

RAICHUR UNIVERSITY

SYLLABUS

For

MASTER OF LIBRARY AND INFORMATION SCIENCE CHOICE BASED CREDIT SYSTEM (M.Lib.I.Sc – CBCS)

PROGRAMME SPECIFIC OUTCOMES (PSOS)

After completion of this programme, the student will be able to:

1. Understand the logic of knowledge organization and its importance in Library and Information Centres.
2. Learn the practical and managerial skills to handle the housekeeping operations of the Library and Information Centres.
3. Understand the information needs and requirements of different user communities and their by develop new services and facilities.
4. Effectively use Information and Communication Technology (ICT) in automation of Libraries and provision of advanced services and facilities in Library and Information Centres.
5. Contribute to LIS profession by inculcating research aptitude, communication skills and other necessary soft skills.

Minimum Credits and Maximum Credits:

- a) There shall be three categories of courses viz., Compulsory course, Specialization Course and Open Elective Course. Compulsory and Specialization Course should be from the concerned department only. The Open Elective are the courses offered by other Departments in the same Faculty.
- b) Each course shall have a definite course objective, Eligibility criterion for taking the course, scheme of Evaluation including the components of Internal Assessment (IA) marks, Projects (if any), the number of contact hours, type of practical and the prescribed credits.
- c) The credits for each of compulsory course may vary from 3 to 4 credits; for specialization course it may vary from 1 to 4. In case of Open Elective Course, it shall be 1 to 3 credits for each paper.
- d) A student shall register for minimum of 18 credits and a maximum of 30 credits per semester. However, to qualify for the degree in any Department under any school and faculty, he/she should have registered and cleared a minimum number of credits, which vary from course to course.

Course Outline for the M.Lib.I.Sc.

SEMESTER-I

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	Hard core					
HC 1.1	Foundations of Library & Information Science	75	25	100	4	4 Hrs / week
HC1.2	Management of Library and InformationCenters					
HC1.3	KnowledgeOrganization: Library Classification : (Theory)	75	25	100	4	4 Hrs / week
HC1.4	Knowledge Organization Library Classification (Practical)	75	25	100	4	8 Hrs / week
HC1.5	Fundamentals of Computers	75	25	100	4	4 Hrs / week
	Soft core (Any One)					
SC1.1	Public Libraries	75	25	100	4	4 Hrs / week
SC1.2	Academic libraries					
SC1.3	Special Libraries					
	Total Credits for First semester				24	

SEMESTER-II

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	Hard core					
HC2.1	Information science	75	25	100	4	4 Hrs/week
HC 2.2	Library Automation	75	25	100	4	4 Hrs/week
HC 2.3	Information retrieval: Library Cataloguing	75	25	100	4	8 Hrs/week
HC 2.4	Information retrieval: Library Cataloguing (Practical)	75	25	100	4	8 Hrs/week
	Soft core (Any One)					
SC 2.1	Information Literacy	75	25	100	4	4 Hrs/week
SC 2.2	Information use studies and user education					
	Open Elective Paper					
OE 2.1	Soft Skills	75	25	100	4	4 Hrs/week
	Total Credits for Second semester				24	

SEMESTER – III

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	Hard core					
HC 3.1	Research Methods and Statistical Techniques	75	25	100	4	4 Hrs/week
HC 3.2	Information Sources	75	25	100	4	4 Hrs/week
HC 3.3	Technologies for Information Management	75	25	100	4	4 Hrs/week
HC3.4	Technologies for Information Management(Practicals)	75	25	100	4	4 Hrs/week
	Soft core (Any One)					
SC 3.1	Informatics, Scientometrics and Webometrics	75	25	100	4	8Hrs/week
SC 3.2	Networks,Networking and Library Consortia					
	Information Literacy	75	25	100	4	4 Hrs/week
	Open Elective Paper					
OE 3.1	Information Literacy:Essential Skills for the Information age					
	Total Credits for Third semester				24	

SEMESTER – IV

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	Hard core					
HC 4.1	Digital Libraries	75	25	100	4	4 Hrs/week
HC 4.2	Information Analysis, Consolidation, Repackaging and Dissemination	75	25	100	4	4 Hrs/week
HC 4.3	Technical Writing and Communication	75	25	100	4	4 Hrs/week
HC4.4	Internet and Electronic Publishing	75	25	100	4	4 Hrs/week
HC 4.5	Internet and Electronic Publishing(Practical)	100	00	100	4	6Hrs/week
	Soft core (Any One)					
SC 4.1	Web 2.0					
SC 4.2	Project					
	Dissertation Viva – voce	40	00	40		
	Internship	50	00	50	4	
	Education Tour Report	10	00	10		
	Total Credits for fourth semester				24	
	Total Credits first to fourth semester				96	

FIRST SEMESTER:

HARD CORE:

HC 1.1: FOUNDATIONS OF LIBRARY AND INFORMATION SCIENCE

(Hours of Teaching: L : T : P=3:1:0)

(Lectures=3 X 16 = 16 X 2 = 32 hrs)

(Tutorials = 1 X 16 = 16 X 2 = 32 hrs)

Objectives:

1. Introduce the basics of Library Information Science;

2. To acquaint students with different types of Libraries

3. Presents Different Library Legislations in India and their salient features.

COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	Understand the basic philosophy of Librarianship / LIS profession.
CO 2	Identify the different types of libraries and differentiate between Academic / Public / Special libraries.
CO 3	Understand the professional ethics and its / their application / implementation in practicing the profession.
CO 4	Understand the importance of the five laws of library science and their implications in Library and Information Centres' activities.
CO 5	Analyse the salient features of public library legislations enacted by Indian States and their importance in the promotion of library movement in India.

Unit 1: Introduction to Library and Information Science.

Library as a Social Institution-Concept of Library, Role of Libraries in National and Human development, Evolution of Information Science as a discipline and its relation with cognitivesciences, library science, computer science and other disciplines, History and Evolution of Libraries: Ancient, Medieval and Modern period. Types of Libraries: Academic Libraries, Public & National Libraries, Special Libraries: functions and their distinguishing features. Five Laws of Library Science and their Applications. Growth and Development of Libraries in India with special reference to Karnataka,

Unit 2: Library Development and National Initiatives

Memory Institutions: Libraries, Achieves, Museums and Art Galleries.

Memory of the world UNESCO, other such as Europeana.

Role of Libraries in Information, Recreation and Community Information, National Information Policy, Information Industry--Generators, Providers and Intermediaries.

Digital Divide and Information Literacy.

Changing role of Library and Information Centres in society.

Unit3: Library, Legislation and Library related Acts.

Library Legislation: Concept, need and purpose.

Public Library Legislations in Indian States; their salient features:

Development of Public Libraries in Karnataka after the enactment of Karnataka Public Library (KPL) Act, 1965. Press & Registration Act and Delivery of Books and News Paper Act, Copyright Act, Intellectual Property Rights, RTI, IT Act, Patent Act and Cyber Laws.

Unit4: Library and Information Science Profession:

Philosophy of Librarianship and Professional Ethics and qualities.

Attributes of a profession; Librarianship as a profession;

; LIS education and

LIS research.

Unit 5:Library Networks and Organisations and their Roles.

Library Resource Sharing and Consortia;

National Networks: INFLIBNET, National Information Centers, NIScPR, DELNET.

International Networks: AGRIS, INIS.

Evaluation Criteria of National and International Information Systems.

The Information profession and professional bodies,Professional organisations such as: ALA, IFLA, ASLIB, FID, ILA, ISLIC, IATLIS, KALA; Others: LoC,OCLC.Promoters of Library and Information Centres: National Level: RRRLF, International Level: UNESCO.and its activities in information sector.

Reference:

Bhagwatiben, & Prajapathi, G. (2013). Library and information science. New Delhi: Discoverypublishing.

Burahohan, A. (2000). Various aspects of librarianship and information science. New Delhi: Ess Ess.

Chapman, E.A. & Lynden, F.C. (2000). Advances in librarianship. SanDiego: Academic Press.

Deshpande, K. S. (1986). University library system in India. New Delhi: Sterling publishers.

Dhiman, A. K., & Rani, Y. (2005). Learn library and society. New Delhi: Ess-Ess publications.

Greer, R. Grover, R. & Fowler, S. (2013). Introduction to the library and information professions.Exeter: Libraries Unlimited.

Isaac, K. A. (2004). Library legislation in India. New Delhi: Ess Ess publications.

Isaac, K.A. (2004). Library legislation in India: A critical and comparative study of state Library actsbook description. New Delhi: Ess Ess publications.

Kahan, M. S. (1996). Principles and prospective of copy right. New Delhi: Sarup and Sons.

Kaushik, P. (2006). Foundations of library and information science. New Delhi: Anmol publisher.

Khanna, J. K. (1984). Fundamentals of library organization. Kurukshetra: Research publication.

Kumar, P. S. G.(2000). Indian Library Chronology. Bombay: Allied publisher.

Kumar, P.S.G. (2003). Foundations of library and information science. New Delhi: B.R. publishingco.

Mishra, P. N. (2010). Principles of library and information science. New Delhi: Alfa publication.

Nath, B., & Pandey, R. (2013). Foundations of library and information science. New Delhi: Axisbooks.

Patel, J. & Kumar, K. (2004). Libraries and librarianship in India. London: Greenwood press.

Praiapati, R. S. (2013). Foundations of library and information science. New Delhi: Discoverypublishing house Pvt. Ltd.

Prasher, R. G. (2003). Information and its communication. Ludhiana: Medallion press.

Raju, A. A. N. (2012). Facets of library and information science. New Delhi: Ess-Ess publications.

Ranganathan, S. R.(2006). The five laws of library science. Bangalore: Ess Ess publications.

Richard, R. (2010). Foundations of library and information science. New York: DBS Imprints.

Rokade, S. M. (2016). Foundations of library and information science. New Delhi: Studera press.

Rout, R.K. Ed. (1999). Library legislation in India. New Delhi: Relience.

Sharma, D. (2014). Information technology, Ranganathan's five laws & University libraries. Lambert:Academic publishing.

- Sharma, J. B. (1996). Elements of library science. New Delhi: Kanishka publishers distributors.
- Singh, J. (2003). Information democracy and South Asia promises and perils of the web. Ludhiana:Medallion press.
- Singh, S. K. (2013.). Historical foundations of library and information science. New Delhi: Anmolpublication Pvt. Ltd.
- Singh, S & Singh, S. (2002). Library, information and science and society. New Delhi: Ess Esspublications.
- Sridevi, & Vyas, S. (2005). Library and society: Shree publishers and distributors.
- Srivastava, H. K. (2011). Foundation of library and information science. New Delhi: Mohith publications.
- Varma, S. (2005). Foundation of library & information science. New Delhi: Shree publishers.
- Vashisnth, C. P., & Satija, M. P. (2004). Library and information profession in India. New Delhi: B.R.publishing corporation.
- Venkatappaiah, V. (2005). Foundations of library and information science. Hyderabad: Neelkamalpublications Pvt. Ltd.
- Venkatapaaih, V.(1990). Indian library legislation (Vol. 1). Delhi: Daya publishing house.

HC1.2:MANAGEMENT OF LIBRARY AND INFORMATION CENTERS

(Hours of Teaching: L:T:P=3:1:0)
 (Lectures=3 X 16 = 48 hrs)
 Tutorials =1 X 16 = 16 X 2 = 32 hrs)

Objectives:

1. To make students understand Management Concepts;
2. To train students in various Library House Keeping operations;
3. To make students use various Library Techniques to achieve the organisational effectiveness and efficiency.

COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	Understand the principles of management and their application in Library and Information Centres.
CO 2	Identify the different divisions / sections of Library and Information Centres.
CO 3	Recognise the different types of resources required to manage the Library and Information Centres.
CO 4	Understand the problems and challenges involved in the management of Library and Information Centres.
CO 5	Understand the importance of Total Quality Management (TQM) and its application in Library and Information Centres.

Unit-1:Management- Concept, Meaning, Definition and Scope; Management Schools of Thought (Classical and Modern Management Schools); Functions and Principles of Scientific Management; Organization Structure.

Unit-2:Library Systems and their ComponentsLibrary House Keeping Operations-Different sections and Their Functions;Collection Development and Management - policies and procedures; Acquisition – Books,Serials, Non-book materials; Technical Processing; Serials Management and Control;Maintenance; Evaluation and Weeding; Stock Verification: Policies, Procedures and Methods.

Unit-3: Human Resource Management – Manpower Planning: Meaning Definitions and Functions; Job description, Analysis and Evaluation; Selection, Recruitment, Motivation, Training development, Staff Manual, Leadership and Performance evaluation.

Unit-4: Financial Management- Resource Generation, Budgeting Techniques and Methods PPBS, Zero Based Budgeting; Cost effectiveness and Cost Benefit Analysis; Library Buildings, Furniture and Equipment.

Unit-5: System Analysis and Design- Analysis, Evaluation and design; Performance evaluation of Libraries/Information Centers and Services; Management of Information Systems (MIS), Marketing of Information Products and services; Total Quality Management; Library Records and Reports; Library Statistics, Library Standards.

Reference

- Bakewell, K. G. B. (1997). *Managing user-centred libraries and information services*. 2nd ed. London: Maxwell.
- Bryson, J. (1996). *Effective library and information management*. Bombay: Jaico Pub. House
- Chatterjee, A.K. (1982). *Introduction to management: Its principles and techniques*. Kolkata: World Press.
- Crawford, J. (1997). *Evaluation of library and information services effectively*. 2nd ed, London: Aslib.
- Evans, G. E. (1983). *Management techniques for librarians*. 2nd ed. New York: Academic Press.
- Evans, G. E. & Layzell, P. (2007). *Management basics for information professionals*. 2nd ed. London: Libraries Unlimited.
- Gautam, J. N. (1991). *Library and information management*. New Delhi: Prentice Hall India.
- Georgi, C., Bellanti, R., & Holbrook, F. K. (2013). *Excellence in library management*. Hoboken: Taylor & Francis.
- Gupta, K. D. (2001). *Library practice for effective management*, New Delhi: Indian Library Association.
- Hayes, R. M. (2001). *Models for library management, decision-making, and planning*. San Diego: Calif: Academic Press.
- Hernon, P., & Altman, E. (1998). *Assessing service quality: Satisfying the expectations of library customers*. Chicago: American Library Association.
- Hendry, J. D., & Batchelor, B. (1997). *How to market your library services effectively*. London: Aslib.
- Jain, A. K. (1999). *Marketing information products and services: a primer for library and information professionals*. New Delhi: Tata McGraw-Hill.
- Katz, W.A. (1980). *Collection development, the selection of materials for libraries*. New York: Holt, Rinehart & Winston.
- Krishna Kumar. (1987). *Library Administration and Management*, Delhi: Vikas.
- Krishan Kumar. (1985). *Library manual*. New Delhi: Vikas.
- Lancaster, F. W., & Sandore, B. (1997). *Technology and management in library and information services*. Champaign Ill: University of Illinois Graduate School of Library & Information Science.
- Laughlin, S., & Wilson, R. W. (2008). *The quality library: A guide to staff-driven improvement, better efficiency, and happier customers*. Chicago: American Library Association.
- Martin, J. (2009). *Human resource management*. Los Angeles: SAGE.
- Mittal, R.L. (1984). *Library administration: theory and practice*. 5th ed.. Delhi: Metropolitan.

Narayana, G J. (1991). Library and information management. New Delhi: Prentice Hall of India.

Panwar, B.S. & Vyas. S.D. (1986). Library Management. New Delhi: B.R. publishing corporation.

Peter, C., & Gorman, G.E. (2001). Managing information resources in libraries and informationservices: collection management in theory and practice. London: Facet Publishing.

Philip, D. L., David C. W. & Keyes D. M. (2010). Planning academic and research library buildings. New Delhi: Ess Ess publications.

Prytherch, R. ed. (1998). Gower handbook of information management. London: Gower.

Pugh, L. (2007). Change management in information services. Aldershot, Hampshire, England: Ashgate.

Ramansu, L. (1996). Management of libraries concepts and practices, New Delhi: Ess-Ess publications.

Ranganathan, S.R. (1959). Library administration. 2nd ed. Bombay: Asia.

Rowley J. (2001). Information marketing. Aldershot: Ashgate.

Shera, J. S. (1978). Library organization. New Delhi: Vikas.

Simmons, W. J., & McNeil, B. (2004). Human resource management in today's academic library: meeting challenges and creating opportunities. Westport, Conn: Libraries Unlimited.

Singhed.S . P. (2009). Library administration and resources. New Delhi: Omega publications.

Subodh, G. N. (2011). Library Management: Recent thoughts and development. Kaveri Books. <http://egyankosh.ac.in/>

HC 1.3: KNOWLEDGE ORGANISATION: LIBRARY CLASSIFICATION

(Hours of Teaching: L :T: P= 3:1:0)
 (Lectures= 3X 16 =48 hrs)
 (Tutorials = 1 X 16 = 16 X 2 =32 hrs)

Objectives:

1. To understand the theory of knowledge classification and library classification ;
2. To understand structure and features of formation of subjects;
3. To develop skills of subject analysis, representation and classification.

COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	Understand the theory of knowledge classification and library classification
CO 2	understand structure and features of formation of subjects.
CO 3	Understand and learn the basics of classification, importance of Library Classification
CO 4	Understand the logic of Knowledge Organisation by learning different schemes of Library Classification

Unit 1 Library Classification:

Definition, meaning, objectives, purpose and functions;
 The general theory of classification; Theory of knowledge classification and book classification.

Types of Library Classification:

Enumerative classification schemes; Almost enumerative classification schemes;
 Almost faceted classification scheme; Faceted classification scheme;
 Rigidly faceted classification scheme; Freely faceted classification scheme.

Unit 2 Universe of Knowledge:

Concept, meaning, and definition; Structure and attributes;
Types of the subject: Simple, compound, and complex;
Modes of formation of subjects;
Universal knowledge as mapped in: DDC, UDC, CC.

Unit 3 Postulation approach to Classification:

Planes of work;
Canons of classification.

Unit 4 Basic Laws of Library Classification:

Fundamental laws; Canons; Principles: Types of notation;
Fundamental categories; Facet analysis and facet sequence;
Phase relations; Common isolates.

Notational system:

Meaning and definition, need, functions, qualities, and types,
Call Number, mnemonics; Hospitality in array and chain, devices, systems and specials,
rounds and levels.

Unit 5 Study of selected schemes of Classification:

Dewey Decimal Classification, Universal Decimal Classification, Colon Classification;
Methodology for design and development of a scheme of library classification;
Design of Depth Schedules – Planning, Methodology, Structure and procedure; Organisation
of knowledge in the Internet world, Ontology and Folksonomy. Recent trends in classification.

Reference:

- Beghtol, W. B. (2004). Knowledge organization and classification in international information retrieval. London: Routledge.
- Chaturvedi, D. D. (2003). Library classification: a theoretical analysis. New Delhi: Ess Ess publications.
- Dhawan, K. S. (2001). Readings in library science: library classification systems. New Delhi: Commonwealth.
- Dhyani, P. (2001). Library classification. New Delhi: Ess Ess publications.
- Dhyani, P. (1998). Library classification: Theory and practice. New Delhi: Vishwa Prakashan.
- Husain, S. (2004). Library classification: facets and analyses. New Delhi: B.R. Publications.
- IGNOU. (2022). Library classification theory. New Delhi: IGNOU.
- Joint, S. C. (2015) RDA: Resource description and access. London: Facet publishing.
- Kaushik, P. (2016). Library classification. New Delhi: Anmol publications Pvt. Ltd.
- Krishan Kumar (2005). Theory of library classification. New Delhi: Vikas.
- Kumar, P. S. G. (2003). Knowledge organization, information processing and retrieval theory. Delhi: B R publications.
- Kumbhar, R. (2012). Library classification trends in the 21st century. New Delhi: Chandos publishing.
- Maxwell, R. L. (2013). Maxwell's handbook for RDA: Explaining and illustrating RDA: resource description and access using MARC21. New York: ALA edition.

**HC 1.4: KNOWLEDGE ORGANISATION: LIBRARY CLASSIFICATION-II
(PRACTICALS)**

(Hours of Teaching: L: T: P= 2:0:4)
(Practicals = 4 X 16 = 64 X 2 = 128hrs)

COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	Identify the Specific Subject of the Document by analysing the contents.
CO 2	Devise call numbers of the documents by constructing class numbers and book numbers
CO 3	Understand the logic of mapping of subjects.

Classification of documents by identifying Specific Subject, identification of documents representing simple, compound and complex subjects; Structure of DDC, Introduction to 25th edition of DDC, Use of Standard subdivisions (table 1) and use of table 2 to 6 in DDC; Assigning Book Numbers and introduction to Web Dewey.

HC 1.5: FUNDAMENTALS OF COMPUTERS

(Hours of Teaching: L: T: P = 2: 0: 2)
(Lectures = 2 X 16 = 32 hrs)
(Practicals = 2 X 16 = 32 X 2 = 64 hrs)

Objectives:

- 1 To introduce Information and communication Technology;**
- 2.To acquaint students with components, data representation, file organisation in computer;**
- 3. To acquaint students with hardware and software's used in computers.**

COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	Understand and learn the basic skills of Information Technology and computer
CO 2	Outline the components of a computer and differentiate between Input and Output Devices
CO 3	Identify and understand the different useful application software
CO 4	Learn about the different Number Systems (Binary, Octal, Decimal and Hexadecimal)
CO 5	Analyse the different programming languages (Machine, Assembly and High-Level Languages)

Unit 1 Information and Communication Technology (ICT):

ICT: Concept, meaning, characteristics;
Computers: Concept, types;
Generations of computers.

Unit 2 Computer Hardware:

Components of a computer;
Basic units of computer – arithmetic/logic unit, control unit, input unit, output unit, and memory unit; Internal and external storage devices. Criteria for selection of Computers for Libraries.

Unit 3 Computer Software:

Types and categories; Systems software - Operating systems - MS windows, multi-user operating systems - Linux, Unix;
Application software – word processing, spreadsheet, presentation packages, DTP; Free, open source and proprietary software.

Unit 4 Data Representation:

Bit, Bytes; Character encoding standards: ASCII, ISCII, UNICODE;
Number system: Octal, Decimal and Hexadecimal;
Image encoding: Pixels;
Multimedia and Graphics.

File Organization:

File formats: Documents, Images, Audio, Video, and other concepts;
File organisation: Types and their advantages and disadvantages;

Unit 5 Programming Languages:

Machine Languages, Assembly Languages, High-level Languages;
Generations of Programming Languages;
Programming: steps in programming, Basic programming languages:
C, C++, HTML;
Artificial intelligence - Expert System, Natural Language Processing;
Flowchart.

Reference:

- Ahsan, N. (2002). Computer hardware guide. Delhi: Educational publishing house.
- Allen, T., & Robert, N. (2002). Programming languages. New Delhi: Tata McGraw-Hill.
- Balakrishnan, S. (2000). Networking and the future of libraries. New Delhi: Ess Ess publications.
- Bansal, S. K. (2005). Information technology and globalisation. New Delhi: A.P.H. publishing.
- Basandra, S. K. (2002). Computers today. New Delhi: Gogotia.
- Clements, A. (2004). The principles of computer hardware. New York: Oxford publications.
- Dhiman, A. K. (2003). Basics of information technology for librarians and information scientists. New Delhi: Ess Ess publications.
- Gill, N. S. (2016). Handbook of computer fundamentals. New Delhi: Khanna book publishing Co.
- Gupta, V. (2005). Rapidex computer course. New Delhi: Pustak mahal.
- Hunt, R., & Shelley, J. (2002). Computers and common sense. New Delhi: Prentice-Hall.
- James, K. L. (2013). Computer hardware. Delhi: PHI Learning Pvt. Ltd.
- Jeanne, F. M. (2006). A librarian's guide to the internet: A guide to searching and evaluating information. Oxford: Chandos publishing.
- Kashyap, M. M. (2003). Database systems. New Delhi: Vikas.
- Kumar, A. (2006). Information technology for all. New Delhi: Anmol.
- Kumar, P. S. G. (2004). Information technology: Applications, theory and practice. Delhi: B.R. publishing.
- Lucy, A. T. (2005). An introduction to computer based library system. Chichester : Wiley.
- Manjunath, G. (2010). Computer basics. Chennai: Vasan publications.
- Mrunalini, T. (2012). Information and communication technology (ICT) in education. New Delhi: Pearson.
- Norton, P. (2017). Introduction to computers. New York: McGraw Hill education.
- Pandey, V. C. (2004). Information and communication technology. New Delhi: Isha books.
- Patnaik, S. (2001). First text book on information technology. New Delhi: Dhanpat Rai.
- Prasher, R. G. (2003). Indian libraries in IT environment. Ludhiana: Medallion press.

Rajaraman, V. (2000). Fundamentals of computer. New Delhi: Prentice Hall of India.

Rajshree, B. (2006). Information and communication technology. Agra: H P Bhargava book house.

Ramesh, B., Arora, A., & Jalota, S. (2009). Computer software and applications. New Delhi: Firewall.

Robert, W, S. (2001). Concepts of programming languages. Singapore: Pearson education Asia.

Satyanarayana, R. (2005). Information technology and its facets. Delhi: Manak.

Saxena, S. (2001). A first course in computers. New Delhi: Vikas publishing house.

Shrivastave, R. K. (2001). A text book of information technology. Delhi: Dominant publishers.

Shroff, R. (2000). Computer systems and applications. Mumbai: Himalaya.

Sivasubramanyam, Y., & Shenoy, D.R. (2007). Computer hardware and system software concepts. Bangalore: Infosys.

Srinivasan, T. M. (2002). Information and communication technology. Jaipur: Aavishkar publishers & distributors.

Tanenbaum, A. S. (2010). Computer networks. New Jersey: Pearson education.

Thareja, R. (2019). Fundamentals of computers. Oxford: Oxford University press.

Tucker, A., & Noonan, R. (2002). Programming languages: principles and paradigms. New Delhi: Tata McGraw-Hill publishing company Ltd.

Zorkoczy, P. (2005). Information technology: An introduction. London: Pitman.

SOFT CORE(ANY ONE)

SC1.1: PUBLIC LIBRARIES

(Hours of teaching : L:T:P = 3:1:0)

(Lectures=3x16= 48 hrs)

(Tutorials = 1x16=16x2=32 hrs)

Objectives :

- 1. To train the students in Collection Development and Management of Information resources in a Public Library ;**
- 2. To impart skills required to manage Public Library;**
- 3. To train students in Planning and organise various types of information services to the different categories of users.**

COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	Identify and understand the role of public libraries in the modern society.
CO 2	Understand the organization and management of various types of resources and services.
CO 3	Identify the type of human resources required to serve in the public libraries.
CO 4	Understand the importance of Library Legislation in the promotion of public libraries in India.
CO 5	Impart skills required to manage Public Library

Unit 1 Public Libraries:

Meaning, definition, origin, objectives, and functions of Public Libraries;
History and development of public libraries in India and other countries;
Role of public libraries in 21st century;
Role of government and non-government agencies in the development of public libraries;
Role of public library in literacy and mass education; Public library users.

Unit 2 Managing Public Library:

Public library administration; Financial management of public libraries; Resource mobilization and sources of finance, Budgeting techniques budgetary control; Different types of Budget and application of PPBS in Public Libraries; Planning and designing of modern public library building; furniture and equipment; Recent development in public libraries in India; Library & information policy: National and international.

Unit 3 Public Library Services:

Planning and organization of various types of information services to the different categories of users ; Rural library services; need and importance; library users in rural areas, library services to rural public, library publicity, exhibition, seminar, book talks, A.V. programs, mobile library services; user awareness programmes.
Role of national and international associations and organizations in the promotion of public Libraries; Raja Ram Mohan Roy library foundation, Internet public library. National Digital Library of India, Karnataka State Digital Public Library.

Unit 4 Public Library Legislation in India:

- Study of public library legislation: need and importance;
- An overview of public library acts in UK, USA, and other countries;- Public library acts in different states with emphasis on Karnataka State Public Library Act, 1965.

Unit 5 Automation & Resource Sharing:

Networking, integrated public library system;
Library automation: Automating the house-keeping services in various sections in the public libraries;- Library services to special groups of people including physically handicapped, mentally challenged, visually impaired, prisoners and children;
Role of National Mission for Manuscripts (NMM) on digitization of manuscripts and rare documents.

References:

- Atman, E. (Ed.). (1980). Local library administration in association with International city management association. (2nd ed.). Chicago: ALA.
- Barua, B P. (1992). National policy on library and information systems and services for India: perspectives and projections. Mumbai: Popular.
- Batt, C. (1998). Information technology in public libraries. London: Library Association
- Bhatt, R.K. (2004). UNESCO: development of libraries and documentation centres in developing countries. , New Delhi: K K publications.
- Esdails, A. (1957). National libraries of the world. London: Library Association.
- Helling, J. (2012). Public libraries and their national policies. Cambridge: Chandos publishing
- Higgins, S E. (2007) . Youth services and public libraries. Oxford: Chandos publishing,.
- IFLA. (2000). IFLA guidelines for public libraries (revised). The Hague: IFLA.
- Jaganayak, S S. (1997). Role of libraries in socio-economic, cultural, and educational development. New Delhi: Classical publication.
- Mittal, R. L. (1971). Public library law. Delhi: Metropolitan.

Muneesh Kumar. (1999). Business information systems. New Delhi: Vikas publishing house.
 Patel, J, & Krishan Kumar (2001). Libraries and librarianship in India. Westport Connecticut: Greenwood press.
 Thomas, V K. (1997). Public libraries in India: development and finance. New Delhi: Vikas publishing house.
 Woodrum, P. (1989). Managing public libraries in 21st century. New York: The Hawork press.

SC1.2: ACADEMIC;LIBRARIES

(Hours of teaching: L:T:P = 3:1:0)
 (Lectures=3x16= 48 hrs)
 (Tutorials = 1x16=16x2=32 hrs)

- 1.To train students in collection development and management of an Academic Library;**
- 2. To impart skills required to manage an Academic Libraries ;**
- 3.To train students in Planning and organise various types of information services to the different categories of users.**

COURSE OUTCOMES (COs)	
At the end of this Paper students will be able to:	
CO 1	Understand the importance of Academic Libraries and their role in imparting education at different levels.
CO 2	Know about the role of UGC in the development of University and College libraries in India.
CO 3	Understand the concepts of Collection Development, Resource sharing, and Human Resource Planning & Management.
CO 4	Understand the different sources of finance and budgeting techniques to be adopted in Academic Libraries
CO 5	Impart skills required to manage an Academic Libraries

Unit -1Academic Libraries:

Meaning, definition, importance, functions, services and types of academic libraries;
 Users of academic libraries: types of users and their needs.
 History and development of higher education in India;Role of UGC in the development of higher education;Monitoring / accreditation agencies in India - NAAC, NBA;Role of knowledge commission in higher education.

Unit -2Resource Sharing and Networking in Academic Libraries:

Resource Sharing:Meaning, definitions, objectives, advantages, and disadvantages.
 Library Networks:Meaning, definitions, the study of various library and information networks – National: INFLIBNET, DELNET; International – CALIS,JANET, OCLC.
 Library Consortia:Meaning, definitions, objectives, types, study of various library consortia -National: FORSA, NKRC, HELINET, CeRA , ICMR, SPACENET, e-ShodhSindhu and - International: RLUK, ICOLC , EIFL, SANLIC,CONCERT, CARLI, etc.
 Study of academic library networks: OCLC,INFLIBNET, DELNET.

Unit -3Collection Development in Academic Libraries:

Types and character of academic library collection;
Acquisition of documents: selection, policy, and procedures, maintenance;
User participation in collection development; Information technology impact.
Problems of collection development.

Unit -4Library and Information Services in Academic Libraries:

Reference Service;ReferralService;Current Awareness Service;
Selective Dissemination Information Service;Abstracting and Indexing Services;
Document Delivery Services;Translation Services;
Online Services: Alerting Services - Listservs and FAQ;
Extension activities.

Unit -5Academic Library Finance and Infrastructure:

- Academic library finance and budgeting;- Human resource management;
- Library buildings and equipment's; Space planning and furniture: Planning and designing of modern Academic Library building; Furniture and equipment; Issues, problems and prospectus of Networking of academic Libraries in India.

Reference:

- Adisheshaiah, M. S. (1992). Role of the library in the university. *University News*. 30(35),13.
- Applegate, Rachel (2010). *Managing the small college library*. Englewood, CO: Libraries Unlimited.
- Bhatta, R.K. (1995). *History and development of libraries in India*, New Delhi: Mittal.
- Brophy, P. (2005). *The academic library*. 2nd rev. ed. London: Facet publishing.
- Budd, J. (1998). *The academic library: its context, its purposes, and its operation*. Englewood, Co:Libraries Unlimited.
- Cohen, L. B. (2008). *Library 2.0 initiatives in academic libraries*. Chicago: ALA.
- Dale, P., Beard, J. & Holland, M. (2011). *University libraries and digital learning environments*.
- Datta, N. (1986). *Academic Status for University and College Libraries in India*. Delhi: IBB.
- Deshmukh, S. (2013). *Academic library: design and planning*. New Delhi: Neha publishers
- Fontichiaro, K. (2013). *21st-century learning in school libraries*. Englewood, CO: Libraries Unlimited.
- Ghanch, D.A. (1992). *The library in the university*. *University news*. 30(35), 19-20.
- Gupta, O.P. (1998). *Library services in university and college libraries in India*. New Delhi: ReliancePublishers.
- Hayes, R. M. (1993). *Strategic management for academic libraries*. Westport, CT: Greenwood
- Henry, M, & Morgan, S. (2002). *Practical strategies for modern academic library*. London: Aslib-IMI.
- Hulbert, J. N. Ed. (2007). *Defining relevancy: managing the new academic library*. Englewood, CO:Libraries Unlimited.
- Joseph, B. (2013). *Managing change in academiclibraries*. London: Routledge.
- Li (2009). *Emerging technologies for academic libraries in the digital age*. Pennsylvania: Elsevier.
- Line, M.B. (1990). *Academic library effectiveness*. New Delhi: Ess Ess publications.
- Mahusan, F.S.G., & Mahajan, S.G (2004). *University and college librarianship: An India in the 21stfacilitation committee*, Pune: Dept. of library and information science, Pune University.
- Megan, O. (2010). *The Value of academic libraries: A comprehensive research review and report*.Chicago: The Association of College and Research Libraries (ACRL).

Panda, B.D. (1992). The growth of academic library system. New Delhi: Anmol publication.
 Rajasekharan, K & Nair, T.R. (1980). Academic library development, New Delhi: Ess-Ess publications.
 Sahai, S. N. (1990). Academic library system. New Delhi: Allied
 Singh, G. (2015). Academic library system and services. New Delhi: Ess Ess publications.
 Singh, S & Arora, M. (1995). Handbook of college libraries. New Delhi: Beacon Books.
 Srivastava, S.N. & Verma, S.C. (1980). University libraries in India. New Delhi: Sterling publishers.
 Varalakshmi, R. S. R. (2003). Measurement of college library performance: An evaluative study withStandards. International information and library review 35, 19-37.

SC 1.3: SPECIAL LIBRARIES
 (Hours OF Teaching: L: T: P = 3:1:0)
 (Lectures = 3 X 16 = 48 hrs)
 (Tutorials = 1 X 16 = 16 X 2 = 32 hrs)

Objectives:

- 1.To make students understand different types of special libraries and their characteristics;**
- 2. To train them in managing a special library;**
- 3.To train students in planning and organise various types of information services to the different categories of users.**

COURSE OUTCOMES (COs)	
At the end of this Paper students will be able to:	
CO 1	Learn the basic information about the Special Libraries and types of Special Libraries.
CO 2	Plan, design and implement various information services to be implemented in Special Libraries.
CO 3	Understand the concepts of Resource sharing and Human Resource Planning & Management.
CO 4	Analyse the different Budgeting Techniques to be adopted in Special Libraries.
CO 5	Apply different use studies / techniques to solve user problems.

Unit-1 Special Libraries: Meaning and definition, Aims, Objectives and Functions, Types of Special Libraries; Characteristics and their role in R & D Environment, Industries, Hospital, Prison, Newspaper, Decision Making, etc.; History and Development of Special Libraries in India.

Unit-2: Information Resource Development and Management: Meaning and Definitions; Collection Development Process-Community Analysis and User studies, Collection Development Policy, Selection, Acquisition. Functions of Resource Development; Steps in Information Resources Development and Management, Selection and Acquisition of books, periodicals, technical reports, Patents, Standard, learned society publications: weeding, Preservation, Storage and evaluation; organization of information resources including non-book and electronic publications; Planning and organization of library and information services-conventional, computer based including Internet resources and services

Unit 3: Planning of Various Information Services- Reference: Active, Passive and Short-range and Long range and Referral Services; - Current Awareness Services: Current Contents, Bulletin Board and etc.; Selective Dissemination of Information; News Paper Clipping Service; Digest Service, Reprographic and Translation Service; Literature Search and Bibliographic Service and others; Web based Information Services: E-mail, Use of Social Networking Sites; Abstracting and Indexing Services

Unit-4: Library and Information Personnel: Meaning, Definitions, Need, Purpose, Elements, Personal Policy, Training and Development, Advantages. Nature, Size, selection and recruitment, Job Analysis, Job Evaluation, Job Description; Selection and Recruitment, Qualifications, Duties and Responsibilities, Service Conditions, Motivation and Control; Qualification, Duties and Responsibilities, Service Conditions, Training.

Unit-5: Finance and Budgeting: Resource Mobilizations- Meaning and Definitions, Sources of Finance and source finance, budgeting techniques- Meaning and Definitions, Need, Purpose, budgetary control; Characteristics; Types of Budget: Line-item, Lump-sum, Programme Budget, PPBS, ZBB. space planning and furniture: Planning and designing of Modern special library building; Furniture and equipment; Issues, Problems and prospectus of resource sharing and Networking of special libraries in India;

Reference: Ashworth W (Ed). Handbook of special Librarianship and information work. Rev Ed 5. London: Aslib, 1982

Ashworth W. Special Librarianship. London: Clive- Bingley, 1985

Bakewell K G B. Industrial Libraries Throughout the world. Oxford: Pergamon, 1965.

Eva Semertzaki, Special Libraries as Knowledge Management Centres. New Delhi: Chandos, 2011.

Griffith J M and King D W. Special Libraries: Increasing the information edge. Washington D C : SLA, 1993

Grogan Dennis, Science and Technology: an Introduction to the Literature. Ed 4. London: Clive- Bingley, 1982

Houghton B. Technical information Sources Ed 2. London, N Y: Scarecrow, 1985

Jackson F B. Special Librarianship: A New Reader. New York: Scarecrow, 1985.

James, M. Matarazzo and Toby, Pearlstein, Special Libraries: A Survival Guide. Libraries Unlimited Inc., 2013.

Jones N and Jordon P. Staff Management in Library and Information work. Gower: Grafton Book 1982.

Mishra, R.K., Special Library System and Information Services. Centrum Press, 2013

Pruett Nancy Jones. Scientific and technical Libraries. London: Academic, 1986 2 Vols

Rowley J E and Turner C M D . Dissemination of Information. London: Andre Deutsch, 1978

Saha J. Special Libraries and Information Services in India and USA. New York: Scarecrow, 1969

Silva Mania . Special Libraries. London: Grafton, 1970

Sridhar M S. Problems of collection Development in Special Libraries. New Delhi: Concept, 1992.

SECOND SEMESTER:

HARD CORE:

HC 2.1 INFORMATION SCIENCE

(Hours of Teaching: L: T: P= 3:1:0)

(Lectures = 3 X 16= 48 hrs)

(Tutorials = 1 X 16 = 16 X 2= 32 hrs)

Paper HC 2.1: Information Science	
Objectives	
Objective 1	To make students understand the Information life cycle
Objective 2	To introduce various channels of communication of information and economics of information
Course Outcomes (Cos)	
After completing this paper, the students will be able to:	
CO 1	Understand the importance of Data, Information, Knowledge and Wisdom and to bring out the intrinsic relation between them.
CO 2	Identify and outline the different channels of Communication in the transmission of information and knowledge.
CO 3	Understand the type of education and training required for LIS Professionals to render quality services to the user community

Unit 1 Information Science as a Discipline:

Conceptual differences between Data, Information, Knowledge and Wisdom (DIKW Model)

Information: Meaning, Definition, Nature and Properties

Value and Notion of Information

Knowledge: Nature, Types, Value and Characteristics features

Role of information in planning, policy and decision Making, R & D and Industries

Influence of other Scientific Disciplines on information Science

Information Science as a Discipline

Unit 2 Information and Communication:

Information Generation, Dissemination and Utilization

Scientific Method of Enquiry, Transfer and Communication of Information through Various Channels

Role of Scientific Communication; Formal and Informal Communication; Invisible colleges etc.

Informal Exchange Groups and Social Networks

Barriers to Information Communication

Unit 3 Information Economics:

Information as a Resource / Commodity

Economics of information: Principles, Costing, Pricing and cost Benefit Analysis

Distributing and Marketing of Information: Strategies, Techniques and Products

Unit 4 Library and Information Policy:

Library and Information Policy: Need, Importance and issues to be considered in the framing of National Information Policy

Intellectual Property Rights: Concept, Copyright, Censorship - print, Non-print including Web resources.

Unit 5 Theoretical aspects of Information Science:

Information Science: Meaning, Definition, Origin, Development and Evolution of Information Science

Theoretical Foundations and Framework of Information Science

Physical and Cognitive Paradigms

Education for Library and Information Science Professionals

REFERENCES

Ackerman, Mark S. (et al.). *Sharing Expertise: Beyond Knowledge Management*. Boston: MIT Press. 2003

Debons, Anthony (et al). *Information Science: An Integrated View*. Boston, Mass.: G K Hall. 1988

Dhiman, Anil Kumar and Sharma, Hemant. *Knowledge Management for Librarians*. New Delhi: Ess Ess, 2009.

Haravu L. J. *Lectures on Knowledge Management: Paradigms, Challenges and Opportunities*. Bangalore: Sarada Ranganathan Endowment for Library Science. 2002

Kumar P.S.G. *Information and Communication (Kumar's Curriculum Series in Library and Information Science) Paper IX of UGC model Curriculum*. B. R. Publishing Corporation. 2004.

Rao, Madan Mohan. *Leading with Knowledge: Knowledge Management Practices in Global Infotech Companies*. New Delhi: McGraw Hill. 2003

Sahu, Ashok Kumar. *Information Management in New Millennium: Opportunities and Challenges for Library Professionals*. New Delhi: Ess Ess, 2008

Vickery, B.C. and Vickery, A. *Information Science theory and practice*, 1994

Webster, F. *Theories of the Information Society*. 2nd ed. London: Routledge. 2002

Wolpert, S. A. and Wolpert, J. F. *Economics of Information*, 1986.

HC 2.2 LIBRARY AUTOMATION

(Hours of Teaching: L: T: P= 3:1:0)

(Lectures= 3 X 16 = 48 hrs)

(Practicals = 1 X 16 = 16 X 2 = 32 hrs)

Paper HC 2.2: Library Automation	
Objectives	
Objective 1	To provide information regarding the importance of Library automation in Higher Education Institutions (HEIs).
Objective 2	To develop required Library Automation handling skills as well as hardware and software handling skills
Course Outcomes (Cos)	
After completing this paper, the students will be able to:	
CO 1	Understand the basics of Library Automation.
CO 2	Learn different Library Software Packages including Open-Source Software
CO 3	Get acquainted with different kinds of modules and understand their structure and components.

Unit 1 Basics of Library Automation:

Library Automation: Concept, need, definitions, objectives

Brief History of Library Automation

Areas of Library Automation

Planning Infrastructure - Manpower, Financial, Hardware, furniture and Equipment

Unit 2 Modules of Library Automation:

Integrated Library Automation System: Basic Requirements, Steps and Implementation

Components of Library Automation Systems - Acquisition, Cataloguing, Circulation, Serials Control System and OPAC

Unit 3 Library Software:

Development of Library Software

Library Automation Software: Free, Commercial and Open Source Software

Library Software Packages: Salient features of SOUL, EasyLib, LIBSYS, Koha and NewGen Lib. and others

Criteria for Evaluation of Library Automation Software Packages

Unit 4 Computerized Library and Information Services:

Computerized Library and Information Services

Library Automation Standards

Unit 5 Trends in Library Automation:

Library Automation in India: Situation, Issues and problems

Trends and Future of Library Automation

REFERENCES

- Chakravarthy, R. C. and Murthy, P. R. S. (2011). Information Technology and Library Science. New Delhi: Pacific Publications.
- Chakravarthy, R. C. and Murthy, P. R. S. (2011). Information Technology and Library science. New Delhi: Pacific Publications.
- Curtin, Dennis and others (1999). Information Technology: The breaking Wave. New Delhi: McGraw Hill Education.
- ITL Education Solutions Limited (2012). Introduction to Information Technology. New Delhi: Pearson.
- ITL Education Solutions Limited (2012). Introduction to Information Technology. NewDelhi: Pearson.
- Kulkarni Parag and Joshi Prachi. (2015). Artificial Intelligence: Building an Intelligent System. NewDelhi: PHI
- Kumar, P. S. G. (2004). Information Technology: Applications (Theory and Practice). New Delhi: B. R. Publishing
- Ravichandra Rao (1996). Library Automation. New Delhi: New Age International.
- Turban, Rainer and Potter (2006). Introduction to Information Technology. New Delhi: Wiley.
- Vishwanathan, Thaigarajan. (2005). Telecommunications switching system and networks. New Delhi: Prentice Hall of India

PRACTICALS:

Hands on Experience and Acquaintance with different modules of any one of the following Library Software packages: SOUL, EasyLib, LIBSYS, Koha and NewGenLib.

(Each student shall compulsorily maintain practical record and submit the same at the time of practical examination)

HC 2.3: INFORMATION RETRIEVAL: LIBRARY CATALOGIUNG

(Hours of Teaching: L: T: P = 3:1:0)

(Lectures = 3 X 16 = 48 hrs)

(Tutorials = 1 X 16 = 16 X 2 = 32 hrs)

Paper HC 2.3: Information Retrieval: Library Cataloguing (T)	
Objectives	
Objective 1	To understand the theory, functions and standards of Cataloguing.
Objective 2	To impart skills in Cataloguing documents.
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO 1	Understand and learn the basics of cataloguing, importance of Library cataloguing
CO 2	Understand the logic of Knowledge Organization by learning different codes of Library cataloguing
CO 3	Learn the importance of ISBD in maintaining uniformity in cataloguing the records.

Unit 1 Library Catalogue:

Library Catalogue: Meaning, Definitions, Objectives, Purposes and Functions
History and Development of Library Catalogue Codes
Physical Forms of Library Catalogue and Types of Catalogue
Format of Catalogue Entries: Kinds of Entries
Data Elements in different Types of Entries
Filing of Entries

Unit 2 Resource Description Standards:

Resource Description Standards: AACR-2 and CCC - Introduction, Choice and rendering of Personal and Corporate Names;
Conflicts of Authorship;
Complexities of Periodical and Publications;
Cataloguing of Print and Non-Print Media including Electronic Publications

Unit 3 Normative Principles:

Normative Principles: Laws, Canons and Principles
Subject Headings: Origin and Development, Chain Procedure
Bibliographic Description and Control: Overview, Standards of Bibliographic Record
Format – ISBD, ISBN, ISSN, CODEN, MARC, CCF, ISO 2709

Unit 4 Basics of Metadata:

Centralized, Cooperative Cataloguing and Union Catalogue
Metadata – basic features, metadata standards
Study of Dublin Core, TEI, RDF

Unit 5 Trends in Cataloguing:

Latest Trends in Cataloguing: WebOPAC's and Z39.50 - Metadata: Meaning, Definition, Purpose, Use and types.
Metadata standards: MARC-21 & Dublin Core.

REFERENCES

- Anglo American Cataloguing Rules: 2nd Rev. ed. (2002). New Delhi: Oxford.
Cristán, A. L., & Tillett, B. B. (2009). IFLA cataloguing principles: the statement of international cataloguing principles (ICP) and its glossary: in 20 languages. München: K. G. Saur.
Hunter, Eric J. and Bakewell, K.G.G.: Cataloguing, 3rd ed., London, Clive Bingley, 1991
Intner, S. S. (2009). Beginning cataloging. Santa Barbara, CA: Libraries Unlimited, an imprint of ABC-CLIO, LLC.
Kao, M. L. (2010). Cataloging and classification for library technicians. New York: Routledge.
Kumar, P. S. G. (1990). Practical Guide to DDC 20. Nagpur: Dattsons.
Kumar, P. S. G. (2003). Knowledge Organization Information Processing and Retrieval Practice. New Delhi: BR
Moore, J. A. Ed. (2002). Practical Reading: Processing Information. Boston: Addison Wesley.

Sahu, R. (2012). DDC in Library Science. New Delhi: Random Publishing.
 Sanjay Kaushik (2012). DDC: A Practical Manual of 23rd Edition. New Delhi: Ess Ess Publication.
 Viswanathan, C. G. (1983). Cataloguing: theory and practice. Lucknow: Print House.
 Welsh, A., & Batley, S. (2012). Practical cataloguing: AACR, RDA and MARC21. London: Facet.

HC 2.4: INFORMATION RETRIEVAL: LIBRARY CATALOGUING

Unit	Particulars	No. of Hours
	HC 2.4: Information Retrieval: Library Cataloguing (P)	
	Cataloguing of simple, Compound, Complex documents (Print, Non- print and Electronic Resources) According to AACR-2 (Each Student shall compulsorily maintain practical journal and submit the same at the time of practical examination)	64 Hours

SOFT CORE (Any One)
SC 2.1: INFORMATION LITERACY
 (Hours of Teaching : L:T:P = 3:1:0)
 (Lectures = 3 X 16 = 48 hrs)
 (Tutorials = 1 X 16 = 16 X 2 = 32 hrs)

Paper SC 2.1: Information Literacy	
Objectives	
Objective 1	To make students understand the importance of Information Literacy
Objective 2	To impart skills to conduct Information literacy training programmes.
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO 1	Understand the importance of Information literacy concept
CO 2	Develop Internet search strategies by making use of different tools and techniques
CO 3	Appropriately use the web for research, including critical evaluation of information

Unit 1 Fundamentals of Information Literacy:

Fundamentals of Information Literacy: Concept, Need and Objectives
 Historical Perspectives
 Essence of Information Literacy in the Knowledge Society
 Areas of Information Literacy
 Standards in information Literacy

Unit 2 Types of Information Literacy:

Types of Information Literacy: Technology Literacy, Media Literacy, Computer Literacy, Digital Literacy - Research Literacy

Unit 3 Information Literacy Standards:

Information Literacy Standards: ALA, ACRL and IFLA Guidelines
IL Models: Ellis model, Kuhlthau model, SCONUL and Empowering 8TM models, PLUS Model etc.
Partners of Information Literacy

Unit 4 IL and Lifelong Learning:

Lifelong Learning and Information Literacy: Meaning, Definition, Importance
Life Long Learners - Major Drivers of lifelong learning
Role of Information Literacy in higher education
Global Perspectives of Information Literacy
National Information Literacy Missions, Forums and Task forces
Information Literacy Initiatives and Programmes in India

Unit 5 Information Literacy Products:

Information Literacy Products: Library Brochure, Database Brochure, Web- Based, Access Instructions, Information Bulletin
Designing of Information Literacy Programme
Implementation of Information Literacy Programs
Trends in Information Literacy

REFERENCES

- American Library Association (2006). Information Literacy Competency Standards for Higher Education. Available at: www.acrl.org
- American Library Association Final Report of Presidential Committee on Information Literacy. (1989). Final Report. Chicago:Author. www.ala.org/at/nill/littsthtml
- Association of college and Research Libraries (2000). Information Literacy Competency standards for higher education. Available at: www.ala.org
- Eisenberg, M. B., Lowe, C. A. and Spitzer, K. L. (2004). Information Literacy: Essential Skills for the information age. London: Libraries Unlimited.
- Gilster, P. (2007). Digital Literacy. NewYork: Wiley.
- Godwin, P. And Parker, J. Ed. (2008). Information Literacy Meets Library 2.0. London: Facet Publishing.
- Grassian, E. S., Kaplowitz J. R. (2009). Information Literacy Instruction: Theory and Practice. Chicago: Neal-Schuman Publishers, Inc
- Kuhlthau, C. C. (1987). Information Skills for an Information Society: A review of Research. Syracuse, NewYork: ERIC Clearinghouse on Information Resources.
- Martin, A. and Madigan, D. Ed. (2006). Digital Literacies for learning. London: Facet Publishing.
- UNESCO (n.d.), "Information Literacy". <http://portal.unesco.org/ci/en/ev.php>.

SC 2.2 INFORMATION USE STUDIES AND USER EDUCATION

(Hours of Teaching: L: T: P = 3:1:0)

(Lectures = 3 X 16 = 48 hrs)

(Tutorials = 1 X 16=16 X 2 = 32 hrs)

Paper SC 2.2: Information Use Studies and User Education	
Objectives	
Objective 1	To understand Information needs of users
Objective 2	To train students in conducting User Studies and user Education
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO 1	Understand the different category of library users and their information needs
CO 2	Know the Information Seeking Behavior (ISB) of users and to develop ability to recognize the different patterns adopted by users in retrieving and making use of information
CO 3	Conduct User Studies by adopting different methods and techniques.

Unit 1 User Communities:

User Communities: Students, Teachers, Scientists and Technologists, Research and Development Personnel, Planners, Policy Makers, Ethnic groups and other professionals

Need and Information Needs: Meaning, Definition, Distinction between need, want, demand and requirement,

Types of Information Needs: Physiological, Affective and Cognitive

Unit 2 User Studies:

User Studies: Concept, Meaning, Definition and its significance

User studies in the Digital Environment

Planning of User studies - Case studies

Unit 3 Qualitative and Quantitative Techniques:

Quantitative and Qualitative Techniques: Survey Method,

Techniques of data collection, Questionnaire, Interview, Observation, Diary, Record Analysis and Citation Studies,

Sampling: Sampling techniques.

Unit 4 User Education:

User Education: Meaning, Definitions and Importance

User Education in the digital environment

Different methods of conducting User Education

Evaluation of User Education Programs (UEP)

Resource Based Instruction, MOOCS, Online Resources

Unit 5 Information Seeking Behaviour:

Information Seeking Behavior: Meaning, Definition, Different Models of ISB

ISB in the Digital Environment

Latest trends in Use and user studies

REFERENCES

- Alvite, L. and Barrionuevo, L. (2011). Libraries for Users: Services in Academic Libraries. Oxford: Chandos Publishing.
- Balasubramanian, P. (2011). Users and Uses of Library. New Delhi, Deep and Deep Publications Pvt. Ltd.
- Biblarz, D., Bosch, S. and Sugnet, C. (2001). Guide to Library User Needs Assessment for Integrated Information Resource Management and Collection Management. Maryland: Scarecrow Press, Inc
- Eisenberg, M. B., Lowe, C. A. and Spitzer, K. L. (2004). Information Literacy: Essential Skills for the information age. London: Libraries Unlimited.
- Ford, N. (2015). Introduction to Information Behaviour. London: Facet Publishing.
- Grassian, E. S., Kaplowitz J. R. (2009). Information Literacy Instruction: Theory and Practice. Chicago: Neal-Schuman Publishers, Inc.
- Henry, M. and Morgan, S. (2002). Practical strategies for modern academic library. London: Aslib-IMI.
- Kawatra, P. S. (1997). Library user studies: Manual for librarians and information scientists. Mumbai, Jaico.
- Kumar, P. S. G. (2004). Library and Users: Theory and Practice. Delhi: B. R. Publishing Corporation.
- Ruthven, I and Kelly, D. (2011). Interactive Information-seeking Behaviour and Retrieval. London: Facet Publishing.

OPEN ELECTIVE:

OE 2.1: SOFT SKILLS

1. (Hours of Teaching: L:T:P = 4:0:0)
2. (Lectures = 4 X 16 = 64 hrs)

Paper OE 2.1: Soft Skills	
Objectives	
Objective 1	To understand Information needs of users
Objective 2	To train students in conducting User Studies and user Education
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO 1	Understand the basics of importance of soft skills
CO 2	Analyze the importance of listening and speaking skills
CO 3	Evaluate the soft skills possessed by the LIS professionals

Unit 1 Basics of Soft Skills:

Soft Skills: Concept and Its Significance; Communication Skills; What, Why, How? Why Communication fails? How to be an Effective Communicator?

Mastering the process of Communication, Oral communication skills, body language, optimistic approach, Managing conflicts, Gaining confidence

Methods of Communication: One way and Two way Communication

Verbal, Oral, Written and Non-verbal communication

Categories and Features

Formal and Informal Communication; Visual Communication, Telecommunication and Internet

Unit 2 Listening and Speaking Skills:

Listening and Speaking skills: What, Why? Why do we listen? Is Listening is a Neglected Skill? Why we don't listen?

How to develop our listening skills?

Speaking: What is speaking? Accepting invitation to speak, Setting objectives

Know your Audience, Research the Material,

Planning and writing, How to Improve your style? Use of Audiovisual aids, Delivering speech, Dealing with nerves, and on the day of speech.

Unit 3 Reading and Writing Skills:

Reading and Writing Skills: What is Reading? Purpose of reading, Types of reading, Reading ways, Don'ts in reading.

4R Methods and SQ3R Method; Writing - Written Communication, Stages in Effective writing, Sentence Structure and length,

Principles of paragraph, Characteristics of Good Writing and basic rules of writing.

Unit 4 Time Management Skills

Time Management skills: Understanding Time Management,

Time Management principles- Identifying Time Loss, Urgency and Importance, Effective Decision making, Setting your Goals, And Defining your objectives;

Time saving Techniques; Organizing your work Space, and Communication effectively; Dealing with stress

Understanding overload, and Negotiating your workload;

Practical Time Planning: Planning your Day, Using Activity Network, Critical Path Analysis, and effective Resource sharing and preparing planning Diagrams.

Unit 5 Latest trends in Soft Skills

Latest trends in soft skills

REFERENCES

Amer, Beverly. *Soft Skills at Work: Technology for career success*, Cengage Learning, 2008, PP90.

Butterfield, Jeff. *Written Communication: Soft Skills for digital Work Place*, Cengage Learning, 2008, PP134.

Klaus, Peggy. *The Hard Truth about Soft Skills: Work place Lessons Smart people Wish They'd Learned Sooner*. Collins, 2008, PP208.

Mitchell, Geana Watson. *Essential Soft Skills for Success in the Twenty First Century workforce as perceived by Alabama Business/ marketing Educators*, ProQuest, 2008, PP134.

Rao, M.S. *Soft Skills Enhancing Employability: Connecting Campus with Corporate*. I. K. International pvt. Ltd, 2010, PP 256.

THIRD SEMESTER:
HARD CORE:
HC 3.1 RESEARCH METHODS AND STATISTICAL TECHNIQUES

(Hours of Teaching: L:T:P = 3:1:0)

(Lectures = 3 X 16 = 48 hrs)

(Tutorials = 1 X 16 = 16 x 2 = 32 hrs)

Objectives:

- 1.To familiarize students with concepts and types of research;
- 2.To study research design;
- 3.To know the research techniques and tools;

Course Outcome (CO):
CO1 Familiar with theory and practice of research and its methodology;
CO2 Familiar with identifying research problems and doing subject literature research;
CO3 Aware of developing research design, sample size and research instrument for data collection;
CO4 Understanding the mode of data collection and data analysis;
CO5 Knowledge use of statistical tools and techniques for data analysis and interpretation of research findings;
CO6 Aware of methods of presenting and reporting research findings.

Unit 1 : Foundations of Research:

Concept, meaning, need and steps in research;

Types of research – fundamental or pure and applied research - inter disciplinary and multidisciplinary approach;

Areas of research in LIS.

Unit 2 : Research Design:

Conceptualization and operationalisation;

Types of research design;

Identification and formulation of the problem;

Hypotheses; nominal and operational definition;

Designing a research proposal;

Literature search

Ethical aspects of research.

Unit 3 : Research Methods:

Scientific method; historical method; descriptive method; survey method and case study method; experimental method, delphi method, user studies.

Research Techniques and Tools:

Questionnaire; schedule; interview; observation;

Scales and checklists;

Library record and reports;

Sampling techniques.

Unit 4 : Data Analysis and Interpretation:

Variables and its types;

Descriptive statistics – measure of central tendency;
Co-relation, mean, mode, median, tabulation, and generalization;
Measures of dispersion, variance, and covariance, standard deviation;
Inferential Statistics – Chi-Square T-test, ANOVA, Z-test;
Graphical presentation of data – bar, pie, line-graphs, histograms;
Statistical packages – SPSS and its variations.

Unit 5 : Research Reporting:

Structure and components, style, contents;
Guidelines of research reports;
Style manual: Chicago, MLA, and APA,
Criteria for evaluation of research report.

References:

- Bhandarkar. P.L, & Wilkinson. T. S. (1992). Methodology & techniques of social research Ed.9. Bombay: Himalaya.
- Busha, C H & Harter, SP. (1980). Research methods in librarianship: Techniques and interpretation. New York: Academic.
- Charles, H. et.al. (1993). Research methods in librarianship: Techniques and interpretations. New Delhi: Sage.
- Fowler, F.J. (1993). Survey research methods. New Delhi: Sage.
- Goode, W.J. & Hatt, P.K. (1980). Methods in social science research. New Delhi: McGraw Hill.
- Gopal, M.H. (1990). An introduction to research procedure in social sciences. Bombay: Asia,
- Kothari. C.R. (1990). Research methodology. New Delhi: Wishwa prakashan.
- Krishna Kumar (1992). Research methods in library in social science. New Delhi: Vikas.
- Krishna, S. O. R. (1993). Methodology of research in social sciences. Bombay: Himalaya.
- Krishnaswami, O.R.(1993). Methodology of research in social sciences. Bombay: Himalaya.
- Leddy, P. D. (1980). Practical research: Planning design. London: Clive-Bingley.
- Mohsin , S.M. (1984). Research methods in behavioural science. Kolkatta: Orient Longman.
- Nicholas D. & Ritchil, M.(1979). Literature and bibliometrics. London: Clive Bingley.
- Rao, R. I. K. (1985). Quantitative methods for library and information science. New Delhi: WileyEastern.
- Sharma, R. N & Sharma, R K. (1987). Research methods in social sciences. Bombay: Media Promoters & Publishers Pvt. Ltd.
- Sing, Sadhu. (1980). Research methodology in social sciences. Bombay: Himalaya Publishing House.
- Slatter, M. (1990). Research methods in library and information science. London: L.A.
- Stevens , R E . Ed. (1971). Research methods in librarianship. London: Bingley.
- Young, P V. (1987). Scientific social surveys and research, Ed 4. New Delhi: Prentice Hall.

3.2 INFORMATION SOURCES
 (Hours of Teaching :L:T:P= 3:1:0)
 (Lectures = 3 X 16 =48hrs)
 (Tutorials = 1 X 16 = 16 X 2 =32 hrs)

Objectives:

- 1.To familiarize students with the meaning, definition, use and implications of Information Sources;
- 2.To study the primary, secondary tertiary sources of information sources;
- 3.To understand the electronic information sources;

Course Outcome (CO):
CO1 Understand the concept, types and importance of information / reference sources;
CO2 Clearly understand the major information resources related to primary sources of information;
CO3 Understand the important secondary sources of information like dictionaries, encyclopedias, handbooks and manuals, etc.;
CO4 Understand the relevant tertiary sources of information like directory of directories, bibliography of bibliographies, union catalogues, guides to subject literature, and evaluation of both print and electronic information sources;
CO5 Know the different non-documentary sources like human and institutional sources of information;
CO6 Understand the concept, types of e-journals, e-books, e-theses, e-newspapers, blogs and wikis, online dictionaries and encyclopaedias of e-resources;
CO7 Clearly understand the current trends in information sources different types of library and information services especially in academic libraries.

Unit 1 : Information Sources:

Meaning, definition, importance, characteristics, functions, criteria for evaluation of information sources; Types of information sources.

Unit 2 : Primary Sources:

Periodicals, research reports, conference and seminar proceedings, official publications, patents, standards, trade literature and theses and dissertations.

Unit 3 : Secondary Sources:

Indexing periodicals, abstracting periodicals, bibliographies, treatises, monographs, textbooks; Reference books: dictionaries, encyclopaedias, handbooks, manuals, yearbooks, almanacs, directories, biographical sources, geographical sources, statistical sources, current reference sources.

Unit 4 : Tertiary Sources:

Directories; Guides to reference sources; Bibliography of bibliographies; Directory of directories; Union catalogues.

Unit 5 : Human , Institutional and Electronic Sources:

Human sources: Information generators; information gatherers; information processors; information recorders; information disseminators; information retrievers; information technologists; Institutional / organisational sources: government ministries and departments, R & D organizations, learned societies, publishing houses, archives, data banks, information analysis centres, referral centres, institutional web sites. E-journals, e-books, e-theses, e-newspapers, Blogs, and Wikis, Online dictionaries and e-encyclopedias: free and proprietary, and other e-resources.

References:

- Chenny, F.N & Williams W.J. (1980). Fundamental reference sources. Ed2. Chicago: ALA.
- Donald, D. (1980). Reference service. London: Clive Bingley.
- Fjallbrant, N. & Stevenson, M. (1970). User education in libraries. London: Clive-Bingley.
- Grogan, D. J.(1982). Science and technology: An introduction to the literature. Ed4. London: Clive-Bingley.
- Guha, B. (1983). Documentation and information: services techniques and system. Calcutta: WorldPress Pvt ltd.
- Kanna, J. K. (2000). Documentation and information, services systems and techniques. Agra: Y K Publishers.
- Katz, W.A. (1992). Introduction to reference work, Ed5, New York: Mc-Graw Hill.
- Krishan kumar. (2004). Reference service (5th Rev ed.). New Delhi: Vikas publishing house .
- Kumar, P. S. G. (2004). Information sources and services: Curriculum series in library & information science. New Delhi: B R publications.
- Kumar, P. S. G. (2004). Information sources and services: theory and practice. Delhi: B R publishing.
- Lambart, J. (1991). How to find information in science and technology. London: Library Association.
- Navalani, K., & Trikha, S. (1999). Library and information services. Jaipur: Rawat publishing.
- Prasher, R.G. (2003). Indian libraries in IT environment. Ludhiana: Medallion press.
- Prasher, R.G. (2003). Information and its communication. Ludhiana: Medallion press.
- Ranganathan, S R. (1933). Reference Service, Ed2 . Bangalore: SRELS.
- Rogers R.(1993). Teaching information skills: A review of the research and its impact on education. London: Bowker-saur.
- Sharma, J S, & Grover, D R. (1992). Reference service and sources. Chicago: ALA.
- Sharma, J. S., & Grover, D. R. (1987). Reference service and sources of information. New Delhi: Essm Ess publications.
- Shores Louis. (1959). Basic reference sources. Chicago: ALA.
- Sing, S. (1997). International manual of reference and information sources. New Delhi: Beacon Books.
- Singh J (2003). Information democracy and South Asia promises and perils of the web. Ludhiana: Medallion press.
- Singh, G. (2013). Information sources, services and systems. Delhi: PHI Learning Pvt. Ltd.
- Subramanyam, K. (1981). Scientific and technical information resources. New York: Marcel Dekker.
- Velaga, V. (2005). Information sources and services. Hyderabad: Neelkamal publications.

HC 3.3 TECHNOLOGIES FOR INFORMATION MANAGEMENT

(Hours of Teaching: L:T: P=3:1:0)

(Lectures=3 X 16 = 48 hrs)

(Tutorials= 1 X 16 = 16 X 2 = 32hrs)

Objectives:

1. To provide introduction to the concepts and techniques of Computing and other Information Technology.
2. To develop basic Information Technology handling skills.

Course Outcome (CO):

CO1 Understand the concept of Micrographics technology and tools..

CO2 Clearly understand the databases and their structure.

CO3 Understand the important design and development of databases,

CO4 Understand the relevant Optical media based databases in science, social sciences and humanities.

CO5 Know the different Communication technology.

Unit-1: Micrographic Technology: Microforms – Micro card, Microfilm, Microfiche and their Readers and Printers; Multimedia Technology: Concept, Scope and Development, Multimedia PCs, Audio, Video, Image Representation and Manipulation; Hypertext and Hypermedia; Optical Media: Origin, History and Development, Hardware and software requirements,

Unit-2: Database Design, Development and Management: Concept of database and DBMS; Types, Design, Structure, Organization and Development of Database; Data Security; Study of MS-Access and WINISIS: System Overview, System Installation, Database Construction, Techniques, Menus, Tools and Creation of database

Unit-3: Optical Media based Databases: History, Development and Impact, Retrieval Software; CD-ROM / DVD-ROM databases in Science and Technology, Social Sciences, Humanities and other fields.

Unit-4: Communication Technology: Fundamentals of Telecommunication Technology; Media, Mode and Components; Tele-facsimile, Teleconferencing; Information Technology: Conceptual and Theoretical Considerations, History and Development, Impact on Libraries and Information Services

Unit-5 Emerging Technologies : Barcode technology and its application in Libraries and Information centers, Radio Frequency Identification (RFID): Concept, and Characteristics. Components of an RFID Library Management System, Advantages and Disadvantages of RFID and its application in Libraries, RFID and Smartcard Technology.

Reference:

Chakravarthy, R. C. and Murthy, P. R. S. (2011). Information Technology and Library Science. New Delhi: Pacific Publications.

Chakravarthy, R. C. and Murthy, P. R. S. (2011). Information Technology and Library science. New Delhi: Pacific Publications.

Curtin, Dennis and others (1999). Information Technology: The breaking Wave. New Delhi: McGraw Hill Education.

ITL Education Solutions Limited (2012). Introduction to Information Technology. New Delhi: Pearson.

ITL Education Solutions Limited (2012). Introduction to Information Technology. New Delhi: Pearson.

Kulkarni Parag and Joshi Prachi. (2015). Artificial Intelligence: Building an Intelligent System. New Delhi: PHI

Kumar, P. S. G. (2004). Information Technology: Applications (Theory and Practice). New Delhi: B. R. Publishing
Ravichandra Rao (1996). Library Automation. New Delhi: New Age International.
Turban, Rainer and Potter (2006). Introduction to Information Technology. New Delhi: Wiley.
Vishwanathan, Thaigarajan. (2005). Telecommunications switching system and networks. New Delhi: Prentice Hall of India.

HC 3.4 TECHNOLOGIES FOR INFORMATION MANAGEMENT-II

(Hours of Teaching: L: T: P= 0:0:4)
(Practicals = 4 X 16 = 64 X 2 = 128 hrs)

PRACTICALS

Hands on experience and work assignment in Design and Development of varieties of database Using MS-Access and WINSIS.

Hands on experience and work assignments in searching and using Selected CD-ROM database in Science and technology, Social Sciences, Humanities and other fields.

(Each Student shall compulsorily maintain Practical record and submit the same at the time of Practical examination)

SOFT CORE (ANY ONE)

SC 3.1: INFORMETRICS, SCIENTOMETRICS AND WEBOMETRICS

(Hours of Teaching: L:T:P = 3:1:0)
(Lectures = 3 X 16 = 48 hrs)
(Tutorials = 1 X 16 = 16 X 2 =32hrs)

**Objectives: 1. To acquaint students with various qualitative techniques.
2. To study characteristics of literature.**

Unit-1:Introduction and Evolution

Introduction and need of metric studies in scholarly communication; Evolution of metric studies (From Librametrics to Altmetrics); Open Content Metrics.

Informatics : Origin, Meaning and definition, Terminologies, Evolution of Infometrics Informatics Data: Sources of Informetric Data, Planning and carrying out aInformetric Tools; Informetrics Laws and Distributing : Bradford's Law of Scattering, Lotka's Law of Scientific Productivity, Zip's Law of Word Occurrences, price's Square Root Law, 80/20Rule.

Unit-2: Describing Literature: Growth Models; Scattering and Seepage; Identification, Defining and describing of Subject Literature; Authorship and Collaboration: Concept of Solo and Collaborative Research – Identification, Measurement and quantification.

Unit-3: Citation Analysis: Concept, Reasons for Citations: Origin, History and Development of Citation Analysis; Normative Theory of Citing, Citation Behavior; Co-citation, Bibliographical Coupling; Obsolescence: Concept, Synchronous v/s Dichronous Studies; Methodology for study of Obsolescence of literature.

Unit-4: Webometrics: Quantitative Analysis of Scholarly Scientific Communications, hypertext links and Various phenomena on the Web.

Unit-5: Citation Databases

Scopus, Web of Knowledge, PubMed, Medline, Google Scholar ,
 Tools for bibliometric and scientometric studies ,
 Latest trends in Informatics , Scintometrics and Webometrics.

Reference:

Bradford, S C (1971). Documentation. London: Crosby Lockwood
 Bruce, Harry. CoLIS 4: Proceedings of the Fourth International Conference on
 Conceptions of Library and Information Science, Seattle, WA, USA, July 21-25, 2002
 Libraries Unlimited, 2002, pp336
 Christiaan, Everard and Noyons, Marie. Bibliometrics Mapping as Science policy and
 Research Management Tool. DSWO press, 1999, pp220.
 Cronin, B (1984). The citation process. The Role and significance of citations in scientific
 Communications. London: Taylor Graham Communication London: Taylor Graham, 1984
 Egghe, L (1990). Introduction to Informetrics. Amsterdam: Elsevier
 Leo Egghe, R. Rousseau. Introduction to Informetrics, Quantitative Methods in Library,
 Documentation and Information Science, Elsevier Science publishers, 1990,pp450
 Meadows A J (1974). Communication in Science. London: Buttetworths
 Nicholas D and Ritchie, M (1978). Literature and Bibliometrics. London: Clive-Bingley
 Price, Dereck De Solla (1963). Little science Big science. New York: Columbia University
 Ravichandra Rao, I K (1992). Informetrics, Bangalore: SRELS
 Thelwall, Michael. Introduction to Webometrics: Quantitative Web Research for the Social
 Sciences, Morgan and Claypool Publishers, 2009, pp115.

SC3.2: NETWORKS, NETWORKING AND LIBRARY CONSORTIA

(Hours of Teaching: L:T:P=3:1:0)

(Lectures = 3 X 16 =48hrs)

(Tutorials = 1 x 16=16 X 2 = 32hrs)

Objectives:

1. Student will understand What a telecommunication network ?
2. Students become aware about Switched Network
3. Student will able to identify different consortia.

COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	Understand the different computer networks like LAN, MAN and WAN.
CO 2	Learn different topologies of networks.
CO 3	Acquaint themselves with popular library networks- INFLIBNET, DELNET and DESINET.
CO 4	Understand the different Web Browsers and Search Engines.
CO 5	Provide services such as Bulletin Board Service and Document Delivery Service using Internet.

Unit-1: Introduction to Networks

Computer Networks: Meaning, Definitions and Characteristics.

Network media: Twisted-Pair Cable, Unshielded Twisted-Pair (UTP) Cable,
 Shielded Twisted-Pair (STP) Cable, Coaxial Cable, Optical fibre,

Network Components- Ethernet Cable, Network Interface Cards, Hubs, Routers,
 Gateway, Modem. Network types: LAN, WAN, MAN, CAN, PAN, Wireless Networks:
 WiFi:

Unit-2: Topologies of Network

Concept of Topology

Types: Bus, Ring, Mesh, Star, Tree etc.

Data Networks: Integrated Services Digital Network (ISDN), Digital Subscribers Line (DSL), Asynchronous Transfer Mode (ATM), etc.

Unit-3: Library and Information Centre Networks

Origin and History of Library Networks in India, INFLIBNET, CALIBNET and DELNET; Network based Services: Document Delivery service, on-line Service, and Teleconferencing etc. Communication Networks: NICNET, INET, BSNL, ERNET

Unit-4: Library and Information Networks at the International Level

Online Computer Library Center (OCLC); Research Libraries Group (RLG) — RLIN Joint Academic Network (JANET); Consortium of University Research Libraries (CURL)

Unit-5: Consortia-Consortia-Concept, definition, Need, uses, and types of consortia; Criteria for selection of consortia; CSIR e-journals consortia, UGC-Infonet, FORSA consortia, IIM'S consortium.

Reference:

- Andrew, Judith. Digital Libraries: Policy Planning and Practice. Hampshire: Ashgate, 2004.
- Brophy, Peter. Libraries without walls: The distributed delivery of Library and Information Services. London: Facet Publishing, 2004.
- Chwan-Hwa (John) Wu. Introduction to Computer Networks and Cybersecurity. New Delhi, CRC Press, 2013.
- Janczewski, Lech. Internet and intranet security management: risks and solutions. Hershey: Idea, 2000.
- Kurose, James F. and Ross, Keith W. Computer Networking: A Top-Down Approach. 6th Ed. New York: Pearson, 2012.
- Pandian, Paul M. and Jabhekar, Ashok: Internet for Libraries and Information Centres, New Delhi: McGraw Hill, 2001.
- Schwartz, D. T. et. al. Internet based organizational memory and Knowledge Management. London: Ida Group publisher, 2000.

Open Elective:

OE 3.1: INFORMATION LITERACY:

COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	Able to understand the concept and importance of the information literacy
CO 2	Able to understand the historical perspectives of information literacy;

CO 3	Able to understand the different types of information resources literacy;
CO 4	Have knowledge about information literacy models;
CO 5	Have knowledge about information literacy skill and competencies;

Objectives:

- 1.To know the concept and importance of information literacy;
- 2.To understand the historical perspectives of information literacy;
- 3.To identify different types of information resources;
- 4.To gain knowledge about information literacy models;

Unit-1: Information Literacy:

Meaning, definition; importance; historical perspective of information literacy.

Unit-2: Types of Information Literacy:

Computer literacy, Media literacy, Digital literacy, Technology literacy.

Information Literacy Skills and Competencies:Challenges of information literacy Programs, Information literacy initiatives in global perspective.

Unit-3: Information Literacy Models and Components:

SCONUL seven pillar, B-6, Seven, ANCIL, Empowering 8 Model

Unit-4: Information Literacy Standards:

ALA, IFLA, ACRL, Information literacy and libraries: Information literacy and higher education, Role of libraries in information literacy.

Unit-5: Trends in Information Literacy:

Current trends in information literacy;

Information literacy and lifelong learning;

Study of information literacy programs in the world including India

References:

- A.L.A. (1989). Final report of the A.L.A. presidential committee on information literacy. Chicago: A.L.A.
- Alewine, M. C., & Mark C. (2017). Introduction to information literacy for students. Wiley BlackwellPublication.
- Baldwin, V A. (2005). Information literacy in science & technology disciplines. Lincoln: University ofNebraska.
- Barker, K. and Lonsdale, R. (Ed.). (1994). Skills for life: The value and meaning of literacy. London:Taylor Graham.
- Bawden, D. (2001). Information and digital literacies: A review of concepts.
- Blanchett, H. (2010). A guide to teach information literacy. London: Facet.
- Bravender, P., McClure, H., & Gayle S. (2015). Teaching information literacy threshold concepts: Lesson plans for librarians. Chicago: American Library Association.
- Broussard, Mary Snyder. (2017). Reading, research, and writing: teaching information literacy with process-based research assignments. Chicago: American

Library Association.

Corrall, S. (2010) . Information literacy through inquiry. London: Facet.

De Abreu, B. S., Mihailidis, P., Lee, A. Y.L., Melki, J., & McDougall, J. (2017).

Internationalhandbook of media literacy education . London: Routledge publications.

Devine, J. (2009). Going beyond google: The invisible web in learning and teaching.

London: Facet.

Dominika, D. (2016). Data information literacy: Librarians, data and the education of a new generation of researchers. New York: Scitus Academics LLC.

Downey, A. (2016). Critical information literacy: Foundations, inspiration, and ideas.

Sacramento:Library Juice Press.

Eisenberg, M. B., Lowe, C. A., & Spitzer, K. L. (2004). Information literacy: Essential skills for information age. London: Libraries unlimited.

Eisenberg, M.B. (2004). Information literacy: essential skill for the information age. West Port:Libraries unlimited.

Forster, M. |(2017). Information literacy in the workplace. London: Facet Publishing.

Godwin, P., & Parker, J. (2008). Information literacy meets library 2.0. London: Facet.

Grassian. E.S. (2005). Learning to lead and manage information literacy instruction. New York: NeilSchuman publishers.

Grassin, E S, & Kaplowitz, J R. (2001). Information literacy instruction: theory and practice. NewYork: Neal Schuman.

Martin, A., & Rader, H. (2003). Information and IT literacy: Enabling learning in the 21st century. London: Facet.

FOURTH SEMESTER:

HARD CORE:

HC 4.1 DIGITAL LIBRARIES

(Hours of Teaching: L:T:P = 3:0:1)

(Lectures = 3 X 16 = 48 hrs)

(Practicals = 1 X 16 = 16 x 2 = 32 hrs)

Objectives:

1.To provide introduction and difference of Digital Library

2. Know how of hardware and software of Digital Library

3. Hands on practice of Green Stone and DSpace

COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	Get Familiarize with internetand digital library.
CO 2	Understand the design and organisation of digital library for accessing information online.
CO 3	Know the scripts and standards required for web design.
CO 4	Understand the cyber laws and its implications on digital libraries.
CO 5	Identify computer hardware, software and other infrastructure required to develop digital library and Multimedia products.

Unit-1: Introduction to Digital Library:

Digital Library - Nature, Meaning and Definitions, Objectives, Characteristics,
Digital Library Components: Identifiers – Handles – Digital Object Identifier (DOI)
Persistent Uniform Resource Locator (PURL) Interoperability.
Digital Resources: Nature, Characteristics and types, Digital Library Services

Unit-2: Digital Library Initiatives

Evolution of Digital Libraries, DLI-I and DLI-II, E-Lib Programme,
Digital Library Initiatives at International level and in India. Digital Library Software:
GSDL, D-Space, E-Prints and Fedora. Institutional Repositories.

Unit-3: Design and Organisation of Digital Library

Architecture: Distributed, Federated, Service Oriented and Component based - Architectures.
Protocols and Standards. User Interfaces: Multilingual, Personalization and Visualization.

Unit-4: Social, Economic and Legal Issues:

Social, Economic and Legal Issues of Digital library. Challenges and Concerns for Digital
Library. Skilled manpower. Advantages and disadvantages of Digital library.

Unit-5: Digital Resource Management :

Building Digital Library Resources – Born Digital and Digitized,
Digital Content (Image and Text) Creation: general issues,
Digitization process, standards, file formats, Unicode, Metadata.
Selection and Acquisition of materials for Digitization.
Storage and retrieval/usage of Digital Resources. Digital Library Evaluation.
Digital Collection Management and Evaluation – Issues and Strategies,
Digital Rights Management.

PRACTICALS

Acquaintance and hands on experience in design and development of a digital library
Using any one of the digital library softwares viz. Green stone, DSpace. (Each Student shall
compulsorily maintain practical record and submit the same at the time of practical examination)

Reference:

Xavier, C. World Wide Web Design with HTML. New Delhi: TMH, 2000.
Cooper. Michael D. Design of Library Automation System: File Structure, Data Structures
and Tools. New York: John Wiley, 1996.
David Baker Wendy Evans, Digital Library Economics (Chandos Information Professional
Series) 9781843344032, Chandos Publishing.
Diane Kresh , The Whole Digital Library Handbook :9780838909263 , ALA Editions 2015
Diane Kresh, WHOLE DIGITAL LIBRARY HANDBOOK: 9788184082326, Indiana
Publishing House 2015.
G. G. Chowdhury. Introduction to Digital Libraries. London: Facet Publishing, 2013

**HC 4.2 INFORMATION ANALYSIS, CONSOLIDATION, REPACKAGING AND
DISSEMINATION**

(Hours of Teaching: L:T:P=3:1:0)
(Lectures = 3 X 16 = 48 hrs)
(Tutorials = 1 X 16 = 16 X 2 = 32hrs)

Objectives:

- 1.To understand the concept of Indexing and Abstarcting.
- 2.Get acquainted with variety of information services
- 3.Aware about various Information retrieval systems and disseminating procedures.

COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	Understand the features and structures of Information Retrieval Systems.
CO 2	Gain the knowledge of information search and other search strategies.
CO 3	Understand the features and importance of Indexing Languages.
CO 4	Understand the different kinds of Indexing Systems.
CO 5	Anlayse Information Repackaging and Consolidation process.

Unit-1: Information Retrieval System:

Concept, Meaning, Definition, Objectives, Characteristics, Components and Functions of IRS.

- Information Retrieval Models: Models Based on Input / Output; Models Based on Theories and Tools; Probabilistic Retrieval Model, Linguistic Model, Mathematical Model, Psychological Model, Economic Model and Hypertext Linkage Model. Purpose and criteria for evaluation.

Unit-2: Information Retrieval Process

Objective and feature of Information search,

Search techniques, Search strategies, pre search interview, search logic.

Steps in query formulation, Tools of Internet Search, Search engines,

Multiple database searching, Voice search, Image search, Video search engines.

Unit-3: Indexing and Abstracting

Concept, Need and purpose of Indexing Languages.

Types and Characteristics, - Vocabulary Control, Thesauri and subject headings,

Pre-Coordinate and Post –Coordinating Indexing,

Chain Indexing, Citation indexing, Automatic Indexing.

Abstracting: Concept, Meaning and definitions,

Types and Uses. Abstracting agencies and services.

Unit-4: Current Trends in IRS:

Developments, Searching and retrieval,

Full text retrieval, User interfaces,

IR standards and protocols.

Unit-5: Information Repackaging and Consolidation:

Concept, meaning and utility of repackaging and consolidation of Information products.

Types of Repackaging and Information consolidation of products, Agencies dealing with repackaging, Document delivery and Reprography techniques. - Translation Centers,

Reference:

Chowdhury, G. G. Introduction to Modern Information Retrieval. 2nd edn. London, Facet Publishing, 2003.

Cleaveland, D. B., Cleveland, A. D. Introduction to Indexing and Abstracting. 2001 3rd Ed. Englewood Colo.: Libraries Unlimited.

Crawford, M. J. (1988). Information broking: a new career in information work. London: Facet publishing.

Lancaster, F. W. (1968). Information retrieval systems, characteristics, testing and evaluation. 1968, London: Facet publishing

Lancaster, F.W. (2003). Indexing and abstracting in theory and practice. London: Facet publishing.

Seetharama, S. Information consolidation and repackaging. 1997, New Delhi: Ess Ess

HC 4.3: TECHNICAL WRITING AND COMMUNICATION

(Hours of Teaching:L:T:P = 3:1:0)

(Lectures = 3 X 16=48hrs)

(Tutorials = 1 X 16 =16 X 2 = 32hrs)

Objectives:

1. To impart written communication skills

2. To build confidence relating to effective communication skills

Unit-1: Technical writing:

Technical writing: Definition, Overview, Purpose, Types, Characteristics, Functions

Target groups and their requirements

Planning, drafting editing, finishing and producing the document

Use of editorial tools viz., Dictionaries, Style Manuals, Standards and specifications

Unit-2: Language and technical skills:

Language and technical skills, styles, Semantics, Syntax, Diction, Sentence structure, Readability and aberrations , Information searching and gathering skills , Designing pages: Elements of page design, basic design guidelines, developing a style sheet , Using Visual aids: Tables, Line graphs, Bar graphs, Pie charts, Charts, and Illustrations , Defining, Describing, and providing set of instructions including footnotes and end notes, Summarizing

Unit-3 Structure and format:

Structure and format of journal articles, seminar/ conference papers, review articles, technical reports, informal and formal reports, recommendation and feasibility reports, research proposals, monographs, dissertations/theses

Unit-4: Use of Softwares for Technical Communication:

Use of Adobe PageMaker and Microsoft Publisher for the preparation, production and presentation of scientific and technical communication, Preparation and use of multimedia facilities for presentation , Infographics .

Unit-5: Trends in Technical writing:

Marketing Communication – company white papers, reference manuals, user manuals, on-line help files, application notes, data sheet, errata, newsletters; Documentation support to software products; Business tools to technical writers – Robo help, on-line help, Adobe Frame work and its allied products .

Reference:

Anderson, Paul V and Brockamn, R John and Miller, Carolyn (ed) (1997). New essays in Technical and scientific communication: Research, theory and Pracice. Farmingdale: NY, Baywood

Day, Robert A (1989). Writing scientific papers in English Ed 2. Philadelphia: ISI

Joshi, Yateendra (2003). Communicating in style. New Delhi: TERI

Riodarn, Daniel G and Pauley, Steven E (2004). Technical report writing today. Ed 8. New Deli: Biztantra

Society for Technical Communication (1998). Code for communicators. Washington D C. STC

Staples, Catherine and Ornatowski, Cezar (Ed) (1997). Foundations for teaching technical Communications: Theory, Practice and Program Design. Greenwich, CT: Ablex

Xerox Publishing standards (1988). A manual of style and design. New York: Xerox press.

HC 4.4: INTERNET AND ELECTRONIC PUBLISHING

(Hours of Teaching: L:T:P= 3:1:0)

(Lectures = 3 X 16 = 48 hrs)

(Tutorials = 1 X 16 = 16 X 2 = 32hrs)

Objectives:

- 1. Students can understand history and basic concepts of Internet .**
- 2.To introduce various applications of internet in LISc**

Unit-1: Internet Technology:

Meaning and Definitions

History and Development of Internet

Internet Technology: Tools and Protocols- TCP/IP and others.

Internet, Extranet and Intranet.

Web Browsers: Types, Software, Book Marking, Caching, etc.

Internet security: Firewall and Proxy servers

Unit-2: Internet Services:

E-mail, File Transfer Protocol (FTP), Remote Login, WWW,

Teleconferences, Video conferencing.

Bulletin Board Services and e-Document Delivery Service.

Data Mining and Data Warehousing.

Trends in Networking

Unit-3:Electronic Publishing:

Electronic Publishing:,Meaning, Definition, Significance, Origin, History

DTP vs E-Publishing

Types of E-publishing

Digital copyright issues

Open Access movement and its impact on Scholarly Communication

Concept and Evolution of Authoring Tools; Page Description

Format(PDF); Multimedia Content Creation: Data Compression Techniques:

Multimedia Files and Formats – JPEJ, MPEG,GIF,TIEF

Unit-4:Electronic Content creation:

E-Publishing and scholarly communication, E-journals and e-books

Digital Preservation, Conservation and Archival Management – Problems and prospects

Unit 5: Design and Development of Websites:

Concept of Web page, Planning of Web

pages and Web sites; Study of SGML,HTML,XML and UML; digital Signatures,

Digital Certificates, Electronic Contracts, Cyber Laws: Information Technology Bill

1999 (Govt. of India) and Its Amendments

Reference:

- Andrew Cox (2010). Introduction to Digital Library Management. London: Facet Publishing.
- Bradley, Phil. The advanced Internet Searcher's Handbook Ed2. London: LA, 2002
- Chowdhury, G.G: Introduction to Digital Libraries. London: Facet Publishing, 2003.
- ICADL: Tutorials on Digital Libraries. Bangalore, 2001.
- . Karen S. W. Marilyn B, Stone, T. A. (2003). Electronic publishing: The definitive guide. UK: Hard Shell Word Factory.
- . Leona Carpenter, Simon Shaw & Andrew Prescott: Towards the Digital Library. London: LA, 1998.
- Lee, Stuart D: Digital imaging: A practical handbook. 2000.
- Malwad, N.M. and others (1992): Digital Libraries: Conference papers.
- Marilyn Deegan and Simon Tanner (2010). Digital Futures Strategies for the information age. London: Facet Publishing.
- Jenny Craven (2010). Web Accessibility Practical advice for the library and information professional. London: Facet Publishing.
- David Nicholas and Ian Rowlands (2010). Digital Consumers Reshaping the information professions. London: Facet Publishing.

HC 4.5: INTERNET AND ELECTRONIC PUBLISHING-II

(Hours of Teaching : L:T:P= 0:0:4)

(Practicals = 4 X 16 = 64 X 2 = 128 hrs)

PRACTICALS

Acquaintance and hands on experience in using Internet – Hardware, Software – Internet Explorer, Text Editors, and Add –on- Softwares and its Resources and Services Including JCCC @UGC Infonet and Emerald Resources (www.emeraldinsight.co).

Acquaintance and Hands on experience in using Search Engines- General Meta and Specialized Search Engines – Features, simple and Advance Search; Acquaintance and Hands on experience in Web Page Design and Development using HTML

Acquaintance and Hands on experience in design and development of a website using Web Design Softwarwe: Dreamweaver.

(Each Student shall compulsorily maintain practical record and submit the same at the time of practical examination)

SOFTCORE (ANY ONE)**SC 4.1 : WEB 2.0**

(Hours of Teaching: L:T:P=2:0:2)

(Lectures= 2 X 16 = 32 hrs)

(Practicals = 2 X 16 = 32 X 2 = 64 hrs)

Objectives:

- 1.To acquaint the students with web 2.0 concepts.**
- 2.To impart the skills of web 2.0 applications.**

Unit-1: Web 2.0 Overview: Definition, History, characteristics, Technologies, Concepts and Usage and its Evolution, Web 2.0 challenges for Libraries.

Unit-2: Web 2.0 Applications: Study of the concepts and application: RSS feeds. Metadata. Tags. Tag clouds. Folksonomy, Blogs, Photosharing, Social book marking, Social networking.

Unit 3-Web Broadcasting :

Podcasting, VODcast and Screen cast.

WIKIS, Mashups, Real Time Communications.

Unit 4: Web 2.0 based Library services:

Case studies of Web 2.0 in Libraries.

Unit : 5 Web 2.2 and Open access movement:

Open Access Movement and Institutional repositories. Case study of select digital Libraries and IRs. California Digital Library; Alexandria Digital Library; ArXive; Cogprintis; Indian Scenario

Reference :

Bell, A. (2009). Exploring Web 2.0: second generation internet tools - blogs, podcasts, wikis, networking, virtual worlds, and more. Georgetown, TX: Katy Crossing Press.

. Campesato, O., & Nilson, K. (2011). Web 2.0 fundamentals with Ajax, development tools, and mobile platforms. Sudbury, Mass.: Jones and Bartlett Publishers.

Governor, J., Nickull, D., & Hinchcliffe, D. (2009). Web 2.0 architectures. Sebastopol, CA: O'Reilly Media, Inc.

Shah, S. (2008). Web 2.0 security: defending Ajax, RIA, and SOA. Boston: Charles River Media.

. Shelly, G. B., & Frydenberg, M. (2011). Web 2.0: concepts and applications. Boston, MA: Course Technology.

. Shuen, A. (2008). Web 2.0: a strategy guide. Sebastopol, CA: O'Reilly Media.

. Solomon, G., & Schrum, L. (2010). Web 2.0 how-to for educators. Eugene, O.R. : International Society for Technology in Education.

PRACTICALS:

The Course of Unit 2- 4 shall form the basis for conduct of Practical

(Each Student shall compulsorily maintain practical record and submit the same at the time of practical examination)

SC 4.2: PROJECT

(Hours of Teaching: L:T:P = 0: 0:4)

(Guidance = 4 X 16 = 64 X 2 = 128 hrs)

Objectives:**1.To impart the skills of conducting project and preparing project report.**

Each Student shall Prepare a Project on an approved topic in the field of Library and Information Science under the guidance and supervision of a faculty member.

INTERNSHIP (ONE MONTH)**Objectives:****1.To provide hands-on exposure to students of the functions of different sections of the Libraries.**

There shall be an internship for a period of one month after the Completion of Fourth Semester

Theory and practical examinations. Each student has to compulsorily undergo internship program in any one of the reputed libraries attached to institutions of higher learning, R & D Institutions, Industries, approved by the BOS in Library and Information Science for the Partial Fulfillment of MLISc degree. Each student shall submit the Internship completion certificate from the concerned institutions immediately after the completion of training.