DEPARTMENT OF LIBRARY & INFORMATION SCIENCE
(NAAC Accredited 'A' Grade University)
HIMACHAL PRADESH UNIVERSITY
Summer Hill Shimla-171005

Syllabus and Scheme of Examination
for

Master of Library and Information Science
(M.Lib.I.Sc.)

Course/ProgrammeUnder

(CBCS Semester System)

Applicable w.e.f. Academic session: (2024-25) onward

PROGRAMME DETAIL

1. **Name of the Department:** Department of Library and Information Science (Under Faculty of Social Science)
2. **Name of the Course**: Master of Library and Information Science (M.Lib. I.Sc.)
3. **Nature of the Course**: Regular degree course of study.
4. **Duration of Completion of Course** : Minimum one year (Two Semester),Maximum (Three year from the date of admission to the programme)
5. **Number of Seats** : Thirty (20 - Subsidized and 10 - Non-Subsidized)

6. **Eligibility Criteria for Admission**: -

   (i) The Programme will be available to the candidates who have Bachelor's of Library and information Science degree from any recognized university/ institutes established by the law in India.

   (ii) Preference will be given to the candidates who have working experience in libraries, information centers or other related organizations.

7. **Procedure of Admission:-**
   The admission to the course/Degree shall be on the basis of merit of qualifying examination.

8. **Fees :-**

   For subsidized Seats: Admission Fee for boys = Rs. 7300 /-
   Admission Fee for girls= Rs. 4900/-

   For Non-Subsidized Seats: Rupees 25,000.00 per Semester will be charged form the candidate taking admission under this category in addition to the fee prescribed for the subsidized seats. Fee once deposited under this category will not be refunded under any circumstances.

   Note: Fee subject to change/vary as per decision of the University authorities.

9. **Age Limit:-** The upper age limit will be applicable as per HP University rules for other PG Courses/Merit based courses.

10. **Reservation: -** The reservation for SC/ST/PWD and other applicable categoryshall be as per HP University rules.

11. **Application Form Fee**:- Online application fee for Merit Based Courses will be Rs. 500/-(Rs 250/- in case of SC/ST/Antyodya /IRDP/EWS candidates) for Subsidized seats. The candidates are required to pay additional fee of Rs. 500/- for Non-Subsidized seats. The fee deposited will not be refundable under any circumstances.

12. Examination General:-

(i) Same as otherwise provided in the Statute 20, there will be examination at the end of each semester, a degree shall be awarded to a candidate after such examination.

(ii) In order to be eligible to appear in university examination a candidate should have 75% attendance in each of the concerned courses in theory as well as in practical. (The attendance will be taken into consideration from the date of admission of candidate to the course.)

(iii) The Chairperson of the department may under intimation to the candidate, not later than 15 days before the commencement of the examination, withdraw application of the candidate for the examination, who fails to fulfill the attendance requirement referred at point (12)(ii).

Syllabus of End Semester Examination (ESE) and Internal Assessment (I.A.) Scheme for Degree of Master of Library & Information Science (two-Semester System) (Effective from the Academic session (2024-2025)

INSTRUCTIONS:

I. The medium of instructions and Examinations shall be English only.
II. End Semester Examination (ESE) & Practical Examinations shall be conducted at the end of each semester as per the Academic Calendar notified by H.P. University, Shimla-5, time to time.
III. The maximum time allotted to each paper will be three hours.
IV. Each course (Theory + Practical +Internal Assessment) will carry 100 marks and Internal Assessment will have following components:

Internal Assessment (IA) 20 marks:

a)	Assignment	05 marks
b)	Test/Quiz/Seminar/Model/Mid-Term Examination marks(At least one Test)	10
c)	Attendance	05 marks

Criterion for Class-room attendance (05 marks); 75% Attendance will be minimum eligibility condition for appearing in the examination.

i) Attendance >75 but < 80%	1 mark
ii) Attendance 80% to 85%	2 marks
iii) Attendance > 85% but < 90%	3 marks
iv) Attendance 90% to 95%	4 marks
v)Attendance > 95%	5 marks

Minimum Pass Percentage for each course in every component (ESE, IA & Practical) shall be 50%, separately

Himachal Pradesh University
Department of Library and Information Science

Program Outcomes,
Program Specific Outcomes,
&
Course Outcomes
of
Master of Library and Information Science

PROGRAM OUTCOME:

Upon completion of M.Lib.I.Sc Programme, students will be able to :

1. Develop creativity for better library services.
2. Enhance skills in the latest technologies in the field of LIS.
3. Get them acquainted with basic knowledge on higher academic and research tools and techniques.
4. Carry out innovative research in LIS field and make them lifelong learners.
5. Demonstrate independent learning, analytical and critical thinking of a wide range of ideas and complex problems and issues.
6. Identify, explain, use and critically evaluate both current and emerging information technologies in libraries and information centres.
7. Demonstrate subject-related knowledge and skills that are relevant to academic, professional, soft skills and employability required for higher education and placements.
8. Demonstrate an understanding of research by identifying the fundamental characteristics of quantitative and qualitative research and by analysing the value of research literature in the library and information field

PROGRAMME SPECIFIC OUTCOME:

1. Attain the skills and knowledge on competitive exams, national and state level eligibility tests and other equivalent competitive examinations in the field of Library and Information Science.
2. Capability of getting employment as Librarian, Information Officer, Knowledge Manager, Digital Archivist, Trainer on ICT, Information Managers, and many more positions in Government, Inter Government, Private and Corporate Administration.
3. Attain the capabilities to design and implement academic, research and generic information systems for any type of organization

Himachal Pradesh University
NAAC Accredited 'A' Grade University
Department of Library and Information Science

Master of Library and Information Science

Course Code	Description	Course Type	Periods			Evaluation				Credit
			L	T	P	SE Marks (Theory)	IA	P	Total Marks	
LIS-301	Information Storage and Retrieval	C	6	0	0	80	20	0	100	6
LIS-302	Knowledge Management	C	6	0	0	80	20	0	100	6
LIS-303	Digital Libraries	SEC	6	0	0	80	20	0	100	6
LIS-304	Informetrics, Bibliometrics and Scientometrics	C	6	0	0	80	20	0	100	6
LIS-305(A)	Social Science Information Sources, Systems and Services	DSE	6	0	0	80	20	0	100	6
LIS-305(B)	Biological Science Information Sources, Systems and Services	DSE	6	0	0	80	20	0	100	6
LIS-305(C)	Health Science Information Sources, Systems and Services	DSE	6	0	0	80	20	0	100	6
	Total								**500**	**30**
LIS-401	Research Methodology and Statistical Techniques	C	6	0	0	80	20	0	100	6
LIS-402	Information Analysis, Consolidation & Repackaging	C	6	0	0	80	20	0	100	6
LIS-403	Library Automation and Network (T +P)	SEC	4	0	2	50	20	30	100	5
LIS-404	Digital Preservation and Conservation	C	6	0	0	80	20	0	100	6
LIS-405	Dissertation	C							100	6
	Total								**500**	**29**
	Grand Total (Semester-I and Semester-II)								**1000**	**59**

Abbreviations used:

C : Core
DSE : Discipline Specific Elective
SEC : Skill Enhancement Course
L : Lectures
T : Tutorial
P : Practical

Note: Only one subject should be optedfrom Course type DSE.

M. Lib. I. Sc.

SEMESTER – 1

Course Code	**LIS-301**		
Course Name	**Information Storage and Retrieval**		
Credits	**6**		
Max. Marks= 100	Final Examination =80	Internal Assessment=20	Duration of Exam=3 hours

Course Outcome:

After completing this course students will be able to :

- Comprehend the various dimensions of information documentation
- Understand the Indexing System and techniques.
- Know the components of information storage and retrieval system
- Know the current issues in information storage and retrieval

Note for the Paper Setter: The question paper will consists of Nine questions in all. The first question will be compulsory and will consist of Ten short questions of 2 marks each covering the whole syllabus. In addition, Eight more questions will be set unit-wise comprising of two questions from each of the four units. The candidates are required to attempt four more questions selecting at least one question from each unit of 15 marks each.

Course Contents:

Unit	Description of Course
Unit I	Information Retrieval System: Concept, definition, types, characteristics, components of ISRS. Information Retrieval Models. Library information retrieval systems: Web-OPAC, digital libraries. Evaluation of anInformation Retrieval System: Recall, Precision and Relevance, Relevance feedback.
Unit II	Indexing Systems and Techniques: Assigned and Derived Indexing. Pre Coordinate and Post Coordinate indexing. Chain Indexing, PRECIS, POPSI. Key Word Indexing: KWIC, KWAC, KWOC. Citation Indexing: Features of Scopus. Web of Science. Concept of Automatic Indexing.
Unit III	Vocabulary Control: Need, Purpose, Functions, types and characteristics. Vocabulary Control Tools: Subject Headings: Library of Congress Subject Headings, Sears List of Subject Headings and Medical Subject Headings, Thesaurus: Features, Structure and Construction, ERIC, UNESCO Thesaurus. Taxonomies

Unit IV	Information Searching: Search Methods and Search Strategy: Boolean Search, Heuristic Search, Proximity Search, Phrase Search, Truncation search. Information Searching in Different Media: Print, Electronic and Internet. Federated Search: Concept and Features. Web-Scale Discovery System (WSDS): Concept and Features. Search engines, Meta search engines, Z39.50 and metadata. DOI: Concept. Basics of Data Mining.

Suggested Readings:

1. Bates, M.J. (2012). Understanding information retrieval systems: management, types and standards. Boca Raton, FL: CRC press.
2. Kowalski, G.J. &Maybury, M.T. (2002). Information Storage and Retrieval System: theory and implementation. (2nd ed.). New York: Kluwer.
3. Cleveland, D. & Cleveland, A. (2013) Introduction to indexing and Abstracting. (4th ed.). Englewood: Libraries Unlimited.
4. Aitchison, J., Gilchrist, A. &Bawden, D. (2005). Thesaurus construction anduse: a practical manual. (4th ed.). London: Taylor and Francis.
5. Fransson, J. (2009). Efficient Information searching on the web: a handbook in the art of searching for information. Sweden: Fransson
6. Manning, C. D., Raghavan, P., &Schütze, H. (2008). Evaluation in information retrieval. Introduction to information retrieval, 151-175
7. Bajpai, S.K. (1999). Modern information retrieval. New Delhi :EssEss Pub.
8. Chowdhary, C.G. (1996). Text retrieval systems in information management. New Delhi: New Age International Pub.
9. Ellis, David. (1996). Progress and problems in information retrieval. London:LA.
10. Lancaster, F.W. (1998). Indexing and abstracting in theory and practice. (2nd ed.). London: LA. Riaz M. (1989)

M. Lib. I. Sc.
Semester-I

Course Code	**LIS-302**		
Course Name	**Knowledge Management**		
Credits	**6**		
Max. Marks= 100	Final Examination =80	Internal Assessment=20	Duration of Exam=3 hours

Course Outcome:

After completing this course students will be able to:

- Understand how knowledge is created and communicated.
- To develop an awareness of value of knowledge assets and to learn how the KM strategies can enhance organization's work performance.
- To learn how advances in CITs and various KM tools can help in more effective management of knowledge resources and services.
- To understand how KM practice can be aligned with organization's work processes and activities.

Note for the Paper Setter: The question paper will consists of Nine questions in all. The first question will be compulsory and will consist of Ten short questions of 2 marks each covering the whole syllabus. In addition, Eight more questions will be set unit-wise comprising of two questions from each of the four units. The candidates are required to attempt four more questions selecting at least one question from each unit of 15 marks each.

Course Contents:

Unit	Description of Course
Unit I	**Basic concepts of knowledge Management** • Introduction to KM: Evolution, definition, objectives and prospective of KM • Types of knowledge : Tacit and Explicit • DIKW cycle • Knowledge Society and Knowledge Economy
Unit II	**Knowledge Management Model** • Knowledge Management Models • Role of library in knowledge Society/ Knowledge Management • Information management Vs Knowledge Management • Problem of KM in implementation
Unit III	**Strategic knowledge management** • Principles of knowledge management • Strategies for knowledge management • Linkages with Communities of Practice • Achieving competitive advantage through strategic knowledge management

Unit IV	**Developing knowledge resources and services** • Developing and managing knowledge repositories • Evaluation and quality control of knowledge resources • Developing an effective knowledge service • Role of information technology in knowledge management • Knowledge management tools – Intranets, Social networking and knowledge sharing, Select KM tools

Suggested Readings:

1. Shelda Debowski, Knowledge Management, Milton, John Wiley & Sons,2006, 368p.
2. I V Malhan & Shivarama Rao, Perspectives on Knowledge Management, Maryland, The Scarecrow Press, 2008, 454p.
3. Irma Bacerra, Avelino Gonzalez, Rajiv Sabherwal, Knowledge Management Challenges,Solutions and Technologies, Prentice Hall, 2004
4. Carl Frappolo, Knowledge Management, Oxford: Capstone, 2002
5. Yogesh Malhotra, Knowledge Management, Hershey, Idea groups, 2000
6. Brain Lehaney, Beyond Knowledge Management, Hershey, Idea groups, 2000

M. Lib. I. Sc.
Semester-I

Course Code	**LIS-303**		
Course Name	**Digital Libraries**		
Credits	**6**		
Max. Marks= 100	Final Examination =80	Internal Assessment=20	Duration of Exam=3 hours

Course Outcome:

After completing this course students will be able to:

- Know the basic concepts related to digital library system.
- Explore the applications of software and standards in developing digital library systems.
- Understand the technologies involve in the building of digital libraries
- Expertise with the use of CMS Software.

Note for the Paper Setter: The question paper will consists of Nine questions in all. The first question will be compulsory and will consist of Ten short questions of 2 marks each covering the whole syllabus. In addition, Eight more questions will be set unit-wise comprising of two questions from each of the four units. The candidates are required to attempt four more questions selecting at least one question from each unit of 15 marks each.

Course Contents:

Unit	Description of Course
Unit I	**DIGITAL LIBRARIES** • Digital libraries: Definition, Objectives, Scope, Types and feature • Digital Resources: Nature, Characteristics and types • Digital library initiatives: National and International • Traditional Knowledge Digital Library (TKDL) and World Digital Library (WDL)
Unit II	**SCHOLARLY COMMUNICATION AND OPEN ACCESS** • Scholarly Communication: Concept and Cycle • Open Access: Concept, Color, Benefits and Mandates • OA Publishing Models • Open Access Journal: - Sherpa- Romeo and Juliet (Introduction) • Digital Repository: DOAJ, DOAB
Unit III	**DIGITAL LIBRARY SOFTWARE** • Installation, Features and Functionality: Dspace, Greenstone, E-prints, Fedora, Omeka • E-resources: Introduction, types, e-journal, e-book, e-databases, ERM • OERs: concept, Objectives, Principles and Licenses • Digital Right Management(DRM) and Fair use

Unit IV	**STANDARD PROTOCOL** • File Formats and Character Encoding Standards: ASCII, ISCII, Unicode • Interoperability Standards: OAI-PMH , OAI-ORE • Metadata: Concept, Types, Metadata Standards: Dublin core, METS, MODS • OAIS Model, AIP, SIP, DIP, DCC

Suggested Readings

1. Chowdhury, G G and Chowdhury, Sudatta, (2003) –Introduction to Digital Libraries, Facet Publishing, UK.Print
2. Haddouti, H. (1997) The Digital Library Initiatives. Proceedings of the Symposiumon The Arab World and Information Society Tunis, May 4-8, UNESCO, (invitedTalk)
3. http://dspace.iimk.ac.in/bitstream/2259/252/1/05-mgs-ps-paper.pd
4. fhttp://www.dlib.org/dlib/july05/lynch/07lynch.htm
5. Witten, Ian H. and Bainbridge, David (2003). How to build a digital library. Morgan Kaufman Publishers. Print
6. Witten, Ian H. (2003). Examples of practical digital libraries: Collections builtinternationally using Greenstone. D-Lib Magazine, March. http://dlib.org/dlib/march03/witten/03witten.html
7. Greenstone training workshop material. Greenstone Digital Library Project and NCSI, IISc.
8. http://www.greenstone.org/

M. Lib. I. Sc.
Semester-I

Course Code	**LIS-304**		
Course Name	**Bibliometrics, Informetrics and Scientometrics**		
Credits	**6**		
Max. Marks= 100	Final Examination =80	Internal Assessment=20	Duration of Exam=3 hours

Course Outcome:

After completing this course students will be able to :

- Understand the basic concepts of Librametrics, Bibliometrics, Scientometrics and other important metrics used in LIS
- Understand the importance of Bibliometrics tools and technique in research.
- Understand the application of different Bibliometrics laws.
- Understand the latest trends the developments in the informetrics and Scientometrics analysis.

Note for the Paper Setter: The question paper will consists of Nine questions in all. The first question will be compulsory and will consist of Ten short questions of 2 marks each covering the whole syllabus. In addition, Eight more questions will be set unit-wise comprising of two questions from each of the four units. The candidates are required to attempt four more questions selecting at least one question from each unit of 15 marks each.

Course Contents:

Unit	Description of Course
Unit I	**Origin and Development of Bibliometrical Studies** • Metrics: Meaning & Definitions; Classes of Metrics: Classical Metrics, • Neo-Classical Metrics, And Modern Metrics; • Metric Studies in LIS: Librametrics; Bibliometrics; Scientometrics; • Informetrics; • Cybermetrics & Webometrics: Meaning, Definition, Key areas of • Webometrics • Altmetrics: Meaning, Definition, Functions, & Important Altmetrics Tools
Unit II	**Bibliometrics Laws** • Lotka's law of scientific productivity, • Bradford's law of scatter, and • Zipf's law of word occurrence • Other Empirical Laws & Models: Based on Bradford's Law; Based on • Lotka's Law; Based on Zipf's Law

Unit III	**Application of Bibliometrics** • Citations & Citation Analysis: Meaning, Definitions & Purpose • Important areas of Citation Analysis; Applications & Limitations of • Citation Analysis • Citation Index: Science Citation Index; Social Science Citation Index • Science Impact Factors: Journal Impact Factor, h-index, g-index, i-10 index
Unit IV	**Trends and Developments** • Current trends and developments in Informetrics and Scientometrics: • Software for bibliometric analysis with emphasis on Open-source software. • Data Sources and Software Tools for Bibliometric Studies: • Web of Science; Scopus; Indian Citation Index; Google Scholar

Suggested Readings

1. Egghe, L. and Rousseau, R. (2001). Elementary statistics for effective Library and Information services management. London: Aslib,
2. Garfield, E. (1979). Citation Indexing: Its theory and applications in science, technology and humanities. New York: John Wiley.
3. Meadows, A.J. (1974). Communication in Science. London: Butterworths.
4. Neuendorf, K. (2002). The content analysis guidebook. London: Sage.
5. Nicholas D. and Ritchi, M. (1979). Literature & bibliometrics. London: Clive Bingley.
6. Ravichandra Rao, I.K. (1985).Quantitative methods for Library and Information Science. New Delhi: Wiley Eastern, 1985.
7. The lwall, M. (2009). Introduction to webometrics: Quantitative web research for the social Sciences. Morgan and Claypool Publishers.

M. Lib. I. Sc.
Semester-I

Course Code	**LIS-305(A)**		
Course Name	**Social Science Information Sources, Systems and Services**		
Credits	**6**		
Max. Marks= 100	Final Examination =80	Internal Assessment=20	Duration of Exam=3 hours

Course Outcome:

After completing this course students will be able to :

- Understand the growth and research trends of subject of social sciences.
- Learn about the systems and networks in social sciences.
- Know about the various institutions working towards the development of social sciences.
- Understand the databases and resources important for the social science community.

Note for the Paper Setter: The question paper will consists of Nine questions in all. The first question will be compulsory and will consist of Ten short questions of 2 marks each covering the whole syllabus. In addition, Eight more questions will be set unit-wise comprising of two questions from each of the four units. The candidates are required to attempt four more questions selecting at least one question from each unit of 15 marks each.

Course Contents:

Unit	Description of Course
Unit I	Structure and Development of Social Sciences: Definition, scope, landmarks and research trends in the disciplines of Political Science, Economics, Sociology, Psychology, History.
Unit II	Social Science Information Sources: Evaluation of the following Information sources : Print and non-print, electronic and Web-based : British Humanities Index. Current Sociology. Historical Abstracts. International Bibliography of the Social Sciences. Political Science Abstracts. Population Index. Social Science Citation Index. Sociological Abstracts. UN Demographic Yearbook. Business Periodicals Index. NewPalgrave Dictionary of Economics. Social Science Index. Gazetteer of India. PAIS International. Wealth of India. Wilson Social Science abstracts. ECONLIT, PsychINFO, RePEC
Unit III	Social Science Information Institutions: Study of the following Social Science Institutions engaged in information generation and dissemination: Centre for Policy Research. ICSSR. ICWA. Institute for Defense Studies and Analysis.

	Indian Instituteof Public Administration National Council for Applied Economic Research. NationalInstitute of Public Finance and Policy. Tata Institute of Social Sciences. UNESCO. Indian Council of Historical Research. Institute of Economic Growth.
Unit IV	Social Science Information System: Concept and evaluation. Evaluation of existing Information Associations, Systems and Networks in Social Sciences at national and international level. International Political Science Association. International Sociological Association. Socio Site. International Social Science Council (ISSC). International Committee for Social Science Information and Documentation (ICSSD). Social Science Research Network (SSRN)

Suggested Readings

1. Agrawal, S.P. (1987). Social science information and documentation: search for relevance in India. New Delhi: Concept Pub.
2. Agrawal, S.P. (1989). Development of library services in India: social science information. New Delhi: Concept.
3. Association of Librarians and Information Professionals in the Social Sciences. (2010). Innovations in social sciences information and research support. London: Association of Librarians and Information Professionals in the Social Sciences.
4. Atherton, P. (1980). Handbook for information systems and services. In Handbook for information systems and services. Paris: UNESCO.

M. Lib. I. Sc.
Semester-I

Course Code	**LIS-305(B)**		
Course Name	**Business Information Sources, Systems and Services**		
Credits	**6**		
Max. Marks= 100	Final Examination =80	Internal Assessment=20	Duration of Exam=3 hours

Course Outcome:

After completing this course students will be able to :

- Understand the growth and research trends of subject of business.
- Learn about the systems and services in Business.
- Know about the various institutions working towards the development of business.
- Understand the databases and resources important for the Business.

Note for the Paper Setter: The question paper will consists of Nine questions in all. The first question will be compulsory and will consist of Ten short questions of 2 marks each covering the whole syllabus. In addition, Eight more questions will be set unit-wise comprising of two questions from each of the four units. The candidates are required to attempt four more questions selecting at least one question from each unit of 15 marks each.

Course Contents:

Unit	Description of Course
Unit I	Business Information: Nature and characteristics: Its role, generation and utilization. Systems view of business information. Components of Business Information Systems: Resources, centers, consultants, suppliers, financial organizations, industrial promoters, etc. Users of business information: Categories, role, functions, and need.
Unit II	Business Information Sources and Products: Sources of Information: Directories, Digests, Market, Research Reports, Trade Literature, Technical Notes, Company Profiles, Patent, Design and Trade Marks, Standards, Databases. Information services: CAS, SDI, Technical Enquiry Service, other computerized services
Unit III	Business Information Institutions and Networks: Information Networks: overview of Business Information Networks. Institutional: national and international: Studies related to the activities of: NIDCS, IIFT, ITPO, CII, FICCI, UNIDO, UNCTAD

Unit IV	Organizing Business Information for End user Support: Database System: Business Measurement System; Business Planning System. Text Management System: Text retrieval system; Office systems Management Support Systems: Decision support systems; information centers.

Suggested Readings:

1. Campbell, M.J. (Ed.). (1975). Manual of business library practice. NY: Shoe String PressInc.
2. Curtis, G., & Cobham, D. (2008). Business information systems: Analysis, design and practice. NY: Pearson Education.

M. Lib. I. Sc.
Semester-I

Course Code	**LIS-305(C)**		
Course Name	**Health Science Information Sources, Systems and Services**		
Credits	**6**		
Max. Marks= 100	Final Examination =80	Internal Assessment=20	Duration of Exam=3 hours

Course Outcome:

After completing this course students will be able to :

- Understand the growth and research trends of subject of Health Science.
- Learn about the systems and services in Health Science.
- Know about the various institutions working towards the development of Health Science.
- Understand the trends in Health Science.

Note for the Paper Setter: The question paper will consists of Nine questions in all. The first question will be compulsory and will consist of Ten short questions of 2 marks each covering the whole syllabus. In addition, Eight more questions will be set unit-wise comprising of two questions from each of the four units. The candidates are required to attempt four more questions selecting at least one question from each unit of 15 marks each.

Course Contents:

Unit	Description of Course
Unit I	Health Science Information: Growth and development of Health Science. Types of Health Science libraries/information centers. Information Services: Current Awareness Service, SDI service, Indexing and abstracting service, Literature search. Users of Health Science information.
Unit II	Health Science Information Sources: Sources of Information: Documentary: Printed and non-print.
Unit III	Health Science Information Institutions: National Medical Library. WHO. ICMR. Department of Biotechnology. Council of Ayurveda and Siddha. Council of Homeopathy. National Institute of Health and Family Welfare. CDRI. CFRI. CFTRI.NIN. NII. NIC
Unit IV	Information Systems and Networks: HELLIS, MEDLARS, BIOSIS. Trends in Health Science Information System. Application of Hypertext, Hypermedia, Multimedia. Expert System and Artificial Intelligence.

Suggested Readings:

1. Carmel, M. (Ed.). (1995): Health care librarianship and Information work. (22nd ed.). Library Assn Pub Limited.
2. Dixit, R.P. (1995). Information management in Indian medical libraries. New Delhi: New Concepts.
3. Gupta, S.P. (1993). Information technology and health science libraries. New Delhi: MLAI SP. Pub.

M. Lib. I. Sc.

SEMESTER – II

Course Code	**LIS-401**		
Course Name	**Research Methodology and Statistical Techniques**		
Credits	**6**		
Max. Marks= 100	Final Examination =80	Internal Assessment=20	Duration of Exam=3 hours

Course Outcome:

After completing this course students will be able to:

- Understand research and its importance.
- Understand the different methods and techniques of research.
- Know the use of data collection tools, organization and representation of data.
- Know about how to prepare research report.

Note for the Paper Setter: The question paper will consists of Nine questions in all. The first question will be compulsory and will consist of Ten short questions of 2 marks each covering the whole syllabus. In addition, Eight more questions will be set unit-wise comprising of two questions from each of the four units. The candidates are required to attempt four more questions selecting at least one question from each unit of 15 marks each.

Course Contents:

Unit	Description of Course
Unit I	**Concept of Research**: • Definition, meaning, objectives, characteristics • Types of Research • Qualitative and Quantitative Approaches: Introduction • Identification and formulation of research problem • Literature review • Spiral of Scientific method • Hypothesis: feature, types and formulation • Research Process
Unit II	**Research Methods, Techniques and Tools** • Research Design: An Introduction. • Research Methods: Historical, Survey, Experimental and Case Study (their application in Library and Information Science) • Data collection tools: Questionnaire, Interview and Observation. • Sampling techniques: Probability and non-probability.

UnitIII	**Data Analysis and Its Techniques** • Descriptive and inferential statistics: An Introduction. • Measures of Central Tendency: Mean, Mode, Median. • Measures of Dispersion. Mean deviation and Standard deviation. • Representation of Data: Tabular, bar diagram, Pie-chart and graphic • Data Analysis tests - Chi-square, t-test, z-test and f-test
UnitIV	**Computerized data Analysis:** • Introduction: SPSS, INNOVA& REGRESSION • Research Report: Structure, style, contents and guidelines • Reference Styles: APA(latest edition).

Suggested Readings:

1. Best, J.W. & Kahn, J. (2005). Research in education. (10th ed.) New Delhi:Pearson
2. Bryman, A. (2012). Social research methods. (4th ed.). Oxford: Oxford University Press.
3. Henn, M., Weinstein, M. &Foard, N. (2009). A critical Introduction to Social Research. London: Sage.
4. Kothari, C.R. (2004). Research Methodology: Methods and Techniques. (2nd ed.). New Delhi: New Age International.
5. Pickard, A. J. (2013). Research Methods in Information. (2nd ed.). London: Facet.
6. Punch, K. F. (2014). Introduction to Social Research: Quantitative and qualitative Approach. (3rd ed.). London: Sage.
7. Kumar, R. (2011). Research Methodology: A step-by-step for beginners. (3rd ed.). London: Sage.
8. Sehgal R.L. (1998). Statistical methods for Libraries. New Delhi: EssEss Pub.
9. Sinha, S.C. &Dhiman, A.K. (2002). Research Methodology. (Vol. 2). New Delhi :EssEss. Pub.
10. Wildemuth, B. M. (2009). Applications of Social Research to questions in information and libraries Science. Westport: Libraries Unlimited
11. Busha, C.H. & Harter, S. P. (1980). Research methods in librarianship: Techniques and interpretation. New York : Academic PressKumar, K. (1992).Research methods in library and information science. New

M. Lib. I. Sc.

SEMESTER-II

Course Code	**LIS-402**		
Course Name	**Information Analysis, Consolidation and Repackaging**		
Credits	**6**		
Max. Marks= 100	Final Examination =80	Internal Assessment=20	Duration of Exam=3 hours

Course Outcome:

After completing this course students will be able to:

- Know the meaning, objectives, use and importance of Consolidation and Repackaging.
- introduce the information repackaging and consolidation techniques
- Understand the concept of marketing of information products & services.
- To be familiar with the current trends in marketing of Information services and products.

Note for the Paper Setter: The question paper will consists of Nine questions in all. The first question will be compulsory and will consist of Ten short questions of 2 marks each covering the whole syllabus. In addition, Eight more questions will be set unit-wise comprising of two questions from each of the four units. The candidates are required to attempt four more questions selecting at least one question from each unit of 15 marks each.

Course Contents:

Unit	Description of Course
Unit I	Information Analysis, Consolidation and Repackaging: Concept, need and process. Guiding Principles for arrangement and presentation of idea in a helpful sequence. Information Consolidation Products: Concepts, types, design, development and methodology. Knowledge and skills required for information analysis and consolidation.
Unit II	Information Products: Newsletters, Hand Books, House Bulletins, In-house Communication, Trade Bulletin, Product Bulletin, State-of-the-Art Report, Trend Report, Technical Digest: Nature, concept, types, design; and development
Unit III	Content Analysis: Concept, types and processes. Abstract: Definition and types, Characteristics and Qualities of good abstracts. Abstracting: need and process. Computers and Abstracting. Abstracting organizations and Services.

Unit IV	Planning and Management of Information Analysis and Consolidation Unit. Marketing of Information Products - Concept, need and benefits; 5 Ps of Information Marketing; Marketing in profit and non-profit organizations. Trends in marketing of Information services and product and information Marketing in India

Suggested Readings:

1. Bhattacharyya, G. & Gopinath, M.A. (Eds). (1981). Information analysis and consolidation: Principles, procedures and products. In DRTC Annual seminar No.18. Bangalore: D.R.T.C.
2. Cleveland, D. & Cleveland, A. (2013) Introduction to indexing and Abstracting. (4th ed). Englewood: Libraries Unlimited.
3. Drotner, K. & Schroder, K. C. (2010). Digital content creation: perception, practices and perspectives. New York: Peter Lang.
4. Gupta, B.M. (Ed.). (1988-2000). Handbook of libraries, archives and information centers in India. (Vols 16.) New Delhi: Information Industry pub.
5. Koltay, T. (2010). Abstracts and abstracting: a genre and set of skills for the21st century. Oxford, Chandos .
6. Saracevic, T.& Wood, J.S. (1981). Consolidation of information: A handbook of evaluation, restructuring and repackaging of scientific and technical information. Paris: UNESCO.
7. Seetharama, S. (1997). Information consolidation and repackaging. New Delhi: EssEss pub.
8. Singh, S. (2014). Information Analysis and Consolidation. New Delhi. Atlantic Publishers.
9. Branderth, M. (1982). Specialised information analysis centres in international development: Report of a meeting held at Montebellow.Quebec, Canada: I.D.R.C..
10. Carroll, B. T. &Maskewitz, B. F. (1980). Information analysis centers. In Williams, Martha E. (Ed) Annual review of information science and technology. (Vol.15).
11. Crawford, J. (2003). Evaluation of library and information services. Routledge.
12. Kertesz, F. (1978). Guidelines for establishing and operating information analysis centers. Paris: UNESCO.
13. Seetharama, S. (1985). Modes of presentation of information in information consolidation products. SRELS Journal of Information Management, 22(1), 44-56

M. Lib. I. Sc.
Semester-II

Course Code	**LIS-403**			
Course Name	**Library Automation and Networks (Theory)**			
Credits	**5**			
Max. Marks= 100	Final Examination =50	Internal Assessment =20	Practical = 30	Duration of Exam =3 hours

Course Outcome:

After completing this course students will be able to :

- Understand the various working and functions of library automation systems.
- To know various tools necessary for library automation.
- To know about ILMSs
- Get them acquainted with the various information organization standards and networking protocols required in a library automation system.

Note for the Paper Setter: The question paper will consists of Nine questions in all. The first question will be compulsory and will consist of Five short questions of 2 marks each covering the whole syllabus. In addition, Eight more questions will be set unit-wise comprising of two questions from each of the four units. The candidates are required to attempt four more questions selecting at least one question from each unit of 10 marks each.

Unit	Description of Course
Unit I	**Library automation** • Definition, need, purpose and advantages, historical Development • Library Automation Process • Areas of Automation: Acquisition, Cataloguing, Access to Catalogue(OPAC), Circulation and Serial Control • Advantages and barriers of Library Automation
Unit II	**Library Automation Softwares** • ILMS: Concept, features and Types. • Open Source Software: KOHA, Evergreen, NewGenLib (Introduction and Features) • Proprietary Software : SOUL and LIBSYS (Introduction and Feature) • Freeware Software: e-Granthalaya (Introduction and Feature)
Unit III	**Automation Standards, Tools & Techniques:** • Retrospective conversion techniques and process • Standard relevant to Library Automation: MARC, UNIMARC, FRBR, CCF, RDA •Information retrieval protocol: Z39.50 • Barcode Technology: Need, Purpose and implementation. •RFID Technology: Need, Purpose and implementation.

Unit IV	**Library networks and information systems** • Library Networks : (National and International) •Documentation Center: NIScPR, DESIDOC, SENDOC, NASSDOC • Information Systems :PADIS, ENVIS, INIS, AGRIS, BIOSIS, MEDLARS

Library Automation and Networks (Practice)

Note: The practical will be of 30 marks and will be conducted by the Department internally.

Unit	Description of Course
Unit I	Hands-on experience with the WINISIS and CDS/ISIS
Unit II	Open Source : Hands-on experience with the KOHA
Unit III	Freeware : Hands-on experience with the e-Granthalya
Unit IV	Mini Project

Suggested Readings:

1. R.S.Aswal. Library Automation for 21st Century, New Delhi, Ess Publication.
2. Desiree Webber and Andrew Peters. Integrated Library Systems: Planning, Selecting, and Implementing, London: Libraries Unlimited, 2010.
3. Thomas R. Kochtanek and Joseph R. Matthews. Library Information Systems: From Library Automation to Distributed Information Access Solutions, London: Libraries Unlimited, 2002
4. H. K. kaul. Library Networks: An Indian Experience, New Delhi: Virgo Publications, 1992.
5. Satyanarayana, N. R. A manual of computerization of libraries. New Delhi: Viswa Prakashan, 1995.
6. John M. Cohn, Ann L. Kelsey and Keith Michael Fiels .Planning for library automation: A Practical Handbook, London : Library Association, 1998.
7. Michael D. Cooper, Design of Library Automation Systems: File Structures, Data Structures, and Tools, London: John Wiley & Sons

M. Lib. I. Sc.

SEMESTER – II

Course Code	**LIS-404**		
Course Name	**Digital Preservation and Conservation**		
Credits	**6**		
Max. Marks= 100	Final Examination =80	Internal Assessment=20	Duration of Exam=3 hours

Course Outcome:

After completing this course students will be able to :

- Know the ways to examine the various components of a preservation program and will be able to differentiate between conservation and preservation of library materials.
- Identify various factors of deterioration of library materials.
- Design effective security and disaster planning program.
- Assess strategies for devising a mission statement and developing a preservation policy.

Note for the Paper Setter: The question paper will consists of Nine questions in all. The first question will be compulsory and will consist of Ten short questions of 2 marks each covering the whole syllabus. In addition, Eight more questions will be set unit-wise comprising of two questions from each of the four units. The candidates are required to attempt four more questions selecting at least one question from each unit of 15 marks each.

Course Contents:

Unit	Description of Course
Unit I	• Preservation and Conservation: Meaning, Definition, Historical Development, Need and Purpose. • Digital Preservation: Tools, Policy, Approaches Strategy, Standard and Evaluation (PREMIS) • Problems in Preservation and Conservation
Unit II	• Preservation of Printed material: Books, Periodicals and Pamphlets • Preservation of Non Printed Material: Palm Leaves, Manuscripts, Films • Preservation Metadata Maintenance Activity
Unit III	• Disaster and Risk Management in Library, archives and museums • Hazards to library materials: Environmental Factors, Biological Factors, Chemical Factors • Integrated Pest Management • Indigenous traditions and manuscript preservation

Unit IV	• Digitalization: Meaning, archive of heritage material and their creation • PreservationProjects. Archiving: Concepts, Methods and Procedures. • Preservation Initiatives: National Mission on Manuscripts, National Archives of India, IGNCA • Binding :Concept, types, Materials and their varieties and process • Binding Standards of Library Binding

Suggested Readings:

1. Feather, John (1996). Preservation and the Management of Library Collections. 2nd Ed. London: Library Association Publishing.
2. Henderson, Kathryn Luther and Henderson, William T. (ed). (1983). Conserving andPreserving Library Materials. Urbana Champaign: University of Illinois.
3. Harvey, Ross. (1994). Preservation in libraries: principles, strategies and practices for librarians. London:Bowker Saur.
4. Johnson, Arthur W. (1983). The Practical Guide to Book Repairand Conservation.London: Thames and Hudson.
5. Morrow, Carolyn Clark. (1983). The Preservation Challenge: A Guide to ConservingLibrary Materials: Knowledge. Industry Publications.National Archives ofIndia. (1988). Repair and Preservation of Records. New Delhi.
6. Prajapati, C.L .(1997). Archivo-Library Materials – Their Enemies and Need ofFirstPhase Conservation. New Delhi: Mittal Publications.

M. Lib. I. Sc.

SEMESTER – II

Course Code	**LIS-405**
Course Name	**Dissertation**
Credits	**6**

Course Outcome:

After completing this course students will be able to :

- Develop research skills.
- Solve research problems through `scientific method' of investigation;
- Develop writing, presentation, communication and analytical skills;
- Develop ability to apply multi disciplinary concepts, tools and techniques; and solve problems of libraries information centers, knowledge centers and similar other organizations.

Course Content:

Dissertation will be of 100 marks and will be evaluated by the subject experts recommended bythe Chairman of the Department and duly approved by the Hon'ble Vice Chancellor of the University.