

M.Lib.I.Sc.

(Integrated)

Master of Library and Information Science

**PROGRAM STRUCTURE AND SYLLABUS
2019-20 ADMISSION ONWARDS**

(UNDER MAHATMA GANDHI UNIVERSITY PGCSS REGULATION 2019)



**EXPERT COMMITTEE IN
LIBRARY AND INFORMATION SCIENCE**

MAHATMA GANDHI UNIVERSITY

2019

EXPERT COMMITTEE MEMBERS IN LIBRARY AND INFORMATION SCIENCE

Chairperson

Prof. (Dr.) A.Gopikuttan

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1. Smt. Anat Suman Jose
2. Fr.Tinju Tom
3. Smt. Neethu Mohan
4. Dr. Shaini Gopinath
5. Gilu G Ettaniyil

Table of Content

Sl.No.	Content	Page.No
1	M.Lib.I.Sc Degree Program	6
2	Aims of the Program	6
3	The Program structure	7
4	First Semester courses	10
5	Foundations of Library and Information Science	10
6	Information Knowledge and Communication	12
7	Library and Information centre management	13
8	Knowledge organization- Library classification (Theory)	15
9	Knowledge organization- Library cataloguing (Theory)	17
10	Second semester courses	19
11	Information sources, services and product	20
12	Knowledge organization – Library classification (Practical)	21
13	Knowledge organization- Library cataloguing (Practical)	22
14	Information Technology (Practical)	22
15	Computer application in libraries	22
16	Planning and Management of Library and Information centres	23
17	Information Processing and Retrieval (Theory)	25
18	Information processing and retrieval (Practical)	27
19	Research Methodology	27
29	Semester IV	29
19	Information Technology applications in LIS (Theory)	30
20	IT applications in LIS (Practical)	31
21	Dissertations and Viva	32
22	Electives	32
23	Information Technology (Theory)	
24	Digital libraries	32
25	Statistical methods	33
26	Technical Communication	37
27	Competency development	38
28	Computer application in Libraries	
29	Information literacy	30
30	Digital resources	31
31	Knowledge management	40
32	Model Question papers	40

M.Lib.I.Sc. Degree Program
(Integrated)
(Mahatma Gandhi University Regulations PGCSS2019 from 2019-20 Academic year)

1.Aim of the program

The M.Lib.I.Sc. program (integrated) is designed with the following aims.

1. To train the students to identify, select and provide access to information in a variety of formats
2. To enable the students to identify the needs of particular user groups and develop collections, services, programmes and policies to meet these needs;
3. To develop the students to apply a wide range of electronic resources, and techniques for effective information retrieval;
4. To equip the students to apply appropriate research methodologies to issues and professional concerns in LIS;
5. To develop in the students a commitment to professional values, standards and ethics.

2. Eligibility for admission: Graduation in Science or Arts subjects with 45% marks. For candidates belonging to SC/ST categories the minimum marks secured should be 40% for Science/Arts subjects.

3. Medium of instruction and assessment

The medium of instruction and examination shall be in English for the entire program. Hundred marks for each paper. Out of which 25 marks for internal evaluation and 75 marks for external evaluation.

4. Faculty under which the degree is awarded: Social Science

5. Specialization offered, if any : Nil

6. Note on compliance with the UGC Minimum Standards for the conduct and award of Post Graduate degrees: Since the UGC has changed the name of degree/PG in Library Science as M.Lib.I.Sc. instead of MLISc., that change is also incorporated.

7. THE PROGRAM STRUCTURE

Course code	Title of the course	Type of the course	Hours per week	credits
First Semester				
LS020101	Foundations of Library and Information Science	Core	4	4
LS020102	Information, Knowledge and Communication	Core	4	4
LS020103	Library and Information Centre Management	Core	4	4
LS020104	Knowledge Organization – Library Classification (Theory)	Core	4	4
LS020105	Knowledge Organization - Library Cataloguing (Theory)	Core	4	4
Second Semester				
LS020201	Information Sources, Services and product	Core	4	4
LS020202	Knowledge Organization - Library Classification (Practical)	Core	4	4
LS020203	Knowledge Organization Library Cataloguing (Practical)	Core	4	4
LS020204	Information Technology (Practical)	Core	4	4
LS020205	Computer application in libraries	Core	3	3
	Internship			1
	Total			40

Third Semester

Course No.	Course Title	Type of Course	Hours per week	Credits
LS020301	Planning and Management of Library and Information Centres	Core	4	4
LS020302	Information Processing and Retrieval (Theory)	Core	4	4
LS020303	Information Processing and Retrieval (Practical)	Core	4	4
LS020304	Research Methodology	Core	4	4
LS0203E	Elective	Elective	3	3
LS0203E	Elective	Elective	3	3

Fourth Semester

LS020401	Information Technology Applications in LIS (Theory)	Core	4	4
LS020402	Information Technology Applications in LIS (Practical)	Core	4	4
LS020403	Dissertation and Viva Voce	Core	4	4
LS0204E	Elective	Elective	3	3
LS0204E	Elective	Elective	3	3
	Total			<u>40</u>

Electives

A

Course No.	Course Title	Credits	Duration of Exam	Marks		
				Internal Evaluation	External Evaluation	Total
LS02E01	Information Technology (Theory)	3	3 Hrs	25	75	100
LS02E02	Digital Libraries	3	3 Hrs	25	75	100
LS02E03	Statistical Methods	3	3 Hrs	25	75	100

B

Course No.	Course Title	Credits	Duration of Exam	Marks		
				Internal Evaluation	External Evaluation	Total
LS02E04	Technical Communication	3	3 Hrs	25	75	100
LS02E05	Competency Development	3	3 Hrs	25	75	100
LS02E06	Computer Application in Libraries	3	3 Hrs	25	75	100

C

Course No.	Course Title	Credits	Duration of Exam	Marks		
				Internal Evaluation	External Evaluation	Total
LS02E07	Information Literacy	3	3 Hrs	25	75	100
LS02E08	Digital Resources	3	3 Hrs	25	75	100
LS02E09	Knowledge management	3	3Hrs	25	75	100

FIRST SEMESTER COURSES

LS020101	Foundations of Library and Information Science
LS020102	Information, Knowledge and Communication
LS020103	Library and Information Centre Management
LS020104	Knowledge Organization – Library Classification (Theory)
LS020105	Knowledge Organization -Library Cataloguing (Theory)

LS020101- FOUNDATIONS OF LIBRARY AND INFORMATION SCIENCE

(4 credits)

UNIT 1 Library in the Social Context

Library: Conceptual change.

Role of Libraries in Modern Society and Education.

Five Laws of Library Science.

Implications of Five Laws

UNIT2 Types of Libraries

Types of libraries: their distinguishing features and functions.

National Libraries, Public Libraries, Special Libraries, Kerala State Central Library

Academic Libraries: School, College and University libraries

National Library of India

UNIT 3 Resource Sharing and Extension Service

Resource Sharing

Library Extension Service, Library Publicity

Library Networks: NICNET, DELNET, ERNET, INFLIBNET

UNIT4 Library Movement and Public Library Legislation

Need for Library Legislation

Essential features for Library Legislation

Library Movement and Library Legislation in India; National Mission on Libraries
Public Library Movement and Legislation in Kerala; Kerala Public Libraries Act,
1989
Press and Registration Act, Indian Copy Right Act, Delivery of Books and
Newspaper Act.

UNIT 5 Library and Information Science Profession

Librarianship as a Profession
Professional Ethics
Professional Associations and Their Role: IFLA, ILA, IASLIC, IATLIS,
CILIP, SLA, ALA, ASLIB
Promotion of library and information services by UNESCO, UGC, and RRRLF

Reading list

1. Choudhury, G. G. et al. Librarianship: An introduction. London: Facet, 2004.
2. Ajaykumar Raval. Handbook of public library system. New Delhi: Discovery Publishing, 2013.
3. Anil K Dhiman and Suresh C Sinha. Academic Libraries. New Delhi: EssEss Publication, 2002.
4. Anil K Dhiman. Handbook of special libraries and librarianship. New Delhi: Ess Ess Publication, 2008
5. Khanna, J. K. Library and society. New Delhi: EssEss Publications, 1994.
6. Kumar, P. S. G. Library in India Series. New Delhi: B. R. Publishing Corporation, 2008.
7. Macdougall, Alan F. and Prytherch, Ray, ed. Handbook of library cooperation. Mumbai: Jaico Publishing, 1997.
8. Ranganathan, S. R. The five laws of Library Science. Bangalore: Sarada Ranganathan Endowment for Library Science, 1988.
9. Paslithil, A. Public library movement: Kerala. Delhi: Kalpaz Publications, 2006.
10. Sharma, S K. Libraries and Society. New Delhi: EssEss Publication, 1987

LS020102 – INFORMATION, KNOWLEDGE AND COMMUNICATION (4 credits)

UNIT 1 Information and Communication

Information: Characteristics, nature, value and uses
Conceptual difference between data, information and knowledge
Communication: Channels – formal and informal
Communication models; Communication barriers
Trends in scientific communication.

UNIT 2 Information Science

Genesis and development; definitions and scope
Information Science as a discipline and its relationship with other subjects
Bibliometrics, Informetrics, Webometrics, Scientometrics, Altmetrics
Bibliometric laws and models

UNIT3 Library, Information and Society

Information Society: genesis and characteristics;
Intellectual Property Rights: IPR Legislations in India
Fair use provision in Copyright; Censorship, data security
Right to Information Act, Information Technology Act
National policy of information
Open access movement.

UNIT4 Economics of Information

Information industry
Cost analysis: Cost Effectiveness Analysis; Cost Benefit Analysis
Information audit; Marketing of information services and products
Knowledge management: Types of Knowledge; Relation with Information management; Knowledge management procedures.
Role of library professionals in knowledge management

UNIT 5 Sociology of Information

User studies and user behavior
Methods of data collection
Patterns of user behavior
Information behavior models

Reading list

1. Andal, N. Communication theories and models. Mumbai: Himalaya Publishing House, 2005.
2. Bawden, David and Robinson, Lyn. Introduction to Information Science. London: Facet Publishing, 2012.
3. Case, Donald O. Looking for information: a survey of research on information seeking, needs and behaviour. 2nd ed. Amsterdam: Academic Press, 2007.
4. Feather, John. The information society: a study of continuity and change. 5th ed. London: Facet Publishing, 2008.
5. McGarry, K. J. Changing context of information: an introductory analysis. 2nd ed. London: Library Association, 1993.
6. McGarry, K. J. Communication, knowledge and librarian. London: Clive Bingley, 1975..
7. McQuail, Denis and Windahl, Sven. Communication models for the study of mass communications. London: Longman, 1981.
8. Meadows, A. J., ed. Knowledge and communication: essays on the information chain. London: Library Association, 1991.
9. Norton, Melanie J. Introductory concepts in Information Science. New Jersey: Information Today, 2008.
10. Vickery, Brian C. and Vickery, Alina. Information Science in theory and practice. 3rded. Munchen: K. G. Saur, 2004.

LS020103 LIBRARY AND INFORMATION CENTRE MANAGEMENT (4 credits)

UNIT 1 Library Management

Concept of Management

History of management thought

Principles of management

Functions of management

Library and Information Centre Organization; Patterns of Organisation

UNIT 2 Housekeeping Operations

Acquisition: Collection Development: Selection, Ordering and Accessioning

Technical Processing: Classification, Cataloguing and Physical Processing of documents

Maintenance of Collection: Shelving, Rectification, Stock Verification, Binding and Weeding out, Care and Preservation

UNIT 3 Reader Services

Circulation of Documents: Issue of membership, Charging systems

Reference Collection and service routines

Serials Control: Selection, ordering, recording the receipt and display

Documentation Services

Special Collections and services

UNIT 4 Library Administrative Tools and Techniques

Library Committee, Library Rules, Staff Manual, Library Statistics, Annual Report

UNIT 5 Library Budgeting

Methods of financial estimation, Sources of Finance, Types of Expenditure

Types of Budgets - Line budget, Performance budget, PPBS, ZBB

Reading list

1. Bryson, Jo. Effective library and information centre management. Hampshire, U. K.: Gower, 1990.
2. Bryson, Jo. Managing information services: A transformational approach. 2nded. Aldershot, UK: Ashgate Publishing, 2006.

3. Evans, G. Edward G. Management techniques for librarians. 2nded. New York: Academic Press, 1983.
4. Evans, G. Edward and Alire, Camila A. Management basics for information professionals. 3rded. London: Facet, 2013
5. Khanna, J. K. Handbook of library administration. New Delhi: Crest Publishing House, 2001.
6. Koontz, Harold and Weirich, Heinz Essentials of management: An international and leadership perspective. 9thed. New Delhi: Tata McGraw-Hill, 2013.
7. Mittal, R. L. Library administration: Theory and Practice. 5thed. New Delhi: EssEssPublications, 2007.
8. Principles of management. Retrievable from <http://www.saylor.org/site/textbooks/Principles%20of%20Management.pdf>
9. Ranganathan, S. R. Library administration. New Delhi: EssEss Publications, 2006.
10. Stueart, Robert D. and Moran, Barbara B. Library and Information Centre Management. Colorado: Libraries Unlimited, 2004.

LS020104 KNOWLEDGE ORGANIZATION – LIBRARY CLASSIFICATION (THEORY) (4 credits)

UNIT 1 Library Classification

Concept, meaning, definition, evolution, need and functions
 Canons of library classification for idea plane
 Principles of helpful sequence

UNIT 2 Notation

Notation, need, qualities and types
 Hospitality in array and chain - different devices used
 Mnemonics - types and functions
 Class number, book number and collection number

UNIT 3 Facet Analysis and Fundamental Categories

Concept of facet analysis

Ranganathan's five fundamental categories

Postulates of facet analysis and facet sequence

Principles of facet sequence

Common Isolates - ACI and PCI

UNIT 4 Library Classification Schemes

Enumerative and faceted schemes

Salient features of DDC, UDC and CC

WebDewey

UNIT 5 Universe of Knowledge

Different types of subjects - simple, compound, complex subjects

Modes of formation and development of subjects

Reading List

1. Foskett, A. C. Subject approach to information. 5th ed. London: Library Association, 1996.
2. Husain, Shabhat. Library Classification: Facets and Analyses. Delhi: B.R. Publishing Corporation, 2004.
3. Kaula, P. N. A treatise on colon classification. New Delhi: Sterling Publishers, 1985.
4. Krishan, Kumar. Theory of Classification. 4th rev. ed. Delhi: Vikas Pub. House, 1998.
5. Ranganathan, S. R. 1962. Elements of Library Classification. 3rd ed. Bombay: Asia Publishing, 1962.
6. Ranganathan, S. R. Prolegomena to Library Classification. 3rd ed. Bangalore: SRELS, 1989
7. Satija, M. P. Colon Classification. 7th edition. New Delhi: Sterling, 1993.
8. Satija, M. P. The theory and practice of the Dewey Decimal Classification System. Oxford: Chandos Publishing, 2007.

9. Nath, M. Universe of knowledge and development of subjects. Jaipur: Pointer, 2008.
10. Rajendra Kumbhar. Library Classification: Trends in the 21st Century. UK: Chandos, 2009.

LS020105 KNOWLEDGE ORGANIZATION – LIBRARY CATALOGUING (THEORY) (4 credits)

UNIT 1 Library Catalogue

Catalogue - Meaning and Definition. Types of Catalogue.

Library Catalogue - Meaning and Definition - Objectives and Functions

Physical forms of Library Catalogue - Card catalogue, Computer Catalogue - OPAC

Inner forms of Library Catalogue - Alphabetical, Classified and Alphabetico-classed

Normative principles of Library cataloguing

UNIT 2 Catalogue Codes and Entry Formats

Anglo-American Cataloguing Rules - Special features

Classified Catalogue Code - Special features

ISBD, RDA

Entry format - AACR2, CCC

UNIT 3 Kinds of Entries

Types of entries according to AACR2 - Main entry, Added entries, Analytical entries and Reference entries - Format and structure

Types of entries according to CCC - Main entry, Cross Reference entry, Class Index entry, Book Index entry and Cross Reference Index entry - Structure and format

Filing of entries in alphabetical and classified order - ALA filing rules

UNIT 4 Subject Cataloguing

Subject Catalogue - Subject entries in AACR2 and CCC

List of Subject headings - LC List of Subject Headings and Sears List of Subject Headings

Verbal Indexing Languages: Chain Indexing, Pre-coordinate and Post coordinate indexing

UNIT 5 Centralized and Cooperative Cataloguing

Centralized catalogue services - Card service, MARC service, Bibliographic service, CIP, CIS and Prenatal cataloguing

Cooperative cataloguing programmes - NPAC, Union Catalogue

Reading list

1. Aswal, R. S. MARC - 21: Cataloguing format for 21st century. New Delhi: Ess Ess Publications, 2004
2. Bowman J. H. Essential cataloguing. London: Facet Publishing, 2003
3. Foulonneu, M. Metadata for Digital Resources. Oxford, UK: Chandos, 2008.
4. Girja Kumar and Krishan Kumar. Theory of cataloguing. Rev. Ed.5. New Delhi: South Asia Books, 1983.
5. Read, J. Cataloguing without tears: managing knowledge in the information society. Oxford: Chandos Publishing, 2003.
6. Sangma, S. K. AACR 2 with MARC 21: Cataloguing Practice. New Delhi: Centrum Press, 2012
7. Sangma S. K. Cataloguing rules in Library science. New Delhi: Centrum Press, 2013
8. Smiraglia, R. P. Metadata: A Cataloger's Primer. USA: Haworth, 2005
9. Taylor, A. G. and Miller, David P. Wynar's introduction to cataloging and Classification. Ed.10. London: Libraries Unlimited, 2006.

Codes / Standards

1. Anglo-American Cataloging Rules (most recent edition to be used)
2. Dublin Core and other relevant metadata standards for different kinds of objects / resources Library of Congress Subject Headings

3. MARC 21 and related standards for bibliographic records
4. OCLC. 2002. Bibliographic formats and standards. 3rd ed. Dublin, Ohio: OCLC (Also available online at <http://www.oclc.org/oclc/bib/toc.htm>)
5. Ranganathan, S. R. Classified Catalogue Code, etc. 5th ed. Bangalore: SRELS, 1964 MARC 21 and related standards for bibliographic records
6. Sears List of Subject Headings, 21sted.

SECOND SEMESTER COURSES

LS020201	Information Sources, Services and product
LS020202	Knowledge Organization -Library Classification (Practical)
LS020203	Knowledge Organization Library Cataloguing (Practical)
LS020204	Information Technology (Practical)
LS020205	Computer application in libraries
	Internship

LS020201 INFORMATION SOURCES, SERVICES AND PRODUCT (4 credits)

UNIT1 Physical Media of information

Evolution of physical media;
Classification of information sources – Print and non-print; Documentary and Non-Documentary;
Primary, Secondary and Tertiary Sources of Information -- their categories and characteristics.

UNIT 2 Ready Reference Sources: Print and Digital

Criteria for the evaluation of reference sources
Detailed Study of dictionaries, encyclopedias, yearbooks, directories, handbooks and manuals, biographical sources, geographical sources, statistical sources, sources of current information;
E-resources: E-books, E-journals, ETDs, Databases, Subject Gateways; Open Access Resources

UNIT 3 Information Users and their Information Needs

Categories of information users; Information needs, definition; Types and models;
Information seeking behavior; User studies, methods, technique and evaluation

UNIT 4 Information Services

Reference service – Types and steps; Reference interview; Virtual Reference Service; Referral service
Other services: CAS, SDI, Document Delivery, Abstracting and Indexing services; Translation, Reprography

UNIT 5 Information Systems and their Services

Study of national, International Systems and Services: NISCAIR, DESIDOC, NASSDOC, SENDOC, AGRIS, CAS, BIOSIS, ERIC, INIS, INSPEC, MEDLARS, OCLC, NKN, BITNET, Clarivate Analytics, ProQuest, Ebsco

Record of Term Work:

Evaluation of not less than 75 reference sources including electronic sources.

Reading list

1. Bopp, Richard E. and Smith, Linda C. Reference and information services: An introduction, 4thed. Libraries Unlimited, 2011.
2. Cassel, Kay Ann and Hiremath, Uma. Reference and information services: An introduction, 3rded. London: Facet Publishing, 2013.
3. Gurdev Singh. Information Sources, Services and Systems. New Delhi: PHI Learning, 2013
4. Hurt, C. D. Information Sources in Science and Technology. 3rd ed. Westport, Conn.: Libraries Unlimited, 1998.
5. Katz, William A. Introduction to reference work, 7thed. New York: McGraw Hill, 1997.
6. Krishan Kumar. Reference service, 5thed. New Delhi: Vikas Publishing House, 2004.
7. Ranganathan, S. R. Reference Service. 2nd ed. Bombay: Asia Pub. House, 1961.
8. Sewa Singh. Manual of reference and information sources. New Delhi: B R. Publishing, 2004.
9. Stebbins, Leslie, F. Student guide to research in the digital age: how to locate and evaluate information sources. Santa Barbara: Libraries Unlimited, 2005
10. Webb, William H. et al. Sources of information with social sciences. 3rd ed. Chicago: ALA, 1986.

LS020202 KNOWLEDGE ORGANIZATION – LIBRARY CLASSIFICATION (PRACTICAL) (4 credits)

Classification of simple, compound and complex subject books and periodicals according to 22nd edition of DDC and 6th edition of CC.

Record of Term Work: Classification of not less than 75 documents, of simple and complicated specific subjects using DDC and CC. Book Numbers have to be derived using the Facet Formula prescribed in CC.

LS020203 KNOWLEDGE ORGANIZATION – LIBRARY CATALOGUING (PRACTICAL) (4 credits)

Cataloguing of books and periodicals according to AACR2R and CCC edition 5

Cataloguing of Single-volumed and multi-volumed books: Cataloguing of simple books

Cataloguing of books by personal authors and corporate bodies

Cataloguing of simple periodical publications

Use 19th edition of Sears's List of Subject Headings for deriving headings for subject added entries according to AACR2R

Use Chain indexing for deriving headings for Class Index Entries according to CCC5

Record of Term Work:

Preparation of a sample Dictionary Catalogue of not less than 50 documents prepared in the card form.

LS020204 INFORMATION TECHNOLOGY (PRACTICAL) (4 credits)

UNIT 1 Operating system – Windows; Linux

UNIT 2 Word processing – MS Word; Open Office Writer

UNIT 3 DBMS – MS Access

UNIT 4 Spreadsheet – MS Excel; Presentation – MS Power Point

UNIT 5 Library automation software- KOHA

LS020205 COMPUTER APPLICATION IN LIBRARIES (3 credits)

UNIT 1 Library Automation

Need for library automation

Planning and implementation
 Areas of library automation
 Automation of library housekeeping operations-Acquisition, Cataloguing, Circulation, Serial Control, OPAC
 Integrated library management software: KOHA, SOUL
 RFID and its application in libraries

UNIT 2 Digital Libraries

Digital library - Definition, scope and characteristics
 Digital library initiatives - Major initiatives in the world and in India
 Digital library technologies-Digital representation and compression
 Publication and file formats
 Digital library creation - prerequisites; content development; metadata development; and search options
 Open source digital library software - GSDL

UNIT 3 Institutional Repositories

Institutional repositories-concepts and characteristics
 Structure, contents and standards of institutional repositories
 Institutional repository software – DSpace

UNIT4 Internet in Libraries

Application of the Internet in libraries
 Web based resources and services
 Library 2.0/3.0, Library portals

Semester 111

LS020301	Planning and Management of Library and Information Centres
LS020302	Information Processing and Retrieval (Theory)
LS020303	Information Processing and Retrieval (Practical)
LS020304	Research Methodology
LS0203E	Elective
LS0203E	Elective

LS020301 - PLANNING AND MANAGEMENT OF LIBRARY AND INFORMATION CENTRES (4 credits)

UNIT1 Schools of Management Thought

Classical, Neo-classical and Modern management theories;
Principles of scientific management; Fayol's principles; Functions of management.

UNIT 2 System Analysis and Design

Systems Theory; Open and Closed Systems;
Project management Techniques – PERT/ CPM, decision tables; data flow diagram.

UNIT 3 Human Resource Management

Organizational structure
Job analysis and description; recruitment, selection and induction; training; performance appraisal
Motivation
Group dynamics
Stress management

UNIT 4 Marketing Management

Marketing of information services and products.

UNIT 5 Other Realms of Management

Quality Management: TQM, Quality audit; SERVQUAL, LibQual, ISO 9000 series of Standards
Crisis Management
Change Management
Space Management.

Reading list

1. Bryson, Jo. Effective library and information centre management. Hampshire, U. K.: Gower, 1990.
2. Bryson, Jo. Managing information services: A transformational approach. 2nd ed. Aldershot, UK: Ashgate Publishing, 2006.
3. Corrall, Sheila and Brewerton, Antony. The new professional's handbook: Your guide to information services management. London: Library Association, 1999.

4. Evans, G. Edward G. Management techniques for librarians. 2nded. New York: Academic Press, 1983.
5. Evans, G. Edward and Alire, Camila A. Management basics for information professionals. 3rded. London: Facet, 2013.
6. Khanna, J. K. Handbook of library administration. New Delhi: Crest Publishing House, 2001.
7. Mittal, R. L. Library administration: Theory and Practice. 5thed. New Delhi: EssEss Publications, 2007.
8. Seetharama S. Guidelines for planning and management of libraries and information centres. Calcutta: IASLIC, 1990.
9. Stueart, Robert D. and Moran, Barbara B. Library and Information Centre Management. Colorado: Libraries Unlimited, 2004.
10. Walters, Suzanne. Library Marketing That Works! New York: Neal-Schuman, 2004.

LS020302 INFORMATION PROCESSING AND RETRIEVAL (THEORY)

(4 credits)

UNIT 1 Organization of Knowledge in Classification Schemes

Organization of subjects in CC, DDC and UDC

Comparative study of CC, DDC and UDC

Classification in Digital age

UNIT 2 Bibliographic Record Formats

ISO 2709, Z39.50, MARC, MARC 21, UNIMARC, CCF, ISBD

Metadata Formats - FRBR, Dublin Core

UNIT 3 Subject Indexing

Pre-coordinate indexing systems - PRECIS, POPSI

Post-Coordinate indexing - Thesaurus, Uniterm indexing, Keyword Indexing, Citation Indexing, Automatic Indexing

UNIT 4 Information Retrieval Systems

Information Retrieval Systems - Purpose, Functions and Components

IR Models: Boolean, Probabilistic and Vector Processing Models; Bayesian network model; Structured Text Retrieval Models.

Evaluation of Information Retrieval Systems - ASLIB Cranfield study, MEDLARS study, TREC

UNIT 5 Natural Language Processing

Application of NLP in information Retrieval Systems

Reading list

1. Baeza –Yates, Ricardo. Modern information retrieval. Delhi: Pearson Education, 1999.
2. Choudhury, G. G. and Choudhury, Sudatta. Organizing information from the shelf to the web. London: Facet Publishing, 2007.
3. Choudhury, G. G. Introduction to modern information retrieval. 3rd ed. London: Facet Publishing, 2010.
4. Date, C.J. An Introduction to database systems. Reading, MA: Addison-Wesley, 2000
6. Korfhage, Robert R. 1997. Information storage and retrieval. New York: Wiley, 1997.
7. Kumar, P S G. Knowledge organization, Information processing and retrieval theory. B. R. Publishing Corporation, 2003.
8. Kumar, P S G. Knowledge organization, Information processing and retrieval practice. B. R. Publishing Corporation, 2003.

9. Neelamegha, A. Online database searching and retrieval: Strategies, procedures, commands and problems – A brief guide. Bangalore: SRELS, 1995.

10. Sharma, C. K. and Sharma, A. K. Information process and retrieval. Atlantic Publishers, 2007.

LS020303 INFORMATION PROCESSING AND RETRIEVAL (PRACTICAL) (4 credits)

UNIT 1 Classification of Complex Subjects

Classification of Simple, Compound and Complex subjects according to UDC (Abridged edition 1961) and fascicules

UNIT 2 Cataloguing of Complex Titles

Preparation of bibliographic description of non-book materials, periodical publications and E-resources as per AACR2R

Coding of data elements in bibliographic description using MARC21 format

Records of Term Work:

1. Sample Dictionary Catalogue of not less than 25 documents prepared in the card form.
2. MARC coded sheets for not less than 25 documents and their database
3. Metadata of 25 items prepared in Dublin Core

LS020304 RESEARCH METHODOLOGY (4 credits)

UNIT 1 Research

Concept, meaning and need of research

Research process

Types of research-fundamental, applied including Inter-disciplinary and multi-disciplinary approach; Ethical aspects of research

UNIT 2 Research Design

- Types of research design
- Identification and formulation of research problem
- Hypothesis: formulation and testing
- Literature search: print, non-print and electronic sources
- Review of related literature

UNIT 3 Research Methods

- Scientific method
- Historical method
- Descriptive method
- Survey method
- Case study method
- Experimental method
- Delphi method; Brainstorming method

UNIT 4 Research Techniques and Tools

- Questionnaire
- Interview
- Observation
- Scales and scaling techniques
- Online research tools
- Sample and sampling techniques

UNIT 5 Data Analysis, Interpretation and Report Writing

- Processing data: editing, coding and analyzing data
- Descriptive and inferential data analysis
- Presentation of data- tables and graphs
- Techniques of data analysis: SPSS
- Structure, style and contents of research report: Style manuals-MLA and APA
- E-citation and reference management tools – Zotero and EndNote
- How to avoid plagiarism- Best practices and methods
- Current trends in Library and Information Science research in India

Reading list

1. Alvesson, M. and Skoldberg, K. Reflexive methodology: new vistas in qualitative research. Ed. 2. London: Sage Publication, 2009.
2. Busha, Charles T. and Harter, Stephen. P. Research methods in librarianship. New York: Academic Press, 1980.
3. Greenfield, T. Research methods: guidance for postgraduates. London: Hodder Arnold, 1996.
4. Kothari, C. R. Research methodology. New Delhi: New Age International, 2011.
5. Krishan Kumar. Research methods in Library and Information Science. Rev. Ed. 1999. New Delhi: Har-Anand Publications, 1999.
6. Kumar, P S G. Research methods and statistical techniques. New Delhi: B. R. Publications, 2004.
7. Lancaster, F. W. and Powell, R. R. Basic research methods for librarians. New Jersey: Ablex Publishing, 1995.
8. Martyn, John and Lancaster, F. Wilfrid. Investigative methods in library and Information Science: an introduction. Arlington, Virginia: Information Resources Press, 1981.
9. Powell, R. R. and Silipigni, C. L. Basic research methods for librarians. Ed. 4. Westport: Libraries Unlimited, 2004.
10. Slater, M., ed. Research methods in Library and Information Studies. London: Library Association Publishing, 1990.

Electives

Semester 1V

LS020401	Information Technology Applications in LIS (Theory)
LS020402	Information Technology Applications in LIS (Practical)
LS020403	Dissertation and Viva Voce
LS0204E	Elective
LS0204E	Elective

LS020401 INFORMATION TECHNOLOGY APPLICATIONS IN LIS (THEORY)(4 credits)

UNIT 1 Library Automation

Need for library automation
Planning and implementation
Areas of library automation
Automation of library housekeeping operations
Integrated library management systems: KOHA, SOUL, e-Granthalaya
Criteria for evaluation of library management systems

UNIT 2 Digital Libraries

Digital library - Definition, scope and characteristics
Digital library initiatives - Major initiatives in the world and in India
Digital library technologies-Digital representation and compression
Identification of, accessing, processing, storage, delivery and use of digital resources
Digital library creation - prerequisites; content development; metadata development; and search options
Open source digital library software - GSDL

UNIT3 Institutional Repositories

Institutional repositories-concepts and characteristics
Design and architecture of institutional repositories
Contents and standards of institutional repositories
Institutional repository software – DSpace, EPrints, Fedora

UNIT 4 Internet in Libraries

Application of the Internet in libraries
Web based resources and services
Library 2.0/3.0
Library websites / portals-design and development
Library networks, library consortia, WebOPAC

UNIT 5 Modern Technologies in Libraries

RFID-characteristics, features, components and functioning
Cloud Computing Applications
Artificial Intelligence; Robotics
Augmented Reality, Internet of Things

Reading list

1. Arthur, Lowell Jay and Burns, Ted. Unix Shell Programming. New Delhi: Galgotia, 1995.
2. Date, C. and Darwen, H. A Guide to the SQL Standard. 3rd ed. Reading, MA: Addison-Wesley, 1994.
3. Date, C.J. An Introduction to Database Systems. 7th ed. Boston, MA, USA: Addison-Wesley Longman, 2000.
4. Elmasri, Ramez and Navathe, Shamkant B. Fundamentals of Database Systems. 5th ed. Boston: Pearson/Addison Wesley, 2007.
5. Matthew, Neil et al. Professional Linux Programming. Mumbai: SPD, 2001.
6. Rowley, Jennifer. The electronic library. London: Library Association Publishing, 1998.
7. Michael, Randal K. Mastering UNIX Shell Scripting. Canada: Robert Ispen, 2003.
8. Peterson, Richard. Linux: the Complete Reference. New York: McGraw-Hill, 2006
9. Ravichandra Rao. Library automation. New Delhi: Wiley Eastern, 1990.
10. Williams, Brian K. and Sawyer, Stacey C. Using information technology: A practical introduction to computers & communications, 11th ed. McGraw-Hill, 2014.

LS020402 INFORMATION TECHNOLOGY APPLICATIONS IN LIS (Practical) (4 credits)

Unit 1 Library automation packages – KOHA

Unit 2 Digital library/Institutional Repository software – Greenstone/DSpace

Unit 3 Library website / portal design, **Unit 4** Creation of Metadata – Dublin Core

Unit 5 Reference management software – Zotero

LS020403 DISSERTATION AND VIVA VOCE (4 credits)

Students have to carry out research on a topic approved by the Departmental, under the guidance of a faculty member and prepare a dissertation. Appropriate size of the dissertation shall be 100 typed pages in A4 size paper. The students should also appear for a viva-voce.

Electives

LS02E01 INFORMATION TECHNOLOGY (THEORY) (3 credits)

UNIT 1. Computers: Architecture and Technology

- Basic computer architecture-CPU
- Generation of computers
- Classification of computers
- Storage technology –Primary memory, secondary storage
- Input and output devices

UNIT 2. Software

- Programming languages; Generations of programming languages
- Types of software-System software and application software
- Operating system-Windows and Linux
- Application software –DBMS, word processor, presentation software, electronic spreadsheet

UNIT 3. Fundamentals of Communication Technology

- Data communication
- Transmission media
- Computer networks-types of computer networks; LAN, MAN, WAN
- LAN topologies-Bus, Ring, Star, Tree, Mesh, Hybrid

The Internet and the World Wide Web
Web 2.0; semantic web

UNIT 4. Data Processing

File design, data files, records

File organization: Serial, sequential, direct access, indexed sequential and random access file organization

Database: Concepts, organization and types

LS02E02 DIGITAL LIBRARIES (3 credits)

UNIT1 Digital Libraries

Digital library - Definition, scope and characteristics

Digital library initiatives - Major initiatives in the world and in India

Design and organization of digital libraries - Architecture, Interoperability, Compatibility

User interfaces, protocols and standards

UNIT2 Digital Library Technologies

Digital representation and compression

Publication and file formats

Scanning, OCRing, editing and publishing

Network platforms, server management

UNIT3 Digital Resources Management

Digital collection - nature and scope

Scholarly communication - formats - Multimedia and Internet-related formats

Identification of, accessing, processing, storage, delivery and use of digital resources

Digital library user - assessment of user behaviour and needs

UNIT4 Digital Library-Creation and Use

Digital library creation - prerequisites; content development; metadata development; and search options

Open source software – GSDL
Digital preservation and conservation - archiving
Digital information - Intellectual property issues; rights management

LS02E03 STATISTICAL METHODS (3credits)

UNIT I Introduction to Statistics

Origin and meaning of Statistics- General uses, relation with other disciplines, limitations and minuses of Statistics.

Measures of central tendency- arithmetic mean, weighted arithmetic mean, median, mode, geometric mean, Harmonic mean.

Measures of dispersion - Definition and characteristics of good dispersion. Range, Quartile deviation, mean deviation, standard deviation and variance, percentiles, deciles. Relative measure of dispersion- coefficient of variation. Definition of measures of skewness and measures of kurtosis.

UNIT 2 Correlation and Regression

Correlation: Karl Pearson's coefficient of correlation and its properties. Scatter diagram. Concept of rank correlation, spearman's rank correlation coefficient, repeated ranks. Simple regression, regression equation, properties and uses.

UNIT 3 Probability and Probability Distribution

Random experiment- sample space, events, types of events, classical and frequency approaches to probability, Addition theorem for two events, independence of events, conditional probability, multiplication theorem.

Random variable: Discrete and continuous random variables. Binomial, Poisson and Normal distributions (Concept and definition only), mean and variance (without derivation)

UNIT 4 Testing of Hypothesis

Hypothesis testing: Types of hypotheses; testing of hypotheses: significance level, one tailed test, two tailed tests, Type I error and Type II error, Power of a test, Z test, t test, Chi square test for variance, F test, Chi square test for independence of attributes. ANOVA (One way only).

(Note: This paper discusses the theoretical concepts in statistics applicable to Library and Information Science. Therefore, only simple problems may be discussed).

LS02E04 TECHNICAL COMMUNICATION (3 credits)

UNIT 1 Communication Process

Types: Verbal, Non-verbal, Formal, Informal;
Types of writing;
Technical writing: Principles, characteristics;
Language as a medium for communication, readability; Audience Research

UNIT 2 Organization, Lay out and Presentation of Information

Preparation of:
Learned papers
Popular articles
Technical reports
Project proposals
Book design and page layout.

UNIT 3 Repackaging and Consolidation

Preparation of:
Trend reports
Reviews
State-of-the-art report
Digests
Abstracts – Types, Preparation, Guidelines

UNIT4Mechanics of Writing and Presentation

Common problems in spelling, grammar, usage and punctuation

Use of Style manuals – Chicago, APA and MLA; Reference Management Software

Copy editing and proof reading.

Oral Presentation Skills; Tips for effective visual aids

LS02E05 COMPETENCY DEVELOPMENT (3 Credits)

UNIT1 Professional and Personal Competencies

Professional and personal competencies

Soft skills and hard skills

Categories of soft skills - Corporate skills, employability skills and life skills

UNIT2 Communication Skills

Types of communication – verbal and non-verbal

Types of oral communication; Structure of an oral presentation; Body language;

Use of visual aids

Listening skills; Types of listening -- Passive Listening, Active Listening, Reflective Listening

UNIT3 Stress Management

Understanding stress; Types of stress

Symptoms of work stress

Causes of harmful work stress

Personality and stress

Stress management techniques

UNIT4 Other Management Skills

Time management: Delegation and time management

Barriers to time management

Identifying and handling time consuming tasks, Procrastination

Techniques of time management

Negotiation skills: Types of negotiation

Stages of negotiation; Skills of negotiation

LS02E06 – INFORMATION LITERACY (3 credits)

UNIT 1 Introduction to Information Literacy

Information: Characteristics of information;
Types of information; Need for Information Literacy;
Dimensions of information literacy
Information literacy models; Information Literacy Standards
Information Literacy Assessment Tools

UNIT 2 Sources of Information

Documentary and non-documentary;
Variety of documentary sources – primary, secondary and tertiary with examples of each category;
Taxonomy of bibliographies- national, trade, subject;
Indexing and abstracting periodicals and databases in Science, Social Sciences and humanities, Citation indexes; Open Access.

UNIT 3 Ready Reference Sources (Emphasis on electronic sources)

Dictionaries, encyclopedias, yearbooks, directories, handbooks, manuals, geographical sources, statistical sources, current sources.

UNIT 4 Retrieval of Information

Major library classification schemes with emphasis on Dewey Decimal Classification
Bibliographic records – library catalogues, indexes, OPACs; Access points
Search strategy, use of Boolean logic.
Search engines and directories; Techniques of retrieving relevant information from the Net; Invisible web, virtual libraries, institutional repositories; Evaluation of information from the Net.

LS02E07 DIGITAL RESOURCES (3 credits)

UNIT 1 Introduction to Digital Resources

Digital resources: Definition, characteristics, scope and challenges
Variety of digital resources: E-books, e-journals, Databases, Electronic Theses and Dissertations, Subject gateways, Multimedia, Geospatial e-resources

UNIT 2 Electronic Resources: Collection Development

Selection tools
Licensing and negotiating
Digital Rights Management

Issues in library provision

Open digital resources

UNIT 3 Electronic Resources Management

Electronic resources life cycle
ERAMS – A Z lists, Open URL, Link resolvers, Federated search services, Web discovery services
Marketing strategies for the digital resources in the library
Innovative library services using digital resources

UNIT 4 Digital Resources Initiatives in India

Initiatives for the production, storage and dissemination of digital information:
Library consortia: INDEST, UGC INFONET, DAE, FORSA
Scholarly Journals: Indian Academy of Sciences, INSA, MedIND, IndianJournals.com
ETDs: ETDs of IITs, IISc. Vidyanidhi, ShodhGanga,
Digital Libraries and Institutional repositories: Digital Library of India, EPrints@iisc, Librarian's Digital Library
Online Courseware: NPTEL, e-PG-Pathshala, SWAYAM

LS02E08 KNOWLEDGE MANAGEMENT (3 credits)

UNIT 1 Knowledge Management Basics

KM-Concepts and definition
Need for knowledge management
Types of knowledge; KM systems
Knowledge creation and knowledge architecture – Nonaka's model.

UNIT 2 Knowledge Capture, Codification and Transfer

Capturing tacit knowledge – methods
Knowledge codification – tools and procedures
Knowledge testing; Knowledge transfer

UNIT3 Knowledge Base

Knowledge mapping
Decision trees, decision tables, frames
Knowledge works

UNIT 4 Knowledge Management System Tools and Portals

Data visualization
Tools and techniques of knowledge management
Neural networks, data mining; managing knowledge workers
Knowledge management in Library and Information Centres

MODEL QUESTION PAPER

Reg. No.....

Name

M.Lib.1.Sc. Degree Examination May 2018

First Semester

LS020102 INFORMATION, KNOWLEDGE AND COMMUNICATION

(2019 admission onwards)

Time : Three Hours

Maximum : 75 marks

I. Explain any four of the following in not exceeding one page.

1. Knowledge Society
2. Informatics
3. Fair use
4. Data security
5. Cost-benefit analysis
6. Tacit knowledge
7. Information industry

II. Write short essays on any four of the following, in not exceeding three pages.

1. Explain non-verbal communications.
2. Describe the barriers of communication
3. Discuss the trends in scientific communication.
4. Examine the salient features of National policy of information.
5. Discuss the major activities involved in the open access movement.
6. Discuss the relevance of Right to Information Act in the present day context.
7. Describe the details of the major conventions to formulate Intellectual Property Right (IPR)

III. Write essays on any two of the following questions.

1. Explain various methods of data collection suitable to library and information science discipline.
2. What is meant by Bibliometrics? Explain the major bibliometrics models in detail.
3. What is copyright? Explain the salient features of Indian Copyright Act.
4. What do you mean by user studies? Explain the major methods for user studies in college libraries.

ML01O4 -INFORMATION SYSTEMS AND PRODUCTS (4 credits)

UNIT 1 Libraries and Information Agencies

History and development

Libraries, Documentation centres and Information centres

Data banks and Archives, Information analysis centres, Referral centre

Clearing houses, Translation centres and Reprographic centres

UNIT 2 Information System

Definition, Characteristics and Properties of a system

Concept, Types, Characteristics and Components of Information System

Planning and designing of information system

Role of information system in technology transfer and national development

UNIT 3 Global Information Systems

BIOSIS, AGRIS, INIS, INSPEC, MEDLINE, OCLC, JANET, PubMed, IEE electronic library, ACM Digital library, EBSCO, PROQUEST, Elsevier, Ingenta, J-Gate, portals, wikis

UNIT 4 Documentation and Information Centres and Systems in India

NISCAIR, NASSDOC, DESIDOC, SENDOC, INFLIBNET, DELNET, NICNET, UGC-INFONET, INDEST

UNIT 5 Information Products and Services

Concept, Definition and types

Reference Service

CAS, SDI, Document Delivery, Translation and Reprographic Services

Information analysis and consolidation - Reports, Reviews, House journals, bibliographies, indexes, abstracts, etc.

Reading list

1. Bopp, Richard E. and Smith, Linda C. Reference and information services: An introduction, 4th ed. Libraries Unlimited, 2011.
2. Cassell,, Kay Ann and Uma Hiremath. Reference and Information Services: An introduction, 3rd ed, Chicago: ALA, 2013.
3. Gurdev Singh. Information Sources, Services and Systems. New Delhi: PHI Learning, 2013.
4. Hurt, C.D. Information Sources in Science and Technology. 3rd ed. Westport Conn.: Libraries Unlimited, 1998
5. Katz, William A. Reference and information services: A reader for the nineties. London: Scarecrow Press, 1986.
6. Krishan Kumar. Reference Service, 5th ed. New Delhi: Vikas Publishing House, 2004.
7. Rastogi, K.G. Reference services in Library Science. New Delhi: Alfa Publications, 2006.
8. Stebbins, Leslie F. Student guide to research in the digital age: how to locate and evaluate information sources. Santa Barbara: Libraries Unlimited, 2005.
9. Valecich, J. Information systems today: Managing the digital world. New Delhi: PHI, 2009.

