Approved in PGBOS meeting held on 15.02.2021

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE (FACULTY OF ARTS AND LANGUAGES) KURUKSHETRA UNIVERSITY KURUKSHETRA

(Established by the State Legislature Act XII of 1956) ("A+" Grade, NAAC Accredited)

PROGRAM NAME: MASTER OF LIBRARY AND INFORMATION SCIENCE (M.Lib.I.S.) CBCS (Choice Based Credit System)/LOCF/under Mapping Matrix SESSION 2020-21

1. About the Program

Master of Library & Information Science (M.Lib.I.S.) is a one year professional degree program spread over two semesters. Anyone having Bachelor's degree in Library & Information Science (B.Lib.I.S.) or equivalent degree from any recognized University/Institution, with atleast 55% marks or equivalent grade in aggregate is eligible for admission to this program. After completing this programme, a candidate will become eligible for the positions of Librarian in college libraries, Assistant Librarian in higher educational institutions and various professional positions in public and special libraries.

2. Program Outcomes (Faculty of Arts & Languages)

Table-1: Program Outcomes

PO1	Depth and Breadth of Knowledge	A systematic understanding of knowledge within the discipline and in related discipline/s, and a critical awareness of current problems and/or new insights informed by the forefront of their academic discipline.
PO2	Research and scholarship	 a) A working comprehension of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline. b) A treatment of complex issues and judgments based on established principles and techniques.
PO3	Level of application of knowledge	a) Knowledge of Information available in diverse media and formats, their access mechanism, retrieval techniques and evaluation for lifelong learning.b) Competence in applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue.

PO4	Awareness of limits of knowledge	Cognizance of the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines
PO5	Professional capacity/autonomy	Acquiring and showing qualities and transferable skills necessary for employment: exercise of initiative, personal responsibility, intellectual independence, ethical behavior and academic integrity.
PO6	Level of Communication Skills	Ability to communicate effectively in presenting ideas orally and in writing (oral communication; written communication).
	Lifelong Learner	Knowledge of Information resources available in diverse media and formats, their access mechanism, retrieval techniques, evaluation and ethical use to solve specific problems so as to develop into a lifelong learner.

3. PROGRAM SPECIFIC OUTCOMES (PSOs)

After completing the M.Lib.I.S. program, the students will be able to:

Table-2: Program Specific Outcomes (PSOs)

PSO1	Understand the philosophy of Librarianship incorporating ideas related to purpose of libraries and
	Information Centres in diverse areas of scholarship.
PSO2	Critically analyse and restructure information, products and research data using ICT tools to provide
	services to suit the requirements of specific user groups.
PSO3	Apply the principles and techniques of information processing & retrieval in planning and designing
	databases information systems and services.
PSO4	Independently plan and manage college libraries, individual sections in University libraries and special
	libraries in various professional capacities.
PSO5	Use and apply state-of-the-art technology for managing libraries and providing user services within and
	beyond four walls of the library in the light of changing user requirements in the digital era.
PSO6	Identify current problems in different types of libraries and other information institutions and
	investigate those issues using standard methods, techniques, tools and technologies for arriving at
	satisfactory solutions.
PSO7	Demonstrate critical thinking, vision and innovation for understanding, researching and solving ethical,
	technological and other real world problems in changing information landscapes.

4. Duration and Credits for M.Lib.I.S.

- a. The M.Lib.I.S. progam is of one year duration spread over into 2 Semesters.
- b. Every Student of M.Lib.I.S. program has to earn 42 credits as described under:

Table-3: Duration and Credits for M.Lib.I.S.

CORE COURSES- CREDITS	32	Semester I = 14 Semester II = 18
ELECTIVE COURSE-CREDITS	08	Semester I = 04 Semester II = 04
OE COURSE- CREDITS	02	Semester II = 02
TOTAL	42	42

5. Course Outcomes and Mapping Matrix

- 1. Each course of the M.Lib.I.S. program has two/four Course Outcomes (COs) which are mapped or associated with POs as well as PSOs.
- 2. Mapping of correlation between COs and POs, COs and PSOs in the scale of 1 to 3 has been done as per Table 1:

Table 4: Scale of Mapping between COs and POs & COs and PSOs

Scale 1	If the contents of course have Low correlation (i.e. in agreement with the particular PO/PSO to a small extent) with the particular Programme/Programme Specific outcome
Scale 2	If the contents of course have Medium correlation (i.e. in agreement with the particular PO/PSO to a reasonable extent) with the particular Programme/Programme Specific outcome
Scale 3	If the contents of course have Strong correlation (i.e. in agreement with the particular PO/PSO to a large extent) with the particular Programme /Programme Specific outcome

Scheme of Examination and Syllabus of Master of Library & Information Science w.e.f. 2020-21

6. Semester Wise Scheme of Teaching and Examination SEMESTER-I

Paper Code	Nomenclature of Course	Total Credits			Teaching Work	IA Theory	Max. Marks	IA Practical	Max. Marks	Total Marks	of	Duration of	
		L	Т	P	Total	Load per week in		Theory		Practical		Theory Exam	Practical Exam
						CO	RE CO	URSES					
MLIS-101	Information Analysis, Consolidation and Repackaging (Theory and Practice)	2	1	1	4	5	10	50	10	30	100	2½ Hours	2 Hours
MLIS-102	Information Systems Management	3	1	0	4	4	20	80			100	3 Hours	
MLIS-103	Advanced ICT Applications in LIS (Theory &Practice) – I	2	0	2	4	6	10	40	10	40	100	2 Hours	2 Hours
MLIS-104	Online Literature Survey	0	1	1	2	3					50		
MLIS-105	Library Classification Practice: UDC	1	0	1	2	3			10	40	50		2 Hours
		I	ELEC'	TIVE	COU	RSES: Sel	ect any	one Co	urse			1	'
MLIS-106	University & College Library System	3	1	0	4	4	20	80			100	3 Hours	
MLIS-107	Public Library System	3	1	0	4	4	20	80			100	3 Hours	
MLIS-108	Research &Technical Library System	3	1	0	4	4	20	80			100	3 Hours	
	Open Elective Course (Inter-Disciplinary Paper for the students of other Departments)												
LIS-OE-2	Introduction to Literature in Arts and Languages	2	0	er-D19	2	ary Paper fo	10	40	of other L	epartmei 	50	2 Hours	

Core Courses Credits: 16
Elective Course Credits: 04
Open Elective Course Credits: 02

SEMESTER - II

Paper Code	Nomenclature of Course	Total Credits			Teaching Work	IA Theory	Max. Marks	IA Practical	Max. Marks		of	Duration of	
		L	Т	P	Total	Load per week in Hours		Theory		Practical			Practical Exam
						COR	E CO	URSE	S				
MLIS-109	Research Methods and Statistical Techniques	3	1	0	4	4	20	80			100	3 Hours	
MLIS-110	Advanced ICT Applications in LIS (Theory &Practice) – II	2	0	2	4	6	10	40	10	40	100	2 Hours	2 Hours
MLIS-111	Information Retrieval (Theory and Practice)	2	1	1	4	5	10	50	10	30	100	2½ Hours	2 Hours
MLIS-112	Project Report	0	1	3	4	7					100		
	ELECTIVE	cot	JRSI	ES –	Select	t any one	Cour	se					
MLIS-113	Social Science Information System	3	1	0	4	4	20	80			100	3 Hours	
MLIS-114	Business Information System	2	1	1	4	5	10	50	10	30	100	2½ Hours	2 Hours
MLIS-115	Health Science Information System	2	1	1	4	5	10	50	10	30	100	2½ Hours	2 Hours

Note: Assignments, case studies, seminars, discussions and round tables, all shall be covered under Tutorials. **Core Courses Credits:** 16

Core Courses Credits: 16
Elective Course Credits: 04

Conversion of Marks obtained in each Course/Semester to Letter Grade and Grade Points shall be as following:

Letter Grade	Grade Point	Marks
O (Outstanding)	10	85-100
A+ (Excellent)	9	75-84
A (Very Good)	8	65-74
B+ (Good)	7	55-64
B (Above Average)	6	50-54
C (Average)	5	41-49
P (Pass)	4	40
F (Fail)	0	Less than 40
Ab	0	Absent

7. Detailed Syllabi and Mapping Matrix.

SEMESTER-I

CORE COURSES

MLIS-101: INFORMATION ANALYSIS, CONSOLIDATION AND REPACKAGING (THEORY AND PRACTICE)

Total Credit: 4 Marks: 100 ET Theory: 50 IA Theory: 10

Theory Time: 2½ Hrs. ET Practical: 30 IA Practical: 10 Practical Time: 2 Hrs.

Objectives

- To orient students on how to critically analyze, evaluate and repackaging of information and to get awareness about presentation of information.
- To train the students with practical skills in preparing information consolidation products.
- To familiarize with Information Analysis and Consolidation Centre and the Marketing of Information Products and Services.

Course Outcomes: After completing this course, the students will be able to:

MLIS-101.1	Understand the concept of Information Analysis, Consolidation and Repackaging (IACR).
MLIS-101.2	Acquaint with different products and services and methodology of their preparation.
MLIS-101.3	Acquaint with managing IAC Centres and marketing of information products and services.
MLIS-101.4	Develop practical skills in preparation of specific information products.

Part-I: Theory

Internal Assessment: 10 Marks (Assignment/Attendance – 5 (Includes attendance of practical classes also) Class Test/ Assignment – 5).

Note for the Paper Setter

The paper is divided into 3 Units. The examinees will be required to attempt Four questions in all, including Question 1, which is compulsory and selecting One question from each Unit (I – III). Question 1 will consist of 7 short answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set Two questions from each Unit.

Unit – I: Information Analysis, Consolidation and Repackaging (IACR).

- Information Analysis, Consolidation and Repackaging: Need, Purpose and Advantages.
- IACR Processes: Pre-requisites and Steps.
- Packaging and Repackaging of Information.
- Modes of Presentation: Textual and Non-Textual Presentation.
- Technical Writing: Characteristics, pre-requisites and guiding principles.

Unit - II: Processing Methods of IACR Products and Services.

- IACR Products: Types and Steps for preparation.
- Role of various specialists in design and development of IACR Products.
- Methodology for the preparation of: State-of-the-art Reports, Trend Reports, House Journals, Newsletters, Technical Digest, Abstract and Directory.

Unit – III: Organization and Management of Information Analysis and Consolidation Centers (IAC).

- Information Analysis and Consolidation Center (IAC): Need, Characteristics and Functions.
- Organization and management of IAC Centre.
- Marketing: Definitions, scope and importance.
- Marketing of Information Products and Services.

Part - II: Practice

Section-A

Total: 40 Marks Credit: 01

Internal Assessment: 10 Marks (Presentation/ Class Test – 5 + Class test/Assignment – 5 Marks)

Syllabus:

Preparation of Indicative and Informative Abstract, Directory and Book Review.

Section-B

Practical Examination: 30 Marks Time: 2 Hours

Note: There will be **two** questions for each examinee from the following:

- 1. The examinees will be required to prepare Abstracts (Indicative and Informative) of Research Article given by the Examiner.
- 2. The examinees will be required to prepare Directory of Educational Institutions (10 Entries).
- 3. The examinees will be required to prepare a Book Review on Specified Subject.

Recommended Books

- 1. Atherton, Pauline. (1977). Handbook for Information Systems and Services. Paris: UNESCO.
- 2. Basu, B. N. (2007). Technical writing. New Delhi: Prentice Hall of India.
- 3. Chatterjee, Amitabha (2013). Elements of Information Analysis, Consolidation and Repackaging (IACR). Kolkata: Prova Prakashani.
- 4. Chopra, H.S. (1996). Information Marketing. Jaipur: Rawat Publications.
- 5. Cooper, B. M. (1986). Writing Technical Reports. New York: Penguin.
- 6. Kotler, P. and Armstrong, G. Principles of Marketing, Ed.10, New Jersey.
- 7. Kumar, P.S.G. (2003). Information Analysis, Repackaging consolidation & Information retrieval (Paper X and XI of UGC Model Curriculum). Delhi: B.R. Pub.
- 8. Rowley, J.E (1982). Abstracting and Indexing. London: Clive Bingley.

- 9. Rowley, J E (19960. The Basics of Information Systems. London: Facet Publishing.
- 10. Saracevic, T. and Wood, J. S. (1981). Consolidation of Information: A Handbook of Evaluation, Restructuring and Repackaging of Scientific and Technical Information. Paris: Unesco.
- 11. Seetharama, S. (1997). Information Consolidation and Repackaging: Framework, Methodology, Planning. New Delhi: Ess Ess Pub.
- 12. Seetharama, S. Modes of Presentation of Information in Information Consolidation Products. *Library Science with a Slant to Document*, 22; 1985; Paper E.
- 13. Sewa Singh. (2014).Information Analysis, Consolidation and Repackaging. New Delhi: Atlantic.

Table 101.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-101.1	3	3	3	3	3	3
MLIS-101.2	3	3	3	3	3	3
MLIS-101.3	3	3	3	3	3	3
MLIS-101.4	3	3	3	3	3	3
Average	3	3	3	3	3	3

Table 101.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-101.1	3	3	3	2	3	3	3
MLIS -101.2	2	3	3	3	3	3	3
MLIS -101.3	3	3	3	3	3	3	3
MLIS 101.4	2	3	3	3	3	3	3
Average	2.5	3	3	2.75	3	3	3

MLIS-102.	INFORMATION	SYSTEMS MANAGEMENT
VII./10-102:	INTURINALIUM	SISICIO MANAUTOMENI

Total Credit: 4 Marks: 100 ET Theory: 80 IA Theory: 20 Time: 3 Hrs.

Objectives

- To develop an understanding of modern Principles of Management.
- To familiarise with the process of Planning and Various Types of Plans.
- To develop an understanding of various Organisational Positions and Techniques of Managing Human Resources.

Course Outcomes: After completing this course, the students will be able to:

MLIS-102.1	Understand the different school of Management and their relevance in Library and							
	Information Centres.							
MLIS-102.2	Assess the Human Resource requirements and related issues in libraries.							
MLIS-102.3	Learn the theories of motivation and employee assessment.							
MLIS-102.4	Understand the quality management approaches and their application to Library &							
	Information Centres							

Internal Assessment: 20 Marks (Presentation/Test-10 + Class Test/Assignment-5 + Assignment/ Attendance - 5)

Note for the Paper Setter

The paper is divided into 4 Units. The examinees will be required to attempt *Five* questions in all, including Question 1, which is compulsory and selecting *One* question from each Unit (I - IV). Question 1 will consist of 8 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set *Two* questions from each Unit.

Unit-I: Management Perspectives

- Concept, Definition and Scope.
- Principles of Scientific Management.
- Management Schools of Thought: Classical School, Human Behaviour and Human Relation.

Unit-II: Human Resource Management-I

- Meaning, Functions and Objectives of HRM.
- Job Description, Job Analysis and Job Evaluation.
- Recruitment and Selection Procedure.
- Training and Development.

Unit-III: Human Resource Management-II

- Motivation: Meaning, Definition and Types.
- Motivational Theories: Maslow's Need Hierarchy. Herzberg's Two Factor Theory. McGregor's Theory X and Y.
- Performance Appraisal: Objectives, Problems in Rating, Methods of Performance Appraisal.

Unit-IV: Library Planning and Total Quality Management (TQM)

- Library Planning: Types of Plans, Factors and Techniques of Library Planning.
- MBO: Definition Process and Advantages.
- TQM: Definition, Principles and Benefits.
- Quality Standards: ISO 9000 Series.

Recommended Books

- 1. EVANS (GE). Management techniques for libraries. Ed.2. 1983. Academic Press, New York.
- 2. STEUART (Robert) and EASTLICK (John T). Library management Ed. 2. 1991. Libraries Unlimited, Cotorado.
- 3. BROPHY (Peter) and COULLING (Kate). Quality management for information and library managers. 1996. Aslib Gover, Hampshire.
- 4. JONES (Noragh) and JORDAN (Peter). Case studies in library management. 1988. Clive Bingley, London.

Table 102.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-102.1	3	3	3	3	3	3
MLIS-102.2	3	3	3	3	3	2
MLIS-102.3	3	3	3	3	3	3
MLIS-102.4	3	3	3	3	3	3
Average	3	3	3	3	3	2.75

Table 102.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS -102.1	3	1	1	3	1	1	2
MLIS -102.2	3	1	1	3	3	3	3
MLIS -102.3	3	3	3	3	3	3	3
MLIS -102.4	3	3	3	3	3	3	2
Average	3	2	2	3	2.5	2.5	2.5

MLIS-103: ADVANCED ICT APPLICATIONS IN LIS (THEORY AND PRACTICE) – I

Total Credit: 4 Marks: 100 ET Theory: 40 IA Theory: 10

Theory Time: 2½ Hrs. ET Practical: 40 IA Practical: 10 Practical Time: 2 Hrs.

Objectives

- To familiarise students with major Applications of ICT in Libraries and Information Centers and issues affecting their implementation.
- To familiarise with the Internet and Databases concepts.
- To enable student to understand the concepts of Database and Social Media.
- To enable student to understand the elements of MS Excel and Web Designing.

Course Outcomes: After completing this course, the students will be able to:

MLIS-103.1	Understand the concept of automation and computerization and areas & process of library
	automation.
MLIS-103.2	Understand different features and concepts related to internet and variety of E-resources
	available on Internet.
MLIS-103.3	Acquaint with the concepts of database and Social Media.
MLIS-103.4	Have practical skills in MS-Excel and designing and creating websites.
	Acquaint with the concepts of database and Social Media.

Part-I: Theory

Internal Assessment: 10 Marks (Assignment/Attendance – 5 (Includes attendance of practical classes also) Class Test/ Assignment – 5).

Note for the Paper Setter:

The paper is divided into 3 Units. The examinees will be required to attempt *Four* questions in all, including Question 1, which is compulsory and selecting *One* question from each Unit (I - III). Question 1 will consist of 5 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set *Two* questions from each Unit

Unit-I: Library Automation

- Library Automation: Concept, Need and Purpose.
- Use of computers for In-house Operations: Acquisition, Cataloguing, Circulation, Serials Control, OPAC and Information Storage & Retrieval.
- Retrospective Conversion: Concept, Issues, Solutions and Techniques.

Unit-II: INTERNET: Basic Feature and Tools

- Genesis and Utility.
- Web Browsers: Chrome, Firefox, Edge.
- World Wide Web (WWW): Origin and Development.
- World Wide Web and E-Resources
 - Subject Directories.
 - Online Journals.

- Online Books.
- Electronic Theses and Dissertation.
- Open Access Resources.
- Search Engines.
- Invisible Web: Brief concept and Tools.

Unit-III: Database: Types and other Concepts

- Bibliographic, Full Text and Multimedia Databases.
- Federated Search and Multimedia Database Search.
- Blog and Social Media: Concept and Application in libraries.

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Part II: Practice

Total Marks: 50 Credit: 2

Internal Assessment: 10 Marks (Presentation/ Class Test – 5 + Class Test/ Assignment – 5 Marks)

Practical Examination Marks: 40 Time: 2 Hours

MS OFFICE

- *MS EXCEL:* Toolbars, Formatting Formulas, Database Management, Charts and Additional Functions.

Web Designing with WordPress or Dream Weaver

- Web Design: Methods and Steps.
- Introduction to WordPress/ Dream Weaver.
- Designing and Creation of Web Sites.

Recommended Books

- **1.** Adobe. Dreamweaver tutorials. https://www.adobe.com/in/search.html#q=dreamweaver%20 tutorials&sort=relevancy&start=1
- 2. ALEXANDER (Michael) and KUSLEIKA (Richard). Excel 2016 Formulas. Wiley Publishing, Inc. NJ, 2016. http://file.allitebooks.com/20160903/Excel%202016%20Formulas.pdf
 WALKENBACH (John), ALEXANDER (Michael) and KUSLEIKA (Richard). Excel 2019 Bible. Wiley Publishing, Inc. NJ, 2019. http://file.allitebooks.com/20181005/Excel%202019%20Bible.pdf
- **3.** ASSIST (Sista). WordPress Basics: A step by step guide for beginners. http://file.allitebooks.com/20151115/WordPress%20Basics.pdf
- **4.** CROWDER (David). Building a Web Site for Dummies. 3rd Ed. Wiley Publishing, Inc., Wiley Publishing, Inc. 2007. http://file.allitebooks.com/20150627/Building%20a%20Web%20Site %20For%20Dummies.pdf
- **5.** BROWN (Christopher) & Bell (Suzanne). Librarian's guide to online searching: cultivating database skills for research and instruction. 5th ed. 2018. Libraries Unlimited, London.
- **6.** CLAYTON (Marlene). Managing library automation. 2nd ed. 2018. Routledge, London.
- 7. HARVEY (Greg). Excel 2019 For Dummies. Wiley Publishing, Inc. NJ, 2018.
- **8.** JENKINS (Sue), DAVIS (Michele E.) and PHILLIPS (Jon A). Dreamweaver 8 All-in-One Desk Reference for Dummies. Wiley Publishing, Inc. NJ, 2006. https://the-eye.eu/public/Books/For%20

- <u>Dummies/Dreamweaver%208%20All-in-One%20Desk%20Reference%20for%20 Dummies%20%28ISBN%20-%200471781428%29.pdf</u>
- **9.** LANCASTER (F W) and SANDORE (Beth). Technology and management in library and information services. 1997. Library Association, London.
- **10.** LYNCH (P. J.) and HORTON (S.). Web style guide: basic design principles for creating web sites. Ed.3. London: Yale University Press, 2009.
- **11.** MARKEY (Karen). Online searching: A guide to finding quality information efficiently and effectively. 2nd ed. 2019. Rowman& Littlefield Publishers, Maryland.
- **12.** MARMEL (Elaine). Office 2016 Simplified. Hoboken. 2015. John Wiley & Sons, New Jersey.
- **13.** PLUMLEY (George). WordPress 24-Hour Trainer, 3rd Ed. John Wiley & Sons, Inc. NJ, 2016. https://www.allitebooks.in/wordpress-24-hour-trainer-3rd-edition/
- 14. SABIN-WILSON (Lisa). WordPress All-in-One for Dummies, 3rd Ed. John Wiley & Sons, Inc. NJ, 2017. http://file.allitebooks.com/20181013/WordPress%20All-in-One%20For%20Dummies,%203rd%20Edition.pdf
- **15.** SABIN-WILSON (Lisa). WordPress for Dummies, 8th Ed. John Wiley & Sons, Inc. NJ, 2017. http://file.allitebooks.com/20170927/WordPress%20For%20Dummies,%208th%20Edition.pdf
- **16.** SABIN-WILSON (Lisa). WordPress Web Design for Dummies, 3rd Ed. John Wiley & Sons, Inc. NJ, 2016. http://file.allitebooks.com/20180213/WordPress%20Web%20Design%20For%20
 Dummies,%203rd%20Edition.pdf
- WARNER (Janine). Dreamweaver 8 For Dummies. Wiley Publishing, Inc. NJ, 2006. https://the-eye.eu/public/Books/For%20Dummies/Dreamweaver%208%20for%20Dummies%20%28ISBN%20-%200764596497%29.pdf
- WILSON (Kevin). Fundamentals of Excel 2016, 2nd Ed. Elluminet Press. 2018. SLAGER (David). Essential Excel 2016: A Step-by-Step Guide. 2016. http://file.allitebooks.com/20161205/Essential%20Excel%202016.pdf

Table 103.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-103.1	3	3	3	3	3	3
MLIS-103.2	3	3	3	3	3	3
MLIS-103.3	3	3	3	3	3	3
MLIS-103.4	3	3	3	3	3	3
Average	3	3	3	3	3	3

Table 103.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS -103.1	2	2	3	3	3	3	3
MLIS -103.2	2	3	3	3	3	3	3
MLIS -103.3	3	2	3	3	3	3	3
MLIS -103.4	3	3	3	3	3	3	3
Average	2.5	2.5	3	3	3	3	3

MLIS-104: LITERATURE SURVEY

Total Credit: 2 Marks: 50

Objectives:

- To familiarise with the techniques of literature search.
- To understand the critical analysis of the literature on contemporary topics.
- To impart the practical skills in writing literature review.

Course Outcomes: After conducting the survey, the students will be able to:

MLIS-104.1	Search, analysis and synthesis of Literature.
MLIS-104.2	Write Literature review.

For literature survey, every student shall be assigned to a teacher in the Department.

Every student shall conduct online literature survey on an assigned topic of contemporary relevance. The teacher supervisor shall evaluate the survey report and submit in the Department.

Mapping Matrix of Course MLIS-104

Table 104.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-104.1	3	3	3	3	3	3
MLIS-104.2	3	3	3	3	3	3
Average	3	3	3	3	3	3

Table 104.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS -104.1	3	3	1	1	3	3	3
MLIS -104.2	1	3	1	1	1	3	2
Average	2	3	1	1	2	3	2.5

MLIS-105: LIBRARY CLASSIFICATION PRACTICE: UNIVERSAL DECIMAL CLASSIFICATION

Total Credit: 4 Marks:50 External: 40 Internal: 10 Time: 2 Hrs.

Objectives

- To acquaint with various provisions of Universal Decimal Classification scheme.
- To develop the ability to classify simple, compound and complex subjects using UDC.

Course Outcomes: After completing this course, the students will be able to:

MLIS-105.1	Do subject analysis and classify compound subjects.
MLIS-105.2	Do subject analysis and classify complex subjects.

Note for the Paper Setter

The question paper will be divided into Two Sections: Section – A and B. Distribution of Marks and scheme of examination will be as follows:

Section - A

- Six Titles will be given in this Section and the examinees will be required to attempt all the Titles.
- Each Title will carry 4 Marks.

Section - B

- *Three* Titles will be given in this Section and the examinees will be required to attempt *Two* Title.
- Each Title will carry 8 Marks.

Syllabus: Classification of Complex Titles of Monographs and Articles by Universal Decimal Classification.

Mapping Matrix of Course MLIS-105

Table 105.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-105.1	3	3	3	3	3	3
MLIS-105.2	3	3	3	3	3	3
Average	3	3	3	3	3	3

Table 105.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS -105.1	3	1	2	2	3	1	3
MLIS -105.2	3	1	2	2	3	1	3
Average	3	1	2	2	3	1	3

ELECTIVE COURSES

MLIS-106: UNIVERSITY & COLLEGE LIBRARY SYSTEM

Total Credit: 4 Marks: 100 External: 80 Internal: 20 Time: 3 Hrs.

Objectives

- To familiarise with the development of University & College Library System.
- To develop an understanding of collection & services of University & College libraries.
- To familiarize with different aspects of management practices followed in University & College libraries.

Course Outcomes: After completing this course, the students will be able to:

MLIS-106.1	Understand the development of University Libraries and recommendations of different Committees and Commissions.
MLIS-106.2	Understand the collection development and its management in University Libraries.
MLIS-106.3	Understand the orgainsaitonal structure and management issues of University Libraries.
MLIS-106.4	Know the various information services provided by University Libraries.

Internal Assessment: 20 Marks (Presentation/Test-10 + Class Test/Assignment-5 + Assignment/ Attendance - 5)

Note for the Paper Setter

The paper is divided into 4 Units. The examinees will be required to attempt Five questions in all, including Question 1, which is compulsory and selecting One question from each Unit (I - IV). Question 1 will consist of 8 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set Two questions from each Unit

Unit-I: Academic Libraries and their Development

- Recommendations of NKC.
- Role of UGC and distance education.

Unit-II: Collection Development and Management

- Periodicals, Conference Literature, Grey Literature and Government Publications.
- Electronic Resources.

Unit-III: Library Organization and Administration

- Organization structure
- Competency Development of library staff.
- Staff Manual.
- Determination of Finance & Budget.

Unit-IV: Information Services

- CAS, SDI, Abstracting and Indexing Services.
- Library Bulletin, Newspaper Clipping Services₅₇₁
- Resource Sharing.

Recommended Books

- 1. BAKER (David), Ed. Resource management in academic libraries. 1997. Library Associations, London.
- 2. BROPHY (Peter). The academic library. 2000. Library Association, London.
- 3. BUDD (J M). The academic library: the context, its purpose and its operation. 1988. Libraries Unlimited, London.
- 4. CHAPMAN (Liz). Managing acquisitions in library and information services 2001. Library Association, London.
- 5. DOWLER (L) Ed. Gateways to knowledge: the role of academic libraries in teaching, learning and research.1998. The MIT Press, London.
- 6. JORDON (Peter). The academic library and its users.1998. Gower Publishing Limited, London.
- 7. LINE (Maurice B), Ed. Academic library management. 1990. Library Association, London.
- 8. RANGANATHAN (S R). School and college libraries. 1942. Madras Library Association, Madras.
- 9. WEBB (Sylvia P). Personal development in information work. Ed 2. 1991. Aslib, London.
- 10. WHITE (Carl M). Survey of university of Delhi. 1965. Planning Unit, University of Delhi, Delhi.

Mapping Matrix of Course MLIS-106

Table 106.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-106.1	3	2	3	2	3	3
MLIS-106.2	3	3	3	3	3	3
MLIS-106.3	2	2	3	2	3	3
MLIS-106.4	3	3	3	3	3	3
Average	2.75	2.5	3	2.5	3	3

Table 106.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-106.1	3	1	1	2	1	1	1
MLIS-106.2	3	3	3	3	3	3	3
MLIS-106.3	3	1	1	3	2	2	2
MLIS-106.4	2	3	3	3	3	3	2
Average	2.75	2	2	2.75	2.25	2.25	2

MLIS-107:	PURI	IC LIRR	ΔRV	CVCTEM
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Total Credit: 4 Marks: 100 External: 80 Internal: 20 Time: 3 Hrs.

Objectives

- To familiarise with the development of Public Library System.
- To develop an understanding of collection & services of Public Library.
- To familiarize with different aspects of management practices followed in Public Libraries.

Course Outcomes: After completing this course, the students will be able to:

MLIS-107.1	Understand the importance and development of public libraries.
MLIS-107.2	Know the different type of collection and procedure of its management.
MLIS-107.3	Know the different management practices used in public libraries.
MLIS-107.4	Know different Services provided in public Libraries.

Internal Assessment: 20 Marks (Presentation/Test-10 + Class Test/Assignment-5 + Assignment/ Attendance - 5)

Note for the Paper Setter

The paper is divided into 4 Units. The examinees will be required to attempt *Five* questions in all, including Question 1, which is compulsory and selecting *One* question from each Unit (I - IV). Question 1 will consist of 8 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set *Two* questions from each Unit.

Unit-I: Public Libraries and their Development

- History and Development of Libraries with Special Reference to India.
- Role of Public Libraries in Society; Public Libraries as Community Information Centres.
- Agencies and their Role in Promotion and Development of Public Libraries in India.

Unit-II: Collection Development and Management

- Periodicals, Conference Literature, Grey Literature and Government Publications.
- Non-Book Materials.
- Electronic Sources and Online Databases.

Unit-III: Library Organization and Administration

- Organizational Structure. Human Resources- Nature, Size, Selection, Recruitment, Qualification and Training, Responsibilities and Duties, Competency Development.
- Staff Manual, Library Surveys, Statistics and Standards, etc.
- Determination of Finance, Sources of Finance, Types of Budget.

Unit-IV: Information Services

- Public Libraries Extension Services, Abstracting and Indexing Services.
- Library Bulletin, Newspaper Clipping Services.
- Computerized Services.
- Resource Sharing and Networking.

Recommended Books

- 1. BARUA (B P). National policy on library and information systems and services for India: perspectives and projections. 1992. Popular, Bombay.
- 2. BATT (Chris). Information technology in public libraries. 1998. London Library Association Publishing, London.
- 3. BHATT (R K). Unesco: development of libraries and documentation centres in developing countries. 2004. K K Publications, New Delhi.
- 4. HIGGINS (S E). Youth services and public libraries. 2007. Chandos Publishing, Oxford.
- 5. IFLA. IFLA guidelines for public libraries (revised). 2000. The Hague, IFLA.
- 6. INDIA. Advising committee for libraries. Ed. 2. 1958. Manager of Publications, Delhi.
- 7. JAGANAYAK (S S). Role of libraries in socio-economic, cultural, and educational development. 1997. Classical Publication, New Delhi.
- 8. PATEL (Jashu) and KRISHAN KUMAR. Libraries and librarianship in India.2001. Greenwood Press, Westport, Connecticut.
- 9. THOMAS (V K). Public libraries in India: development and finance.1997. Vikas. Publication, New Delhi.
- 10. WOODRUM (Pat), Ed. Managing public libraries in 21st century. 1989. The Hawork Press, New York.

Table 107.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-107.1	3	2	3	2	3	3
MLIS-107.2	3	3	3	3	3	3
MLIS-107.3	2	2	3	2	3	3
MLIS-107.4	3	3	3	3	3	3
Average	2.75	2.5	3	2.5	3	3

Table 107.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-107.1	3	1	1	2	1	1	1
MLIS-107.2	3	3	3	3	3	3	3
MLIS-107.3	3	1	1	3	2	2	2
MLIS-107.4	2	3	3	3	3	3	2
Average	2.75	2	2	2.75	2.25	2.25	2

MLIS-108: RESEARCH & TECHNICAL LIBRARY SYSTEM

Total Credit: 4 Marks: 100 External: 80 Internal: 20 Time: 3 Hrs.

Objectives

- To familiarize with the development of Research & Technical Library System.
- To develop an understanding of collection & services of Research & Technical Library.
- To familiarize with different aspects of management practices followed in Research & Technical libraries.

Course Outcomes: After completing this course, the students will be able to:

MLIS-108.1	Understand the importance and development of Research & Technical libraries.
MLIS-108.2	Know the different type of collection and procedure of its management.
MLIS-108.3	Know the different management practices used in Research & Technical Libraries.
MLIS-108.4	Know different Services provided in Research & Technical Libraries.

Internal Assessment: 20 Marks (Presentation/Test-10 + Class Test/Assignment-5 + Assignment/ Attendance - 5)

Note for the Paper Setter

The paper is divided into 4 Units. The examinees will be required to attempt *Five* questions in all, including Question 1, which is compulsory and selecting *One* question from each Unit (I - IV). Question 1 will consist of 8 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set *Two* questions from each Unit.

Unit-I: Research and Technical Libraries and their Development

- History and Development of Libraries with Special Reference to India.
- Role of Special Libraries and its Relationship with Parent Organization.
- Types and Functions of Special Libraries.
- Agencies and their Role in the Promotion and Development of Research and Technical Libraries.

Unit-II: Collection Development and Management

- Periodicals, Conference Literature, Grey Literature, Patents, Standards, Specifications and Government Publications.
- Non-Book Materials.
- Electronic Resources and Online Databases.

Unit-III: Library Organization and Administration

- Organizational Structure. Human Resources- Nature, Size, Selection, Recruitment, Qualification and Training, Responsibilities and Duties, Competency Development.
- Staff Manual, Library Surveys, Statistics and Standards, etc.
- Determination of Finance, Sources of Finance. Types of Budget.

Unit-IV: Information Services

- CAS, SDI, Abstracting and Indexing Services.
- Library Bulletin, Newspaper Clipping Services.

- Computerized Services.
- Resource Sharing and Networks: RLIN, OCLC, etc.

Recommended Books

- 1. AUGER (CP). Information sources in grey literature. Ed. 3. 1994. Bowker, London.
- 2. CHAPMAN (Liz). Managing acquisitions in library and information services. 2001. Library Associations, London.
- 3. GROGAN (N). Science and technology: an introduction to the literature. Ed. 4. 1982. Clive Bingley, London.
- 4. HERNON (Peter) and WHITMAN (John R). Delivering satisfaction and service quality: a customer-based approach for libraries. 2001. American Library Association, Chicago.
- 5. LAWES (Ann), Ed. Management skills for the information manager. 1993. Gower Publishing, London.
- 6. RAITT (David), Ed. Libraries for the new millennium. 1997. Library Association, London.
- 7. SAHA (J). Special libraries and information services in India and the USA. 1969. Scarecrow, New York.
- 8. SCAMMELL (A W), Ed. Handbook of special librarianship and information work. Rev. Ed. 7. 1997. Aslib, London.
- 9. SINGH (S P). Special libraries in the electronic environment. 2005. Bookwell, New Delhi.
- 10. STRAUSS (L J). Scientific and technical libraries: their organization and administration. Ed. 2. 1972. Beckey and Hayes, New York.

Table 108.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-108.1	3	2	3	2	3	3
MLIS-108.2	3	3	3	3	3	3
MLIS-108.3	2	2	3	2	3	3
MLIS-108.4	3	3	3	3	3	3
Average	2.75	2.5	3	2.5	3	3

Table 108.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-108.1	3	1	1	2	1	1	1
MLIS-108.2	3	3	3	3	3	3	3
MLIS-108.3	3	1	1	3	2	2	2
MLIS-108.4	2	3	3	3	3	3	2
Total	2.75	2	2	2.75	2.25	2.25	2

SEMESTER - II

CORE COURSES

MLIS-109: RESEARCH METHODS AND STATISTICAL TECHNIQUES

Total Credit: 4 Marks: 100 External: 80 Internal: 20 Time: 3 Hrs.

Objectives

- To introduce students to the concept of the Research.
- To provide an insight into the Research Methods in Library and Information Science.
- To provide an overall understanding of Statistical Techniques in Research Operations.

Course Outcomes: After completing this course, the students will be able to:

MLIS-109.1	Understand the various concepts related to research and its types.						
MLIS-109.2	Know the different methods used to conduct research.						
MLIS-109.3	Understand the importance of significant tools and techniques used in conducting research.						
MLIS-109.4	Understand the basic concept of statistical techniques.						

Internal Assessment: 20 Marks (Presentation/Test-10 + Class Test/Assignment-5 + Assignment/ Attendance - 5)

Note for the Paper Setter

The paper is divided into 4 Units. The examinees will be required to attempt Five questions in all, including Question 1, which is compulsory and selecting One question from each Unit (I – IV). Question 1 will consist of 8 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set Two questions from each Unit.

Unit-I: Research

- Meaning, Need and Process of Research.
- Types of Research Fundamental and Applied.
- Hypothesis: Definitions, Functions and Types
- Designing Research Proposal.
- Literature Search Print, Non-Print and Electronic Sources.
- Research Reporting: Types, Structure and Contents.
- Ethical aspects of research.

Unit-II: Research Methods

- Spiral of Scientific Method. (S. R. Ranganathan).
- Historical Method.
- Experimental Method.
- Descriptive Method.
- Survey Method and Case Study Method.
- Bibliometrics: Concept and Definition, Bibliometrics Laws: Bradford, Zipf. Lotka, Bibliographic Coupling and Citation Analysis, Webometrics, Impact factors

Unit-III: Research Techniques and Tools

- Ouestionnaire
- Interview
- Observation
- Sampling Techniques

Unit-IV: Descriptive Analysis and Interpretation

- Descriptive Statistics Measures of Central Tendency Mean, Mode, Median.
- Chi Square test.
- Introduction to SPSS statistical software.
- Tabulation.
- Graphical presentation of data: Bar, Pie, Line graphs, Histograms
- Sociometry.

Recommended Books

- 1. CHARLES (H) and others. Research Methods in librarianship: Techniques and Interpretations. 1980.
- **2.** KRISHAN KUMAR. Research Methods in Library and Information Science, New Delhi, Vikas Publishing House. 1992.
- **3.** POWELL (Ronald R). Basic Research Methods for Librarians. 1985.
- **4.** RAVI CHANDRA RAO (I K). Quantitative methods in Library and Information Science. New Delhi. Wiley Eastern Limited, 1983.
- 5. SARAVANAVEL (P). Research and Report Writing. 1993.

Table 109.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-109.1	3	3	3	3	3	3
MLIS-109.2	3	3	3	3	3	3
MLIS-109.3	3	3	3	3	3	3
MLIS-109.4	3	3	3	3	3	3
Average	3	3	3	3	3	3

Table 109.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-109.1	2	1	1	1	1	3	2
MLIS-109.2	2	1	1	1	1	3	2
MLIS-109.3	2	1	1	1	1	3	2
MLIS-109.4	2	1	1	1	1	3	2
Average	2	1	1	1	1	3	2

MLIS-110: ADVANCED ICT APPLICATIONS IN LIS (THEORY AND PRACTICE) – II

Total Credit: 4 Marks: 100 ET Theory: 40 IA Theory: 10

Theory Time: 2½ Hrs. ET Practical: 40 IA Practical: 10 Practical Time: 2 Hrs.

Objectives

- To familiarise students with major Applications of ICT in Libraries and Information Centers and issues affecting their implementation.
- To enable students to understand the features and use of Library Application Software.
- To familiarise with the emerging technologies and their applications in Libraries.
- To enable students to implement KOHA software and create Digital libraries.

Course Outcomes: After completing this course, the students will be able to:

MLIS-110.1	Learn to select Library software and features of different library automation softwares.
MLIS-110.2	Understand the concepts of digital library.
MLIS-110.3	Understand the emerging technologies and their applications in Libraries.
MLIS-110.4	Learn KOHA software and create digital libraries using an open source digital library
	software.

Part-I: Theory

Internal Assessment: 10 Marks (Assignment/Attendance – 5 (Includes attendance of practical classes also) + Class Test/ Assignment – 5).

Note for the Paper Setter

The paper is divided into 3 Units. The examinees will be required to attempt *Four* questions in all, including Question 1, which is compulsory and selecting *One* question from each Unit (I - III). Question 1 will consist of 5 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set *Two* questions from each Unit.

Unit-I: Library Application Software Packages

- Basics of Library Automation Software.
- Selection Criteria for Library Automation Software.
- Salient features of SOUL, LIBSYS, Open Source Software: KOHA.

Unit-II: Digital Libraries

- Digital Libraries: Genesis, Definition, Objectives and Scope
- *Digitisation:* Concept, Need, Problems and Significance
- Process of Digitization.
- Files and Formats of Documents, Images, Video, Audio, etc.

Unit-III: Emerging/latest Technologies

- Audio Conferencing and Video Conferencing: Their Set Up and essentials (Google Meet, Webex etc.)
- Virtual Reality
- Artificial Intelligence (AI): Concept and Use in Libraries.
- Expert Systems: Concept and Use in Libraries.

- **Robotics:** Its application in Libraries and Information Centers.

Part II: Practice

Total Marks: 50 Credit: 02

Internal Assessment: 10 Marks (Presentation/ Class Test – 5 + Class Test/ Assignment – 5 Marks)

Practical Examination Marks: 40 Time: 2 Hours

The candidates will be required to record the steps of database creation on the assigned area and steps in Digital Library creation.

Library Automation Software

Unit-I: Open Source Library Application Software: KOHA

- Overview of KOHA.
- Installation and Configuration of KOHA.
- Acquisition and Cataloguing.
- Members Management and Circulation.
- Reports and Backups.

Unit-II: Digital Library Software

- Installation, Configuration and working in Greenstone or DSpace.

Recommended Books

- **1.** BAKER. D., &EVANS, W (2009). Digital Library Economics and Academic Perspective. Oxford: Chandos Pub.
- **2.** BROWN, A. (2013). Practical digital preservation: A how-to guide for organizations of anysize. London: Facet Pub.
- **3.** CALHOUN, K. (2014). Exploring digital libraries: Foundations, practice, prospects. Available at http://www.facetpublishing.co.uk/downloads/file/calhoun-ch1.pdf/
- **4.** CANDELA (L), et al. The digital library manifesto. Available at https://www.coar-repositories.org/files/booklet21x21 manifesto web.pdf/
- **5.** DEEGAN, M., & Tanner, S. (2006). Digital preservation. London: Facet.
- 6. Digital Libraries and Multimedia. Boston: Kluwer, Academic Publishers. 2000.
- 7. Digital Libraries and use. Cambridge: MIT Press, 2003.
- **8.** Digital Libraries from technology to culture. New Delhi: Kanishka Publications. 2006.
- **9.** Digital Libraries: Policy, planning and practice. Hants: Ashgate. 2004.
- **10.** DOBREVA, M., O'DWYER, A., &FELICIATI, P. (2012). User studies for digital library development. London: Facet.
- 11. DSpace Manual, Release 1.6.2. http://www.dspace.org/1_6_2Documentation/DSpace-Manual.pdf/
- 12. DSpace Release 1.6.2 Notes.
- 13. GOPAL KRISHNAN. Digital Libraries in electronic information era. Delhi: Authors press. 2001.
- **14.** GORMAN, G. E., &Shep, S. J (2006). Preservation Management for Libraries, Archives and Museums. London: Facet Pub.
- **15.** Greenstein, D. (n.d.). Digital Libraries and Their Challenges. Graduate School of Library and Information Science. University of Illinois at Urbana-Champaign. Available at https://www.ideals.illinois.edu/bitstream/handle/2142/8339/librarytrendsv49i2f_opt.pdf?sequence=1

- **16.** Greenstone Home page. http://www.greenstone.org/greenstone3-home
- 17. Greenstone Manual. http://www.greenstone.org/manuals/gsdl2/
- **18.** http://koha.org/
- **19.** https://wiki.duraspace.org/display/DSPACE/DSpace+Release +1.6.2+Notes
- 20. HUGHES (Loma M). Digitizing collection: strategic issues for the information manager. 2004.
- **21.** HUGHES. L. M (2012). Evaluating and Measuring the value, use and impact of Digital Collections. London: Facet Pub. IFLA/UNESCO Manifesto for Digital Libraries. Available at http://www.ifla.org/files/assets/digital-libraries/documents/ifla-unesco-digital-libraries-manifesto.pdf/
- 22. JEEVAN (V K J). Digital Libraries. 2003.
- 23. KOHA Documentation. http://www.kohadocs.org/
- **24.** KOHA on Windows. http://cid-6ac4b4f2fe0a3144.office.live.com/self.aspx/Public/Koha%20 on%20Windows.pdf
- 25. KOHA on Windows. http://www.koha.rwjr.com/Koha_on_Windows.html/
- **26.** MISHRA (Vinod Kumar). Basics of library automation, Koha library management software and data migration: Challenges with case studies. 2016. EssEss Publications, New Delhi.
- **27.** WITTEN (Ian H), BODDIE (Stefan) and THOMPSON(John): Greenstone digital library user's guide (2006). New Zealand Digital Library Project, New Zealand.

Table 110.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-110.1	3	3	3	3	3	3
MLIS-110.2	3	3	3	3	3	3
MLIS-110.3	3	3	3	3	3	3
MLIS-110.4	3	3	3	3	3	3
Average	3	3	3	3	3	3

Table 110.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-110.1	2	3	3	3	3	3	2
MLIS-110.2	1	3	3	2	3	3	2
MLIS-110.3	3	2	3	3	3	2	2
MLIS-110.4	3	3	3	3	3	3	3
Average	2.25	2.75	3	2.75	3	2.75	2.25

MLIS-111: INFORMATION RETRIEVAL (THEORY AND PRACTICE)

Total Credit: 4 Marks: 100 ET Theory: 50 IA Theory: 10

Theory Time: 2½ Hrs. ET Practical: 30 IA Practical: 10 Practical Time: 2 Hrs.

Objectives

- To introduce the Concept and Principles of Indexing;
- To acquaint with the Role and Types of Indexing Languages; and
- To familiarize with the Advanced Information Processing and Retrieval Techniques.

Course Outcomes: After completing this course, the students will be able to:

MLIS-111.1	Understand the concepts and techniques of Subject Cataloguing and Indexing.
MLIS-111.2	Understand different indexing languages and tools of vocabulary control.
MLIS-111.3	Acquaint with formulation of search strategies and IR Models.
MLIS-111.4	Prepare Thesaurus and assign/ derive Subject Headings.

Part-I: Theory

Internal Assessment: 10 Marks (Assignment/Attendance – 5 (Includes attendance of practical classes also) + Class Test/ Assignment – 5)

Note For the paper Setter

The paper is divided into 3 Units. The examinees will be required to attempt *Four* questions in all, including Question 1, which is compulsory and selecting *One* question from each Unit (I – III). Question 1 will consist of 7 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set *Two* questions from each Unit.

Unit-I: Subject Cataloguing and Indexing: Principles and Practices

- Principles of Subject Cataloguing.
- Library of Congress Subject Headings (LCSH),
- Sears List of Subject Headings (SLSH)
- Pre coordinate indexing: Chain indexing, PRECIS, POPSI
- Post Co-ordinate indexing: UNITERM.

Unit-II: Indexing Languages and Vocabulary Control

- Indexing Languages: Types and Characteristics.
- Vocabulary Control: Concept, Meaning and Tools.
- IR thesauri: Structure and Construction.
- Concept of Keyword indexing and Automatic Indexing.

Unit-III: Information Retrieval

- Search strategies: Manual/ Machine, Feedback and Refining.
- Evaluation of IR Systems.
- IR Models.

Part – II: Practice

Total Marks: 40

Internal Assessment: 10 marks (Assignments)

Time: 2 Hours

Practical Examination Marks: 30 Credit: 01

The Distribution of Marks and scheme of examination will be as follows:

Section - A

- Thesaurus Construction on an assigned topic: Marks: 10

Section - B

- Viva-voce: Marks: 10

Section - C

- There will be *Three* titles from Chain Procedure & Three titles from PRECIS. The examinees will be required to attempt any *Five* titles.

Marks: 10

Recommended Books

- 1. FOSKETT (A C). Subject approach to information. Ed.5. 1996. Bingley, London.
- 2. CHOUDHURY (G G). Introduction to modern information retrieval. 1999. Library Association, London.
- 3. AUSTIN (Derek). PRECIS: A manual of concept analysis. 1984. British Library, London.
- 4. RAJAN (T N). Indexing systems: Concepts methods and techniques. 1981. IASLIC, Calcutta.
- 5. GILCHRIST (Alan). Thesaurus construction and design.

Table 111.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-111.1	3	3	3	3	3	3
MLIS-111.2	3	3	3	3	3	3
MLIS-111.3	3	3	3	3	3	3
MLIS-111.4	3	3	3	3	3	3
Average	3	3	3	3	3	3

Table 111.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-111.1	3	3	3	1	2	3	3
MLIS-111.2	3	3	3	2	2	2	3
MLIS-111.3	2	3	3	1	2	1	2
MLIS-111.4	2	3	3	2	2	2	2
Average	2.5	3	3	1.5	2	2	2.5

MLIS-112: PROJECT REPORT

Total Credit: 4 Marks: 100

Objectives

- To identify a contemporary problem for investigation in the field of Library & Information Science.
- To train the students in the use of specific research methodology.
- To train the students in the writing of research report.

Course Outcomes: After completing this course, the students will be able to:

MLIS-112.1	Identify specific problem and its facets for investigation.
MLIS-112.2	Prepare research proposal.
MLIS-112.3	Apply specific research methodology appropriate to the selected problem.
MLIS-112.4	Write a report of the investigation.

Method of Instruction

The students will evaluate resources and services available on the websites of one National and one International Higher Education Institute Libraries.

Each student will be required to submit a project report on an approved topic. The report is to be submitted both in hard and soft format. Each student will work under one guide from the Department for successful completion of the project. The areas and topics will be finalized and approved by the Departmental Staff Council. Each report will be evaluated by a committee consisting of all the regular faculty members of the Department and marks/ grades for evaluation will be on presentation, methodology and inputs put in the work. The viva voce will also be conducted by the same committee. The project will be of 100 marks out of which 80 marks will be awarded to project report evaluation and 20 marks will be for viva-voce by the said committee. There will be no internal assessment. The project report is to be submitted before the commencement of the 2nd semester examinations.

Table 112.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-112.1	3	3	3	3	3	3
MLIS-112.2	3	3	3	3	3	3
MLIS-112.3	3	3	3	3	3	3
MLIS-112.4	3	3	3	3	3	3
Average	3	3	3	3	3	3

Table 112.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-112.1	3	2	3	1	1	3	3
MLIS-112.2	2	1	2	1	1	3	3
MLIS-112.3	1	2	2	1	1	3	3
MLIS-112.4	1	1	1	1	1	3	3
Average	1.75	1.5	2	1	1	3	3

ELECTIVE COURSES

	Total Credit: 4 Marks: 100
MLIS-113: SOCIAL SCIENCE INFORMATION SYSTEM	External: 80
	Internal: 20
	Time: 3 Hrs.

Objectives

- To acquaint with the major disciplines of Social Sciences.
- To develop an understanding of Social Science Information System and its Components.
- To know the various systems and networks in the field of Social Sciences.

Course Outcomes: After completing this course, the students will be able to:

	and the compressing this course, the second to			
MLIS-113.1	Understand the development, main concepts and significant contributors of major disciplines			
	of Social Sciences.			
MLIS-113.2	Know components of Social Science information system and various electronic information			
	sources.			
MLIS-113.3	Understand the role of national and international institutions related to social science			
	information and research.			
MLIS-113.4	Know the overview of information systems and networks at national and international level.			

Internal Assessment: 20 Marks (Presentation/Test-10 + Class Test/Assignment-5 + Assignment/ Attendance - 5)

Note for the Paper Setter

The paper is divided into 4 Units. The examinees will be required to attempt *Five* questions in all, including Question 1, which is compulsory and selecting *One* question from each Unit (I - IV). Question 1 will consist of 10 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set *Two* questions from each Unit.

Unit-I: Structure and Development of Social Sciences

- Growth and Development of Social Sciences.
- Definition, Scope, Landmarks and Research Trends in the disciplines of:
 - Political Science
 - Economics
 - History
 - Sociology
- Study of the contributions of significant social scientists.

Unit-II: Documentary Sources

- Social Science Information System: Components.
- Information Behavior of Social Scientists: General Trends
- Web based Information Sources: E-journals, Databases- Bibliographic and Full-text Subject Gateways, Institutional Repositories, Digital Libraries.
- International Encyclopaedia of Social and Behavioural Sciences, International Bibliography of the Social Sciences, PsycINFO, Indian Citation Index, ProQuest, Web of Science, Scopus

Unit-III: Institutional Sources

- Study of the activities of: ICSSR, ICWA, National Council for Applied Economic Research, TISS, ICHR, United Nations- ECOSOC, UNESCO.
- Planning of Social Science Research Libraries.

Unit-IV: Information Systems and Networks

- Study of existing Information Systems and Networks in Social Sciences at National and International level: DEVSIS, NASSDOC, DESIDOC, SENDOC, DEVINSA, APINESS.

Recommended Books

- 1. WEBB (William H), Ed. Sources of information in social sciences 1986. ALA, Chicago.
- 2. HERRON (Nancy), *Ed.* Social Sciences: A Cross disciplinary guide to selected sources. 1996. Libraries Unlimited.
- 3. HUNT (Elgin F) and COLANDER (David L). Social sciences: An Introduction to the study of society. Ed. 9. 1995. Allyn.
- 4. LI (Tze Chung). Social science reference sources: A Practical guide. Rev and enlarged ed 2. 1990. Greenwood.
- 5. VYAS (S D). Social science information in India: Efforts toward bibliographic control. 1992. Concept, New Delhi.
- 6. NADKARNI (MV), *Ed.* Landmarks in the development of social sciences during the Twentieth country 2002 Allied Publishers, New Delhi.
- 7. FISHER (David), PRICE (Sandra P) and HANSTOCK (Terry), *Eds.* Information sources in the social science. 2002. K.G. Saur, Munchen.

Table 113.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-113.1	3	3	3	3	3	3
MLIS-113.2	3	3	3	3	3	3
MLIS-113.3	3	3	3	3	3	3
MLIS-113.4	2	2	3	3	3	2
Average	2.75	2.75	3	3	3	2.75

Table 113.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-113.1	1	1	1	1	1	1	2
MLIS-113.2	3	3	3	2	2	3	3
MLIS-113.3	3	3	2	3	3	3	3
MLIS-113.4	1	3	2	1	2	2	2
Average	2	2.5	2	2	2	2.25	2.5

MLIS-114: BUSINESS INFORMATION SYSTEM (THEORY AND PRACTICE)

Total Credit: 4 Marks: 100 ET Theory: 50 IA Theory: 10

Theory Time: 2½ Hrs. ET Practical: 30 IA Practical: 10 Practical Time: 2 Hrs.

Objectives

- To know the important of Business Information System and different component of Business Information System.
- To know different documentary & institutional information sources related to Business Information System.
- To acquaint with different types of Information system of Business.

Course Outcomes: After completing this course, the students will be able to:

MLIS -114.1	Understand the nature of Business Information and components of Business Information			
	System.			
MLIS -114.2	Know various business information sources.			
MLIS -114.3	Know the different categories of Business Information System.			
MLIS -114.4	Evaluate select documentary & Institutional sources.			

Internal Assessment: 20 Marks (Presentation/Test-10 + Class Test/Assignment-5 + Assignment/Attendance -5)

Note For the paper Setter

The paper is divided into 4 Units. The examinees will be required to attempt Five questions in all, including Question 1, which is compulsory and selecting One question from each Unit (I – IV). Question 1 will consist of 10 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set Two questions from each Unit.

Part - I: Theory

Internal assessment: 10 Marks (Attendance/Assignment – 5 (Includes attendance of practical classes also) + Class test/assignment – 5)

Note: The paper is divided into 3 Units. The examinees will be required to attempt *Four* questions in all, including Question 1, which is compulsory and selecting *One* question from each Unit (I – III). Question 1 will consist of 7 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set *Two* questions from each Unit.

Unit-I: Business Information

- Nature and Characteristics: Its Role, Generation and Utilisation.
- Systems View of Business Information
- Components of Business Information Systems: Resources, Centres, Consultants, Suppliers, Financial

Organisations, Industrial Promoters, etc.

- Users of Business Information: Categories, Role, Functions and needs.

Unit-II: Business Information Sources, Products and Services

- Sources of Information: Documentary: Types with particular reference to Directories, Digests, Market Research Reports, Trade Literature, Technical Notes, Company Profiles, Patent, Design & Trade marks, Standards, Databases.
- Institutional: National & International: Studies related to the activities of:
- NIDCS, IIFT, ITPO, CII, FICCI, etc.
- UNIDO, UNCTAD, etc.
- Information Services and Networks:
- CAS, SDI, Technical Enquiry Service, other Computerised Services.
- Overview of Business Information Networks.

Unit-III: Organising Business Information for end user support

- Database System: Business Measurement System; Business Planning System.
- Text Management System: Text Retrieval Systems; Office Systems.
- Management Support Systems: Decision Support Systems; Information Centres.

Part - II: Practice

Internal Assessment: 10 marks (Assignments)

Max. Marks: 40

Practical Examination: 30 Marks Time: 2 Hours

Evaluation of *One* Documentary Information Source. Marks: 15

- Evaluation of *One* Institutional Source. Marks: 10

- Viva-voce: Marks: 5

Syllabus: Evaluation of Information Sources.

Recommended Books

- 1. AHITUV (N I V). Principles of Information System for Management. USA Business & Educational Technologies, 1994.
- 2. ATHERTON (Pauline). Handbook for information systems and services, 1977.
- 3. CAMPBELL (M J), ed. Manual of business library practice, 1975.
- 4. CURTIS (GRAHAM). Business information systems: Analysis, design & practice, 1989.
- 5. DOSSETT (PATTI), ed. Handbook of special librarianship & information services, 6th ed.1992.
- 6. GARLAND (John L). How to develop Business information systems for End User. 1986.
- 7. NEELAMEGHAM (A). Comp: DRTC reference course on information services for business and industry, 1974.
- 8. WASSERMAN, et al: Encyclopaedia of business information sources, 1983.

Mapping Matrix of Course MLIS-114

Table 114.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS -114.1	3	3	3	3	3	3
MLIS -114.2	3	3	3	3	3	3
MLIS -114.3	3	3	3	3	3	3
MLIS -114.4	2	2	3	3	3	2
Average	2.75	2.75	3	3	3	2.75

Table 114.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS -114.1	1	1	1	1	1	1	2
MLIS -114.2	3	3	3	2	2	3	3
MLIS -114.3	3	3	2	3	3	3	3
MLIS -114.4	1	3	2	1	2	2	2
Average	2	2.5	2	2	2	2.25	2.5

MLIS-115: HEALTH SCIENCE INFORMATION SYSTEM (THEORY & PRACTICE)

Total Credit: 4 Marks: 100 ET Theory: 50 IA Theory: 10

Theory Time: 2½ Hrs. ET Practical: 30 IA Practical: 10 Practical Time: 2 Hrs.

Objectives

- To familiarise with the Concept and Scope.
- To develop an understanding of Health Science Information System and its Components.
- To develop an understanding of Health Science Information systems and networks.

Course Outcomes: After completing this course, the students will be able to:

MLIS-115.1	Understand the development of Health Science and main concepts and Health Science
	Library.
MLIS-115.2	Know various print and electronic information sources.
MLIS-115.3	Know the overview of information systems and networks at national and international
	level.
MLIS-115.4	Evaluate select documentary & Institutional sources.

Internal Assessment: 20 Marks (Presentation/Test-10 + Class Test/Assignment-5 + Assignment/Attendance -5)

Note For the paper Setter

The paper is divided into 4 Units. The examinees will be required to attempt Five questions in all, including Question 1, which is compulsory and selecting One question from each Unit (I – IV). Question 1 will consist of 10 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set Two questions from each Unit.

Part-I: Theory

Internal assessment: 10 Marks (Attendance/Assignment – 5 (Includes attendance of practical classes also) + Class test/assignment – 5)

Note: The paper is divided into 3 Units. The examinees will be required to attempt *Four* questions in all, including Question 1, which is compulsory and selecting *One* question from each Unit (I – III). Question 1 will consist of 7 short Answer (2 marks each) questions (having no internal choice) spread over the whole syllabi. The Examiner will set *Two* questions from each Unit.

Unit-I: Health Science Information

- Growth and developments of Health Science.
- Types of Health Science Libraries/Information Centres
- Users of Health Science information

Unit-II: Health Science Information and Global Issues

- Sources of Information: Documentary: Printed and Non-print.
- Institutional: National & International: Studies related to the activities of:

- The role and functions of National Medical Library.
- The role and function of other National and International Organisations delivering Health Science Information: WHO, ICMR, Department of Biotechnology, Council of Ayurveda and Siddha, Council of Homeopathy, Unani System, National Institute of Health and Family Welfare, CDRI, CFTRI, NIN, NII, NIC, etc.
- Information Services: Current Awareness Services: SDI Services, Indexing and Abstracting Services, Literature Search.

Unit-III: Information Systems and Networks

- HELLIS, MEDLARS, BIOSIS
- Trends in Health Science Information System
- Application of Hypertext, Hypermedia, Multimedia, Expert system and Artificial Intelligence.

Part - II: Practice

Section - A

Assignments: 10 marks

Section - B

Practical Examination: 30 Marks Time: 2 Hours

- Evaluation of *One* Documentary Information Source. Marks: 15

- Evaluation of *One* Institutional Source. Marks: 10

- Viva-voce: Marks: 5

Syllabus: Evaluation of Information Sources.

Recommended Books

- 1. DIXIT (R P). Information management in Indian medical libraries, 1995, pp 1-423.
- 2. R P KUMAR, SRIVASTAVA (Divya) and GUPTA (S P), eds. Education for librarianship in information age, MLAI sp. Pub. 1995, pp.1-287.
- 3. GUPTA(S P) et al. Information technology and health science libraries, MLAI sp. Pub. 1993, pp.1-279.
- 4. CARMEL (Michael), ed.: Health care librarianship and Information work 22nd ed, 1995.
- 5. PICKEN (Fiona Mackay) and KAHN (Ann M C). Medical librarianship in the eighties and beyond: A world perspective, 1986.
- 6. JOURNAL OF American Society for Information Science: Perspectives on medical informatics: information technology in health care, 1995, 46 (10), 723 800.
- 7. VARALAXSHMI (R S R). Information services in medical college libraries. 1993.

Mapping Matrix of Course MLIS-115

Table 115.1: CO-PO Matrix

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-115.1	3	3	3	3	3	3
MLIS-115.2	3	3	3	3	3	3
MLIS-115.3	3	3	3	3	3	3
MLIS-115.4	2	2	3	3	3	2
Average	2.75	2.75	3	3	3	2.75

Table 115.2: CO-PSO Matrix

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-115.1	1	1	1	1	1	1	2
MLIS-115.2	3	3	3	2	2	3	3
MLIS-115.3	3	3	2	3	3	3	3
MLIS-115.4	1	3	2	1	2	2	2
Average	2	2.5	2	2	2	2.25	2.5

Table 5: CO-PO MAPPING: M.LIB.I.S.

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-101	3	3	3	3	3	3
MLIS-102	3	3	3	3	3	2.75
MLIS-103	3	3	3	3	3	3
MLIS-104	3	3	3	3	3	3
MLIS-105	3	3	3	3	3	3
MLIS-106-A	2.75	2.5	3	2.5	3	3
MLIS-106-B	2.75	2.5	3	2.5	3	3
MLIS-106-C	2.75	2.5	3	2.5	3	3
MLIS-107	3	3	3	3	3	3
MLIS-108	3	3	3	3	3	3
MLIS-109	3	3	3	3	3	3
MLIS-110	3	3	3	3	3	3
MLIS-111-A	2.75	2.75	3	3	3	2.75
MLIS-111-B	2.75	2.75	3	3	3	2.75
MLIS-111-C	2.75	2.75	3	3	3	2.75

Table 6: CO-PSO MAPPING: M.LIB.I.S.

Course Code	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-101	2.5	3	3	2.75	3	3	3
MLIS-102	3	2	2	3	2.5	2.5	2.5
MLIS-103	2.5	2.5	3	3	3	3	3
MLIS-104	2	3	1	1	2	3	2.5
MLIS-105	3	1	2	2	3	1	3
MLIS-106-A	2.75	2	2	2.75	2.25	2.25	2
MLIS-106-B	2.75	2	2	2.75	2.25	2.25	2
MLIS-106-C	2.75	2	2	2.75	2.25	2.25	2
MLIS-107	2	1	1	1	1	3	2
MLIS-108	2.25	2.75	3	2.75	3	2.75	2.25
MLIS-109	2.5	3	3	1.5	2	2	2.5
MLIS-110	1.75	1.5	2	1	1	3	3
MLIS-111-A	2	2.5	2	2	2	2.25	2.5
MLIS-111-B	2	2.5	2	2	2	2.25	2.5
MLIS-111-C	2	2.5	2	2	2	2.25	2.5

Table 7: CO-PO-PSO MAPPING: M.LIB.I.S.

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
MLIS-101	3	3	3	3	3	3	2.5	3	3	2.75	3	3	3
MLIS-102	3	3	3	3	3	2.75	3	2	2	3	2.5	2.5	2.5
MLIS-103	3	3	3	3	3	3	2.5	2.5	3	3	3	3	3

MLIS-104	3	3	3	3	3	3	2	3	1	1	2	3	2.5
MLIS-105	3	3	3	3	3	3	3	1	2	2	3	1	3
MLIS- 106-A	2.75	2.5	3	2.5	3	3	2.75	2	2	2.75	2.25	2.25	2
MLIS- 106-B	2.75	2.5	3	2.5	3	3	2.75	2	2	2.75	2.25	2.25	2
MLIS- 106-C	2.75	2.5	3	2.5	3	3	2.75	2	2	2.75	2.25	2.25	2
MLIS-107	3	3	3	3	3	3	2	1	1	1	1	3	2
MLIS-108	3	3	3	3	3	3	2.25	2.75	3	2.75	3	2.75	2.25
MLIS-109	3	3	3	3	3	3	2.5	3	3	1.5	2	2	2.5
MLIS-110	3	3	3	3	3	3	1.75	1.5	2	1	1	3	3
MLIS- 111-A	2.75	2.75	3	3	3	2.75	2	2.5	2	2	2	2.25	2.5
MLIS- 111-B	2.75	2.75	3	3	3	2.75	2	2.5	2	2	2	2.25	2.5
MLIS- 111-C	2.75	2.75	3	3	3	2.75	2	2.5	2	2	2	2.25	2.5

Attainment of COs:

The attainment of COs will be measured on the basis of the results of Internal Assessment and end Semester Examination. The attainment is measured on scale of 3 as per the target for COs attainment.

Following table shows the CO attainment levels at the set target of 60%.

Table-8: CO Attainment Levels for Internal Assessment

Attainment Level	
1	60% of students score more than 60% or higher grade in Class Tests/
(low level of attainment)	Assignments of M.Lib.I.S. course.
2	70% of students score more than 60% or higher grade in Class Tests/
(Medium level of attainment)	Assignments of M.Lib.I.S. course.
3	80% of students score more than 60% or higher grade in Class Tests/
(High level of attainment)	Assignments of M.Lib.I.S. course.

The questions in tests/assignments for Internal Assessment will be based on COs. Class Test-I/Assignment-I will be based on first two COs (e.g. MLIS - 101.1 and MLIS -101.2 in case of Information Analysis, Consolidation and Repackaging) with equal weightage given to both COs. Similarly, Class Test-II/Assignment-II will be based on next two COs (e.g. MLIS-101.3 and MLIS-101.4 in case of Information Analysis, Consolidation and Repackaging) with equal weightage given to these two COs. For each Internal Assessment Test/Assignment, the percentage of students attaining the target level of CO will be estimated and averaged percentage will decide the attainment level of COs. Following steps will be followed for determining the attainment level in Internal Assessment of M.Lib.I.S. course:

- (i) The %age of students scoring set target i.e. 60% marks or more in the question(s) of Test–I/Assignment-I will be estimated based on first CO e.g. **MLIS-101.1.**
- (ii) The %age of students scoring set target i.e. 60% marks or more in the question(s) of Test–I/Assignment-I will be estimated based on second CO e.g. MLIS -101.2.
- (iii) The %age of students scoring set target i.e. 60% marks or more in the question(s) of Test–II/Assignment-II will be estimated based on third CO e.g. MLIS -101.3.
- (iv) The %age of students scoring set target i.e. 60% marks or more in the question(s) of Test–II/Assignment-II will be estimated based on fourth CO e.g. **MLIS -101.4.**
- (v) The average of the percentages obtained above will be calculated.
- (vi) The attainment level i.e. 3, 2 or 1 will be determined as per scale defined in **the above table**.

The attainment levels for End Semester Examination, the questions in the End Term Examination will be based on all COs of M.Lib.I.S. course. Attainment levels for End Semester Examination of M.Lib.I.S. will be determined after the declaration of the results. The CO attainment levels for End Semester Examination are given in the following Table-9:

Table-9: CO Attainment Levels for End Semester Examination (ESE)

Attainment Level	
1	60% of students obtained letter grade of B+ or above.
(Low level of attainment)	
2	70% of students obtained letter grade of B+ or above.
(Medium level of attainment)	
3	80% of students obtained letter grade of B+ or above.
(High level of attainment)	-

Overall CO Attainment level of M.Lib.I.S. Course:

The overall CO attainment level of the course will be obtained as:

Overall CO attainment level = 50% of CO attainment level in Internal Assessment + 50% of CO attainment level in End Semester Examination.

The overall COs attainment level will be obtained for all the courses of the programme in a similar manner.

Attainment of POs:

The overall attainment level of POs will be based on the values obtained using direct and indirect methods in the ratio of 80:20. The direct attainment of POs is obtained through the attainment of COs. The overall CO attainment value as estimated above and CO-PO mapping value as shown in **Table 3** will be used to compute the attainment of POs. PO attainment values obtained using direct method will be written as shown **in the following Table:**

Table-10: PO Attainment Values using Direct Method

Course Code	PO1	PO2	PO3	PO4	PO5	PO6
MLIS-101						
MLIS-102						
MLIS-103						
MLIS-104						
MLIS-105						
MLIS-106						
MLIS-107						
MLIS-108						
MLIS-109						
MLIS-110						
MLIS-111						
MLIS-112						
MLIS-113						
MLIS-114						
MLIS-115						

The PO attainment values to be filled in above table can be obtained as follows:

For MLIS -101-PO1 Cell:

PO1 attainment value = (Mapping factor of MLIS -101-PO1 from Table $7 \times$ Overall CO attainment value for the course MLIS -101)/3

For MLIS -101-PO1 Cell:

PO1 attainment value = (Mapping factor of **MLIS -101-**PO1 from **Table 7** \times Overall CO attainment value for the course **MLIS -101**)/3

Similarly, values for each cell **of the above table** can be obtained. The direct attainment of POs is average of individual PO attainment values.

In order to obtain the PO attainment using indirect method, a student exit survey based on the questionnaire of POs will be conducted at end of last semester of the program. The format for the same is given **in the following table-11**. Average of the responses from the outgoing students for each PO will be estimated. The overall PO attainment values are obtained by adding attainment values estimated using direct and indirect methods in the proportion of 80:20 as follows:

Overall attainment value for PO1 =

0.8 × average attainment value for PO1 using direct method (from Table 5) +

0.2 × average response of outgoing students for PO1

Similarly, overall attainment value can be obtained for each PO.

Table-11: Questionnaire for indirect measurement of PO attainment (For outgoing students)

At the end of my degree programme I am able to do:

	Please tick any						
PO1	Depth and Breadth of Knowledge	A systematic understanding of knowledge within the discipline and in related discipline/s, and a critical awareness of current problems and/or new insights informed by the forefront of their academic discipline.	3	one 2	1		
PO2	Research and scholarship	a) A working comprehension of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline.b) A treatment of complex issues and judgments based on established principles and techniques.	3	2	1		
PO3	Level of application of knowledge	 a) Knowledge of Information available in diverse media and formats, their access mechanism, retrieval techniques and evaluation for lifelong learning. b) Competence in applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue. 	3	2	1		
PO4	Awareness of limits of knowledge	Cognizance of the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines.	3	2	1		
PO5	Professional capacity/autonomy	Acquiring and showing qualities and transferable skills necessary for employment: exercise of initiative, personal responsibility, intellectual independence, ethical behavior and academic integrity.	3	2	1		
PO6	Level of Communication Skills						

Overall PO attainment values can be written as shown in the following Table-12.

Table-12: Overall PO attainment Values

	PO1	PO2	PO3	PO4	PO5	PO6
Direct PO						
attainment						
Indirect PO						
attainment						
Overall PO						
attainment						
Target	2	2	2	2	2	2

The overall PO attainment values obtained above are compared with set target. The set target for each PO may be different and will be finalized by the staff councils of the departments/institutes. If overall PO attainment value is less than the set target value then an action plan may be prepared for improvement in the subsequent academic session.

The overall PSO attainment level based on CO-PSO mapping values and overall CO attainment values will be obtained in a similar manner.