerala, Haryana, Mizoram, Goa, Gujarat, Uttaranchal, AND Orissa.

IPR (Intellectual Property Rights).
Delivery of Books Act. Copyright Act. Censorship.   UNESCO Public Library Manifesto-Standards for Public Libraries.
Library Education in India : Historical Development, levels of courses. Present Trends.

Select Reading:

1. Khanna (JK): *Library & Society*. Kurukshetra : Research Publications, 1987.

2. Ekbote (Gopal Rao): *Public Library System.* Hyderabad : Ekbote Brothers, 1987.

3. Mithal (RL): *Library Administration : Theory & Practice*. 5th Ed. Delhi : Metropolitan, 1984.

4. Ranganathan (SR): *Five Laws of Library Science*. Delhi : UBS, 1957.

5. Sharma (Pandey SK): *Development of Public Libraries in India*. New Delhi : Ess Ess.

6. IFLA : *Standards for Library Service*. 2nd Ed. Munich : Verlag, 1977.

7. Davis (DW): *Public libraries as cultural and social centres.* New York : Scarecrow, 1975.

8. Venkatappaiah (V): *A. P. Library Act* (in Telugu). Vijayawada : Navaratna, 1985.

9. Venkatappaiah (V): *Indian library legislation*. 2v. New Delhi : Daya, 1990.

10. Shera (JH): *The Foundations of education of librarianship*. Bombay : Asia, 1970.

11. *India, Advisory Committee for Libraries, Report.* Delhi : Manager of Publications, 1959.

12. Krishna Kumar: *Library Organization*. Delhi : Vikas, 1986.

13. Withers (FN): *Standards for Library Service: An International Survey*. Paris: Unesco, 1974.

14. Ranganathan (SR) and Neelameghan (A), Ed. *Public Library System*. Bangalore : Sarada Ranganathan Ednowment, 1972.

15. Venkatappaiah (V). *A. P. Granthalayodyamam* (Telugu), Vijayawada : Navaratna, 1985.

16. Krishnaji (J) and others: *Telugu Seemalo Granthalaya Pragathi*. Chittoor : K. B. Reddy, 1983.

17. Rout (RK): *Library legislation in India.* New Delhi : Reliance, 1991.

18. *Ekbote (Gopal Rao) Committee Report*. Hyderabad : Govt. of Andhra Pradesh, 1978.

19. Sahai, Srinath: *Library and community*. New Delhi : Today & Tomorrow.

20. Laxman Rao (N), Vishwa Mohan (V) and Sudarshan Rao (S) Ed. *Changing Dimensions of dLIS Education,* Hyderabad : IATLIS, 2001.

21. Kumar (PSG). Ed. *Indian Encyclopedia of Library & Information Science*. New Delhi : S. Chand & Co., 2001.

22. Vashisthj (CP). Ed. *Library movement and Library Development in India*. Delhi : ILA, 1994.

23. Sharma (Pandey S.K.): *Library & Society.* New Delhi: Ess Ess Publications, 1987.

24. Kumar (PSG): *A Student's Manual of Library & Information Science*, Delhi : BR Publishing House, 2002.

25. Graham P. Cornish : *Interpreting the law for libraries, archives and information services*, Rev. 3rd edn. London : Facet Publishing. 2001.

26. Sandy Norman (Ed) : *Copyright in further and higher education libraries* . 4th Edn. London : Facet Publishing, 1999.

27. Stella Pilling & Stephanie Kenna (Eds). *Cooperation in action: Collaborative Initiatives in the World of Information*. London : Facet, 2002.

28. Sandy Norman. *Practical Copyright for Information Professional*. London : Facet, 2001.

Paper- MLS 102: Library Classification (Theory) (CC)

<u>Unit-1:</u>

Library Classification – Meaning, Need and purpose of classification.

Terminology – Need and purpose. Important terms in Classification.

Normative Principles.

Five Laws of Library Science – Implications.

Formation, Structure and Development of Subjects:

<u>Unit-2:</u>

Species of Classification Schemes : Enumerative Classification (EC): Almost enumerative Classification (AEC): Almost Faceted Classification (AFC): Rigidly Faceted Classification (RFC): Freely Faceted Classification (FFC).

Brief study of major schemes viz: Decimal Classification (DC); Universal Decimal Classification (UDC); Library of Congress Classification (LC); and Colon Classification (CC).

<u>Unit-3:</u>

General Theory of Classification. Ranganathan's contribution.

Main Class – Canonical Class and Basic Class.
Five Fundamental Categories : PMEST.
Isolate -- Common Isolate – Kinds of Common Isolates, Special Isolates, Auxiliary Schedules.
Facet Analysis -- Postulates pertaining to Fundamental Categories.
Phase Analysis – Phase, Intra-facet & Intra-array relations.

<u>Unit-4:</u>

Principles of Facet Sequence, viz. Wall-Picture Principle, Whole-Organ Principle, Cow-Calf Principle, Act and Action – Actor – Tool Principle.

Principles of Helpful Sequence (8):

Different devices to form foci in an array. Chronological Device (CD); Geographical Device (GD); Subject Device (SD); Alphabetical Device (AD); Mnemonic Device (MD); Facet Device (FD); Super Imposition Device (SID); Classic Device (CLD); Telescoping of array.

<u>Unit-5:</u>

Notation -- Definition, Development, Types, Structure, Quality and functions.
Canons for Classification, Idea plane (15) -- Canons for characteristics (4); Canons for succession of characteristics (3); Canons of Array (4); Canons for Chain (2); Canons for Filiatory sequence (2). Verbal Plane (4):- Notational Plane (24) -- Basic Canons for notation (12): Canons for mnemonics (5); Canons for growing universe (4); Canons for Book Classification (3).Call Number -- Class Number, Book Number – Types of Book Numbers, Collection Number.Relevance of Classification in the context of Computerized / Digital Libraries.
Trends in Library Classification.

Select Reading:

1. Chan, Luis M. *Cataloguing and Classification*. 2nd ed. New York : McGraw Hill, 1995.

2. Foskett, A. C. *The subject approach to Information*. 3rd Ed. London : Clive Bingley, 1977.

3. Krishna Kumar. *Theory of Classification*. New Delhi: Vikas, 1980.

4. Maltby, A. Ed. *Classification in the 1970s*. London : Clive Bingley.

5. Maltby, A. *Sayers Manual of Classification for Librarians.* Ed.5. London : Andre Deutsch, 1975.

6. Mills, J. *Modern Outline of Library Classification*. Bombay : Asia, 1962.

7. Needham, C. D.: *Organisation of knowledge in Libraries*. 2nd Rev. Ed. London : Andre Deutsch, 1971.

8. Raju, A. A. N. *Decimal, Universal Decimal and Colon Classification : A Study in Comparison*. Delhi : Ajanta, 1984.

9. Ranganathan, SR. *Prolegomena to Library Classification*. Ed. 3. Bombay : UBS, 1967.

10. Ranganathan, SR. *Elements of Library Classification*. Ed. 2. Bombay : UBS, 1966.

Paper- MLS 103: Library Cataloguing (Theory) (CC)

Unit-1:

LIBRARY CATALOGUE:
  Definition, need, objectives and functions.

LIBRARY CATALOGUE & SIMILAR OTHER TOOLS:
  Bibliographies, indexes, accession lists and shelf list.

TYPES OF LIBRARY CATALOGUES:
  Physical / Outer forms: (Book, Sheaf, Card, Computerized Catalogues, Microform Catalogues)

  Inner forms (Dictionary, Classified and Alphabetico-Classed).

Unit-2:

AACR-2R and CCC : Features.

DIFFERENT TYPES OF CATALOGUE ENTRIES AND THEIR FUNCIONS:

  Main Entry, Added Entries, (including Book Index Entries, Class Index Entries).
  Reference Entries -- Cross Reference Entry and Cross Reference Index Entry.
  Elements of information in each type of Entries.

NORMATIVE PRINCIPLES – Laws, Canons and Principles.

Unit-3:

SUBJECT CATALOGUING : Concept, purpose.
SUBJECT INDEXING : Tools and techniques. Meaning, Objectives of subject entries; Methods of subject analysis and assigning of Subject Headings – Standard Lists of Subject Headings -- LC subject headings and Sears List of Subject Headings. Chain Procedure. Thesaurus.

Indexing techniques: Meaning, purpose. Pre-coordinate indexing – Chan indexing, PRECIS, KWIC, and KWOC. Post-coordinate indexing – Uniterm Indexing. Citation Indexing.

Unit-4:

CENTRALISED CATALOGUING:

Meaning and objectives. Pre-natal cataloguing, cataloguing in publication / cataloguing in source. Database as a source of cataloguing.

UNION CATALOGUES: Definition, use and functions.
OPAC. Web Based Catalogues.
Use of Internet in Cataloguing – OCLC, LC, CORC (Cooperative Online Resource Cataloguing). World Cat.
Impact of IT on Cataloguing.

Unit-5:

STANDARDIZATION IN CATALOGUING – Need, Purpose.
Standards -- ISBD (M), ISBD(S) AND ISBD (NBM).

METADATA – Concept. Metadata Vs Catalogue. MARC, MARC 21.
FILING AND ARRANGEMENT OF CATALOGUE ENTRIES: Classified and Alphabetical. Rules for filing of Entries. Trends in Cataloguing.

Select Reading:

1. Chan, Lois Mai. *Cataloguing and Classification*, ISE. New York: McGraw Hill, 1995.

2. Girja Kumar and Krishan Kumar. *Theory of Cataloging*. 5th ed. New Delhi : Vikas, 1988.

3. Needham, CD. *Organisation of knowledge and libraries: an introduction to classification and cataloguing.* 2nd ed. London : Andre Deutsch, 1971.

4. Sengupta, B. *Cataloguing : its theory and practice*. 3rd ed. Calcutta : World Press, 1975.

5. Sharp, Henry A. *Cataloguing : a Text book for use in libraries*. 4th ed. London : Grafton, 1948.

6. Tripathi, SM. *Modern cataloguing theory and practice*. 2nd ed. Agra : Shivlal Agarwal & Co. 1978.

7. Vishwanathan, CG. *Cataloguing : Theory and practice*. 5th ed. Lucknow : Print House, 1983.

8. Rajan, TN. *Indexing techniques.* Calcutta : IALIC, 1981.

9. Guha, B. *Documentation and information.* 2nd ed. Calcutta : World Press, 1983.

10. Hunter, EJ. *Computerized Cataloguing*. London : Clive Bingley, 1985.

11. Coats, EJ. *Subject cataloguing*. London : LA, 1960.

12. *ALA Rules for filing Catalog Cards*. Chicago : ALA, 1968.

13. Hunter, EJ and Bakewell, KGB. *Cataloguing.* 2nd rev. ed. London : Clive Bingley, 1983.

14. Wynar, Bhohdan S. *Introduction to Cataloguing and Classification*. 7th ed. Littleton : Libraries Unlimited, 1985.

15. Choudhary, GG. *Information retrieval systems*. Calcutta : IASLIC, 1995.

16. Krishan Kumar. *Cataloguing*. New Dehi : Har Anand, 1993.

17. Chakrborthy, AR and Chakraborthy, B. *Indexing : Principles, processes and producers*. Calcuttqa : World Press, 1984.

18. Varma, AK. *Trends in subject indexing*. Delhi : Mittal, 1984.

19. J. H. Bowman. *Essential Cataloguing.* London : Facet, 2003.

Paper- MLS 151: (CC)
Library Classification (Practice) – DDC 20th Edition

Construction of Class Numbers for Documents of different disciplines / subjects using DDC 20th Edition.

Select Reading:

1. Dewey (Melvil): *Dewey Decimal Classification*. Ed.20, 4 Vols. New York, Forest Press, 1989.
2. Raju, AAN : *Dewey Decimal Classification (DDC-20) : Theory and Practice*. Madras, TR, 1995.
3. Batty, CD. *An introduction to 20th Ed. Of DDC*. London : Clive Bingley.
4. Kumar, PSG: *Practical guide to DDC 20*. Nagpur : Datson, 1990.
5. Satija, MP and Comaromi, Jolun P. *Introduction to the practice of DDC 20*. New Delhi : Sterling.
6. Uppal, OP. *Practical procedure of classification according to CC and DDC*. Patiala : Madaan.
7. *Manual of the use of the DDC* : 20th ed. New York : Forest Press.

Paper- MLS 152: (CC)
Library Cataloguing (Practice) – AACR-2R – Monographs & Serials

Preparing Catalogue Entries (Main, Added and Reference Entries) for Books (Monographs) and Serials.

Select Reading:

1. *Anglo-American Cataloguing Rules*. 2nd rev. edn. London : Library Association, London : Facet Publishing, 2002.
2. *Sears List of Subject Headings* 14th Ed. New York: Wilson.
3. Hunter, Eric J. *Examples illustrating AACR-2* (1988) revision. London : LA, 1989.
4. Maxwell, Margaret F. *Handbook for AACR-2 (1988) revision.* Chicago: ALA, 1989.
5. Krishan Kumar: *An introduction to AACR-2*. New Delhi : Vikas, 1990.
6. Sehgal, RL. *Cataloguing Manual – AACR-2*. New Delhi: Ess Ess.
7. *Anglo-American Cataloguing Rules.* 2nd rev.ed. London : LA, 1988.

Paper- MLS 201: LIBRARY MANAGEMENT (CC)

Unit-1:

Management:
Concept and Development of Management. Managements Vs Administration. Characteristics of Management. Functions of Management. Principles of Management and their applications in Libraries. Scientific Management.

Routine & work flow in different libraries / sections.

Selection & Acquisition: Book Selection – Purpose & Need – Functions of Acquisition Section – Characteristics, Methods, Principles and theories of book selection. Acquisition Policies & Programmes – Book Selection Tools. Ordering. Book Trade. Good Offices Committee (GOC).

Online Bookshops – Identification, Selection and acquisition of documents. Advantages. Online Bookshops Vs traditional Bookshops. Example URLs.

Unit-2;

Technical Section: Processing – Classification & Cataloguing. Authority File.

Maintenance: Open Access Vs Closed Access. Principles of Stacking – Shelving Methods.

Preservation – Concept, Purpose and Methods.

Circulation: Gate Register; Registration of Members, , Reservation of books; overnight issue, Inter-library loan, Charging and discharging methods; Day Book System, Ledger System, Browne System, Newark System, etc.

Library Buildings – Planning. Role of Librarian.

Unit-3:

Reference & Information Services.
Serials Management – Acquisition, Organisation, Methods of Recording. Problems in Acquisition.

Stock verification : Purpose and Importance – Methods.

Library Records: Purpose and Types of Records.

Work Flow : Flow Charts, Symbols, Coordination of Work Flow.

Unit-4:

Human Resource Management:
H.R. Planning. HR Policies – Job Analysis, Job Description, Job Evaluation, Job Specification. Supervision, Control & Execution. Staffing – Categorization of Staff. Staff Development. Recruitment Methods.

Financial Management:
Sources of Finance – Generation of financial resources. Budgeting – Line, PPBS, ZBB. Accounting. Budgetary Control.

Unit-5:

Library Statistics : Purpose and Types.

Library Committees: Concept, Importance , Functions. Types of Committees.

Library Rules & Regulations -- Purpose, Preparation.
Public Relations. Publicity & Extension Activities. Types of Extension Services.

Information Technology – Use for Effective Library Management.

Select Reading:

1. Evans, G. Edward: *Management Techniques for Librarians*. 2nd edition. New York, Academic Press, 1983.

2. Katz, WA: *Collection Development, the selection of materials for libraries*. New York, Holt, Rinohart & Winston, 1980.

3. Lock, RN: *Library Administration*, Ed.3. New York, Philosophical Library, 1965.

4. Mittal, RL*: Library Administration*: Theory and Practice, Ed.5, Delhi, Metropolitan, 1984.

5. Narayana, G. J. *Library and Information Management*.   New Delhi : PHI, 1991.

6. Ranganathan, SR: *Library Administration*, Ed. 2, Bombay, Asia, 1959.

7. *Scientific Management of Libraries*. In *Library Trends.* V2, N3 Jan, 1954.

8. Sharma, J.S.: *Library Organization*, New Delhi, Vikas, 1978.

9. Spiller, David: *Book Selection: An Introduction to Principles and practice*. Rev.ed.2. London, Clive Bingley,1974.

10. Krishan Kumar. *Library Administration and Management*. 2nd ed. New Delhi : Vikas, 1987.

11. Seetharama, S. *Guidelines for planning of libraries and information centers*. Calcutta : IASLIC, 1990.

12. Krishan Kumar. *Library Manual*. New Delhi : Vani, 1985.

13. Peter Clayton and G. E. Gorman: *Managing Information Resources in Libraries and Information Services: Collection Management in theory and practice*. London : Facet Publishing, 2001.

Paper- MLS 202: Introduction to Computers (CC)

Unit-1:
INFORMTION TECHNOLOGY:
Concept and components. Computers & Communication.

COMPUTERS:
Meaning, use, functions, Characteristics and Capabilities. How a computer works.
General computer terminology.
Impact on society and Library & Information Centres.
Communication : Analog & Digital Signals. Transmission Media.

Unit-2:
TYPES OF COMPUTERS: Historical Development.
Generations of computers – Characteristics.
Analogue, Digital and Hybrid Computers.
Super, Mainframe, Mini and Micro, Laptop and PDA.

DATA AND INFORMATION. Data Representation and File Organization – Binary Code, Bit, Byte.
Standards – ASCII, ISCII (Indian Script Cod for Information Interchange), and EBCDIC. UNICODE.
Data Hierarchy.

Unit-3:
COMPONENTS OF COMPUTERS: Hardware – Input – Output devices. Storage devices, CPU. Ports.
Software – Purpose. Types of software. Development -- Program, Algorithm, Flow Charting.

OPTICAL STORAGE DEVICES: CD and DVD. MULTIMEDIA: Purpose and Use. Data Processing – Batch,
Online and Time Sharing.

Unit-4:
PROGRAMMING LANGUAGES : Machine, Assembly and Higher level. Algorithm, programme. Flow
Charting Compilers and Translators. OPERATING SYSTEMS : Windows, Application software.
APPLICATION SOFTWARE : MS-Word, MS-Access – Features. NETWORKING: Concept and Types.
INTERNET – Browsing. Browsers – Concepts and Examples. Services, Facilities.
WWW, Information Searching, URL.

Unit-5:
COMPUTERS IN LIBRARY & INFORMATION CENTRES.

Library Automation – Purpose, planning. Areas of Automation – Acquisition, Catalogue, Circulation,
Serial and Administration.

Hands on Experience to work with Computers with Windows (OS) and M.S.Word (Word processing).

Browsing Internet, Creating mail address Observation of an Automated Library.

Select Reading:

1. Jain, VK: *O-level module 1: Computer fundamentals*. 2nd ed. Delhi : BPB Publications, 1994.

2. Sinha, PK: *Computer fundamentals: concept, systems and applications.* 2nd ed. New Delhi : BPB
   Publications, 1992.

3. Mehta, Subhash and Mahata, Bhavana. *Quick Computer Course*. New Delhi : Galgotia, 1995.

4. Croucher, Phil. *Communications and networks*. 2nd ed. New Delhi.   Affiliated East West, 1995.

5. Basandra. *Understanding computers through common sense*. New Delhi : Galgotia.

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6. Gear. *Introduction to computers*. New Delhi : Galgotia.

7. Rajaraman, V. *Fundamentals of Computes*. New Delhi : PHI, 1995.

8. Chao, Chien C. *Introduction to the micro computer and its applications*. New Delhi : Galgotia, 1995.

9. Keren, C and Perlmutter, L. Ed. *The application of mini and micro computes in information, documentation, and libraries*. Amsterdam : Elsevier, 1995.

10. Deenadayalu, R. *Computer Science*. 2 Vols. New Delhi : TMH. 1990.

11. Botto, Francis. *Multimedia, CD-ROM and Compact disc : a guide for users and developers*. New Delhi : Galgotia, 1993.

12. Waixel, Bob and McKellen. *A beginner's guide to the PC.* Delhi : Affiliated East West Press, 1995.

13. Basandra, Suresh K. *Computers today*. New Delhi : Galgotia, 2002.

14. Satyanarayana, NR. *A Manual of Computerisation in Libraries*. New Delhi : Wishwa Prakashan, 1995.

15. G. G. Chowdhruy and Sudatta Chowdhury : *Searching CD-ROM and Online Information S9ources*. London : Facet Publishing, 2001.

16. Satish Jain. *Information Technology : `O' Level made Simple*. New Delhi : BPB, Latest Edition (All modules).

17. V. K. Jain. *Information Technology : `O' Level*. New Delhi : BPB, Latest Edition (All modules).

18. Williams, Briank; Sawyer, Stacey and Hutchinson, Sarah E. *Using Information Technology : A practical Introduction to computers and Communiction*. New Delhi : TMH, (latest edition)

19. Curtin, Dennis P. & others. *Information Technology: The breaking wave*. New Delhi : TMH, Latest Edition.

20. Leon, Alexis & Leon, Mathews. *Fundamentals of Information Technology*. Chennai : Leon Tech World, Latest Edition.

21. Radhakrishna P. *Computers and Information Technology*. Hyderabad : Hitech, Latest Edition.

Paper- MLS 203: Reference & Information Sources and Services (CC)

Unit-1:
REFERENCE SERVICE:
Definition, need, scope. Reference service in public libraries, special libraries and academic libraries. Types
of reference service – Orientation of a freshman, Ready Reference Service and Long Range Reference Service. Reference Process. Information Kiosks.

Unit-2:
INFORMATION SERVICES:
Definition, need, scope. Reference service vis-à-vis Information Service.

Methods of dissemination of information – Current Awareness Service. SDI. Referral.

KINDS OF REFERENCE AND INFORMATION SOURCES; Information Sources – Documentary &

Non-Documentary, Primary, Secondary and Tertiary Sources. Evaluation of reference sources.
Searching Information from different Reference Tools / Sources -- Strategies.

Unit-3:
REFERENCE SOURCES:
Dictionaries, Encyclopedias, Almanacs, Year Books, Directories, Handbooks, Manuals, News-Summaries, Concordances, Biographical, Geographical Information Sources, Electronic Resources

Unit-4:
BIBLIOGRAPHY:
Meaning, scope, functions.
Kinds: Enumerative / Systematic, Analytical, Historical, Textual, and Descriptive.
Types: Retrospective and Current. General, Special, National (INB and BNB), Trade, subject.
Preparation of bibliographies. Documentation list. BIBLIOGRAPHIC CONTROL -- Meaning, purpose, UBC and UAP.

Unit-5:
ABSTRACTING SERVICES:
Abstract : Meaning, use. Types : Indicative and informative. Parts of an Abstract.
Abstracting Services / Products. – Examples from different subjects.
INDEXING SERVICES
Index : Meaning, use. Indexing Services / Products – Examples from Different Subjects -- Citation Indexes. Citation of Documents – Purpose.

Select Reading:

1. Katz, A: *Introduction to Reference Work*. 2V. 6th Ed. New York : McGraw Hill. 1992.

2. Katz. Bill and Tarr, Andrea: *Reference and Information Services, a reader.* N.J.: The Scarecrow Press, 1978.

3. Krishan Kumar: *Reference Service*. New Delhi : Vikas, 1989.

4. Ranganathan, SR. *Reference Service and Bibliography*, Ed.2. Bombay : UBS, 1960.

5. Shores, L. *Basic Reference Sources*. Chicago : ALA, 1954.

6. Guha, B. *Documentation & Information*. 2nd Ed. Calcutta: World Press, 1983.

7. Bunch, Allan. *Basics of information work*. London : Clive Bingley, 1964.

8. Davinson, Donald. *Bibliographic Control*. London: Clibe Bingley, 1975.

9. Shera, JH and Egan, ME. *Bibliographic organization*, Chicago.

10. Austbery, Ray. *Bibliography and book production*. Oxford : Pergamon, 1967.

11. Kawatra, P.S. *Fundamentals of documentation with special reference to India*. New Delhi : Sterling, 1982.

12. Bose, H. *Information Service: Principles and Practice*. New Delhi: Sterling, 1986.

13. *International and National Library and information services: A review of some recent developments*, *1970-80*. Oxford : Pergamon Press, 1982.

14. Coblans, Herbet. *Librarianship and documentation : An International Perspective*. London : Andre Deutsch, 1974.

15. Stokes, Roy. *Esdaile's manual of bibliography.* London: Allen & Unwin, 1954.

16. Helprin, Laurence B, (Ed). *Towards foundation of information science*. White Plains, N.Y.: Knowledge Industry, 1985.

17. Girija Kumar and Krishan Kumar. *Bibliography.* New Delhi : Vikas.

18. Chakraborti, ML. *Bibliography : Theory and Practice.* 3rd rev.ed. Calcutta : World Press, 1987.

19. Roy, Paul Mohan. *Systematic bibliography*. 2nd ed. Jaipur: Printwell, 1984.

20. Murthy, AT. *Document Bibliography*. New Delhi : Metropolitan, 1979.

Paper- MLS 251: (CC)

Library Classification (Practice) – UDC IME 2nd Edn.

Construction of Class Numbers for Documents of Different Disciplines / Subjects using UDC (IME), 2nd

Ed.

Select Reading:

1. *UDC (IME) : BS 1000M*. 2 pts. London : BSI, 1993.

2. Mellwaine, IC and Buxton, A: *Guide to the use of UDC*. The Hague : FID 1993. (FID occasional

   paper, 5).

3. Raju, AAN. *UDC (IME) (1985): A Practical and self instruction manual*. Madras : TR Publications, 1991.

Paper- MLS 252: (CC)

Library Cataloguing (Practice) – AACR-2R, Non-Book Materials

Preparing Catalogue Entries (Main, Added and Reference Entries) for Non-Book Materials (Cartographic Materials, Manuscripts, Printed Music, Sound Recordings, Motion Pictures & Video Recordings, Graphic Materials, Computer Files and Micro Forms). Creating Meta Data for non-book materials

Select Reading:

1. *Anglo-American Cataloguing Rules*. 2nd rev. edn. London : Library Association, 1998.
2. *Sears List of Subject Headings*. 17th Ed. New York : Wilson. 2000.
3. Hunter, Eric J. *Examples illustrating AACR-2* (1988) revision. London : LA, 1989.
4. Hunter, Eric, J. *Examples illustrating AACR-2* (1988) revision.
5. Maxwell, Margaret F. *Handbook for AACR-2* (1988) revision. Chicago : ALA, 1989.
6. Krishan Kumar : *An introduction to AACR-2*. New Delhi : Vikas, 1990.
7. Sehgal, R. L. *Cataloguing manual – AACR-2*. New Delhi : Ess Ess.
8. *Anglo-American Cataloguing Rules.* 2nd rev. ed. London : LA., 1988.

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PAPER-MLS 301: INFORMATION AND COMMUNICATION (CC)

Unit-1: Nature of Information:

o   Data, Information & Knowledge : Definition, scope, use.
o   Information : Nature, Types, Characteristics, Properties, Use and Value.
o   Information and Social Change.
o   Information Explosion.
o   Information Society : Genesis, Characteristics, Implications.
o   Information Science : Definition, Scope and linkages with other disciplines / Subjects.
o   Information Industry.

Unit-2: Information Communication:

o   Information Cycle : Information Generation, Collection, Storage, Forms, Transfer and Dissemination of Information.
o   Communication : Definition, Concept, Types, Communication Models (Theories). Shannon Theory; Lasswell's Theory; Gerbner's Theory, Schramm Theory. Communication Media.
o   Scientific Communication.
o   Formal and Informal Channels of Communication. Information Intermediaries : Invisible Colleges, Information Exchange Groups, Technological Gate-keepers, Information Brokers / Consultants.
o   Barriers of Communication of Information.
o   Information Literacy
o   Information Filtering

Unit-3: Economics of Information:

o   Information needs. Information Seeking Behaviour : Concept, methods, need and purpose.
o   User Studies: Concept, purpose, methods, its application in libraries.
o   Information as Commodity and Resource.
o   Information Production and distribution.
o   Marketing of Information : Market Analysis, Market Segmentation, Marketing Mix, Marketing Audit.
o   Intellectual Property Rights (IPR). Copyright.   Right to Information. Censorship.

Unit-4: Knowledge Management & Digital Library:

o   Knowledge Management. Definition, Characteristics. Principles, Functions, Activities.
o   Document Management : Concept. Document Management vs Knowledge Management. Management of Electronic Resources.
o   Content Management.
o   Digital Library : Concept, use, advantages, design and development.
o   Digital libraries – Institutional Repositories – Need, purpose, material to be included and limitations.
o   Virtual Library : Concept.
o   Virtual Learning – Online learning, interactive techniques.
o   e-learning.

Unit-5: Informetrics:

o   Citation: Citation Analysis, Bibliographic Coupling.
o   Librametry, Bibliometrics and Scientometrics, Webometrics : Concept, Scope, Usefulness.
o   Bibliometric Laws – Bradford, Lotka and Zipf.

Select Readings:

1. Narayana, G.J. *Library & information management.* New Delhi, Prentice-Hall of India, 1991.
2. Kumar, P.S.G.: *Fundamentals of Information Science*, New Delhi, S. Chand & Co. Ltd., 1998.

3. Kumar, P.S.G.: *A Students Manual of library and Information Science* (two volumes Bound in one). Delhi, B. R. Pub. Corporation, 2002.

4. Prasad, H. N. *Information needs and users*. Varanasi : Indian Bibliographic Centre, 1992.

5. Prasher, R. G. *Information and its Communication*. New Delhi : Medallion Press, 1991.

6. Singhal, Aravind and Rogers, EM. *India's information revolution*. New Delhi : Sage, 1989.

7. Cawkell, A.E., Ed. *Evolution of an Information Society*. London : ASLIB, 1987.

8. Harris, S. *Human Communication*. New Delhi : BPB Publications, 1992.

9. Atherton, Pauline. *Handbook for information systems and service*, Paris: Unesco, 1977.

10. Garvey, William D. *Communication: the essence of science - facilitating information exchange among libraries, scientists, engineers and students*. Oxford: Pergamon Press,1979.

11. McGarry, K.J. *The changing context of information: an introductory analysis*. London: Bingley, 1981.

12. Machlup, F. & Mansfield, Uma, eds. *The study of information: Interdisciplinary messages.* New York: Wiley, 1983.

13. Meadows, A. J. *Communication in science*. London: Butterworths.

14. Cronin, Blaise, ed. *The marketing of library and information services*. (Aslib Reader, Vol.4). London: Aslib, 1981.

15. Galatin, Malcolm & Laiter, Robert D, eds. *Economics of Information*. London: Nijhoff, 1981.

16. Roberts, Stephen A. Ed. *Costing and the economics of library and information services* . London: Aslib, 1984.

17. Chorafas,D. N. *Knowledge revolution.* 1968.

18. Garvey, W. D. *Communication, the essence of science*. 1978.

19. McGarry, K. J. *Communication, knowledge and the information*. 1975.

20. Machlup, F. *Knowledge: its creation, distribution and economic significance*. VI, 1980, V2, 1982; V3. 1984.

21. Masuda, Y. *The information society.* 1980.

22. Rozsa, G. *Scientific information and society*. 1973.

23. Wolpert, S.A., Wolpert, J. F. *Economics of information. 1986.*

24. Crawford, Marshall Jean. *Information broking: a new career in information work.* London: LA, 1988.

25. Gurnsey, John and White, Martin. *Information consultancy. London: Clive Bingley, 1989.*

26. Graham P. Cornish : *Copyright : Interpreting the law for libraries, archives and information services*. Rev. 3rd ed. London : Facet Publishing, 2001.

27. Sandy Norman (Ed): *Copyright in Further and Higher Education Libraries*. 4th Edn. London : Facet Publishing 1999.

28. Rowley, J. E. : _The Electronic Library_. 4th Edn of Computers for Libraries. London : Facet Publishing, 1998.

29. John Feather : _The Information Society: A study of continuity and change_.   3rd Edn. London : Concept Publishing, 2000.

30. James Dearnley and John Feather : _The Wired World: An introduction to the theory and practice of the information society_. London : Facet Publishing, 2001.

31. Angela Abell and Nigel Oxbrow. _Competing with knowledge: The information professional in the knowledge management age_. London : Facet Publishing, 2001.

32. Eileen Elliott de Saez. _Marketing concepts for libraries and information services_. 2nd Edn. London: Facet Publishing, 2002.

33. Barbara Allan. _E-learning and Teaching in library and Information Services_. London : Facet Publishing, 2002.

34. Malwad,NM and others. Digital Libraries : Dynamic store house of digitized information. New Delhi : New Age, 1996.

35. Leona Carpenter, Simon Shaw & Andrew Prescott. _Towards the Digital Library._ London : LA, 1998.

36. Peter Brophy. _The Library in the 21st Century: New Services for Information Age_. London : LA, 2001.

37. Susan Hornby & Zoe Clarke (Ed). _Challenge and change in the Information Society_. London : Facet Publishing, 2002.

38. Joan Feather. _Communicating knowledge_. London : Facet Publishing, 2002.

39. G. G. Chowdhury. _Introduction to Digital Libraries_. London : Facet Publishing, 2003.

40. Eileen Elliott De Saez. _Marketing Concepts for Libraries and Information Services._ London : Facet Publishing, 2002.

41. W. R. Bikowitz. _Knowledge Management_. Delhi : PHI, 2000.

PAPER-MLS 302: INFORMATION RETRIEVAL SYSTEMS (THEORY) (CC)

Unit-1:
Information Storage and Retrieval (IR) Systems:
Concept, components, IR tools.

Information Analysis, repackaging and consolidation : Concept, purpose.
Content Creation / Content Development.
Indexing:
Concept. Principles / general theory of indexing.
Content Analysis : Meaning, Purpose. Application in LICs.

Unit-2:
Indexing Languages, types, Characteristics.
Vocabulary control – natural and controlled languages. Semantics and Syntax.
Library Classification Schemes: UDC and CC.
Thesaurus – Structure and functions. Design / Construction of Thesaurus.
Subject Headings – LCSH and SLSH – Structure and Functions.

Unit-3:
Indexing Techniques:
Syntactical problems. Pre and post-coordinate indexing.
Chain Indexing, PRECIS. Uniterm, Keyword and Citation Indexing.
Computer based indexing systems and methods (Automatic Indexing).

Unit-4:
Bibliographic Description:
Standards for bibliographic Description: ISBDs, MARC, CCF and MARC 21. EAD (Encoded Archival Dscription).

METADATA: Concept, Formats – Features of MARC, IAFA, Templates, Dublin Core, TELURC, FGDC --- Detailed Study of any two formats. Protocols – Features – SODA, SMARTS. Metadata vis-à-vis Internet.

Data Mining, Data Warehousing.

DIGITAL OBJECT IDENTIFIER (DOI): Concept, Origin, application, principles for issuance of DOI. Principles for the application of DOI. DOI Foundation, procedure for registration.

Unit-5:
Information Retrieval:
Retrieval methods – manual and automated. Search processes, and strategies. Boolean Logic. Preparation of query, steps in search strategy. Search tools – search engines, meta-search engines. Subject directories, subject guides, specialized data bases, etc.,. Criteria for evaluation of IR Systems.

Computerized Information Services: Machine Translation. Automatic Indexing. Computerized Abstracting. Natural Language Processing.

Select Readings:

1. Unesco. CCF. Paris : Unesco. 1988.

2. Jean Atchison & Alan Gilchrist. *Thesaurus construction: a practical manual*. London: Aslib. 1972.

3. A. C. Foskett. *The subject approach to information*. 4th ed. London : Bingley, 1982.

4. F. Wilfrid Lancaster. *Information retrieval systems: Characteristics, testing and evaluation*. 2nd ed. New York: Wiley, 1979.

5. F. W. Lancaster & L. C. Smith. *Compatibility issues affecting information systems and services*. Paris: Unesco,1983.

6. Jennifer E. Rowledy. *Organising knowledge: an introduction to information retrieval*. Aldorshot: Gower, 1987.

7. P. Simmons & A. Hopkins. CCF: The Common communication format. *Paris: Unesco, 1984.*

8. C. J. Van Rijsbergen. *Information retrieval*. 2nd ed. London: Butterworths, 1970.

9. B. C. Vickery. *Techniques of information retrieval*. London: Butterworths, 1970.

10. Atchison, J. Gilchrist, A: *Thesaurus construction, a practical manual*. 1972.

11. Austin, D. Precis, *A manual of concept analysis and subject indexing*. 2nd ed. 1984.

12. British Standards Institutions: *BS 1000M: 1993, Universal Decimal Classification IME, 1993.*

13. Chernyi, A. I. _Introduction to information retrieval theory_. 1973.

14. Cleaveland, D. B., Cleveland, A. D. _Introduction to Indexing and Abstracting._ 1983.

15. Gostello, J. C. _Coordinate indexing._ 1966.

16. Dym, E. D. _Subject and information analysts_. 1985.

17. Kochen, M. (Ed). _Principles of information retrieval_. 1974.

18. Lancaster, F. W. _Information retrieval systems, characteristics, testing and evaluation._ 1968.

19. Lancaster, F.W. _Indexing and Abstracting in Theory and Practice_. London : Facet Publishing, 2003.

20. G. G. Chowdhruy. _Introduction to Modern Information Retrieval_. 2nd edn. London, Facet Publishing, 2003.

21. Alex Berson, Stephen Smith & Kurt Thearling. _Building data mining applications for CRM._ New Delhi : TMH, 2000.

22. G. E. Gorman, (Ed). _Metadata applications for Management_. London : Facet Publishing, 2003.

23. Mary A. Burke. _Organization of multi-media Resources: Principles and Practices of Information Retrieval._ Alder Shot : Gower, 1999.

PAPER-MLS 3O3: RESEARCH METHODS FOR LIBRARY AND INFORMATION SCIENCE (CC)

Unit-1:
Research:
Definition, need and purpose. Basic Concepts: Validity, reliability, Objectivity, Subjectivity. Variables: Dependent, Independent and Intervening. Logic : Induction and Deduction. Intuition.

Types – Basic and applied. Interdisciplinary & multidisciplinary, Team / Group Research, Relay Research. Scientific method. LIS Research in India.

Unit-2:
Research Design:
Aims and objectives. Scope and limitations. Problem identification, formulation and statement of the problem.

Hypothesis:
Definition, meaning, formulation. Types: Descriptive, relational and explanatory, Null-Hypothesis. Verification.

Unit-3:
Methods of Research:
Survey, descriptive, comparative, historical, experimental, case study and Delphi technique.

Unit-4:
Methods of data collection:
Types of data – Primary and Secondary.
Data Collection Methods: Primary data – Questionnaire, Interview and Observation.
Scales and Check Lists.
Secondary data – Historical / recorded.

Probability sample: Simple Random sampling, systematic, stratified. Non-probability sample: Quota, Accidental, purposive, incomplete. Cluster and multi-state sampling. Sample size, bias, error.

Unit-5:
Methods and Tools of Data Analysis:
Problem measure, reliability, validity, Descriptive Statistics – Measures of Central Tendency : Mean, Median, Mode. Measure of Central distendency : Standard Deviation. Graphical Presentation of data : Bar diagrams, Pie-chart, Line Graphics, Histograms, Inferential Statistics : Measure of Association : Co-efficient of Correlation.
Testing of Hypothesis : Chi-square test & T-test.

Software for Statistical Analysis – SPSS – Features.

Writing research report:
Structure & Contents of report, presentation of findings. Style Sheets, Citation of Print, Electronic and Internet sources.

Select Readings:

1. Charles H. Busha & Stephen, P. Harter. *Research Methods in Librarianship: Techniques and Interpretation*. New York: Academic Press, 1980.

2. Marurice, B. Line. *Library surveys: an introduction to the use, planning procedure and presentation of surveys*. 2nd ed. London : Bingley, 1982.

3. Nick Moore & Martin Hesp. *The basics of writing reports etcetera*. London: Bingley, 1985.

4. Goode (William J) and Hatt (Paul K). *Methods in Social Research*. New York: McGraw-Hill Book Company, INC. 1952.

5. Gopal (M.H.): *An Introduction to Research Procedure in Social Sciences*. New Delhi, Vikas, Pub. House, 1992.

6. Simpson, J. L. *Basic Research Methods in Social Sciences*. The Art of empirical investigation. 1969.

7. Stevens Rolland E. *Research Methods in Librarianship*. London, Bingley, 1971.

8. Powell, Ronad, R. *Basic research methods for librarians*. Norwood: Ablex, 1985.

9. Krishnaswami, O.R. *Methodology of Research in Social Sciences*. Bombay : Himalaya,1993.

10. Ravichander Rao, I.K. *Quantitative Methods for Library and Information Science.* New Delhi : Wiley Eastern, 1983.

11. Mary Lee, Bundi. *Reader in Research Methods for Librarianship*. -- : Greenwood Press.

PAPER- MLS 351 (A) Elective: INFORMATION TECHNOLOGY (IT) (DSE)

<u>Unit-1</u>:
<u>Information Technology</u>:
o Concept, definition and components of IT
o Client -- Server Technology : Concept, Use.   Different types of Servers – File Server, Proxy Servers, Web Servers, Print Server, Database Server, etc.
o Strategic Management of Technology
o Trends in Hardware and Software Developments.
o Software – Open Source and Proprietary – Implications, Advantages of using different types of Software.

<u>Unit-2</u>:
<u>Communication Technology</u>:
o Telecommunications – Signals: Analog and Digital. Modem – types, use.
o Switching Systems : Concept, Purpose, Types -- Circular, Message and PSS. Gateways , Ethernet, Hub/Switches.
o Communication Media – Twisted Pair, Coaxial, Optic Fibres, Satellite Communication, VSAT, Microwave. Bandwidth, Multiplexing. ISDN.
o Data Communication Concepts – Parallel & Serial; Synchrnous & Asynchrnous; Simplex, Half Duplex and Full Duplex.

<u>Unit-3</u>:
<u>Electronic Information</u>:
o Electronic / Digital Information.
o Digital Collection, Digital Rights Management.
o Digitization – Concept, Procedures and Problems. Input devices – OCR, Scanners, Cameras. Software & hardware used for digitization. Image Formats (JPEG, GIF / BMP).   Audio Formats (MPEG, MP3, WAV).   Image Editing.
o e-documents: Concept of e-books and e-journals. Trends in Production and availability of e-documents. Impact on Libraries and Information Centres and Users.
o Preservation and archiving of e-resources.
o Web logs. Identification and creation of Blogs. Wikies, Wikipedia.

<u>Unit-4</u>:
<u>Communication Tools and Techniques: An overview</u>:
o Fax, E-mail, Tele Tex, Videotext, Tele Conferencing, Video Conferencing, Voice Mail. Hyper Text and Hyper Media. List Serve / Electronic groups.
o Wireless Communication: Concept – Networking, WAP / Wireless Internet, WLL, Cellular Communication.
Internet Communication and Expert Systems.
o Internet Communication : Internet as a communication tool. Facilities for communication. Features and Developments.
o Internet Connectivity – Dial up, leased, microwave, cable modem, ISDN, Digital Subscriber Lines (DSL). Other related issues.
o Data Security : Concept, need, purpose. Virus – Definition, effect. Security Methods, Firewall, Anti-virus software. SPAM. IDS (Intrusion Detection System).

<u>Select Readings</u>:

1. Dowlin, K. *The electronic library*. New York : Neal Schuman, 1984.

2. Forester, T., Ed. *The information technology revolution*. Oxford: Blackwell, 1985.
3. Kelleher, Kathleen & Cross, Thomas B. *Teleconferencing: Linking propel together electronically.* Englewood Cliffs: Printice-Hall, 1985.
4. King, Donald W., ed. *Telecommunications and libraries: a primer jfor libraries and information managers*. White Plains : Knowledge Industryu, 1981.

5. Vervest, Peter. *Electronic mail and message handling*. London: Printer, 1985.

6. Zorkoczy, Peter and Heap, Nicholas. _Information technology: an introduction._ 4th ed. London: Pitman, 1995.
7. _The Hindu speaks on information technology_. Madras : Kasturi & Sons, 1993.
8. Goucher, Phil. _Communications and Networks_. 2nd ed. New Delhi: Affiliated East-West, 1995.
9. Rich, Elaine and Knight, Kevin. _Artificial Intelligence_. 2nd ed. New Delhi: TMH, 1994.
10. Kaul, H. K. _Information Networks: An Indian experience_. New Delhi : Virgo, 1992.

11. Chadha, R. K. and Gupta, S. R. Eds. _Information Technology_. New Delhi : Sarita, 1995.

12. Black, U. _Emerging communication technologies_. New Delhi : PHI, 1994.
13. Jeffcote, J. _Multimedia in practice_. New Delhi : PHI, 1994.

14. Ford, Nigel. _Expert Systems and artificial intelligence : An information manager's guide_. London : LA, 1991.

15. Alberico, Ralph and Micco Mary. _Expert Systems for reference and information retrieval_. West port : Meckler, 1990.

16. Bandhyopadhyay, S. _Information Technology for growth and prosperity_. New Delhi : TMH, 1994.

17. Vishwanathan, T. _Communication Technology_. New Delhi : TMH, 1995.

18. Kennedy, George. _Electronic communication systems_, 3rd ed. New Delhi : TMH,1991.

19. Sinclair, Ian R. _Multimedia on PC_. New Delhi : BPB,1995.

20. Botto, Francis. _Multimedia, CD-ROM & compact disc : a guide for users and developers_. New Delhi : Galgotia, 1993.

21. Rastogi, P. N. _Knowledge engineering and expert systems_. New Delhi : BPB, 1994.

22. Basandra Suresh, K. _Computers today_. New Delhi : Galgotia, 2002.

23. Harries, Steve. _Networking and telecommunications for information systems: an introduction to information networking_. London : LA, 1993.

24. Stuart D. Lee. _Digital Imaging: A practical handbook_. London : Facet Publishing, 2000.

25. Williams, Briank; Sawyer, Stacey and Hutchinson, Sarah E. _Using Information Technology : A practical Introduction to computers and Communiction_. New Delhi : TMH, (latest edition)

26. Curtin, Dennis P. & others. _Information Technology: The breaking wave_. New Delhi : TMH, Latest Edition.

27. Leon, Alexis & Leon, Mathews. _Fundamentals of Information Technology_. Chennai : Leon Tech World, Latest Edition.

28. Radhakrishna P. _Computers and Information Technology_. Hyderabad : Hitech, Latest Edition.

29. Phil Bradley. _The Advance Internet Searcher's Handbook_. 2nd Edn. London : LA, 2002.

30. Ray Horak. _Communication Systems and Networks._ 2nd Ed. New Delhi : IDG, 2000.

31. Peter Jackson. _Introduction to Expert System_. Horlow : Addison Wesley, 2000.

32. Nils J. Nilsson. _Artificial Intelligence : A New Synthesis._ Singapore. Harcourt, 2000.

33. Internet Complete, 2nd Ed. New Delhi : BPB, 2000.
34. H.M. Deitel, P. J. Deitel and T. R. Deitel. *Internet and World Wide Web: How to Programme*. Delhi : Addison Wesley, 2001.
35. *Digital Library Tool Kit*. 3rd Ed. Santa Clara : Sun Micro Systems, 2003.
36. *Digital Library Technology Trends*. Santa Clara : Sun Micro Systems, 2002.
37. Alison Cooke. *A Guide to finding Quality Information in the Internet*. 2nd Ed. London : Facet, 2001.
38. Marlyn Deegan & Simon Tanner. *Digital Futures: Strategies for the Information Age*., London : Facet, 2001.

39. Phil Bradley. *Getting and staying noticed on the Web*. London : Facet, 2002.

40. R. David Lankes & Others (Eds): *Implementing Digital Reference Services : Setting Standards and making it real*. London : Facet, 2002.

41. G. E. Gorman (Ed). *The Digital Factor in Information & Library Services*. London : Facet, 2002.

PAPER-MLS 351 (B) Elective: COLLEGE AND UNIVERSITY LIBRARIES (DSE)

Unit-1:
College Libraries: Definition, Objectives, Functions and Services. Organization and Management of College Libraries. Different Sections and their functions.
Evaluation of services. HR Planning and Development. College Library Collection.

Unit-2:
University Libraries: Definition, Objectives, Functions and Services. Organization and Management of University Libraries. Different Sections and their functions.
Evaluation of services. HR Planning and Development. Staff Formula. Standards for Academic Libraries. University Library Collection.

Unit-3:
Collection Development. Book Selection Principles and Procedures. Book Selection tools. College and University Library Committees. Reference Collection. Indexing and Abstracting Services. Bibliographic and Full-Text databases.
Extension services and Public relations in college and University Libraries. Inter-Library Loan Services.

Unit-4:
UGC and Academic Libraries in India. Commissions and Committees on Academic Libraries. INFLIBNET, UGC-INFONET. ERNET, OCLC. Consortia for Academic Libraries.

Planning and developing – Building, Collection, infrastructure, services of College and University Libraries. Collection evaluation. IPR issues. Citation analysis. Impact factor, H-Index, Altmerix.
Development of College and University Libraries in India.

PAPER—MLS 352 (A) Elective: BASICS OF COMPUTER SOFTWARE (Practice) (SEC)
Unit-1:

Operating System – Windows / LINUX (Hands on experience with one Operating System)
Unit-2:
MS-Word, MS-Excel, MS-Power Point
(Hands on experience in document creation, editing, printing, etc.)
Unit-3:
HTML, and XML
Developing a HTML Document
Unit-4:
Searching Information on any of the subjects: Science, Social Sciences, Medical, Engineering, etc.

PAPER—MLS 352 (B) Elective: METADATA (Practice) (SEC)

Unit-1: Metadata Initiatives. Dublin Core Elements.
Unit-2: Identification and creating Metadata of different documents
Unit-3: OAI/PMH (Hand on experience)
Unit-4: Metadata Standards (MODS and METS)

PAPER-MLS 352 (C) Elective: Information sources (ID)

Unit-1:
Information : Definition, need, types, cycle/flow
KINDS OF REFERENCE AND INFORMATION SOURCES; Information Sources – Documentary & Non-Documentary, Primary, Secondary and Tertiary Sources. Evaluation of reference sources.
Searching Information from different Reference Tools / Sources – Strategies.

Unit-2:
REFERENCE SOURCES IN THE FIELDS OF SOCIAL SCIENCES:
Dictionaries, Encyclopedias, Almanacs, Year Books, Directories, Handbooks, Manuals, News-Summaries, Concordances, Biographical, Geographical Information Sources, Electronic Resources with particular reference to Open Access sources.

Unit-3:
BIBLIOGRAPHY:
Meaning, scope, functions.
Kinds: Enumerative / Systematic, Analytical, Historical, Textual, and Descriptive.
Types: Retrospective and Current. General, Special, National (INB and BNB), Trade, subject.
Preparation of bibliographies. Documentation list. BIBLIOGRAPHIC CONTROL -- Meaning, purpose, UBC and UAP.

Unit-4:
ABSTRACTING SERVICES:
Abstract : Meaning, use. Types : Indicative and informative. Parts of an Abstract.
Abstracting Services / Products. – Examples from different subjects.
INDEXING SERVICES
Index : Meaning, use. Indexing Services / Products – Examples from Different Subjects -- Citation Indexes. Citation of Documents – Purpose.

Select Reading:

1. Katz, A: *Introduction to Reference Work*. 2V. 6th Ed. New York : McGraw Hill. 1992.
2. Guha, B. *Documentation & Information*. 2nd Ed. Calcutta: World Press, 1983.

3. Shera, JH and Egan, ME. *Bibliographic organization*, Chicago.

4. Girija Kumar and Krishan Kumar. *Bibliography.* New Delhi : Vikas. 1993.

5. Krishan Kumar, Reference service, New Delhi : Vikas. 2007.
6. A. C. Foskett. *The subject approach to information*. 4th ed. London : Bingley, 1982.
7. F. Wilfrid Lancaster. *Information retrieval systems: Characteristics, testing and evaluation*. 2nd ed. New York: Wiley, 1979.
8. Jennifer E. Rowledy. *Organising knowledge: an introduction to information retrieval*. Aldorshot: Gower, 1987.
9. C. J. Van Rijsbergen. *Information retrieval*. 2nd ed. London: Butterworths, 1970.
10. B. C. Vickery. *Techniques of information retrieval*. London: Butterworths, 1970.
11. Chernyi, A. I. *Introduction to information retrieval theory*. 1973.
12. Kochen, M. (Ed). *Principles of information retrieval*. 1974.
13. Lancaster, F. W. *Information retrieval systems, characteristics, testing and evaluation.* 1968.

- Offered for students of other Departments.

(FOURTH SEMESTER)

PAPER-MLS 401: MANAGEMENT OF LIBRARY AND INFORMATION CENTRES (CC)

Unit-1:
Management: Concept, definition, nature and purpose. Schools of management. Management Styles.
Planning Library and Information Centres: Need and purpose, planning process, procedures,
steps and factors.
SWOT Analysis : Concept, Use.   Role of Effective Communication on Management.

Unit-2:
Systems Theory: Concept, Components analysis, evaluation and design. Library as a System,
Subsystems of a Library.
Performance Evaluation of Library and Information Centres.
Management Information Systems (MIS) : Concept, Use.
Project Management : Definition, Objectives, Scope, Organisational Planning, Stages.

Unit-3:
Work Studies: Flow chart and Gantt Charts. PERT / CPM.
Work environment – Internal and External.
Management by Objectives: (MbO): Concept and relevance to LICs.
Decision making:
Concept, problems, aids. Decision Process.
Delegation of Authority:
Authority, Responsibility and Accountability – Concept, guidelines and barriers.

Unit-4:
Human Resource Management:
H R Planning, staffing, job analysis, job description, job evaluation, staff recruitment; selection,
training and development. Inter personal relations.
Work relationships: Supervision, Control, Leadership, , Group Dynamics and Performance Evaluation.
Motivation : Concept, Theories.
Management of Change : Concept, need for change, Impact, Strategies, Organistion Culture, Promoting
Change.
Use of Information Technology for Effective Management.

Unit-5:
Financial Management:
Resource Mobilisation.

Budgeting Methods: PPBS and Zero-based. Budgetary Control.
Cost Effectiveness and Cost Benefit Analysis.
Cost Accounting : Concept and Use.
Outsourcing.
Quality Management:
Quality : Concept, application in LICs. Quality Management, Quality Audit, Customer Satisfaction Vs
Quality Management. Norms / guidelines. ISO-9000.
TQM : Definition, Scope, Purpose. Application in Libraries.

Select Readings:

1.   John Cowley, Personnel management in libraries. London: Bingley, 1982.

2.   Blaise Cronin, ed. Information management; from strategies to action. London. Aslib, 1985.

3.   G. Edwaqrd Evans. Management techniques for librarians. 2nd ed. New York: Academic Press, 1983.

4.   Noragh Jones & Peter Jordan. Staff management in library and information work. Aldershot: Gower,
     1982.

5.   Donald W. King, ed. Key papers in the design and evaluation of information systems. White Plains:
     Knowledge industry, 1978.

6.   Donald Mason. Information management. Stevenage: Peregrinus, 1978.

7.   Narayana, G. J. Library and Information management. New Delhi : PHI, 1991.

8.   Chapman, Edward A. Pierre, Paul L. St. and Lubans, John, Jr. Library Systems Analysis guidelines.
     New York : Wiley-Inter-Science, 1970.

9.   Bryson, Jo. Effective library and information center management. Aldershot : Gower, 1990.

10. Roberts, Stephen A., Ed. Costing and the economic of Library and Information Services. London :
     ASLIB, 1988.

11. Rizzo, J. R. Management for librarians : Fundamentals and issues. West Port : Green Wood Press,
     1980.

12. Lancaster, F. W. The measurement and evaluation of library services. Washington : Information
     Resources Press, 1977.

13. Lancaster, F. W. If you want to evaluate library. London : LA, 1988.

14. Ellis, Debbie and Norton, Bob. Implementing BS5750 ISO9000 in Libraries. London : Aslib, 1993.

15. Underwood, Peter G. Managing change in libraries and information services: a systems approach.
     London : Clive Bingley, 1990.

16. MacLachalan, Liz. Making project management work for you. London : LA, 1996.

17. Thornhill, Adrian and others. Managing changeUI. Delhi : Addison Wesley Longman, 2000.

18. Stephen P. Robbins & David A. Decenzo. Fundamentals of Management. Delhi : Pearson
     Education, 2001.
19. Roshan Raina. TQM in Library & Information Services. New Delhi : Infuse, 1999.

20. V. Rama Raman. Analysis and Design of Information Systems. New Delhi : PHI, 1991.
21. Elias M. Awad. Systems Analysis and Design. New Delhi : Galgotia, 1995.

22. Barbara Allan : *Project Management : Tools and Techniques for Today's LIS Professional*. London : Facet Publishing 2003.

23. John M. Cohn. *Planning for Integrated Systems and Technologies : A how to do it manual for Librarians*. 2nd rev.ed. London : Facet, 2002.

PAPER-MLS 402: LIBRARY AUTOMATION AND NETWORKING (CC)

Unit-1:

Library Automation:
Definition, need, purpose and advantages. Automation Vs Mechanization.
Areas of Automation – Acquisition, Cataloguing, Access to Catalogue (OPAC), Circulation and Serial Control.

Unit-2:
Planning for Automation Procedure:
Steps in Automation: Developing a basic Technology Plan.
Identifying goals and objectives, Describing existing library services and technology, Feasibility Study, Assessing needs and priorities, Preparing strategic Plan, Hardware and Software selection and Implementation.

Barcode Technology: Meaning, need, purpose and advantages. Types of barcodes : Dumb / Generic barcode and smart barcode – their application. Code 39.

RFID (Radio Frequency Identification)

Unit-3:
Networking and Networks:

Networking: Concept, need and advantages. Basic components of network.
Network Topologies – Star, Ring, Bus, Hierarchical, Tree and Complete. Wireless Networking.

Types of Networks – LAN, MAN, WAN.

Networks: General and Bibliographic.
General – ERNET, NICNET, INFONET.
Library Networks: OCLC, INFLIBNET, DELNET : Their objectives, Functions, Services and Activities.

Unit-4:
Internet: Concept, Features, Services.
Search Engines – Concept. Types – Search Engines and Meta Search Engines, Advantages in using Search Engines..

Internet: Internet Searching. Web Browsers – Purpose, Functions, Facilities available with different Browsers. Sample Search by using Internet Explorer and Netscape. Internet Security.

Internet Reference Sources: Identification, accessing. Various sources useful for librarians in providing Reference Services with examples.

Evaluation of Internet Information Sources – Need, Methods / Techniques.

Protocols: Definition, Concept. Types – General - TCP / IP, OSI. Other Protocols: SMTP, Telnet, FTP, HTTP, Z39.50.

<u>Unit-5:</u>
Hypertext, Hyper media. Markup Languages – HTML, XML,– Features.
Web: Concept, Usefulness. Content Development / Content Creation for Web.
Web Design – Methods / Techniques, Steps. Software – Flash, Macromedia, MS-Front page, Dream Weaver.

<u>Select Readings:</u>

1. *Planning for library automation: A Practical Handbook* / John M. Cohn, Ann L. Kelsey and Keith Michael Fiels – London : Library Association, 1998.
2. *Computer Networks* / Andrew S. Tanenbanum. – 3rd ed. – New Delhi : Prentice-Hall of India, 1997.
3. *Library Networks: An Indian Experience* / H. K. Kaul. – New Delhi : Virgo Publications, 1992.
4. *Information Networks in India* : Problems and Prospects / Kausik Bose / New Delhi : Ess Ess Publications, 1994.
5. *The Internet* / Mac Bride – London : Hodder Headline, 1995.
6. Internet 6 in 1 / Joe Kraynak and Joe Harbraken. – New Delhi : Prentice-Hall of India, 1998.
7. *Handbook of Libraries, Achieves and Information Centres in India* / Edited by B. M. Gupta (et al) – New Delhi : Information Industry Publications, 1987. Vol.5 : Information Technology, Industry and Networks.
8. Snell. NED. *Teach yourself the INTERNET in 24 hours*. 3rd ed. Indian Polis: Sams, 1999.
9. Haywood, Trenor. *Only connect: Shaping networks and knowledge for the new Millennium* East Grinstead: Bowker-Saur, 1999.
10. *How to promote your website efficiently*. Aslib, 1999.
11. Cooper. Michael D. *Design of Library Automation System: File Structure, Data Structures and Tools*. New York: John Wiley, 1996.
12. Lovecy, Ian. *Automating library procedures: a survivor's handbook*. London : Library Association, 1984.
13. Reynolds, Dennis. *Library automation: Issues and applications*. New York: Bowker, 1985.
14. Collier, Mel. *Local area networks: the implications for library and information science*. London: Bnritish Library, 1984.
15. Satyanarayana, N. R. *A manual of computerization of libraries.* New Delhi: Viswa Prakashan, 1995.
16. Gopinath, M.A. and Rama Reddy, E., ed. *Information access through networks.* Hyderabad: Book Links, 1996.
17. Bose, Kaushik. *Information Networks in India: Problems and Prospects*. New Delhi : Ess Ess, 1994.

18. Page, A. J. *Relational databases : Concepts, Selection and implementation*. New Delhi : Galgotia, 1994.

19. Harries, Steve. *Networking and telecommunications for information systems: an introduction to information networking*. London: LA, 1993.

20. Jean Warland & Praveen Varaiya. *High Performance Communication Networks*. Singapore : Harcourt, 2000.

21. C. Xavier. *World Wide Web Design with HTML.* New Delhi : TMH, 2000.

22. Dilip C. Naik. *Internet Standards and Protocols*. New Delhi : PHI, 2001.

23. G. G. Chowdhury and Sudatta Chowdhury. *Information Sources and Searching on the World Wide Web.* London : Facet Publishing, 2001.

24. Alan Poulter, Gwyneth Tseng and Goff Sargent : *The Library and Information Professional's Guide to the World Wide Web.* London : Facet Publishing, 1999.

25. Alan Poulter, Debgra Hiom and Gwyneth Tseng. *The Library and Information Professional's Guide to the Internet*. 3rd Ed. London : Facet Publishing, 2000.

26. Catherine Sheldrick Ross, Kirsti Nilsen and Patricia Dewdney. *Conducting the Reference Interview*. London : Facet Publishing, 2002.

24. Michael D. Cooper. *Design of Library Automation Systems : File Structrures, Data Structures, and Tools*. John Wilehy & Sons, 1996.

25. John M. Cohn, Ann L. Kelsey, Keith Michael Fiels. *Planning for Integrated Systems and Technologies: A How-to-do-it manual for Librarians*. Neal-Schuman.

26. John M. Coln, AnnL Kelsey, Keith Michael Fiels. *Planning for Automagtion : A How-to0-do-it for Librarian.* 2nd Ed. [S.I.] : Neal-Schuman, 1997.

27. Thomas R. Kochtanek [and] Joseph R,. Mathews*. Library Information Systems : From Library Automation to distributed information access solution*. [S.I] Libraris Unlimited, 2002.

28. R. S. Kochan and K. N. Sudarshan. *Library Automation.*   [S.I] : APH, 1997.

29. Joan I. Trany. *Library Automation for Library Technicians: An Introduction* . Scarecrow, 1986.

30. William Saffady. *Introduction to Automation for Librarians.*   ALA, 1999.

31. Paul Pedley. *The invisible Web : Searching the hidden parts of the Internet*. London : Aslib, 2001.

PAPER—MLS 403: SOFTWARE FOR LIBRARY AUTOMATION (CC) Practice

Unit -1:
Bibliographic Database Management Systems – Concepts.

CDS/ISIS and WINISIS – Concept, features
(Hands on experience)

Unit – 2
Integrated Library Management Software – concept

LIBSYS, SOUL, NEWGENLIB, Koha
(Observation and hands on experience of any one software)

Unit-3:
Database – Concept, structure, use and features.

RDBMS - Concept, structure, use and features

SQL / MySQL / MS-Access (Hands on experience in creation of database)

Unit-4:
Searching through Internet – e-journals –subscribed, consortia and free

Internet Resources using search engines.
World Wide Web (WWW) – Institutional and Individual Websites

Note: The Practical Examination paper would consist of two parts Part – I: Short notes for 40 Marks for (the first one hour) and Part – II Practical questions for 60 Marks for (the remaining two hours)

PAPER-MLS 451 (A) Elective: INFORMATION SYSTEMS AND PROGRAMMES (DSE)

Unit-1:
Information Organisation as a system:
Basic concepts, Components, Types, Characteristics of an Information System.
Kinds of Information System:
Libraries, Documentation Centres, Information Centres, Data Banks. Information Analysis Centres.
Referral Centres, Clearing Houses, Archives, Reprographic and translation Centres – their functions and services.

Unit-2:
Planning and Design of a National Information System:
NAPLIS (National Policy on Library & Information Systems)
Concept, Functions and objectives of NATIS. National Information Policy (NIP).
Planning Design of National Information System (NATIS).
National Information Systems:
NISCAIR, DESIDOC, NASSDOC, SENDOC, CORD, NCSI, NISSAT, ENVIS : Structure, functions and services.

Unit-3:
Regional Information Systems:
ASTINFO, APINESS and SAARC (SDC).
Global Information Systems:
UNESCO-PGI, INIS, AGRIS, INSPEC, MEDLARS, UNIDO-IIS, SPINES, ICSU.

Unit-4:
Information Products and Services:
Concept, Definition. Types with examples.
Information Products Vs Services.

Information Products: Institutional, Commercial.

Information Services – Bibliographic, Document Delivery, Alert (CAS & SDI).
Marketing of Information Products and Services.

Information Providers (Vendors):   DIALOG, STN, Derwent, Data Star, UMI, Silver Platter, BLDSC, ISI.

Select Readings:

1. Atherton, P. *Handbook of Information Systems & Services.* Paris, Unesco, 1977.

2. Harvey, J. M. *Specialised information centers*, 1976.

3. India. *National Committee on Science and Technology: Science and Technology Plan 1974-79* draft. 2 Paris. 1974.

4. *Information Services in India*. Seminar Papers, 10th IASLIC Conference, Kanpur, 1982.

5. Lazar, P. *India-National information system for science and technology*, 1972.

6. *Library and information services in India: assessment and effectiveness*; 34th ILA Conference, Calcutta, 1988.

7. *Marketing of library and information services*, 13th IASLIC Seminar, Calcuta. 1988.

8. Bernadas, A. et al: *Information systems; theoretical and formal aspects*, 1985.

9. UNESCO, ICSU, UNISIST, *Study report on the feasibility of World of Science information System*. 1971.

10. Vickery, B.C. *Information Systems*. 1973.

11. Bose, Kaushik. *Information networks in India: Problems and Prospects*. New Delhi : Ess Ess, 1994.

12. Kaul, H.K. *Information Networks: an Indian experience*. New Delhi : Virgo, 1992.

13. Parida, Baman. *Studies on information systems, services and programs in India and abroad*. Delhi : Ajanta, 1993.

14. Wiesman, Herman. *Information Systems, Services and Centres*. New York: Becker & Hyes, 1972.

PAPER-MLS 451 (B) Elective: Research and Technical Libraries (DSE)

Unit-1:
Research and Technical Libraries (Special Libraries): Definition, Objectives, Functions and Services. Organization and Management of Research and Technical Libraries.
Evaluation of services. HR Planning and Development. Development of Research and Technical Libraries in India.

Unit-2:
Collection Development. Special Collections: Research Reports, Patents, Standards and Specifications, Indexing and Abstracting Services. Bibliographic and Full-Text databases.
Documentation Centres, Information Centres, Information Analysis / Evaluation Centres, Referral Centres, Data Centres – Their Objectives, functions, and services.

Unit-3:
Information Systems: NISSAT, NISCAIR, DESIDOC, NASSDOC, CORD, SENDOC – their objectives, functions and services. National Agricultural Library, National Medical Library, National Science Library of India – their functions and services.

Unit-4:
Planning and developing – Building, Collection, infrastructure, services of Research and Technical Libraries. Collection evaluation. Content creation and development. IPR issues. Citation analysis. Impact factor, H-Index, Altmerix.

PAPER—MLS 452 (A) Elective: Digital Libraries (Theory) (SEC)

Unit-1:
Digital Libraries – Concept, Definitions, Need and Purpose
Characteristics of Digital Libraries. Architecture of Digital Libraries.
Digital Library Resources and Services
Development of Digital Libraries

Unit-2:

Digital Library initiatives in India and the major Digital Libraries initiatives in UK, USA and in the world Design and Development of Digital Libraries Metadata, Dublincore, Taxonomies, ontologies and their use Best Practices and case studies of Digital Libraries Evaluation of Digital Libraries

Unit-3:
Digitization and its process
Different types of File Formats, Text Formats, Image Formats, Audio Formats, Video Formats, Born Digital, Mark up Languages, SGML, HTML, DHTML, XML
Open Source Materials, Gateways and Portals

Unit- 4
Access and User Interfaces to Digital Libraries
Resource Discovery Search Engines, Search Tools and Techniques, Boolean Operators, Fuzzy Logic, Information Visualization Copy right, Security, Privacy, Intellectual Property Rights (IPR) issues and Plagiarism

Select Readings:
1. Lesk, Michael. *Understading Digital Libraries*. 2nd edition. USA : Elsevier, 2005.

2. Witten Ian H., Bainbridge, David [and] Nichols, David M. *How to build a digital library.* 2nd Edition. Elsevier Publications. 2010.

3. Kresh, Diane. *The whole digital library handbook.* USA: Council on Library and Information Resource, 2007.

4. Karen, Calhoun. *Exploring digital libraries.* Neal Schuman Publishers, 2014.

5. Terry, Reese and Kyle, Benerjee.   *Building digital libraries.* Neal Schuman Publishers, 2007.

6. Baker, David (2004). The Strategic Management of Technology: A Guide for Library and Information Services. Oxford: Chandos Publishing.

7. Bawden, David and Blakeman, Karen (1990). Going automated : implementing and using information technology in special libraries and information units. London :

8. Aslib. Barnes, Susan J (ed.). (2004). Becoming a Digital Library. New York :

9. Marcel Dekker. Borgman, Christine L.(2001). From Gutenberg to the Global Information Infrastructure: access to information in the networked world. Cambridge: MIT Press.

10. Brophy, Peter (2001). The Library in the Twenty-First Century: new services for the information age. London: Library Association.

11. Chowdhury, G G and Chowdhury, Sudatta (2003). Introduction to digital libraries. London : Facet Pub.

12. Cooper, Michael D.(1996). Design of Library Automation Systems: File Structures, Data Structures and Tools. New York: John Wiley.

13. Deegan, Marilyn & Tanner, Simon : (2002) Digital futures : strategies for the information age. London : Library Association.

14. Gorman, G E (ed.). (2002). The Digital Factor in Library and Information Services. London :

15. Hughes, Lorna M. (2004). Digitizing Collections: Strategic Issues for the Information Manager. London:Facet Ingram,

16. Peter (2001). Networking in Easy Steps. New Delhi: Dreamtech press.

17. International Conference on Digital Libraries 2004: Knowledge Creation, Preservation, Access and Management. (2004). (24-27, February 2004, New Delhi). 2 vols. New Delhi: TERI

18. Jordal, Gregory (1992). Networking: the productivity. New Delhi: Sterling Info Technologies.

19. Judge, Peter and Gerrie, Brenda (eds). (1996). Small scale bibliographic databases. Sydney: Academic Press.

20. Lancaster, F W & Sandore, Beth (1997) Technology and management in library and information services. London : Library Association.

21. Lankes, R. David(ed.) (2003). Implementing Digital Reference Services: setting standards and making it real. London: Facet Publ.

22. Lee, Stuart D (2001) Digital imaging : a practical handbook. London : Facet Publications.

23. Lesk, Michael (1997). Practical digital libraries : books, bytes and Bucks. San Francisco: Morgan Kaufmann.

24. Limb, Peter (2004). Digital dilemmas and solutions. Oxford : Chandos Publ.
Marks, Kenneth and Nielson,

25. Steven P. (1991). Local area networks in libraries. Westport : Meckler.

26. Meadows, Charles T. (1992). Text Information Retrieval Systems. San Diego: Academic Press.

27. Michell, Anne M and Surratt, Brian E.(2005): Cataloguing and organizing digital resources: a how-to-do it manual for libraries. London: Facet Publ.

28. Noerr, Peter (1999). The Digital Library Toolkit.
http://webdoc.hwdg.de/ebook/aw/1999/sun/noerrfinal.pdf Parekh,

29. Harsha (1999). Internet in the Scholarly Communication Process. Mumbai: Knowledge Ware Association.

30. Parekh, Harsha & Sen, Bharati (2001). Introduction to digitization – a librarian's guide. Mumbai : SHPT School of Library Science.

31. Rowley, Jennifer (1993). Computers for libraries. London :

32. William (1994). Introduction to Automation for Librarians. Chicago: American LibraryAssociation.

33. Sportack, Mark A. (1998). Networking Essentials. New Delhi :

34. Techmedia. Sridevi, J. and Vijay Laxshmi (2004) Model of digital library. New Delhi :

PAPER—MLS 452 (B) Elective: Information Literacy (SEC)

Unit-1:
Information Literacy – Concept, Definitions, Need and Purpose
Information Literacy skills
Information Literacy Programmes in Public, Academic and Special Libraries

Unit-2:
Information Literacy: Developments and Trends
Information Searching skills and preservation techniques
Information Literacy Standards

Unit- 3:
Information Searching with Databases, web Resources and Search Engines
Different Types of Web Searching skills like, academic websites and commercial websites
Designing and Developing Information Literacy Programmes

Unit-4 :
Information Literacy Initiatives and Programmes in India and different countries
Information Literacy case studies
copy right laws and Intellectual Copy Right Issues.
Plagiarism, Plagiarism software

Select Readings

1. Scott, Lanning. *Concise guide to information literacy.* USA : Libraries Unlimited, 2012.

2. Grassian, Esther S. and Kaplowitz, Joan R. *Information literacy instruction theory and practice.* 2nd ed. Neal-Schuman Publishers, 2009.

3. Handley Holly Carla List, Ross Heller Elin, Gonya O'Hara. *Alison Armstrong Information literacy and technology.* 5th ed. Kendall Hunt Publishing, 2013.

4. Gwenn, Wilson. *100% information literacy success. 3rd ed.* USA : Cengage Learning, 2015.

PAPER-MLS 452 (C): PROJECT (Project Oriented Dissertation) : In lieu of One
Theory/Practice Paper (i.e. 4 Credits)