THE ASSAM
ROYAL GLOBAL UNIVERSITY
GUWAHATI

ROYAL SCHOOL OF LIBRARY AND INFORMATION SCIENCES (RSLIS)

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

THE ASSAM ROYAL GLOBAL UNIVERSITY,
BETKUCHI, GUWAHATI

SYLLABUS
&
COURSE STRUCTURE

MASTER OF LIBRARY AND INFORMATION SCIENCE (MLISc)

STRUCTURE OF THE SYLLABUS FOR 2 YEAR PG PROGRAMME

SCHOOL NAME - ROYAL SCHOOL OF LIBRARY AND INFORMATION SCIENCE

DEPARTMENT NAME - LIBRARY AND INFORMATION SCIENCE

PROGRAMME NAME - MASTER OF LIBRARY AND INFORMATION SCIENCE

1st SEMESTER				
COURSE CODE	**COURSE TITLE**	**LEVEL**	**CREDIT**	**L-T-P**
LIB224C101	Foundation of Library and Information Science (Theory)	400	4	3-1-4
LIB224C102	Organization of Knowledge Classification and Cataloging (Theory)	400	4	3-1-4
LIB224C113	Organization of Knowledge Classification and Cataloging (Practical)	400	4	0-0-8
LIB224C104	Information Source and Services (Theory)	400	4	3-1-4
LIB224C105	Foundation of Computer & Information Technology (Theory)	400	4	3-1-4
LIB224S106	Management of Library and Information Centre (Swayam)	400	4	3-1-0
	TOTAL CREDIT FOR 1st SEMESTER		**24**	
2nd SEMESTER				
COURSE CODE	**COURSE TITLE**	**LEVEL**	**CREDIT**	**L-T-P**
LIB224C201	Management of Library and Information Centre (Theory)	400	4	3-1-0
LIB224C202	Library Automation and Software Package (Theory)	400	4	3-1-0
LIB224C213	Library Automation and Software Package (Practical)	400	4	0-0-8
LIB224C204	Library System Analysis and Design (Theory)	400	4	3-1-0
LIB224C215	Collection Development and Reference Management (Practical)	400	4	3-1-0
LIB224S206	Koha Library Management System (Swayam)	400	4	3-1-0
	TOTAL CREDIT FOR 2nd SEMESTER		**24**	
TOTAL CREDIT FOR 1st YEAR = 48				
3rd SEMESTER				
COURSE CODE	**COURSE TITLE**	**LEVEL**	**CREDIT**	**L-T-P**
LIB224C301	Information Retrieval (Theory)	400	4	3-1-0
LIB224C302	Digital Library Software Packages (Theory)	400	4	3-1-0
LIB224C313	Digital Library Software Packages (Practical)	400	4	0-0-8
LIB224C304	Database Management System (Theory)	400	4	3-1-0
LIB224C325	LIS Term Papers (Research)	500	4	0-0-8
	TOTAL CREDIT FOR 3rd SEMESTER		**20**	
OR 3rd SEMESTER (For students with 3rd and 4th Semester Research)				
	RESEARCH PROJECT – PHASE I	**500**	**20**	
4th SEMESTER				
COURSE CODE	**COURSE TITLE**	**LEVEL**	**CREDIT**	**L-T-P**

	Dissertation (students with research in 4th Sem)			
(for 'Coursework only' in lieu of Research)				
LIB224C401	E-Learning and Content Management System (Practical)	400	4	0-0-8
LIB224C402	Digital Resource Management (Theory)	400	4	3-1-0
LIB224C413	Digital Resource Management (Practical)	400	4	0-0-8
LIB224C404	Research Methodology (Theory)	400	4	3-1-0
LIB224C425	Dissertation (Research)	500	4	3-1-0
OR 4th SEMESTER (For students with 3rd and 4th Semester Research)				
	RESEARCH PROJECT – PHASE 2	500	20	
TOTAL CREDIT FOR 2nd YEAR = 40				

MLISC
FIRST SEMESTER

Paper Core 1-1	**FOUNDATION OF LIBRARY AND INFORMATION SCIENCE** (Theory) **L-T-P-C:** 4-0-0-4 **Credit point:** 4 **Scheme of Evaluation:** (T)	Subject Code LIB224C101

COURSE OBJECTIVE:

The objective of the course is to introduce the students with basic philosophy of Library and Information Science.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	Know the contribution of Dr. S.R. Ranganathan in the field of LIS and get acquainted with the Five Laws of Library Science.	**BT Level I**
CO2	Demonstrate the role of libraries and its importance in the human civilization and able to understand the history of libraries, their development, and their current role in society.	**BT Level II**
CO3	Compare between Public, Academic and Special Libraries and its functions and able to identify the different types of libraries and their unique functions.	**BT Level II**
CO4	Make acquainted with the roles and responsibilities of professional associations in LIS profession.	**BT Level III**

DETAILED SYLLABUS:

MODULES	**TOPICS AND COURSE CONTENTS**	**PERIODS**
Unit 1	Library -Concepts, Definition and Functions; Library as a social institution: Library's role- In Information exchange, Recreation and in Community Information-Factors affecting library development: Information Industry -Generators, Providers and Intermediaries; Dr. S.R. Ranganathan: An Introduction; Contribution of Dr. S.R. Ranganathan in Library Science; Five Laws of Library and Information Science and their implications	15
Unit 2	Types of Library: Objectives, Features and Functions; Public Library; Academic Library; Special Library; Historical Development of Library in the World; Library Movement in India: With special reference North East India; Librarianship: Professional Ethics; Librarianship as a Profession; Library Legislation in India with Special Reference to North East India; Library Extension Services: Concept and forms; Community Information Services: Concept and Forms; Intellectual Property Rights (IPR)- Concept and Types.	15

Unit 3	Library Association: Meaning, Objectives and Functions, Types ; ALA (American Library Association); ILA (Indian Library Association); IASLIC (Indian Association of Special Library); IATLIS (Indian Association of Teachers of Library and Information Science); LA (Library Association), UK; IFLA International Federation of Library Associations); CILIP (Chartered Institute of Library and Information Professionals)	15
Unit 4	UNESCO (United Nations Educational, Scientific and Cultural Organization) -Objectives, activities and services; UNESCO and Public Library Manifesto; RRRLF (Raja Ram Mohan Roy Library Foundation-Objectives, Functions; Public Libraries of India with Special reference to: Asiatic Public Library, Khuda Bakash Oriental Library, Baroda Public Library System, Connemara Public Library, Delhi Public Library;	15
TOTAL PERIODS		**60**

TEXTBOOKS:

1. R.S. Prajapati (2013). Foundations of Library and Information Science, Discovery Publishing House, New Delhi.
2. Bauer, Patricia. (2020). Foundations of library and information science. New York, Neal-Schuman

REFERENCE BOOKS:

1. Agarwal, U. K. (1999). Twentieth century: Library legislation in India, Udaipur, Shiva Publishers.
2. Carlson, Christ, & Brosnahan, Ellen. (2008). Guiding students into information literacy: Strategies for teachers and teacher-librarians.USA, Scarecrow Press
3. Crawford, Walt. (1998). Being analog: Creating tomorrow's libraries, Chicago, American Library Association
4. Ismail, Abdullah. (2009). Global library and information science: A text book for students and educators with contributions from Africa, Asia, Australia, New Zealand, Europe, Latin America and the Caribbean, the Middle East and North America, New York, Walter de Gruyter
5. Kesselman, Martin. Alan, & Weintraub, Irwin (Eds.) (2010). Global librarianship, New York, Marcel Dekker Inc.
6. Leckie, Gloria J, Given, Lisa M, & Buschman, John E (2010). Critical theory for library and information science, California, Libraries Unlimited
7. Maskus, Keith. E. & Bergsten, C. F. (2000). Intellectual property rights in the global economy, Washington DC, Institute for International Economics
8. Panella, Deborah, & Mount, Ellis (2012). Basics of law librarianship, New York, Routledge
9. Ramage, Magnus, & Chapman, David. (Eds.). (2011). Perspectives on information, New York, Routledge Chapman & Hall

Paper Core 1-2	**ORGANIZATION OF KNOWLEDGE CLASSIFICATION AND CATALOGING** (Theory) **L-T-P-C:** 4-0-0-4 **Credit point:** 4 **Scheme of Evaluation:** (T)	Subject Code LIB224C102

COURSE OBJECTIVE:

The objective of the course is to give hands on knowledge and skills in Library classification and cataloguing.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	Define the basics of library classification and practical implication of the major classification schemes.	**BT Level I**
CO2	Demonstrate a comprehensive understanding of cataloguing principles and standards, including bibliographic description, subject analysis, classification, and authority control.	**BT Level II**
CO3	Identify the fundamentals of classification schemes in organizing knowledge resources.	**BT Level III**
CO4	Classify the fundamental skills of Library cataloguing system.	**BT Level IV**

DETAILED SYLLABUS:

MODULES	**TOPICS AND COURSE CONTENTS**	**PERIODS**
Unit 1	Library Classification: Origin, Meaning, Need and Purpose; History of Classification; Universe of Knowledge: Structures and attributes; Modes of formation of subjects	15
Unit 2	Normative Principles of Classification: General Theory; APUPA; Types and Features of Classification Schemes; Brief study of classification schemes- DDC (Dewey Decimal Classification), UDC (Universal Decimal Classification), LCC (Library of Congress Classification), CC (Colon Classification), Universe of subjects as mapped in major classification schemes	15
Unit 3	Library Catalogues: Fundamental Concepts; Historical Developments Definition and Objectives; Purposes and Functions; Trends in Library Cataloguing; Centralized and Cooperative Cataloguing Bibliographic Standards: ISBD (International Standard Bibliographic Description), MARC (Machine Readable Catalogue), CCF (Common communication Format), ISBN (International Standard Book Number),	15

	ISSN (International Standard Serial Number)	
Unit 4	Idea plane: canons, principles and postulates; fundamental categories. Verbal plane: canons and principles; Notation: Definition, Structures, Quality and Function, Trends of Library Classification; Organizations, Subject heading: Meaning, Objectives and Functions SLSH (Sears List of Subject Heading), LCSH (Library of Congress Subject Heading); chain indexing. Structure of Anglo-American Cataloguing Rules II and Classified Cataloguing Code.	15
TOTAL PERIODS		**60**

CODES/ STANDARDS:

i. American Cataloging Rules (most recent edition to be used)
ii. Ranganathan, S.R. Classified Catalogue Code, etc. 5th. ed. Bangalore: SRELS,1964
iii. MARC21andrelatedstandardsforbibliographicrecords
iv. Dublin Core and other relevant metadata standards for different kinds of objects /resources
v. Library of Congress Subject Headings
vi. Sears List of Subject Headings

TEXTBOOKS:

1. Krishan Kumar (2023). Theory of cataloguing. New Delhi: Vikas Publication.
2. Krishan Kumar (2023). Theory of classification. New Delhi: Vikas Publication.

REFERENCE BOOKS:

1. Carter, R.C. ed. (2001). Managing cataloguing and the organization of information: philosophies and challenges at the onset of the 21st century. New York: Haworth Press.
2. Cole, Jim and Jones, Wayne ed. (2002). E-serials cataloguing. New York: Haworth Press.
3. Dhiman, A.K. & Yashoda Rani. (2005). Learn library classification. New Delhi: Ess Ess.
4. Kao, Mary L. (2001). Cataloguing and classification for library technicians (2nd Ed.). New York: Haworth Press.
5. Kao, Mary L. (2003). Cataloguing and classification for library personnel. Mumbai: Jaico.

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Paper Core 1-3	**ORGANIZATION OF KNOWLEDGE CLASSIFICATION AND CATALOGING** (Practical) **L-T-P-C:** 0-0-8-4 **Credit point:** 4 **Scheme of Evaluation:** (P)	Subject Code LIB224C113

COURSE OBJECTIVE:

The objective of the course is to give practical knowledge and skills in Library classification using DDC, UDC and Colon classification.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	Demonstrate a comprehensive understanding of the historical development, principles, and structure of the Dewey Decimal Classification (DDC) system	**BT Level II**
CO2	Demonstrate an in-depth understanding of the historical development, principles, and theoretical foundations of Colon Classification (CC), including its structure and hierarchical organization.	**BT Level II**
CO3	Develop skills in subject analysis and proficiency in using standard schemes of classification and subject	**BT Level III**
CO4	Apply DDC principles effectively to classify a wide array of knowledge domains and information resources, demonstrating proficiency in assigning appropriate classification numbers and hierarchy.	**BT Level IV**

In the course, total marks will consist as under:

(1) Practical (70 marks) and (2) Viva Voce (30 marks)

DETAILED SYLLABUS:

MODULES	**TOPICS AND COURSE CONTENTS**	**PERIODS**
Unit 1	Classification of Documents representing basic, Compound and Complex Subject according to **CC (Colon Classification);**	15
Unit 2	Classification of Documents requiring common subdivisions and other auxiliaries; Classification of documents basic, compound and complex subjects according to **DDC (Dewey Decimal Classification 23rd edition)**	15
Unit 3	Cataloguing of works of personal authors: Shared Responsibility, Mixed Responsibility, Anonymous works, corporate works, Serial publications, Non-Book Materials, Internet and Multimedia Resources; According to AACR-2 (Anglo American Cataloguing Rules)	15
Unit 4	Assigning subject heading Using; SLSH (Sears List of Subject Heading) (Latest Edition) and Library of Congress Subject Heading; Anonymous works; Works of corporate authorship and Analytical.	15
TOTAL PERIODS		**60**

TEXTBOOK:

1. Melvil Dewey, Joan S. Mitchell, Julianne Beall, Rebecca Green, Giles Martin(2023). Dewey Decimal Classification and Relative Index. OCLC; 23rd edition.

2. S. R. Ranganathan (2023). Colon Classification Sixth Edition The Basic Classification. Sikhar Publishing House.

REFERENCE BOOKS:

1. Dhyani, Pushpa. (2006). Classifying with Dewey decimal classification. New Delhi: Ess Ess.
2. Kaula, P.N. (1985). A treatise on colon classification. New Delhi: Sterling Publishers.
3. Khan, M.T.M. (2005). Dewey decimal classification. New Delhi: Shree Publishers.
4. Krishan Kumar (1986). An introduction to cataloguing practice. (3rd Rev. ed.). New Delhi: Vikas Publishing.
5. Mary, Mortimer. (2007). Learn Dewey decimal classification (Ed. 22). Friendswood, US: Total Recall Publications.
6. Satija, M.P. (1995). Manual for practical colon classification. (Rev. ed. 3). New Delhi: Sterling Publishers.
7. Satija, M.P. (2004). Exercises in the 22nd ed. Of Dewey decimal classification. New Delhi: Ess Ess.
8. Singh, S.N. & Prasad, H.N. (1985). Cataloguing manual AACR-II. Delhi: B.R. Publishing.

Paper Core 1-4	**INFORMATION SOURCES AND SERVICES** (Theory) **L-T-P-C : 4**-0-0-4 **Credit point:** 4 **Scheme of Evaluation:** (T)	Subject Code LIB224C104

COURSE OBJECTIVE:

The objective of the course is to acquire knowledge on reference and information sources and services in context of libraries.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	Define planning, managing, and evaluating information services in different settings, including libraries, information centers, and online platforms.	**BT Level I**
CO2	Demonstrate the principles and practices of reference services, including techniques for reference interviews, reference tools, and methods for providing accurate and timely information assistance to users.	**BT Level II**
CO3	Develop abilities to teach information literacy skills to users, including effective search strategies, source evaluation, citation practices, and ethical use of information.	**BT Level III**
CO4	Classify the significance of information literacy, educating users on information seeking, evaluation, and ethical use of information resources to empower them in their academic or professional endeavours.	**BT Level IV**

DETAILED SYLLABUS:

MODULES	**TOPICS AND COURSE CONTENTS**	**PERIODS**
Unit 1	Sources of Information: Introduction, Primary Information Sources: Periodicals, Conferences, Patents, Standards, Theses/Dissertations, Trade Literature, etc.; Secondary Information Sources: Dictionaries, Encyclopaedias, Biographical, Geographical, Bibliographies, Indexing and Abstracting, Newspaper Indexes and Digests, Statistics, Handbooks and Manuals; Tertiary Information Sources: Directories, Yearbooks, Almanacs, Bibliography of Bibliographies, Union Catalogues; Criteria for evaluation of Reference and Information Sources	15
Unit 2	Reference Service – Concepts; Scope; Modes; Enquiry Techniques; Information Searching Techniques from Print and Electronic Sources Referral Services; Document Delivery Services; Translation Services –	15

	Concepts; Scope and Usefulness Qualifications, Qualities, Duties and Role of Reference Staff	
Unit 3	Information Needs and Information Seeking Behaviour of Users – History; Concepts and Characteristics; Models of Information Seeking Behaviour – Models by Wilson; Dervin; Kulhthau and Ellis; Information Sources and Services in the Humanities; Social Sciences; Sciences; Business and Law;	15
Unit 4	User Studies – History; Concepts; Goals; Objectives; Methodology and Case Studies User Education – Concepts; Goals; Objectives; Role and Techniques; Documentation Services: Abstracting and Indexing Services; Alerting Services; CAS (Current Awareness Service), SDI, Reprographic Service, Translation Service, Document Delivery, Bulletin Board Service and Referral Service; Digital reference service	15
	Total Periods	**60**

CORE READING:

1. Connor, E. (Ed.).(2006) An introduction to reference services in academic libraries. New York: Haworth Information Press.
2. Katz, b. (Ed.). (2003). Digital reference services. Binghamton, NY: Haworth Information Press.

ADDITIONAL READING:

1. Case, D.O. (2002). Looking for Information: A survey of research on information seeking, needs and behaviour. California: Academic Press.
2. Choo, C. W. et al. (2000). Web Work: Information seeking and knowledge work on the world wide web. Massachusetts: Kluwer Academic Publications.
3. Chowdhury, G. G. (2011). Information users and usability in the digital age. New York: Neal-Schuman Publishers, Inc.
4. Dalston, T. , & Columbus, M.P. (Eds.). (2008). Virtual reference on a budget : Case studies.Ohio: Linworth Pub.
5. Ford, C. (2008). Crash course in reference. Westport, Conn.: Libraries Unlimited. Hillard, J. M. (2000). Where to find what: A handbook to reference service, (4th ed.). Lanham, Md.: Scarecrow Press.
6. Kern, M. K. (2009). Virtual reference best practices : Tailoring services to your library Chicago: American Library Association.

Paper Core 1-5	**FOUNDATION OF COMPUTER & INFORMATION TECHNOLOGY** (Theory) **L-T-P-C:** 4-0-0-4 **Credit point:** 4 **Scheme of Evaluation:** (T)	Subject Code LIB224C105

COURSE OBJECTIVE:

The objective of the course is to give the knowledge on library automation and Networking.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	Define the basic components of a computer system, including hardware components (CPU, memory, storage devices), software (operating systems, applications), and their functionalities.	**BT Level I**
CO2	Compare of operating system functionalities, such as process management, memory management, file systems, and user interfaces, and how they facilitate communication between hardware and software.	**BT Level II**
CO3	Identify the fundamental concepts of computer networks, including types of networks, network topologies, protocols, and the Internet, along with the ability to comprehend how data is transferred across networks.	**BT Level III**
CO4	Identify the comprehensive understanding of various transmission media, including guided (wired) and unguided (wireless) channels.	**BT Level III**

DETAILED SYLLABUS:

MODULES	**TOPICS AND COURSE CONTENTS**	**PERIODS**
Unit 1	Computer Applications: introduction, development, and generations; Information Technology: introduction and scope; development; Computer generations Computer Components: Hardware and Software, Input and Output Devices; Storage devices; Number system: Binary number system, Binary codes, ASCII and Unicode; data types	15
Unit 2	Operating System: concept, types and functions: DOS, LINUX, and Windows File formats: types, nature and characteristics Office Packages: Word Processor, Spreadsheet, Presentation Tools, Ms-Access Practical: Operating System, Word Processor, Spreadsheet, Presentation Tools, Ms-Access	15
Unit 3	Telecommunication: Transmission Channels, Mode and Media; Multiplexing, Modulation, Standards and Protocols-ISDN, PSDN;	15

	Wireless Communication: Media, Wi-Fi, Li-fi Satellite Communication, Mobile Communication;	
Unit 4	Fundamentals of Internet: Introduction, History, OSI Model; Network: Types of Networks, Topology; WWW (World Wide Web): Introduction, History, Recent Developments; Search Engine, Meta Search Engine: Introduction, Functions Semantic Web	15
TOTAL PERIODS		**60**

TEXTBOOKS:

1. Sinha, P.K (2004) Computer Fundamentals. 6th Ed. BPB Publications: New Delhi.
2. Ram, B (2007). Computer Fundamenals: Archgitecture and Organization. 4th Ed. New Age International Publishers: New Delhi.

REFERENCE BOOKS:

1. Rajaraman, V Fundamentals of Computers. 5th Ed. Prentice Hall India: New Delhi, 2010
2. Arvind Kumr. Ed. Information Technology for All (2Vols) New Delhi, Anmol, 2006
3. Bnsal, S.K. Information Technology and Globalization, New Delhi: A.P.H. Publishing Corporation, 2005
4. Basandra, S.K.: Computers Today and Globalization, New Delhi, Golgotia, 2002.

MLISC
SECOND SEMESTER

Paper Core 2-1	**MANAGEMENT OF LIBRARY AND INFORMATION CENTRE** (Theory) **L-T-P-C: 4**-0-0-4 **Credit point:** 4 **Scheme of Evaluation:** (T)	Subject Code LIB224C201

COURSE OBJECTIVE:

The objective of the course is to acquire knowledge on Management purposes in Library and Information Centre.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	Define knowledge of the principles, theories, and practices related to library and information center management, including organizational structures, policies, and procedures.	**BT Level I**
CO2	Explain a comprehensive understanding of the fundamental principles and concepts underlying Total Quality Management, including its history, evolution, and key components.	**BT Level II**
CO3	Explain the key principles, theories, and functions of Human Resource Management within organizational contexts.	**BT Level III**
CO4	Develop effective communication skills to articulate SWOT analysis findings.	**BT Level III**

DETAILED SYLLABUS:

MODULES	**TOPICS AND COURSE CONTENTS**	**PERIODS**
Unit 1	Management Concept, Functions and Principles; Schools of Management Thought: Classical, Scientific, Behavioural, Decision Theory, Contingency Approach, Systems Approach.	15
Unit 2	Planning: Concept, Need and Levels; Management by Objectives (MBO); Decision Making. Total Quality Management (TQM); Change Management.	15
Unit 3	Human Resource Management: Manpower Planning; Job Analysis, Job Description and Job Evaluation; Recruitment Procedures; Performance Appraisal; Leadership; Communication Process; Motivation; Organizational Manual; Annual Report.	15
Unit 4	Budgeting- Concept, Principles and Types; Resource Mobilisation for Libraries and Information Centres; Marketing of Information Products and Services. SWOT Analysis; Project Management.	15
TOTAL PERIODS		**60**

TEXTBOOKS:

1. Chabhra, T. N.et al. (2000). Management and organisation. New Delhi: Vanity Book International.

2. P. Balasubramanian (2021). Management of Libraries and Information Centers. Ess Ess Publication. New Delhi

REFERNCE BOOKS:

1. Beardwell, Ian & Holden, Len. (1996). Human resource management: A contemporary prespective. U.K: Longman.
2. Bryson, Jo. (1996). Effective library and information management. Bombay: Jaico Publishing House.
3. Bryson, Jo. (2011). Managing information services: A sustainable approach. England: Ashgate Publishing, Ltd.
4. Cartin, Thomas. J. (1998). Principles and practices of organisation. New Delhi: Prentice Hall of India.
5. Cascio, Wayne. (2012). Managing human resources (9th edition). Retrieved from www.amazon.com
6. Chopra, H. S. (1996). Information marketing. New Delhi: Rawat Publications.
7. Daft, Richard. L., & Marcic, Dorothy. (2012). Understanding management (8th edition).
8. Ducker, Peter. F. (2002). Management challenges for the 21st century. Oxford: Butterworth Heinemann.

Paper Core 2-2	**LIBRARY AUTOMATION SOFTWARE PACKAGE** (Theory) **L-T-P-C :4**-0-0-4 **Credit point:** 4 **Scheme of Evaluation:** (T)	Subject Code: LIB224C202

COURSE OBJECTIVE:

This is to train the students on Open-Source Library Management Software and Software

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	Define theoretical knowledge about the concept, evolution, and types of library automation systems, including Integrated Library Systems (ILS), Library Management Systems (LMS), and other software packages.	**BT Level I**
CO2	Explain theoretical frameworks and standards such as MARC (Machine-Readable Cataloging), Z39.50 protocol, and other industry standards used in library automation.	**BT Level II**
CO3	Explain theoretical discussions on emerging trends, innovations, and future developments in library automation software.	**BT Level II**
CO4	Apply GNU licensing to software projects, ensuring compliance with open-source principles.	**BT Level III**

DETAILED SYLLABUS:

MODULES	**TOPICS AND COURSE CONTENTS**	**PERIODS**
Unit 1	Open-Source Software (OSS): Overview, Philosophy and Characteristics; Overview of Commercial Software, Free Software and Freeware; Standards: National Information Standards Organisation (NISO) and The Digital Library Federation (DLF); Metadata: Dublin Core, MARC, Resource Description and Access (RDA); Open Archives Initiative (OAI-PMH); Licensing Policy: GNU, Open-Source Licenses and Free Software.	15
Unit 2	Library standards – scope, objectives, types and advantages; Library automation standards – global and national; Open standards – features, application and advantages; Library automation software – functional requirements, global recommendations and RFPs; ILSs available in India – types and features; Open-source software in library automation;	15
Unit 3	Library system and subsystems; Procedural model of library automation; Software-level requirements for automation workflow; Components - Acquisition subsystem, Cataloguing subsystem, Circulation subsystem and Serials control subsystem;	15
Unit 4	Trends and future of library automation software – Web-scale discovery, linked open data, Cloud based library automation, Library mashup etc.	15
TOTAL PERIODS		**60**

REFERENCE BOOKS:

1. "Koha LiveCD." Mizstik Projects, n.d. http://mizstik.com/projects/koha-livecd/.
2. "Koha selected as finalist for the 2003 Trophees du Libre award," May 5, 2003. http://linuxpr.com/releases/5839.html.
3. Breeding, Marshall. (2010) "LibLime Acquisition by PTFS Marks a New Era for Koha." Library Journal, http://www.libraryjournal.com/article/CA6714841.html.
4. Chawner, Brenda. (2002). "Koha: an open source success story." Library Link November http://mustafa.emeraldinsight.com/vl=12220074/cl=48/nw=1/rpsv/librarylink/technology/nov 02.htm.
5. Engard, Nicole, and Lori Ayre. (2010). "Archives for Koha Webinars now available." Open Source – Open Libraries, http://opensource.califa.org/node/75.
6. Engard, Nicole. "Zotero Integration — Koha – Open Source ILS – Integrated Library System." Koha Library Software Community, n.d. http://koha- community.org/documentation/3-2-manual/?ch=x8295#AEN8354.
7. Eyler, Pat. (2003). "Koha: a gift to libraries from New Zealand." Linux Journal.
8. Fedora: The Flexible Extensible Digital Object and Repository Architecture http://www.fedora.info/index.shtml
9. Guillaume Hatt. (2010). "New Era for Koha: PTFS Acquires LibLime." Library Journal, InfoTech.
10. Haydock, Ian. (2010). "PTFS to acquire Liblime." Meeting on the ledge.http://ianhaydock.wordpress.com/2010/01/14/ptfs-to-acquire-liblime/.
11. Horton, Valerie(2010). "Major Shake, Rattle and Roll in Koha Land." Collaborative Librarianship News. http://collaborativelibrarianship.wordpress.com/2010/01/13/major- shake-rattle-and-roll-in-koha-land/.

ADDITIONAL READINGS:

1. Breeding, Marshall. (2002) "An Update on Open Source ILS." Information Today 19, no. 9 : 42.
2. Devika P.M. (2009). "A Digital Library of Library and Information Science using DSpace", http://drtc.isibang.ac.in.
3. Ksharma, A(2006). "Koha on Windows – Open Source Software for Library Management: A Case Study of IISS." Journal of Library & Information Science 31, no. 2: 97 – 109.
4. Kumar V (2008). Selection and management of open source software in libraries. Asian School of Business, Padmanabha Building, TechnoPark, Trivandrum.
5. Madalli DP (2008). "A Digital Library of Library and Information Science using DSpace" http://drtc.isibang.ac.in .

Paper Core 2-3	**LIBRARY AUTOMATION SOFTWARE PACKAGE** (Practical) **L-T-P-C:** 0-0-8-4 **Credit point:** 4 **Scheme of Evaluation:** (P)	Subject Code: LIB224C213

COURSE OBJECTIVE:

This is to train the students on Open-Source Library Management Software and Software

COURSE OUTCOME:

On Successful completion of the course, the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	Define practical knowledge of different library automation software packages available in the market, their features, functionalities, and how they support library operations.	**BT Level I**
CO2	Develop skills in implementing library automation systems, including installation, configuration, and customization according to the specific needs of the library.	**BT Level II**
CO3	Develop managing library databases within the automation software, including cataloging, indexing, and maintaining accurate records of library holdings.	**BT Level III**
CO4	Develop best practices for ensuring data security within the automation system, implementing backup procedures, and disaster recovery plans.	**BT Level IV**

DETAILED SYLLABUS:

MODULES	**TOPICS AND COURSE CONTENTS**	**PERIODS**
Unit 1	Open-Source Operating System (e.g., Linux) Hosting: Client, Server; Library Management Software: Proprietary and OSS; Introduction to proprietary software: **SOUL,** Library Management Software: **Koha,**	10
Unit 2	Practical's on Open-Source Library Management Software (e.g., **Koha**): Introduction, Features, Architecture, Standards, Installation, Customization, and Use of Modules. Acquisition – Settings and Module; Cataloguing - Settings and Module; Serials control - Settings and Module; Circulation and Patron Management; Report generation, Export/Import; Tools and Utilities.	20
Unit 3	Practical's on Open-Source Library Management Software (e.g., **SOUL**): Introduction, Features, Architecture, Standards, Installation, Customization, and Use of Modules. Acquisition – Settings and Module; Cataloguing - Settings and Module; Serials control - Settings and Module; Circulation and Patron Management; Report generation, Export/Import; Tools and Utilities.	20
Unit 4	ILS Administration and User Interface: OPAC, OPAC 2.0, OPAC Mashup; Usage statistics through Web analytics; Configuration of Enhanced features; Privilege control; Backup and Restoration.	10
TOTAL PERIODS		**60**

ADDITIONAL READINGS:

1. Breeding, Marshall. (2002) "An Update on Open Source ILS." Information Today 19, no. 9 : 42.

2. Devika P.M. (2009). "A Digital Library of Library and Information Science using DSpace", http://drtc.isibang.ac.in.
3. Ksharma, A(2006). "Koha on Windows – Open Source Software for Library Management: A Case Study of IISS." Journal of Library & Information Science 31, no. 2: 97 – 109.

4. Kumar V (2008). Selection and management of open source software in libraries. Asian School of Business, Padmanabha Building, TechnoPark, Trivandrum.

5. Madalli DP (2008). "A Digital Library of Library and Information Science using DSpace" http://drtc.isibang.ac.in .

6. https://soul.inflibnet.ac.in/

7. https://koha-community.org/

Paper Core 2-4	**LIBRARY SYSTEM ANALYSIS AND DESIGN** (Theory) **L-T-P-C:** 4-0-0-4 **Credit point:** 4 **Scheme of Evaluation:** (T)	Subject Code LIB224C204

COURSE OBJECTIVE:

The paper will enable students with or without prior training on computer systems or programming skills to develop and manage information systems in libraries and similar information environment using the following essentials: (1) Information systems concepts, (2) Requisite Skills, (3) System Methodologies, (4) System Development Tools, and (5) Perspectives on the successful development of systems.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	Define the library system as well as its various sub-components or sections.	**BT Level I**
CO2	Compare the knowledge of interacting entities, including computer systems analysis and library as a system, different tools, and techniques of analysis.	**BT Level II**
CO3	Identify the effective packaging and repackaging of information for effective dissemination of information products and services to library users.	**BT Level III**
CO4	Utilize the skill about information need, information seeking behaviour, information seeking in both human and technological contexts to the students and concept of user studies, user education and their importance.	**BT Level IV**

DETAILED SYLLABUS:

MODULES	**TOPIC AND COURSE CONTENT**	**PERIODS**
Unit 1	Information Systems Definitions; Types of Systems: Transaction Processing Systems, Management Information Systems, and Decision Support Systems; System Development Life Cycle; Systems Development Process: Traditional Waterfall, Prototyping, Computer-Aided Software Engineering (CASE), Joint Application Design (JAD), Rapid Application Development (RAD), Agile Methodologies and eXtreme Programming.	15
Unit 2	Systems Acquisition; Outsourcing; Sources of Software; Off-the-Shelf Software Selection Criteria; Request for Proposal (RFP) and Annual Maintenance Cost (AMC); Initiating and Planning: Process, Elements, Deliverables and Outcomes; Feasibility Assessment: Economic Feasibility, Technical Feasibility and Other Feasibility Concerns; Baseline Project Plan.	15
Unit 3	System Implementation: Coding, Testing, Installation, System Documentation, User Training and Support; System Maintenance: Types, Cost and Managing Maintenance; System Analyst: Role, Responsibilities and Required Skills; Security and Ethics.	15

Unit 4	Informatrics, Bibliometrics , Scientrometrics, Almetrics &Webometrics; Bibilometric Laws: Lotka's,Bradford's and Zipf's Law; Citation Analysis, Co-citation Coupling and Bibliographic Coupling; Bibliographical Database.	15
TOTAL PERIODS		**60**

TEXTBOOKS:

1. Avison, D. E. and Guy Fitzgerald (2006). Information Systems Development: Methodologies, Techniques & Tools (4th Ed.). McGraw-Hill

2. Hoffer, Jeffrey A., Joey F. George, and Joe Valacich (2013). Modern Systems Analysis and Design (7th Ed.). Pearson Education, Limited

REFERENCE BOOKS:

1. Chiang, Roger, Keng Siau, and Bill C. Hardgrave (2009). Systems Analysis and Design: Techniques, Methodologies, Approaches, and Architectures (Volume 15 of Advances in Management Information Systems Series). M.E. Sharpe

2. Davis, William S.and David C. Yen (2010). The Information System Consultant's Handbook: Systems Analysis and Design. CRC Press

3. Dennis, Alan, Barbara Haley Wixom, and Roberta M. Roth (2008). Systems Analysis and Design (4th Ed.). John Wiley & Sons

4. Eberhart, George M. (2006). The whole library handbook (4th Ed.), Volume 4, American Library Association

5. Joachim Baumeister (2004), Agile Development of Diagnostic Knowledge Systems.IOS Press

6. Kirikova, Marite (2002). Information Systems Development: Advances in Methodologies, Components, and Management. Springer

7. Pasquarelli, Maria Luiza R. (1992). Integrated Library System: Two Case Studies: Latin America and India. Concept Publishing Company

8. Vasilecas, Olegas (2005). Information Systems Development: Advances in Theory, Practice, and Education. Springer

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Paper Core 2-5	**COLLECTION AND REFERENCE MANAGEMENT** (Practical) L-T-P-C = 0-0-8-4 Credit point: 4 Scheme of Evaluation: (P)	Subject Code LIB224C215

COURSE OBJECTIVE:

The subject provides skills to students on collection development which is one of the basic and vital activities in all libraries and also learn hand on practice of reference management.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	Define the principles and strategies involved in building, evaluating, and managing collections of various information resources.	**BT Level I**
CO2	Compare with various reference tools, databases, bibliographic sources, and digital repositories to efficiently locate and retrieve information for users.	**BT Level II**
CO3	Utilize technology tools and software for managing references, bibliographies, and citations, enhancing reference service delivery.	**BT Level III**
CO4	Compare the various tools and features offered by Reference Management System for organizing and managing references.	**BT Level IV**

DETAILED SYLLABUS:

MODULES	**TOPIC AND COURSE CONTENTS**	**PERIODS**
Unit 1	Collection Development – Concept; Goals and Methods; Principles of Collection Development – Principles by Ranganathan; Drury; Dewey; Library of Congress and American Library Association; Collection Development Policies – Concepts and Types; Planning for Collection; Development – Committees; Staffing; Budgeting; Implementation and Evaluation	15
Unit 2	Selection Tools – Types: Bibliographies; Publishers' Catalogues and Book Reviews Evaluation of Selection Tools Stock Verification and Rectification; Preservation of Collection (Print and Non-Print)– Concepts; Goals and Methods	15
Unit 3	Reference Management System – Overview, Concept, Utilization. Hand on Practice in **Mendeley Reference Management Software -** Overview of Mendeley Tools, Feature and Installation, Integration, Customization.	15
Unit 4	Citation: concept, need and purpose; Online citation tools; Authority files; Hand on Practice in **Zotero Reference Management Software-**Overview of Zotero Tools, Feature and Installation, Integration, Customization.	15
TOTAL PERIODS		**60**

TEXTBOOKS:

1. Vicki L. Gregory (2019). Collection Development and Management for 21st Century Library Collections: An Introduction. ALA Neal-Schuman.
2. Abdul Mannan Khan (2023). Collection Development Its Organization And Services, Ess Ess Publications, New Delhi.

REFERENCE BOOKS:

1. Kovacs, B. (1990). The Decision-Making Process for Library Collections: Case Studies in Four Types of Libraries. In Wasserman,P (Ed.), Contributions in Librarianship and Information Science no. 65. New York: Greenwood Press.

2. Magrill, R.M., & Corbin, J. (1989). Acquisitions Management and Collection Development in Libraries (2nd ed.). Chicago: American Library Association.

3. Mount, E. (1995). Special Libraries and Information Centers: An Introductory Text

   (3rd ed.). Washington, DC: Special Libraries Association.

4. Osburn, C. B., & Atkinson, R. (Eds.), (1991). Collection Management: A New Treatise Vols. 1-2. Greenwich, CT: JAI Press, Inc.

5. Sellen, B.C., & Curley, A. (Eds.). (1992). The Collection Building Reader. New York: Neal-Schuman Publishers, Inc.

6. Systems and Procedures Exchange Center, Kit 151. (1989). Qualitative Collection Analysis: The Conspectus Methodology. Washington, DC: Association of Research Libraries.

7. Systems and Procedures Exchange Center, Kit 207. (1995). Organization of Collection Development. Washington, DC: Association of Research Libraries.

MLISC
THIRD SEMESTER

Paper Core 3-1	**INFORMATION RETRIEVAL** (Theory) **L-T-P-C**: 4-0-0-4 **Credit point:** 4 **Scheme of Evaluation:** (T)	Subject Code: LIB224C301

COURSE OBJECTIVE:

The objective of the course is to acquire knowledge on retrieval of document and information storage.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	**Define** knowledge on Information Retrieval with the search strategies, Academic Databases	**BT Level - I**
CO2	**Explain** about the information retrieval in the context of Library and Information Science with its basic models, techniques and strategies.	**BT Level - II**
CO3	**Apply** different tools, Vocabulary Control and its practical usage in information handling and dissemination.	**BT Level - III**
CO4	**Classify** with different Indexing techniques being employed by the libraries of contemporary era.	**BT Level - IV**

DETAILED SYLLABUS:

MODULES	**TOPICS AND COURSE CONTENT**	**PERIODS**
Unit 1	Information Retrieval (IR): Concept, Nature; Content Analysis: Concept and Types; Mapping the Information Content, Methods, Vocabulary Control; Subject Indexing: Sear's List and LCSH, Thesaurus, Thesaurofacet, Classaurus, Automatic Indexing, COMPASS.	15
Unit 2	Indexing languages; Index construction: Concepts, Theory: Rationalist theories of Indexing; Historicist , Hermeneutical Theories of indexing Pragmatic and Critical Theories of indexing,; Pre-coordinate Indexing System, Chain indexing, PRECIS - Preserved Context Index System, POPSI – Postulate based Permuted Subject Indexing , SLIC – Selective Listing in Combination; Post-coordinate indexing system ,Uniterm Indexing System, Title derived Indexing System,	15
Unit 3	Types of search: Boolean, Proximity, Fuzzy, Iterative Search Techniques; Structure for Dictionaries, Querying, Wildcard Queries, Interpretation, Full Text Search, Spelling Correction, Phonetic Correction, Search engines, Web Search Basics, Z39.50, Metadata in IR	15
Unit 4	Design and Evaluation of Information Retrieval System (IRS), IR Model: Probabilistic Retrieval Model, Language Models, XML Retrieval; Text classification, Naive Bayes Vector Space Classification, Clustering, Web Crawling, and Link Analysis. Emerging Trends in IR: Artificial Intelligence, Expert System, Text Summarization, Text Compression and Optical character recognition (OCR)	15
Total Periods		**60**

TEXTBOOKS:

1. Baeza-Yates, R. A., and Ribeiro-Neto, B. (2010). Modern Information Retrieval (2nd Ed.,). Massachusetts: Addison-Wesley.

2. Manning, C. D., Raghavan, P., and Schütze, H. (2008). Introduction to Information Retrieval. Cambridge University Press.

REFERENCE BOOKS:

1. Frohmann, B. (1990). Rules of Indexing: A Critique of Mentalism in Information Retrieval Theory. Canada, Journal of Documentation. 46(2), 81-101.

2. Grossman, David. A and Ophir Frieder. (2004). Information Retrieval: Algorithms and Heuristic (The Information Retrieval Series) (2 Ed.,). USA: Springer

3. Liur, Tie-Yan. (2011). Learning to Rank for Information Retrieval. USA: Springer.

4. Mihalce, Rada and Dragomir Radev. (2011). Graph-Based Natural Language Processing and Information Retrieval. USA: Cambridge University Press.

Paper Core 3-2	**DIGITAL LIBRARY SOFTWARE PACKAGE** (Theory) **L-T-P-C:** 4-0-0-4 Credit **point:** 4 **Scheme of Evaluation:** (T)	Subject Code LIB224C302

OBJECTIVE:

This paper will articulate an understanding of the conceptual and pragmatic basis of digital libraries in the framework of traditional library activities and services particularly of the following nature:

(a) Determination of digital collection, creation, and conversion of both print and digitally born resources,

(b) Establishing procedural workflow without compromising to legal and ethical concerns including copyrights, preservation, and accessibility,

(c) Application of metadata schemes, evaluation and selection of equipment and software essential for the organization and control of digital objects in various formats.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	**Define** comprehensive understanding of the principles, theories, and concepts underlying digital libraries, including their architecture, functionalities, and purposes.	**BT Level - I**
CO2	**Explain** to curate and manage digital collections, including digitization processes, metadata creation, content organization, and preservation strategies using digital library software.	**BT Level - II**
CO3	**Apply** principles and practices related to digital preservation, including long-term storage, migration strategies, and ensuring the accessibility and sustainability of digital library collections.	**BT Level - III**
CO4	**Simplify** a solid understanding of workflow concepts and their significance in streamlining business processes.	**BT Level - IV**

DETAILED SYLLABUS:

MODULES	**TOPICS AND COURSE CONTENTS**	**PERIODS**
Unit 1	Definitions and Concepts: Digital Libraries and Institutional Repositories; Benefits and Limitations; Planning: Strategies and Implementation; Building: Acquisition, Management and Dissemination. Basic Concepts of Hybrid Libraries, Library Portals and Repositories; Institutional Repository: Planning, Content Submission and Acquisition.	15
Unit 2	Digital Formats: Textual and Non-textual; Character Encoding: Issues, Schemes and Standard; Mark-ups: Procedural, Presentational and Descriptive; Electronic Image: Resolution, Pixel and Color Encoding; Image Compression: Lossless and Lossy Techniques; Portable Document Format: Object types, features, application software, embedded images and true PDF; Document Conversion: Word to PDF/HTML/XML and XML to HTML/PDF.	15

Unit 3	Infrastructural Requirements: Equipment, Software, Manpower and Costs; Workflow: Process, Document Management, Scanning, OCR (Optical Character Recognition) and Editing; Digitization for Preservation; Metadata: Types, Standards and Harvesting; Digital Library Website and Content: Visibility, Accessibility and Search-ability;	15
Unit 4	Digitization and collection development (hardware, software, process, file formats, issues, policies and principles, collection management); Collection development – steps and best practices; Federated search service – metadata-level and content-level harvesting; Web-scale resource discovery, Semantic web and digital libraries;	15
TOTAL PERIODS		**60**

TEXTBOOKS:

1. Arms, William Y. (2001). Digital Libraries (2nd Ed.), Digital Libraries and Electronic Publishing Series MIT Press.

2. Lesk, Michael, (2005). Understanding Digital Libraries (2nd Ed., revised). Elsevier.

REFERENCE BOOKS:

1. Borgman, Christine L. (2000). From Gutenberg to the Global Information Infrastructure. The MIT Press.
2. Cohen, S. & Williams, R. (1999). Non-Designer's Scan & Print Book (1st edition). Peachpit Press.
3. Kresh, Diane (2007). The Whole Digital Library Handbook. American Library Association.
4. Murray, J.D. & van Ryper W. (1996). Encyclopedia of Graphics File Formats (2nd Edition). O'Reilly & Associates, Inc.
5. Ranganathan, S. R. (1962). Elements of Library Classification. Asia Publishing House, Bombay, 1962
6. Seadle, M. and Greifeneder, E. (1999). Defining a Digital Library, Library Hi-Tech, 2007, 25(2), 169-173
7. Taylor, A.G. (1999). The Organization of Information. Library and Information Science Text Series

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Paper Core 3-3	**DIGITAL LIBRARY SOFTWARE PACKAGE** (Practical) **L-T-P-C:** 0-0-8-4 **Credit point:** 4 **Scheme of Evaluation:** (P)	Subject Code LIB224C313

OBJECTIVE:

To provide basic concepts related to digital library software with hands-on practice.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	**Define** the concept, significance, and evolution of digital libraries in the context of modern information management.	**BT Level I**
CO2	**Compare** the user interface of digital library software, demonstrating competence in accessing various features and functionalities.	**BT Level II**
CO3	**Build** a digital library project using the software package, demonstrating proficiency in real-world application.	**BT Level III**
CO4	**Discover** user-friendly interfaces and provide value-added services to enhance user experience within the digital library platform.	**BT Level IV**

DETAILED SYLLABUS:

MODULES	**TOPICS AND COURSE CONTENTS**	**PERIODS**
Unit 1	Overview of DSpace: History, Concept, Advantages, Metadata; Overview of Greenstone/ E-Print: History, Implement, Advantage, Metadata	10
Unit 1	Metadata management; Collection building and Collection delegation; Multilingual data management; Access and Usage management. Import and Export of Metadata, Metadata Creation, Addition and Deletion.	10
Unit 2	Hand on Practice DSpace Digital Library Software: Installation, User Interface, Collection Building, Uploading, and Previewing.	20
Unit 4	Hand on Practice Greenstone/E-Print Digital Library Software: Installation, User Interface, Collection Building, Uploading, and Previewing.	20
TOTAL PERIODS		**60**

REFERENCE BOOKS:

1. Arms, William Y. (2001). Digital Libraries (2nd Ed.), Digital Libraries and Electronic Publishing Series MIT Press.

2. Bradley, Phil (2012). How to Use Web 2.0 in Your Library (2nd Ed.). Facet Publishing.
3. Jones, Wayne, Judith R. Ahronheim, and Josephine Crawford (2002). Cataloging the Web: Metadata, AACR, and MARC 21. Lanham, Md. Scarecrow Press.
4. Lee, Stuart D. (2001). Digital Imaging: A Practical Handbook. Neal-Schuman (University of Michigan).
5. Lesk, Michael, (2005). Understanding Digital Libraries (2nd Ed., revised). Elsevier.
6. Witten, Ian H., David Bainbridge and David M. Nichol (2009). How to Build a Digital Library (2nd Ed. revised). Morgan Kaufmann.
7. Zhang, Allison B. and Don Gourley (2008) Creating Digital Collections: A Practical Guide. Chandos Pub.
8. Cornell University Library. Moving Theory into Practice: Digital Imaging Tutorial. Available online at http://www.library.cornell.edu/preservation/tutorial/contents.html
9. Information Management Resource Kit. "Digital Libraries, Repositories and Documents." Available online at http://www.imarkgroup.org/moduledescription_en.asp?id=111
10. Library Technology Services, Harvard University Information Technology. "Digital Projects Guide". Available online at http://hul.harvard.edu/ois/digproj/projguide.html.
11. Washington State Library. Digital Library Best Practices. Available online at http://digitalwa.statelib.wa.gov/newsite/best.htm.
12. Sun Microsystems. The Digital Library Toolkit. 3rd edition. Available at http://www.ncsi.iisc.ernet.in/raja/is214/is214-2005-01-04/digital_library_toolkit-ed3.pdf

ADDITIONAL READINGS:

1. Borgman, Christine L. (2000). From Gutenberg to the Global Information Infrastructure. The MIT Press.
2. Cohen, S. & Williams, R. (1999). Non-Designer's Scan & Print Book (1st edition). Peachpit Press.
3. Kresh, Diane (2007). The Whole Digital Library Handbook. American Library Association.
4. Murray, J.D. & van Ryper W. (1996). Encyclopedia of Graphics File Formats (2nd Edition). O'Reilly & Associates, Inc.
5. Ranganathan, S. R. (1962). Elements of Library Classification. Asia Publishing House, Bombay, 1962
6. Seadle, M. and Greifeneder, E. (1999). Defining a Digital Library, Library Hi-Tech, 2007, 25(2), 169-173
7. Taylor, A.G. (1999). The Organization of Information. Library and Information Science Text Series.

Paper Core 3-4	**DATABASE MANAGEMENT SYSTEM** (Theory) **L-T-P-C:** 4-0-0-4 **Credit point:** 4 **Scheme of Evaluation:** (T)	Subject Code LIB224C304

OBJECTIVE:

The extensive used of database system in the management of information resources, digital or physical, and the indispensability of such knowledge for information professionals to cope with future developments calls for an extensive understanding of the database management systems. Keeping in mind the library and information professionals whose requirement to handle database technology are binding to a great extent, this paper is intended to develop a comprehensive understanding of the nature, technological environments, models, and applications of database management system.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	**Define** the concepts such as data models, schema design, normalization, indexing, and querying languages.	**BT Level I**
CO2	**Explain** the basic concepts of the relational data model.	**BT Level I**
CO3	**Develop** the Database Management System (DBMS) software, understanding database architectures, security, and transactions.	**BT Level III**
CO4	**Discover** the Knowledge of database administration tasks such as backup and recovery, user management, access control, and performance tuning	**BT Level IV**

DETAILED SYLLABUS:

MODULES	TOPICS AND COURSE CONTENT	PERIODS
Unit 1	Introduction, Characteristics and Advantages; Database Concepts: Data Models, Schemas and Instances; Database Architectures: Three Schema Architecture, Centralized and Client/Server; Data Independence; Database: Languages and Interfaces, Database System Environment; Classification of Database Management Systems; Phases of Database Design	15
Unit 2	Entity-Relationship (ER) Model: Entity Types, Entity Sets, Attributes and Keys; Relationships in ER Model: Relationship Types, Relationship Sets, Roles and Constraints; Naming Conventions and Design Issues; Enhanced Entity-Relationship (EER) Model: Subclasses, Superclasses and Inheritance; Constraints, Specialization and Generalization Hierarchies in EER	15
Unit 3	Data Abstraction, Knowledge Representation and Ontology Concepts; Relational Data Model: Concepts, Constraints and Schemas; Update Operations, Transactions and Constraint Violations; Relational Database Standard; Functional	15

	Dependencies; Normalization for Relational Databases; Relational Database Design	
Unit 4	Object-Oriented Databases Concepts: Object Identity, Object Structure and Type Constructors; Encapsulation of Operations, Methods and Persistence; Types Class Hierarchies and Inheritance; Object Database Standards, Languages and Design; Object Relational and Extended Databases System; Emerging Database Technologies and Applications	15
TOTAL PERIODS		**60**

TEXTBOOKS:

1. Elmasri, Ramez and Navathe, Shamkant B. (2011). Fundamentals of Database Systems (6th Edition). Addison-Wesley
2. Elmasri, Ramez, Fundamentals of Database Systems (5 Ed.). Pearson Education India, 2008

REFERENCE BOOKS:

1. Hentzen, Whil,(2007) MySQL Client-Server Applications with Visual FoxPro (Hentzenwerke Series). Hentzenwerke.
2. Solosky, Stephen C.(2002), Microsoft Access: Practice and Exercises (Rev. Ed.). Kendall Hunt Publishing Company.
3. Welling, Luke and Laura Thomson,(2003), Php and Mysql Web Development (2nd Ed.).Sams Publishing.
4. Adamski, Joseph J. and Kathy T. Finnegan, (2010) New Perspectives MS Access 2010. Cengage Learning.

Paper Core 5	LIS Term Paper **(**Practical) **L-T-P-C:** 0-0-8-4 **Credit point:** 4 **Scheme of Evaluation:** (P)	Subject Code LIB224C325

COURSE OBJECTIVE:

"LIS Term Paper" requires scholars to apply their knowledge by writing a term paper on a topic under the guidance of a departmental supervisor. At the end of the semester, scholars are expected to submit a comprehensive dissertation/report to the Examination Department of the University. This practical component ensures that scholars not only acquire theoretical knowledge but also develop the skills needed to conduct independent and impactful research.

COURSE OUTCOME:

On Successful completion of the course, the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONOMY LEVEL**
CO1	**Choose** the process of selecting a research topic in consultation with a supervisor.	**BT Level I**
CO2	**Show** academic writing skills, focusing on clarity and coherence.	**BT Level II**
CO3	**Develop** effective communication and collaboration with a research supervisor.	**BT Level III**
CO4	**Discover** cultivate critical thinking skills for evaluating methodologies and drawing conclusions.	**BT Level IV**

Each scholar has to write a term paper in an area of **The Assam Royal Global University**, Guwahati, Assam under the supervision of a respective guide of the department. On following topic the research students have to write one Term Paper Examination. At the beginning of the session, the scholars have to select the topic with the consultation of the supervisor and at the end of the semester students are required to submit a Dissertation /Report to the Examination Department of the University duly forwarded through the respective supervisors for evaluation.

Following are some illustrative topics which are not limited on which the scholars may select for

LIS Term Paper Topics:

- Collection Development
- Public Library Movement in India
- Preservation and Conservation of Manuscripts
- National Manuscript Mission
- Digital Preservation
- Library Automation and Networking
- Resource Sharing amongst University Libraries
- National Library Networks: DELNET and INFLIBNET
- Library Consortia for E-Resources
- INDEST / UGC-INFONET Digital Library Consortia
- Internet and Web Applications
- Library 2.0

- Web 2.0 and its impact on Libraries
- Semantic Web
- Digital Library Initiatives in India
- Institutional Repositories
- Open Source Software
- Open Access Movement : National and International Scenario
- Knowledge Organisation in Digital Era
- Storage Media
- Metadata: MARC and Dublin Core Standards
- Web technologies and access systems
- Common Gateway Interface (CGI) – architecture and programming tools
- (PERL, PHP, JSP)
- Web databases
- Web-enabled DBMS – Relational and Bibliographic DBMS
- Information retrieval in digital library systems
- Digitization and Collection development
- Free/Libre Open Source Software (FLOSS)
- Centralized processing and distributed access systems
- Evaluation of digital library systems

MLISC
FOURTH SEMESTER

Paper Core 4-1	**E-LEARNING AND CONTENT MANAGEMENT SYSTEM** (Practical) **L-T-P-C:** 2-0-2-4 **Credit point:** 4 **Scheme of Evaluation:** (P)	**Subject Code LIB224C401**

OBJECTIVE:

Is to train the students on Learning Management and Content Management System Using, Open-Source Software.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	**Define** the concept of e-learning and its various forms (synchronous, asynchronous, blended learning).	**BT Level I**
CO2	**Explain** the fundamental concepts of Content Management Systems (CMS).	**BT Level II**
CO3	**Apply** instructional design principles to create engaging and effective e-learning content.	**BT Level III**
CO4	**Analysing** learning analytics, and evaluating the effectiveness of e-learning content.	**BT Level IV**

DETAILED SYLLABUS:

MODULES	**TOPIC AND COURSE CONTENT**	**PERIODS**
Unit 1	E-Learning, Evolution of E-Learning –Generations of distance education; Open-Source Software for Content Management System (CMS): Media Wiki, Joomla, Drupal, Zope; Wiki Hosting Services, Wiki Technologies in Libraries for Designing Subject Based Encyclopaedias'; Subject directory/portal,	10
Unit 2	Open-Source Software for Learning Management System (LMS): Moodle, A Tutor, (The Virtual Classroom). Courseware Management system; Massive Open Online Courses: Background, Concept; Process leading to development of e-content.	10
Unit 3	Practice on **CMS (e.g., Joomla / Drupal/WordPress)** - Installation and Customization - Basic Requirements, Manual Installation, Hosting, Configuration Settings, Publishing Content Using, RSS Feed Integration, Designing.	20
Unit 4	Practice on **LMS (e.g., Moodle / A-Tutor)** - Installation and Customization -Basic Requirements, Manual Installation, Configuration Settings., Live Classroom, Designing, Video Lecture Room, Plugin Integration.	20
TOTAL PERIODS		**60**

TEXTBOOKS:

1. Boiko, Bob. (2005). Content Management Bible (2nd Ed.,). USA: Wiley Publishing, Inc.

2. Buchner, Alex. (2011). Moodle 2 Adminstration. UK: Packt Publishing, Ltd.

REFERENCE BOOKS:

1. Burge, Stephe. (2011). Joomla ! Explained : Your Step-by-step. USA: Pearson Education, Inc.
2. Dvorak, Radana. (2011). Moodle for Dummies. USA: Wiley Publishing, Inc.
3. Goldstein. (2001). CMS Made Simple Development Cookbook. UK: Pact Publishing, Ltd.
4. Hauschildt, Sofia. (2010). CMS Made Simple 1.6. UK: Packt Publishing, Ltd.
5. Hogbin, Emma Jane. (2011). Drupal User's Guide: Building and Administering a Successful Durpal-Powered Website. USA: Person Education, Inc.

ADDITIONAL READINGS:

1. Drupal Tutorial - How to use Drupal CMS www.siteground.com/tutorials/drupal-tutorial/
2. http://atutor.ca/view/16/16092/1.html
3. http://docs.joomla.org/
4. http://extensions.joomla.org – Find lots of very cool extensions to further enhance your Joomla! websites.
5. http://forum.joomla.org/ Sign up for the forums, search, and ask questions, even helping others if you are able!
6. http://help.atutor.ca/index/index.php
7. http://help.joomla.org – Find more documentation and training information.
8. http://www.joomla.org – Find a way to give something back to the community!
9. http://www.siteground.com/tutorials/atutor/atutor_installation.htm

Paper Core 4-2	**DIGITAL RESOURCES MANAGEMENT** (Theory) **L-T-P-C:** 4-0-0-4 **Credit point:** 4 **Scheme of Evaluation:** (T)	Subject Code LIB224C402

OBJECTIVE:

To provide nature, features, scopes, and limitations of digital information resources and also know the use of text retrieval and support tools in organizing digital resources;

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	**Define** digital resources and their types (e.g., text, images, videos, multimedia).	**BT Level - I**
CO2	**Explain** the importance of effective management of digital resources in various contexts (education & libraries, etc.).	**BT Level - II**
CO3	**Apply** ethical practices and guidelines for respecting intellectual property rights in digital resource management.	**BT Level - III**
CO4	**Analyse** text retrieval engines that support multimedia and cross-media content.	**BT Level - IV**

DETAILED SYLLABUS:

MODULES	**TOPIC AND COURSE CONTENT**	**PERIODS**
Unit 1	Definition, scope, features and advantages of digital information resources; Socio-legal aspects of digital information resources (copyright, other IPR issues, licensing issues)	15
Unit 2	Text retrieval engines – scope, features and utilities; Retrieval features of selected text retrieval engines – Apache-Solr, and Zebra; Open-Source Software for Document Management System (DMS): OMEKA– Feature, Plugins, Image Metadata, Video Metadata, Feature, Plugins, Architecture. Open-Source Software for Journal Management System (JMS): **OJS** (Open Journal System) - Feature, Plugins, Metadata, Feature, Plugins, Architecture. ; **CORAL** is an electronic resources management system: Feature, Plugins, Architecture.	15
Unit 3	Web 2.0 - what, why, components and use; Web 2.0 tools and technologies; Library 2.0 – application of Web 2.0 tools in library services; information mashup; Trends and future. Web 2.0 and Library 2.0– RSS, Wikimedia, Blog, Social networking, Social, bookmarking, Carousel etc;	15
Unit 4	Metadata - what, why, types and use; Metadata models and best practice guidelines; Generic metadata schema – Dublin Core (Simple and Qualified); Domain-specific metadata schema – Learning	15

	objects, ETD and Other domains; RDF, XML and Metadata schemas.	
TOTAL PERIODS		**60**

TEXTBOOKS:

1. Akerkar, R. (2009). Foundations of the Semantic Web: XML, RDF and ontology. Oxford U.K: Alpha Science International.
2. Arthur, M. H. (2006). Expanding a digital content management system: For the growing digital media enterprise. Amsterdam: Elsevier Focal Press.

REFERENCE BOOKS:

1. Berry, M. W., & Browne, M. (2005). Understanding search engines: Mathematical modeling and text retrieval. Philadelphia, PA: SIAM, Society for Industrial and Applied Mathematics.
2. Casey, M. E., & Savastinuk, L. C. (2007). Library 2.0: A guide to participatory library ervice. Medford, N.J: Information Today.
3. Chin, A. G. (2001). Text databases and document management: Theory and practice. Hershey, Pa: Idea Group Pub.
4. Courtney, N. (2007). Library 2.0 and beyond: Innovative technologies and tomorrow's
5. user. Westport, Conn: Libraries Unlimited.
6. Croft, W. B., Metzler, D., & Strohman, T. (2010). Search engines: Information retrieval in practice. Boston: Addison-Wesley.

ADDITIONAL READING:

1. Akerkar, R. (2009). Foundations of the Semantic Web: XML, RDF and ontology. Oxford, U.K: Alpha Science International.
2. Arthur, M. H. (2006). Expanding a digital content management system: For the growing digital media enterprise. Amsterdam: Elsevier Focal Press.
3. Chin, A. G. (2001). Text databases and document management: Theory and practice. Hershey, Pa: Idea Group Pub.
4. Croft, W. B., Metzler, D., & Strohman, T. (2010). Search engines: Information retrieval in practice. Boston: Addison-Wesley.
5. Omeka : https://omeka.org/
6. Open Journal System: https://pkp.sfu.ca/software/ojs/
7. Coral: http://coral-erm.org/

Paper Core 4-3	**DIGITAL RESOURCES MANAGEMENT** (Practical) **L-T-P-C**: 0-0-8-4 **Credit point:** 4 **Scheme of Evaluation**: (P)	Subject Code LIB224D413

OBJECTIVE:

To explore the use of Digital Resource Management Systems and Semantic web technologies in library systems with hands-on practice.

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	**Define** role of metadata in organizing and describing information resources.	**BT Level I**
CO2	**Summarize** metadata standards and schemas such as Dublin Core, MARC, and MODS.	**BT Level II**
CO3	**Apply** metadata standards and protocols (e.g., Dublin Core) in real-world scenarios to enhance resource discoverability and accessibility.	**BT Level III**
CO4	**Analyse** effective search strategies within Digital Resource Management systems for quick and precise retrieval of resources.	**BT Level IV**

DETAILED SYLLABUS:

MODULES	**TOPIC AND COURSE CONTENT**	**PERIODS**
Unit 1	Hand on Practice on **OJS (OPEN JOURNAL SYSTEM)** - Feature, Plugins, Metadata, Architecture and Modules.	20
Unit 2	Hand on Practice on **OMEKA** – Feature, Plugins, Image Metadata, Video Metadata, Architecture.	20
Unit 3	Hand on Practice on **CORAL** is an electronic resources management system: Feature, Plugins, Architecture and Modules.	20
Unit 4	Metadata management; Collection building and Collection delegation; Import and Export of Metadata, Metadata Creation, Addition and Deletion; Backup and Restore; Indexing with search engine and database (Ex. Google Scholar/ Academic/ Base)	10
TOTAL PERIODS		**60**

TEXTBOOKS:

1. Akerkar, R. (2009). Foundations of the Semantic Web: XML, RDF and ontology. Oxford U.K: Alpha Science International.
2. Arthur, M. H. (2006). Expanding a digital content management system: For the growing digital media enterprise. Amsterdam: Elsevier Focal Press.

REFERENCE BOOKS:

1. Berry, M. W., & Browne, M. (2005). Understanding search engines: Mathematical modeling and text retrieval. Philadelphia, PA: SIAM, Society for Industrial and Applied Mathematics.
2. Casey, M. E., & Savastinuk, L. C. (2007). Library 2.0: A guide to participatory library ervice. Medford, N.J: Information Today.
3. Chin, A. G. (2001). Text databases and document management: Theory and practice. Hershey, Pa: Idea Group Pub.
4. Courtney, N. (2007). Library 2.0 and beyond: Innovative technologies and tomorrow's user. Westport, Conn: Libraries Unlimited.
5. Croft, W. B., Metzler, D., & Strohman, T. (2010). Search engines: Information retrieval in practice. Boston: Addison-Wesley.

ADDITIONAL READING:

1. Akerkar, R. (2009). Foundations of the Semantic Web: XML, RDF and ontology. Oxford, U.K: Alpha Science International.
2. Arthur, M. H. (2006). Expanding a digital content management system: For the growing digital media enterprise. Amsterdam: Elsevier Focal Press.
3. Chin, A. G. (2001). Text databases and document management: Theory and practice. Hershey, Pa: Idea Group Pub.
4. Croft, W. B., Metzler, D., & Strohman, T. (2010). Search engines: Information retrieval in practice. Boston: Addison-Wesley.
5. Omeka : https://omeka.org/
6. Open Journal System: https://pkp.sfu.ca/software/ojs/
7. Coral: http://coral-erm.org/

Paper Core 4-4	**RESEARCH METHODOLOGY** (Theory) **L-T-P-C :4**-0-0-4 **Credit point:** 4 **Scheme of Evaluation:** (T)	Subject Code LIB224D404

COURSE OBJECTIVE:

The objective of the course is to acquire knowledge on research and research methodology

COURSE OUTCOME:

On Successful completion of the course the students will be able to		
SL. NO	**COURSE OUTCOME**	**BLOOMS TAXONMY LEVEL**
CO1	**Define** research and its significance in various disciplines.	**BT Level I**
CO2	**Explain** the fundamental concepts of research.	**BT Level II**
CO3	**Identify** the fundamental principles underlying research, including its purpose, process, and various approaches.	**BT Level III**
CO4	**Compare** different citation styles commonly used in academic writing (e.g., APA, MLA, Chicago, Harvard).	**BT Level IV**

DETAILED SYLLABUS:

MODULES	**TOPIC AND COURSE CONTENT**	**PERIODS**
Unit 1	Research- meaning, need and significance; Types of Research- descriptive, analytical, applied, fundamental, quantitative, qualitative, conceptual, empirical, interdisciplinary, multidisciplinary and collaborative; Identification of Research Problem- concept, need and process of selecting the problem; Variables; Hypothesis- meaning, testing of hypotheses and procedure for hypothesis testing; Designing a Research Proposal- components and procedure.	15
Unit 2	Methods: Historical Method; Scientific Method, Experimental Method; Descriptive Method; Survey Method and Case Study. Data collection tools and techniques: Questionnaire; Schedule; Interview; Observation, etc.	15
Unit 3	Data Analysis and Interpretation: Descriptive Statistics- Measures of Central Tendency; Mean, Mode, Median; Tabulation and Generalisation; Measures of dispersion, variance and covariance; Standard Deviation Graphical presentation of data. Parametric and Non-Parametric test; Statistical Packages.	15
Unit 4	Citation and Referencing: Citation style manual; Citation style manual APA, CHICAGO, IEEE, MLA; Technical Writing: Writing Research plans/proposals; Research reports: structure, style, concepts, guidelines for research reporting	15
TOTAL PERIODS		**60**

TEXTBOOKS:

1. Krishan Kumar (1992). Research Method in Library and Information Science, Delhi, Har-Anand Publications.
2. Kothari, C R (2008). Research Methodology: Methods and Techniques, New Delhi, New Age International (p) Limited

REFERENCE BOOKS:

1. Borgman, Christine L., ed. (1990). Scholarly Communication and Bibliometrics. Newbury Park, CA: Sage Publications, Inc.
2. Moore, Nick (2000). How to do research: the complete guide to designing and managing research projects, 3 ed. London: Facet
3. Powel, Ronald R. (1991).Basics Research Methods for Librarians. 3rd Ed. Norwood NJ:
4. Sharma Pandey, S. R. (1990). Universe of Knowledge and Research Methodology, Delhi, Kent Publications
5. Trochim, William (2002). Research Methods Knowledge base 2nd ed., Cincinnati, Alemic Dog Publishing.
6. Vaughan, Liwen. (2001). Statistical methods for Information professionals: A Practical painless approach to understanding, using and interpreting statistics. N.J.: Information Today.

Paper Core 4-5	**DISSERTATION** **L-T-P-C:** 0-0-8-4 **Credit point:** 4 **Scheme of Evaluation:** (P)	Subject Code LIB224C425

COURSE OBJECTIVE:

The objective of the course is to acquire knowledge on preparation of a dissertation after carry out a research project.

COURSE OUTCOME:

Students will have the practical knowledge and technical steps to carry out a research project.

Note: Each student will be allotted a research topic with the consent of the supervisor. The dissertation is supposed to be submitted at the end of the semester followed by evaluation. In the course, total marks will consist as under:

1. Dissertation Reports (70 marks) and
2. Viva Voce (30 marks)

The students will be required to write a dissertation on the following themes:

1. Literature review of any current topic in library and information science
2. Conducting case studies and surveys of libraries located in the north-east of India
3. Designing a database using a library software package
4. Studies related to information retrieval on Internet
5. Any other studies related to library and information science

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