# MASTER OF LIBRARY AND INFORMATION SCIENCE SYLLABUS

# **OUTCOME-BASED EDUCATION BASED ON REVISED BLOOM'S TAXONOMY**

for the students admitted in the academic year 2019-2020



# DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE BISHOP HEBER COLLEGE (Autonomous)

(Reaccredited with 'A' Grade (CGPA – 3.58/4.0) by the NAAC) (Identified as College of Excellence by the UGC) DST – FIST Sponsored College & DBT Star College

TIRUCHIRAPPALLI – 620 017 TAMIL NADU, INDIA

# Vision

Mould young minds to achieve excellence in Library and Information Science and develop globally competent library professionals to serve humanity

# **Mission**

- Offer quality Library and Information Science Education with creativity and novelty
- Impart skill based training to match with the global standard of Library profession
- Inculcate values and ethics to practice throughout the career

# Programme Outcomes (POs):

# After successful completion of programme, the graduand will be able to:

# **Knowledge:**

- **PO1:** Comprehend knowledge of emerging trends in knowledge management, information marketing, corporate library and Information systems.
- **PO2:** Adapt main ideas of Information Resources, Information Marketing and Information Systems & Services.
- **PO3:** Apply advanced knowledge in Libraries, Information & Documentation Centres
- **PO4:** Practice library automation, develop digital libraries, by using Information Communication Technology and customize databases.

#### Skills:

- **PO5:** Exhibit professional skills, life skills and soft skills to be effective library professionals.
- **PO6:** Demonstrate technical skills like Information Processing and Retrieval, ICT, Library automation, digital libraries, Open Source Software and Research skills.
- **PO7:** Critically assess & evaluate research methods & techniques through internships in leading libraries & fieldwork training in diverse types of libraries.

#### Attitude:

- **PO8:** Practice professional, research and publication ethics in diverse library environment.
- **PO9:** Cultivate lifelong learning to enrich knowledge sharing.

# **Programme Specific Outcomes (PSOs):**

- **POS1:** Apply basic concepts, fundamental principles, Laws, theories, policies, methods & techniques of research in various fields of Library & Information Science
- **PSO2:** Practice conceptual principles & theories in internship & fieldwork training for career building.
- **PSO3:** Demonstrate holistic personality to take up any responsibility in Library Profession.

**PSO4:** Customize library software for various applications in diverse library environment.

# PROGRAMME ARTICULATION MATRIX

6		COURSE		orr	elat	ion rog	wi	th I	Prog	gran					s
S. No	COURSE NAME	COURSE	P01	P02	P03	P04	P05	P06	P07	P08	P09	PSO1	PS02	PSO3	PSO4
1.	Foundations of Library and Information Science	P18LS101	M	M	Н	-	L	L	M	Н	L	M	M	M	1
2.	Management of Library and Information Centres	P18LS102	L	M	M	M	L	L	Н	M	1	M	L	M	1
3.	Information Sources	P19LS103	L	Н	M	-	L	L	L	L	L	L	L	Н	1
4.	Library Automation (Theory)	P19LS104	M	L	Н	Н	Н	Н	-	Н	Н	M	-	Н	-
5.	Information Systems and Services	P18LS1:1	M	M	M	M	M	M	Н	M	M	M	1	M	ı
6.	Information Processing and Retrieval (Theory)	P18LS205	L	L	L	L	L	Н	M	ı	1	Н	M	Н	1
7.	Information Technology	P18LS206	М	M	-	M	M	M	-	-	-	M	-	M	M
8.	Information Processing and Retrieval Practice I (Classification CC & DDC)	P18LS2P1	М	L	Н	M	M	М	-	М	Н	L	-	M	-
9.	Information Processing and Retrieval Practice II (AACR II / UDC)	P18LS2P2	M	L	Н	M	M	M	ı	M	M	M	M	ı	M
10.	Knowledge Management	P19LS2:2	M	M	M	_	M	-	ı	M	M	M	M	M	-
11.	Soft Skills for Library Professionals	P19LS2:3	L	M	L	L	Н	-	L	L	L	-	L	Н	-
12.	Research Methodology	P18LS307	M	M	M	M	M	M	M	M	M	M	M	M	M

s.		COURSE	Correlation with Programme Outcomes and Programme Specific Outcomes												
No	COURSE NAME	CODE	PO1	P02	P03	P04	P05	P06	PO7	P08	P09	PS01	PS02	PSO3	PS04
13.	Digital Libraries	P18LS308	M	Н	Н	Н	Н	Н	-	Н	Н	Н	-	Н	-
14.	Open source software practice	P18LS3P3	L	L	Н	Н	M	Н	М	-	-	L	M	L	Н
15.	Library Automation Practice	P18LS3P4	Н	Н	-	Н	Н	Н	_	-	-	Н	Н	Н	Н
16.	Information Marketing	P19LS3:4	М	M	M	-	М	-	М	М	М	M	М	М	М
17.	Informetrics	P18LS409	Н	Н	Н	-	Н	-	-	Н	Н	Н	Н	-	-
18.	Database Management System for Library and Information Centres	P18LS410	Н	M	Н	Н	Н	Н	_	М	M	Н	-	Н	-
19.	Corporate Libraries and Information Systems	P19LS4:5	L	L	L	Н	L	L	-	-	Н	L	-	L	Н
20.	Field Work & Internship Training	P18LS4F1	L	L	M	Н	M	M	L	-	1	L	L	Н	Н
21.	Major Project	P18LS4PJ	L	Н	Н	L	Н	Н	Н	L	-	Н	L	M	-

# **Structure of the Curriculum**

Parts of the	No. of Courses	Credits
Curriculum		
Core Course	10	48
(Theory)		
Core Course	4	12
(Practical)		
Elective	5	20
Project	1	5
NMEC	1	2
VLOC	1	2
Field work	1	3
Total	23	90

# Master of Library and Information Science (M.Lib.I.Sc.) (For the candidates admitted from the Academic Year 2019-20 onwards)

Sem	Course	Code	Course Title	Pre	Hrs./	Cre		Marks	
Sem	Course	Code	Course Title	requisites	Week	dits	CIA	ESA	Total
	Core I	P18LS101	Foundations of Library and Information Centres		6	5	25	75	100
	Core II	P18LS102	Management of Library and Information Centres		6	5	25	75	100
I	Core III	P19LS103	Information Sources		6	5	25	75	100
	Core IV	P19LS104	Library Automation (Theory)		6	4	25	75	100
	Elective I	P18LS1:1	Information Systems and Services		6	4	25	75	100
	Core V	P18LS205	Information Processing and Retrieval(Theory)		5	5	25	75	100
	Core VI	P18LS206	Information Technology	5	5	25	75	100	
	Core Practical I	P18LS2P1	Information Processing and Retrieval Practice I (Classification CC & DDC)	Information Processing and Retrieval Practice I (Classification					100
II	Core Practical II	P18LS2P2	Information Processing and Retrieval Practice II (AACR – II/UDC)	5	3	40	60	100	
	Elective-II	P19LS2:2	Knowledge Management		5	4	25	75	100
	Elective-III		Soft Skills for Library Professionals		5	4	25	75	100
	VLO	P17VL2:1/ P17VL2:2	RI / MI		5	2	25	75	100
	Core VII	P18LS307	Research Methodology		5	5	25	75	100
	Core VIII	P18LS308	Digital Libraries	P15LS104, P15LS206	5	5	25	75	100
III	Core Practical III	P18LS3P3	Open Source Software Practice	P15LS206	5	3	40	60	100
	Core Practical IV	P18LS3P4	Library Automation Practice	P15LS104	5	3	40	60	100
	Elective IV		Information Marketing		5	4		75	100
	Core IX	P18LS409	Informetrics		5	5	25	75	100
	Core X	P18LS410	Database Management System for Library and Information Centres		5	5	25	75	100
IV	Elective V	P19LS4:5	Corporate Libraries and Information Systems		5	4	25	75	100
	Field Work	P18LS4F1	Field Work and Internship Training		5	3			100
	Core Project	P18LS4PJ	Project		5	5			100
			Total			90			2200

CIA- Continuous Internal Assessment ESA- End Semester Assessment VLOC Value added Life Oriented Course

# Core - I: FOUNDATIONS OF LIBRARY AND INFORMATION SCIENCE

Course Code: P18LS101

Semester I Credits 5

#### 1. Course Outcomes

S.No.	Course Outcomes	Level	Unit Covered
1	Relate data, Information and Knowledge with Information Cycle Process.	K2	1
2	Apply theories and Models of Communications in Library Science Centers	K4	2
3	Distinguish Different types of Libraries and the role of Professional Associations in the society.	K4	3
4	Apply five laws of Library Science in all areas of Library Information Centres	K4	3
5	Understand the basic concepts of Library Legislation, Policies and Library Acts.	K4	4
6	Evaluate the growth and development of Library Information Science Schools and impart the significance of Professional ethics among library professionals.	К6	5

# 2. Syllabus Unit -I (18 Hrs.)

#### Information

Data, Information, Knowledge – Concept, Definition, Characteristics, – Information Patterns– Factors influencing growth of Information, Information Transfer Cycle; Impact of Social and Economic changes on Information

# Unit -II (16 Hrs.)

# **Communication Models**

Communication: Concept, Definition, Types, Theories, Models, Channels of communication, Barriers to Communication

# Unit - III (20 Hrs.)

# Types of Library, Laws, Role of Associations

Library: Concepts, Types, Five Laws of Library Science; Professional Ethics of Librarian; Role of Professional Associations: National and International – CILIP, ILA, IASLIC, IATLIS, IFLA, ALA

# Unit -IV (18 Hrs.)

# Library legislation

Library Movement: Legislation in India - Tamil Nadu Model Library Bill for State and Centre, Delivery of Books and Newspaper Act - Intellectual Property Rights - Plagiarism: Softwares - Information Policy - Right to Information.

# Unit - V (18 Hrs.)

# **Growth and Development LIS School**

Information Science as Discipline - Evolution, Growth and Development; Economics of LIS- LIS Schools in India.

# a. Topics of the Self Study

1. Role of Academic Libraries in Media and Information Literacy.

https://www.youtube.com/watch?v=yVkw\_zVX5c8&feature=youtu.be

2. Agencies in the promotion and development of public library system (M-04)

https://youtu.be/ksiUuLHJSCM

3. ICT application in Academic Libraries and its Impact (M11)

https://youtu.be/d\_wJ7pExTdQ

4. Organisational structure of the library (M07)

https://youtu.be/FTQsKX5YwLs

#### b. Reference Books

R1: Kumar P S G, Foundations of Library and Information Science B. R. PublishingCorporation

R2: Khanna J K, *Library and Society*, Kurukshetra University, Kurukshetra

R3: Kumar P S G, Foundation of Library and Information Science Paper 1 of UGC Model Curriculum, B.R.PublishingCorporation

R4: Encyclopedia of Library and Information Science, Vol.62

R5: Uma Narula, Communication Models, Atlantic Publishers

# 3. Specific Learning Outcomes

Unit/ Section	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction
			Transacuon

1 Basic Concepts of Information	
1.1 Data, Nature of	
Information, Knowledge – Understand nature	
Concept, Definition, of Data, Information	K2
Characteristics and Knowledge	
1.2 Understand	
Information Patterns, Information	K2
Factors Influencing Patterns and	
growth of information Factors Influencing	
growth of	
Information	
1.3 Understand and	
Information Transfer apply Information	K2
Cycle Transfer Cycle	
2 Communication Models	
2.1 Communication: Understand the	
Concept, Definition, concept, definition	K2
Types, Theories and and types of	
Models communication	
2.2 Analyze the various	
Channels of channels of	K4
Communication   communication	
2.3 Barriers to Evaluate the	
Communication different barriers	K5
ofcommunication	
	•
3 Types of Library, Laws, Role of Associat	tions
3.1 Understand the	
3.1 Understand the concept and types	K2
3.1 Understand the concept and types of libraries	
3.1 Understand the Library concept and concept and types types of libraries 3.2 Apply laws of	K2
3.1 Understand the concept and types of libraries  3.2 Apply laws of Laws of Library Science Library Science	
3.1 Understand the Library concept and concept and types types of libraries 3.2 Apply laws of Laws of Library Science Library Science 3.3 Professional Ethics of Apply professional	K2 K3
3.1 Understand the Library concept and concept and types of libraries  3.2 Apply laws of Laws of Library Science Library Science  3.3 Professional Ethics of Apply professional Librarian ethics in work place	K2
3.1 Understand the concept and types of libraries  3.2 Apply laws of Library Science  3.3 Professional Ethics of Librarian Ethics in work place  3.4 Analyze and	K2 K3 K3
3.1 Understand the concept and types of libraries 3.2 Apply laws of Library Science Library Science 3.3 Professional Ethics of Librarian Ethics in work place 3.4 Role of Library Science Analyze and evaluate the role of	K2 K3
3.1 Understand the concept and types of libraries  3.2 Apply laws of Library Science  3.3 Professional Ethics of Librarian ethics in work place  3.4 Role of Library Associations volume to the concept and types of libraries  Apply laws of Library Science  Apply professional ethics in work place of professional	K2 K3 K3
3.1 Understand the concept and types of libraries  3.2 Apply laws of Library Science Library Science  3.3 Professional Ethics of Librarian Ethics in work place  3.4 Role of Library Associations Professional evaluate the role of professional national and	K2 K3 K3
3.1 Understand the concept and types of libraries  3.2 Apply laws of Library Science Library Science  3.3 Professional Ethics of Librarian Ethics in work place  3.4 Role of Library Associations  3.7 Analyze and evaluate the role of professional national and international	K2 K3 K3
3.1 Understand the concept and types of libraries  3.2 Apply laws of Library Science Library Science  3.3 Professional Ethics of Librarian Ethics in work place  3.4 Role of Library Associations  Analyze and evaluate the role of professional national and international associations	K2 K3 K3
3.1 Library concept and types of libraries 3.2 Apply laws of Library Science Library Science 3.3 Professional Ethics of Librarian Ethics in work place 3.4 Role of Library Associations Professional associations  4 Library L	K2 K3 K3
3.1	K2  K3  K3  K5
3.1	K2 K3 K3
3.1 Library concept and types of libraries  3.2 Apply laws of Library Science Library Science  3.3 Professional Ethics of Librarian ethics in work place  3.4 Role of Library Associations professional national and international associations  4 Library Movement, Library Legislation  Understand the concepts library movement and	K2  K3  K3  K5
3.1	K2  K3  K3  K5
3.1 Library concept and types of libraries  3.2 Apply laws of Library Science Library Science  3.3 Professional Ethics of Librarian ethics in work place  3.4 Role of Library evaluate the role of professional national and international associations  4 Library Movement, Library Legislation  4.1 Library Legislation Understand the concepts library movement and legislation  4.2 Understand the	K2  K3  K3  K5
3.1 Library concept and types of libraries  3.2 Apply laws of Library Science  3.3 Professional Ethics of Librarian  3.4 Role of Library Associations  4 Library Movement, Library Legislation  4.1 Library Bills and Acts  Understand the concept and types of libraries  Apply laws of Library Science  Apply professional ethics in work place  Analyze and evaluate the role of professional national and international associations  Understand the concepts library movement and legislation  Understand the model library bill	K2  K3  K3  K5  K2
3.1 Library concept and types of libraries  3.2 Apply laws of Library Science Library Science  3.3 Professional Ethics of Librarian ethics in work place  3.4 Role of Library evaluate the role of professional national and international associations  4 Library Movement, Library Legislation  4.1 Library Legislation Understand the concepts library movement and legislation  4.2 Understand the	K2  K3  K3  K5  K2
3.1  Library concept and types of libraries  3.2  Laws of Library Science  3.3  Professional Ethics of Library Science  3.4  Role of Library Associations  Analyze and evaluate the role of professional national and international associations  4  Library Movement, Library Legislation  4.2  Library Bills and Acts  Understand the concepts library movement and legislation  Understand the model library bill and apply delivery	K2  K3  K3  K5  K2

	Legislation, Library Bill. Intellectual property Rights, Policy, Right to Information	Understand and apply legislation, bill property rights, policy and right to information	К3					
5	Growth and Development LIS Schools							
5.1		Evaluate						
	Information Evolution,	information	K5					
	Growth and Development	evolution, growth,						
		and development						
5.2		Evaluate the growth						
	LIS School in India	of Library and	K5					
		Information Science						
		Schools in India						

# 4. Mapping of COs to POs & PSOs

Mapping	P01	P02	P03	P04	P05	P06	PO7	P08	P09	PS01	PS02	PSO3	PSO4
CO1	L	-	M	-	-	-	-	-	-	Н	-	M	-
CO2	-	-	M	-	-	-	-	-	-	Н	-	M	-
CO3	M	-	Н	-	-	-	M	-	L	M	M	Н	-
CO4	M	M	Н	-	L	L	M	M	M	M	M	M	-
CO5	-	-	M	-	-	-	-	-	-	M	-	M	-
CO6	Н	ı	Н	-	-	-	L	M	-	-	L	Н	-

L-Low M-Medium H- High

#### 5. Course Assessment Methods

# I. Direct Method:

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group Discussion, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

#### Core – II: MANAGEMENT OF LIBRARY AND INFORMATION CENTRES

Course Code: P18LS102

Semester I
Credits 5

#### 1. Course Outcomes

S. No.	Course Outcome	Level	Unit Covered
1.	Understand the concept, importance of management and Schools of Management Thought.	K2	Unit 1
2.	Apply the diverse models of Performance Evaluation Standards in libraries of all kinds.	K4	Unit 1
3.	Analyze the planning steps, strategies and techniques and apply decision making process in information centers.	K4	Unit 2
4.	Understand the concept of Human Resource Management and apply organization models such as job description and job analysis in information centers.	K4	Unit 3
5.	Evaluate budgeting techniques and importance of Financial Management	K6	Unit 4
6.	Discuss & adapt the importance of Collection Development and Evaluation policies	К6	Unit 5

# 1. Syllabus

# Unit – I (18 Hours)

# Management: Concept & History

Management: Concept, History, Definitions, Scope – Schools of Management Thought – System Analysis and Design – Library as a System. Performance Measurement – Performance Evaluation standards – CPM / PERT – SWOT – DFD (Data Flow Diagram)

#### Unit – II (18 Hours)

# **Planning and Planning Strategies**

Planning and Planning Strategies: Concept, Definition, Need – Steps in Planning – MBO – Planning Technique – Decision Making – Accreditation Process (NAAC, NBA, NCTE, MCI, ISO)

#### Unit – III (18 Hours)

#### **Human Resource Management**

Human Resource Management: Organization Models – Job Description and Job Analysis – Selection, Recruitment, Training and Development - Leadership - Team Building - Motivation -Time and Change Management - Communication Skills.

# Unit –IV (18 Hours) Financial Management

Financial Management: Planning and Control - Resource Generation, Budget, Budgeting - Budgetary Control Techniques - PPBS, ZBBS - Cost Benefit, Cost Effective Analysis and Accounting - Taxation related to Library.

# Unit – V (18 Hours)

# **Material Management**

Material Management: Collection Development and Evaluation – Polices and issues related to Selection, Acquisition, Maintenance and Preservation of Print – Non Print Materials – Planning of Library Building, Furniture, Equipments - Standards.

# a. Topics for Self-Study:

- 1. Organizational Structure of the Library: https://www.youtube.com/watch?v=FTQsKX5YwLs&feature=youtu.be
- 2. Event Planning: <a href="https://www.youtube.com/watch?v=RbGnd3hIwX0&feature=youtu.be">https://www.youtube.com/watch?v=RbGnd3hIwX0&feature=youtu.be</a>
- 3. Management Information System: https://www.youtube.com/watch?v=WrKGBWni2A0&feature=youtu.be
- 4. Governance of Library: <a href="https://youtu.be/yBANRPm2K-M">https://youtu.be/yBANRPm2K-M</a>

#### b. Reference Books:

- R1: Krishan, K. (2009). *Library administration and management*. Vikas Publishing House.
- R2: Ranganathan, S.R., (2006), library administration, EssEss Publication.
- R3: Mittal, R. L. (1964). *Library administration: Theory and practice*. Metropolitan Book Company.

R4: e-PGPathasala:

https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=1610.

- R5: Robert Stewart, Library and Information Centre management, 7th ed., Libraries Unlimited
- R6: James L. Ratcliff, Edward S. Lubinescu& Maureen A. Gaffney (2001), How AccreditationInfluences Assessment, Pennsylvania State University
- R7: Ramesh Kumar Verma, *Library Administration and Management*, Swasthik Publications, Delhi.
- R8: Punmia, B. C., &Khandelwal, K. K. (2002). *Project Planning and Control with PERT & CPM*. Firewall media.
- R9: Human Resource Management. University of Minnesota Library Publishing

# 2. Specific Learning Outcomes (SLO)

3.

<del></del>			
Unit/	Course Content		Blooms
		Learning Outcomes	Taxonomic
Section		Bearing Outcomes	Levels of
			Transaction

I	Management: Concept & His	story	
1.1	Management :Concept, History, Definitions & Scope	Remember and Understand management concepts	K2
1.2	Schools of management thought Classical school Neo-classical school Modern management school	Relate and classify the types of management thoughts	К2
1.3	System analysis and design Types of system System design concept	Remember and understand the concept of System analysis and design	K2
1.4	Library as a system: Definition, Features, Merits and demerits	Understand and identify the model of library system	к3
1.5	Performance measurement Organization measurement Individual performance	Analyze and evaluate the ideas of Performance measurement	К5
1.6	Performance evaluation standards  Quality and efforts of employees performance	Analyze and evaluate the ideas of Performance measurement	К5
1.7	CPM/PERT/ SWOT: Analysis and techniques	Analyze and evaluate the ideas of PERT/CPM/SWOT	К5
1.8	DFD(Data Flow Diagram):Concepts, Need & Process	Analyze and evaluate the ideas of DFD (Data Flow Diagram)	К5
II	Planning and Planning Strat	egies	
2.1	Planning and planning strategies:: Concepts ,Definitions & Needs	Remember and understand the concept of planning	К2
2.2	Steps in planning : Strategies in planning	Remember and understand the concept of planning strategies	K2

2.3	Planning technique	Remember and understand the concept of planning techniques	K2
2.4	MBO: Concept &Process	Remember and understand the concept of MBO	K2
2.5	Planning and planning strategies: Concepts ,Definitions & Needs	Remember and understand the concept of planning	K2
2.6	Decision making: Process, Concepts & Types	Recall and relate the concept of Decision Making Process and types	K2
2.7	Accreditation process:	Understand and analyze the Accreditation process ( NAAC, NBA, NCTE, MCI, ISO)	K4
III	Human Resource Manageme	ent	
3.1	Human resource management: Concept Definition Characteristics	Remember and understand the concept of HRM	K2
3.2	Organization models: Principles Patterns Structure	Remember, understand and apply the principles and patterns of Organizational model	кз
3.2	Principles Patterns	and apply the principles and patterns of	K3

3.5	Time and change management	Understand and analyze Time and change management	K4
3.6	Communication skills: Concepts and types	Remember, understand and create the communication concept and models	К6
IV	Financial Management		
4.1	Financial management Concepts Need Purpose	Remember and understand the concept of financial management	К2
4.2	Planning and control	Remember and understand the concept of planning and controlling of finance	К2
4.3	Resource generation: Sources of budgeting	Remember and understand the concept of resource generation using aids	K2
4.4	Budgeting Concept Definition Meaning	Apply the concept of budgeting	К3
4.5	Budgetary control techniques:  PPBS ZBBS Cost benefit Cost effective analysis and accounting	Apply and evaluate the concept of different Budgetary techniques	<b>K</b> 5
4.6	Taxation related to library	Apply the concept of taxation	К3
V	Material Management		
5.1	Material management Concept	Remember, understand and the concept of material management	K2

5.2	Collection development and evaluation  Concept and policies	Apply the concept of Collection Development and policies	К3
5.3	Polices and issues related to selection: Acquisition, Maintenance and preservation of print materials	Analyze the concept of Polices and issues related to selection: Acquisition, Maintenance and preservation of print materials	K4
5.4	Non print materials : Maintenance and preservation	Remember & understand the concept of Non print materials	K2
5.5	Planning of library building: Furniture and Equipments	Remember, understand and apply the concept of Planning of library building	кз

# 4. Mapping of COs to POs & PSOs

P19LS102	PO1	P02	PO3	P04	P05	P06	PO7	P08	P09	PS01	PS02	PSO3	PS04
CO1	L	-	_	M	M	-	Н	-	M	Н	Н	Н	_
CO2	M	_	M	L	Н	Н	Н	-	M	Н	L	M	-
CO3	Н	M	Н	L	Н	Н	M	L	M	Н	M	M	L
CO4	Н	L	M	-	Н	Н	M	-	-	Н	Н	Н	-
M	L	M	_	-	Н	-	M	-	M	L	Н	L	-
CO6	Н	Н	Н	M	-	-	M	-	L	Н	Н	-	-

L- Low M- Medium H-High

# 5. Course Assessment Methods

# I. Direct Method:

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group

Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test 3. Pre-Semester, End-Semester Examination - Closed Book

#### **CORE - III: INFORMATION SOURCES**

Semester- I Course Code: P19LS103

Credits :4

#### 1. Course Outcomes

Vo.	Course Outcomes	Level	Unit Covered
1.	rstand the concept and importance of Primary, Secondary and Tertiary sources	K2	1
2.	ate all kinds of Secondary Sources	K2	2
3.	ze the different Non Documentary Sources	K4	3
4.	ate the Electronic Information Sources such as E-books, E- journals etc.	K4	4
5.	orehend E-book publishers Amazon & Sage and E-journals publishers Springer Verlog CO6: Evaluate print reference source and electronic reference sources	K6	5

# 2. Syllabus

# Unit - 1 Introduction to Information Sources 18hrs

Information sources: Definition, Type, Characteristics - Primary, Secondary, Tertiary - Evaluation of print Reference Sources

# Unit -II Secondary Sources 18hrs

Study of Secondary Sources: Definition, Types- Dictionaries, Encyclopedia, Directories, Manuals and Handbooks, Bibliographic sources (See Annexure)

# Unit – III Non – Documentary Sources 18hrs

Non – Documentary Sources: Formal and Informal – Human Sources, Institutional Information Sources, Technological Gate Keepers and Invisible Colleges

# Unit -IV Electronic Information Sources 18hrs

Electronic Information Sources: Meaning, Characteristics, Types: E-books, E-journals Database, Bulletin Boards

#### Unit - V Online Publishers 18hrs

Online publishers: Detailed study of E-books (Amazon, Sage Publication), E-journals (Springer Verlog), Database (INSPEC) – E-Directories-Evaluation of E-Resources

# Topics for Self - Study

1. Digital Resources

https://www.slideshare.net/simmibarath/digital-resources-71007049

2. Institutional Repositories

http://www.netugc.com/institutional-repository-ir

- 3. Subject Gateways <a href="http://www.agr.unideb.hu/~agocs/informatics/07\_e\_internet/e\_tonic/content/60.html">http://www.agr.unideb.hu/~agocs/informatics/07\_e\_internet/e\_tonic/content/60.html</a>
- 4. Library Consortia

http://www.lisbdnet.com/library-consortia-mdg/

#### Reference Book:

R1: Gurdev Singh, Information Sources, Services and Systems, Prentice Hall of India, New Delhi, 2013.

R2: Krishnan Kumar, Reference Service, 4th edition, Vikas Publishing House, New Delhi, 1982

R3: Ranganathan, S R, Reference Service, Sarada Ranganathan Endowment for Library Science, Bangalore, 2006

R4: Chowdry G and ChowdrySunitha, Electronic Information Sources, Fact, London, 2001.

R5: Jagdish Saran Sarma and Grover, D R, Reference Service and Sources of Information, EssEss Publications, New Delhi, 1987

# 3. Specific Learning Outcomes (SLO)

Unit / Section	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction
I	Introduction to Informa	ation Sources	18 hours
1.1	Information Sources	Remember and	
	Definition, Types,	Understand the concept	K2
	Characteristics	Information Sources	
1.2	Primary Sources ,	Understand the primary	
	Periodicals:	sources and its types	
	Newspapers,		
	Magazines,		K2
	Conference Papers,		KZ
	Patents, Standards,		
	Technical Reports,		
	Thesis / Dissertations		
1.3	Secondary Sources	Understand the secondary	
	Characteristics,	sources and apply the	К3
	Features and Examples	same in libraries	
1.4	Check Point for	Evaluate all Print and	T/E
	Evaluation of Print and	Electronic Reference	K5

	Electronic Reference	Sources	
	Sources		
II	Secondary Sources		18 hours
2.1	Dictionaries: Oxford Advanced Learner's Dictionary, Harrod's L.M. Librarian's Glossary	Understand and Evaluate Dictionaries	K5
2.2	The new Encyclopedia Britannica, Encyclopedia of Library Information Science	Understand and Evaluate Encyclopedias	K5
2.3	The Statesman's Year Book 2010, Manorama Year Book	Understand and Evaluate Year books	K5
2.4	Whitaker's Almanac, Gazetteer of India, Foder's Modern Guide, Library Information Science Abstract(LISA)	Understand and Evaluate Geographical Sources and Abstracting Sources	K5
2.5	Current Contents, Library Literature, Keesings Record of World Events Online, Asian Recorder: A weekly Digest of Asian Events with Index	Understand and Evaluate Indexing Sources	K5
2.6	Indian National Bibliography(INB), British National Bibliography(BNB)	Understand and Evaluate Bibliographies	K5
2.7	Commonwealth Universities yearbook, National Union Catalogue of Scientific Serials in India(NUCCSI), Ulrich's International Periodical's Directory	Understand and Evaluate Union Catalogues and Periodical Directories	K5
III	Non – Documentary Sou		18 hours
3.1	Non-Documentary Sources: Formal Sources and Informal Sources	Understand the concept Non Documentary Sources	K2
3.2	Human Sources: Need, Importance and Usefulness	Understand and apply the concept Human Sources	K3
3.3		Understand and apply the	
	•	•	

	Institutional Sources:	concept Institutional	К3
	Need, Importance and Usefulness	Sources	
3.4	Technological Gate Keepers: Concept, Functions	Understand the concept Technological Gate Keepers	K2
3.5	Invisible Colleges: Concept, Functions	Understand and apply the concept Invisible Colleges	К3
IV	Electronic Information	Sources	18 hours
4.1	Electronic Information Sources: Meaning, Characteristics, Types	Understand the concept Electronic Information Sources	K2
4.2	E-books: Need, Features, Advantages and Disadvantages	Understand and Analyse the E-books	K4
4.3	E-journals: Need, Features, Types, Advantages and Disadvantages	Understand and Evaluate e-journals	K5
4.4	Database: Importance, Types	Understand and analyse databases	K4
4.5	Bulletin Boards: Importance, Usefulness	Understand and apply the concept Bulletin Boards	КЗ
V	Online Publishers		18 hours
5.1	Online Publishers: Need, Importance	Understand the concept online publishers	K2
5.2	E-book Publishers: Amazon and Sage Publications	Evaluate Amazon an d Sage Publications	K5
5.3	E-journal Publishers: Springer Verlog	Evaluate Springer Verlog	K5
5.4	Database: INSPEC	Understand INSPEC Database	K2
5.5	E-directories: Need, Importance, Usefulness	Understand about Directories	K2

# 4. Mapping (CO, PO, PSO)

P18LS103	PO1	P02	PO3	P04	P05	P06	PO7	P08	P09	PS01	PS02	PS03	PS04
CO1	L	Н	L	-	L	-	-	Н	L	L	L	M	-
CO2	L	M	L	-	L	-	-	L	-	L	L	M	-
CO3	M	M	L	-	Н	-	-	-	L	L	-	M	-
CO4	-	Н	Н	-	M	L	L	L	M	L	M	Н	-
CO5	-	L	Н	-	L	L	M	-	L	-	-	Н	-
CO6	-	Н	-	-	Н	Н	M	-	-	L	M	Н	-

# 5. Course Assessment Methods

# I. Direct Method:

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

# CORE – IV: LIBRARY AUTOMATION (THEORY)

Course Code: P19LS104

Semester II Credits 4

#### 1. Course Outcomes

S.No.	Course Outcomes	Level	Unit Covered
1	Understand the basic concept of origin and development of computers.	K2	1
2	Distinguish System software and operating system	K4	2
3	Apply the different modules of automation software.	K4	3
4	Analyse the different between open source and commercial Software.	K4	4
5	Apply the Search strategies and techniques.	K4	5
6	Recognize the security system of the library and information centres.	К6	5

# 2. Syllabus

#### **Unit – I (18hrs)**

# Origin & Development of Computer

Need for Computers – Characteristics, Types, Generation, Components, Input and Output devices, Hardware, Software.

# Unit -II (18 Hrs.)

# System Software and Operating System

Application / System Software, Operating Systems, Types; Disk Operating System - Windows, Unix, Linux.

# Unit - III (18 Hrs.)

# Library Modules, Controls

Computer Application Modules–Acquisition, Cataloguing, Circulation and Serial Control.

# **Unit - IV (18 Hrs.)**

# **Computer Software**

Library / Bibliographic Application Software-CDS/ISIS, Open Source : Koha, New Gen Lib.; Commercial : LIBSYS, SOUL

# **Unit - V (18 Hrs.)**

# Search Strategy, Security Devices

Search Strategy and Techniques – Truncation – Keyword – Weighted Term – Information / Library Security – Trends and Issues – Smart Card, Biometric, and Firewall – Internet Security.

# a. Topics for Self-Study

1. Basic of ICT and Functional Units of computer

# https://youtu.be/ga77WI-ylV0

2. Internet: basic services and features, advantages, History and Development

# https://youtu.be/bwgzqISuy8I

3. Open source library software and applications

# https://youtu.be/xDc066Ws-cU

4. libraryautomation, need, purpose and advantages

# https://youtu.be/8JpOWVl\_w7g

#### b. Reference Books

- R1. Anita Rosen (2011). E-Learning 2.0: Proven Practices and Emerging Technologies, ReferencePress.
- R2. Bilal, Dania (2002). Automating Media Centres and Smasll Libraries: A Micro computer –Based Approach: Libraries Unlimited, Colorado.
- R3. Dilli, KT (2011). Library and Information Science in a Digital Era, Atlantic.
- R4. Herring, James E. (2000). *Planning for Library Automation*: Library Association.
- R5. Krishan, Gopal (2000). Digital Libraries in Electronic Information Era, Press.
- R6. Muhammad RiazKan (1992). *Library Automation* Atlantic Publisher and Distributors.
- R7. Pratt (1996). Programming Language: Design and implementation, Prentice Hall.
- R8. Rajasekaran L (2010). Digital Library Basics: A practical Manual, EssEss, Publications.
- R9. Shyama Balakrishnan and P.K. Paliwal (2001). *Library Automated Acquistion*, Anmol Publications Pvt.Ltd.

#### c. Internet Resources

# 3. Specific Learning Outcomes

Unit/Section	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction
1	Con	puter Characteristics,	Types
1.1	Origin and Development of Computer	Understand the concepts of computer	K2
1.2	Characteristics and types	Classify the characteristics and types of computer	К3
1.3	Generations and Components	1.Categories the generations of computers 2. Discuss the components of computers	K6
1.4	Input and Output Devices	Analyse the important of input and output devices	K4
1.5	Hardware and Software	Distinguish between hardware and software	K2
2	Soft	ware and operating sys	stem
2.1	System Software	Define system software	K1
2.2	Operating systems and types	Discuss the operating systems and classify the different types	K2
2.3	Disk Operating Systems	Explain the different disk operating systems	К6
2.4	Windows, Unix and Linux	Distinguish Windows, Unix and Linux operating systems	K2
3	L	ibrary Modules, Contro	ols
3.1	Computer Application Modules	Summarise the different application modules	K2
3.2	Acquisition and Cataloguing	Develop Acquisition and Cataloguing modules	K2

	Circulation and	Evaluate circulation	
3.3	Serial Control	and serial control	K4
4			
	Bibliographic	Explain the	
4.1	Application	bibliographic and	K2
	Software	application software	
4.2	Open Source	Describe the open	K1
	Software	sources	
		Evaluate	
4.3	Commercial	commercial	K5
	Software	software	
5	Searc	h strategy, Security D	evices
	Search Strategy	Discuss search	
5.1	and Techniques	strategy and	K2
		techniques	
		Examine the	
5.2	Truncation,	functions of	K3
	Keyword and	Truncation,	
	Weighted Term	Keyword and	
		Weighted Term	
	Library Security	Describe the library	
5.3	-Trends Issues	security issues	K5
		Elaborate the use of	
5.4	Smart Card	smart card in	K6
		library security	
		solutions	
		Apply Biometric and	
5.5	Biometric, and	Firewalls in	K3
	Firewall	libraries	

# 4. Mapping of COs to POs & PSOs

P18LS104	P01	P02	PO3	P04	P05	P06	P07	P08	P09	PS01	PS02	PS03	PSO4
CO1	L	L	-	Н	L	M	I	L	M	M	1	I	Н
CO2	-	-	-	M	M	Н	1	M	M	M	1	1	M
CO3	-	M	-	M	M	M	-	-	M	Н	-	Н	Н
CO4	-	-	-	M	M	Н	-	L	M	L	-	M	M
CO5	-	_	-	M	M	Н	-	L	M	M	-	Н	Н
CO6	_	_	-	M	Н	M	_	-	M	Н	-	Н	Н

# L-Low M- Medium H-High

# 5. Course Assessment Methods

# I. Direct Method:

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

#### ELECTIVE - I: INFORMATION SYSTEMS AND SERVICES

Semester I Course Code: P18LS1:1

#### Credits 4

#### 1. Course Outcomes

At the end of the course, the students will be able to

S. No.	Course Outcomes	Level	Unit Covered
1.	Understand the concept and types of reference service.	K2	I
2.	Apply the different types of information services in libraries.	K4	II
3.	Apply the different methods of user studies and the importance of user education in libraries.	K4	III
4.	Evaluate the national, international and mission oriented information systems.	К6	IV
5.	Apply the key areas of National Knowledge Commission & National Mission on Libraries.	K4	V
6.	Analyse the internet based information resources and distinguish diverse documentation centers	K4	VI

# 2. Syllabus

#### Unit - I (25 Hrs.)

#### Reference Service & Information Services

Reference service: Definition, Need and Types – Information Services: CAS, SDI, Indexing, Abstracting, Bibliography, Translation and Reprography – Information Products: Preparation and Compilation

# Unit - II (15 Hrs.)

#### **Information Users**

Information Users: Definition, Types – User studies – User Education – User Psychology -User Evaluation– Guidance and Counseling

# Unit – III (15 Hrs.) Information Systems

Information System: Concepts, Characteristics, Types and Functions – International, National and Mission - Oriented Information Systems - National Knowledge Commission (NKC) – National Mission on Libraries (NML)

# **Unit - IV (20 Hrs.)**

# **Case Studies of Information Systems**

Case studies of Information Systems: NISCAIR, DESIDOC, INIS, AGRIS, UNESCO, INSPEC, BLAISE, MEDLARS

# **Unit - V (15 Hrs.)**

# **Internet based Information Resources**

Role of Internet in information transfer – Internet based information resources in India: NICNET, INFLIBNET, INFONET, DELNET.

# a. Topics for Self-Study

1. Reference Interview and Search Techniques

https://youtu.be/9szaSmXDQbg

2. Information Intermediaries

https://youtu.be/hdBoXtumMPY

3. Web based Information Services

http://ir.inflibnet.ac.in:8080/ir/bitstream/1944/1418/1/58.pdf

4. Mobile baser services and Technologies

http://www.ijrls.in/wp-content/uploads/2016/08/Mobile-Library-Services-and-Technologies-A-Study.pdf

#### b. Text Book:

T1: Singh, G. (2013). *Information Sources, Services and Systems*. PHI Learning Pvt. Ltd.

#### c. Reference Books:

- R1: Devarajan, G., & Pulikutheil, J. K. (2011). *Information Access, Tools, Services and Systems*. Ess Ess Publications.
- R2: Kumar, P. S. G. (2004). Library and Users: Theory & Practice: (papers VIII of UGC Model Curriculum). BR Publishing Corporation.
- R3: Kumar, P.S.G. (2004). Information Analysis, Repacking, Consolidation and Information Retrieval: (papers X & XI of UGC Model Curriculum). BR Publishing Corporation.
- R4: Kumar, P.S.G. (2004) Information Sources and Services: Theory & Practice: (papers VI & VII of UGC Model Curriculum). BR Publishing Corporation.
- R5: Kumar, P. S. G. (2004). *Information Technology: Applications: (papers XIII & XIV of UGC Model Curriculum)*. BR Publishing Corporation.

#### d. Internet Sources:

http://www.nmlindia.nic.in (accessed 25 July 2020)

https://whc.unesco.org (accessed 25 July 2020)

# 3. Specific Learning Outcomes (SLO)

Unit/ Section	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction		
I	Reference Service	2 5			
1.1	Reference Service Definition, Need, Types	Service of Reference Service.			
1.2	Information Services: CAS, SDI, Indexing, Abstracting, Bibliography, Translation, Reprography	Remember the different types of Information Services Understand the purpose of information services. Evaluate the different information services.	K5		
1.3	Information Products: Preparation & Compilation	Understand the preparation of information products. Create information product.	K6		
II		Information Users	15		
2.1	Information Users: Definition, Types	Remember the different types of users.  Analyse the different types of users.	K4		
2.2	User Studies & User Education	Understand the methods of user studies.			
2.3		Analyse the psychology of users.  Evaluate the perceptions of user.  Apply/offer the guidance and counseling to the user.	K6		
Ш	Counseling		15		
3.1	Information	Understand the Concepts, Characteristics, Types and Functions of information systems.	15 K2		
		Understand the various			

3.2	International, National and Mission - Oriented Information Systems	information systems.  Evaluate the International, National and Mission - Oriented Information Systems.	K5
3.3	National Knowledge Commission (NKC)	Understand the importance of NKC. Analyse the role of NKC.	K4
3.4	National Mission on Libraries (NML)	Understand the importance of NML.  Analyse the role of NML in promoting public libraries	K4
IV	Case stud	ies of Information Systems	20
4.1	Case studies of Information Systems	Understand the various case studies of Information Systems.	K2
4.2	NISCAIR, DESIDOC	Evaluate the collections, activities and services of the National documentation centre.	K5
4.3	INIS, AGRIS, MEDLARS INSPEC, BLAISE	Apply/use the mission oriented Information Systems.  Evaluate the services and publications different mission oriented Information Systems.	K5
4.4	UNESCO	Understand the activities of International Information Systems.	K2
V	Internet b	ased Information Resources	15
5.1	Role of Internet in Information Transfer: Internet based information resources in India	Understand the Role of Internet in Information Transfer Analyse the Internet based information resources.	K4
5.2	NICNET, INFLIBNET, INFONET, DELNET	Understand the activities and services of the network based information cater.  Apply/make use of the resources for study and research.	К3

# 4. Mapping of COs to POs & PSOs

P15LS1:1	PO1	P02	PO3	P04	PO5	P06	PO7	P08	P09	PSO1	PS02	PSO3	PSO4
CO1	L	M	M	-	H	H	-	M	L	M	M	Н	-
CO2	L	M	-	-	Н	-	-	M	L	M	-	-	-
CO3	L	M	M	Н	-	Н	M	-	-	M	-	-	-
CO4	-	Н	Н	-	-	-	-	M	M	-	-	Н	Н
CO5	L	Н	Н	-	-	-	-	-	M	L	M	-	-
C06	-	M	Н	-	Н	Н	-	-	M	M	-	-	Н

# 5. Course Assessment Methods

# I. Direct Method:

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Virtual Learning, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

# CORE - V: INFORMATION PROCESSING AND RETRIEVAL (THEORY)

Course Code: P18LS205

Semester- II Credits 5

# 1. Course Outcomes

S.No.	Course Outcome	Level	Unit Covered
1.	Understand the concept and terminologies related to information processing and retrieval	K2	1
2.	Understand the different types of classification, Modes of Formation of subjects and general schemes of classification	K2	1
3.	Understand the need and purpose of library catalogue and analyze the different physical and inner forms of catalogue	K2	2
4.	Understand the concept and types of indexing, generate coordinate index entries and construct Thesaurus	K2	3
5.	Understand and analyze various bibliographic standards and formats	K4	4
6.	Evaluate Information Storage and Retrieval Systems	К6	5

# 2. Syllabus Unit 1 (15 Hours) Library Classification

General Theory of classification – Knowledge – Document Classification – Basic Concepts – Structure and Development of subjects – Outlines of General Schemes of Classification – CC, DDC, UDC, LC, BSO.

# Unit II (15 Hours) Library Cataloguing

Catalogue – Definition, Need, Purpose – Physical and Inner forms, Subject Headings – LCSH and Sears List.

# Unit III (15 Hours) Indexing

Indexing – Concept, Types, Indexing, Language – Pre-coordinate, Post-coordinate Indexing – Vocabulary Control Devices – Thesaurus

# Unit IV (15 Hours) Bibliographic Description Standards

Bibliographic Description Standards and Format – ISBD, MARC 21, AACR II, CCF, RDA, ISO 2709, UNIMARC

#### Unit V (15 Hours)

# **Evaluation of Information Storage and Retrieval**

Search Strategies – Tools and Techniques, Evaluation of Information Storage and Retrieval Systems – Parameters; IR Models

# c. Topics for Self Study:

1. Notations in Classification

http://egyankosh.ac.in/bitstream/123456789/33085/1/Unit-13.pdf

2. Current Trends in Classification

http://egyankosh.ac.in/bitstream/123456789/33083/1/Unit-15.pdf

3. Recent Trends in Cataloging

https://www.egyankosh.ac.in/bitstream/123456789/33115/1/Unit-18.pdf

4. Recent Trends in Indexing

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC198293/

#### b. Reference Books:

- R1: Krishan Kumar, Theory of Classification, 4 th Rev. ed., Vikas Publishing House, New Delhi, 1988.
- R2: Ranganathan, S.R. Prolegomena to Library Classification 3 rd ed., Asia Publishing House, 1967.
- R3: Girija Kumar and Krishna Kumar, Theory of cataloguing, 4 th ed., Vikas Publishing House, New Delhi, 1986.
- R4: Tripathy S.M. Modern Cataloguing Theory and Practice, Shivalal Agarwala and Company, Agra, 1978.
- R5: Chakrabarthy.A.R, Indexing principles, process and products, world press, Calcutta, 1984.
- R6: Lancaster, FW, Information Retrieval systems, 2nd edition, Wiley & Ampson, New York, 1974.

3. Specific Learning Outcomes (SLO)

Unit/ Section	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction	
I	Library Classification (1	5 Hrs)		
1.1	General Theory of Classification, Basic Concepts	Understand General Theory of Classification and Basic Concepts in Classification	K2	

1.2	Knowledge Classification and Document Classification	Understand Knowledge Classification and Document Classification	K2
1.3	Structure and Development of Subjects	Understand and Analyse Structure and Development of Subjects	K4
1.4	Outline of General Schemes of Classification – CC,DDC,UDC,LC,BSO	Understand and Analyse different schemes of classification	K4
п	Library Cataloguing		
2.1	Catalogue – Definition, Need and Purpose	Understand the concept, Need and Purpose of Library Catalogue	K2
2.2	Physical and Inner forms of Catalogue	Understand and apply various physical and inner forms of catalogue	К3
2.3	Subject Headings – Library of Congress Subject Headings and Sears List	Understand the concept Subject Headings and apply it in the libraries	К3
III	Indexing(15 Hrs)		
3.1	Indexing – Concept, Types	Understand the concept and types of indexing	K2
3.2	Indexing Language	Understand the concept indexing language	K2

3.3	Pre-coordinate and Post- coordinate Indexing	Understand the concept co-ordinate indexing and generate entries	К6
3.4	Vocabulary Control Devices – Thesaurus	Understand the concept Vocabulary Control Devices and Construct Thesaurus	K6
IV	Bibliographic Description	on Standards(15 Hrs)	
4.1	Bibliographic Description Standards and Format	Understand the concept Bibliographic Standards and Format	K2
4.2	ISBD, MARC 21, AACRII	Understand the different Bibliographic Descriptions and apply the same in libraries	К3
4.3	CCF,RDA,ISO 2709, UNIMARC	Understand and apply Common Communication Format	K3
v	Evaluation of Information	n Storage and Retrieval(	15 Hrs)
5.1	Search Strategies- Tools and Techniques	Understand Search Strategies and its tools and techniques	K2
5.2	Evaluation of Information Storage and Retrieval Systems-Parameters	Evaluate Information Storage and Retrieval Systems	K5

	IR Models	Understand and apply IR Models	К3
5.3			

#### 5. Mapping Scheme for the PO, POS &COS

P18LS205	P01	P02	PO3	P04	P05	P06	PO7	P08	P09	PS01	PS02	PS03	PS04
CO1	M	L	L	-	L	Н	M	ı	-	Н	L	M	-
CO2	L	L	L	-	L	Н	M	-	_	Н	L	Н	-
CO3	L	L	L	L	L	Н	L	-	-	Н	M	Н	-
CO4	L	L	L	L	L	Н	L	-	=	Н	M	Н	-
CO5	L	M	M	L	L	Н	Н	-	=	Н	M	Н	=
C06	L	L	M	-	L	Н	L	-	-	Н	M	M	-

#### L-Low M- Medium H-High

#### 5. Course Assessment Methods

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

#### **CORE VI INFORMATION TECHNOLOGY**

Semester: I Code:P18LS206

Credits:5

#### 1.Course Outcomes

S. No.	Course Outcomes	Level	Unit Covered
1.	Measure the impact IT on society and applications of IT in libraries and information centers.	К6	Unit – 1
2.	Discuss the various elements of communication technology.	K2	Unit – 2
3.	Summaries the different communication tools and techniques.	K2	Unit – 3
4.	Analyse the topologies, types of networking technology.	K4	Unit – 4
5.	Differentiate the planning and implementation of Internet and Intranet.	K4	Unit – 4
6.	Categories the diverse components of web technology.	K6	Unit – 5

#### 2. Syllabus

#### Unit -I (15 Hrs.)

#### **Information Technology and its Applications**

Information Technology: Components – Impact of IT on Society – Application of IT in Libraries and Information Centers – Computer Technology: Input, Output and Storage Devices

#### Unit -II (16 Hrs.)

#### **Communication Technology**

Communication Technology: Telecommunication – Transmission media: Switching, Bandwidth, Multiplexing, Modulation Protocols – Wireless Communication Basics

#### Unit – III (14 Hrs.)

#### Communication Tools and Techniques

Communication tools and techniques: Fax, Tele Conferencing, Video Conferencing, Teletext, Video Text and Bulletin Board Services

#### Unit - IV (14 Hrs.)

#### **Networking Technology**

Networking Technology: Concept, Topologies - Types: LAN, WAN and MAN, Internet, Intranet

#### **Unit -V (16 Hrs.)**

#### Web Technology

Web Technology: Web Browser, Search Engine, Hypertext, Hyper Media and Multimedia; Integrated Service Digital Network (ISDN) – Open System Interconnection (OSI), Virtual Reality.

#### a. Topics for Self - Study

- 1. Advance Search Techniques: http://egyankosh.ac.in/bitstream/123456789/11295/1/Unit-19.pdf
- 2. Web Blog: <a href="https://twp.duke.edu/sites/twp.duke.edu/files/file-attachments/blogging-introduction.original.pdf">https://twp.duke.edu/sites/twp.duke.edu/files/file-attachments/blogging-introduction.original.pdf</a>
- 3. Multimedia Technology <a href="https://www.tutorialspoint.com/multimedia/multimedia\_introduction.htm">https://www.tutorialspoint.com/multimedia/multimedia\_introduction.htm</a>
- 4. Library Security Techniques <a href="https://developer.mozilla.org/en-us/docs/Learn/Server-side/First\_steps/Website\_security">https://developer.mozilla.org/en-us/docs/Learn/Server-side/First\_steps/Website\_security</a>

#### b. Text Books:

T1: Balasubramanian, P. (2011). Library Information and Communication Technology. Deep and Deep Publications Pvt. Ltd.

T2: Kumar, P. S. G. (2004). Information Technology: Applications: (papers XIII & XIV of UGC Model Curriculum). BR Publishing Corporation.

#### c. Reference Book:

R1: Alexis Leon & Mathews Leon (1999). Fundamentals of Information Technology. Leon Vikas.

#### 3. Specific Learning Outcomes (SLO)

Unit / Section	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction
I	Information Technology	y and its applications	
1.1	Information Technology: Components and Impact of IT on Society	<ul> <li>Understand the concepts, and components of IT.</li> <li>Analyse the impact of IT on society.</li> </ul>	K4
1.2	Application of IT in Libraries and Information Centers	<ul> <li>Measure the areas application of IT in libraries and information centers.</li> </ul>	K4
1.3	Computer Technology: Input, Output and Storage Devices	<ul><li>Define the computer technology.</li><li>Discuss the input,</li></ul>	K2

		output and storage devices of computer.	
II	Communication Techno	<del>.                                      </del>	
2.1	Communication Technology: Telecommunication and Transmission media	<ul> <li>Identify different transmission media.</li> <li>Differentiate between communication and telecommunication.</li> </ul>	K4
2.2	Switching, Bandwidth, Multiplexing, Modulation, Protocols	<ul> <li>Understand the concepts of switching and bandwidth.</li> <li>Explain techniques of multiplexing, modulation and protocols.</li> </ul>	K5
2.3	Wireless Communication Basics	Explain the basics of wireless communication	K5
III	Communication Tools a	and Techniques	
3.1	Communication tools and techniques: Fax	• Identify the communication tools and techniques.	K1
3.2	Tele Conferencing, Video Conferencing	Compare the features of teleconferencing and video conferencing techniques.	K5
3.3	Teletext, Video Text	Distinguish between teletext and videotext.	K2
3.4	Bulletin Board Services	• Examine the Bulletin Board Services in the libraries.	К3
IV	Networking Technology	,	
4.1	Networking Technology: Concept, Topologies	<ul> <li>Understand the concept of networking technology.</li> <li>Illustrate the different topologies of networks.</li> </ul>	K4
4.2	Types of Networks: LAN, WAN and MAN	• Classify the different types of networks.	КЗ

4.3	Internet and Intranet	• Compare the implementation of Internet and Intranet.	K5
V	Web Technology		
5.1	Web Technology: Web Browser and Search Engine	<ul> <li>Give examples of Web Browser.</li> <li>Summarise the role of search engine in information transfer.</li> </ul>	K6
5.2	Hypertext, Hyper Media and Multimedia	<ul> <li>Understand the role of Hypertext, Hyper Media.</li> <li>Analyse the functions of Multimedia in information transfer.</li> </ul>	К3
5.3	Integrated Service Digital Network (ISDN)- Open System Inter connection (OSI)	<ul> <li>Analyse the concept of Integrated Service Digital Network.</li> <li>Organise the functions of Open System Inter connection (OSI).</li> </ul>	K4
5.4	Virtual Reality	• Understand the concept of Virtual Reality.	K2

P20LS104	PO1	P02	P03	P04	P05	P06	P07	P08	P09	PS01	PS02	PS03	PS04
CO1	Н	Н	-	Н	Н	Н	_	Н	Н	-	-	Н	-
CO2	L	L	-	L	L	L	-	L	L	L	-	L	-
CO3	L	L	-	L	L	L	-	L		L	-	L	-
CO4	M	-	-	M	M	M	-	M	M	M	-	M	-
CO5	M	-	-	M	M	M	-	M	M	M	-	M	-
C06	-	-	Н	Н	Н	Н	-	Н	Н	Н	-	Н	-

#### 5. Course Assessment Methods

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

# CORE PRACTICAL-I: INFORMATION PROCESSING AND RETRIEVAL PRACTICE – I (Classification CC&DDC)

Semester II Course Code: P18LS2P1 Credits 3

#### **Course Objectives**

#### At the end of the course the learner will be able to

CO1: Understand the concept of classification of documents by using DDC & CC

CO2: Categorize different Main Class in Colon Classification scheme

CO3: Classify documents using Colon Classification Schemes

CO4: Applying the classification schemes according to Dewey Decimal Classification

CO5: Applying Dewey Decimal Classification Schedules for classification of documents

CO6: Identifying how to use Index in DDC

#### B. COURSE PLAN

Unit	Course Content	Course Content Learning Outcomes			
1.	Colon Classification	Understanding the concept of Colon Classification	K2		
2.	Colon Classification	Classify Main Class using Colon Classification	К5		
3.	Colon Classification	Classifying ding Array and Facets	K5		
4.	Dewey Decimal Classification	Understanding the concept of Dewey Decimal Classification	K2		
5.	Dewey Decimal Classification	Classify Main Class using Dewey Decimal Classification	K5		
6.	Dewey Decimal Classification	Classify Main Class using Schedule in Dewey Decimal Classification	K5		

#### C. Reference

R1: Ranganathan, S.R 2007, Colon Classification; 6<sup>th</sup> ed., Ess Ess Publications

R2: Dewey, Melvil, 1979 Decimal classification and relative index; 19th ed. Albany, N.Y

### D. Mapping of COs to POs

P15LS2P1	PO1	P02	PO3	P04	P05	P06	PO7	P08	P09	PS01	PS02	PS03	PS04
CO1	Н	Н	M	M	L	Н	M	-	Н	Н	M	-	-
CO2	Н	Н	M	M	L	L	-	L	Н	L	-	Н	-
CO3	Н	L	_	M	L	L	-	L	Н	L	-	Н	-
CO4	Н	L	_	M	M	M	M	M	M	Н	-	M	-
CO5	Н	Н	M	M	L	L	-	L	Н	L	-	Н	-
CO6	L	_	L	-	Н	_	M	_	Н	Н	Н	-	-

L- Low M- Medium H-High

#### 5. Course Assessment Methods

- 1. Continuous Assessment test: T1, T2 (Theory components) Open Book Test
- 2. Record Writing & Performances- Open Book Test
- 3. Pre-Semester, End-Semester Examination Open Book Test

# CORE PRACTICAL-II: INFORMATION PROCESSING AND RETRIEVAL PRACTICE – II (AACR II / UDC)

SEMESTER II Course Code: P18LS2P2

Credits 3

#### **Course Objectives**

#### At the end of the course the learner will be able to

- CO1. Understand the concept of cataloguing of documents and serials
- CO2. Prepare cataloguing entries for authorship and corporate authorship patterns
- CO3. Prepare cataloguing entries for Serial Publications
- CO4. Understand the concept of classification of documents
- CO5. Classify the documents according to Universal Decimal Classification
- CO6. Classify documents using special auxiliaries

#### B. COURSE PLAN

Unit	Course Content	Learning Outcomes	Blooms Taxonomic levels of Transaction
1	Personal Authorship	<ol> <li>Understand the concept of Cataloguing of documents.</li> <li>Generate a catalogue card for authorship patterns.</li> </ol>	К6
2	Corporate Authorship	<ol> <li>Understand the concept of Cataloguing of corporate Authorship.</li> <li>Generate a catalogue card for corporate authorship patterns.</li> </ol>	K6
3	Serial Publications	<ol> <li>Understand the concept of Cataloguing of serial publications.</li> <li>Generate a catalogue card for serial publications patterns.</li> </ol>	K6

Unit	Course Content	Learning Outcomes	Blooms Taxonomic levels of Transaction
4.	Tables of Auxiliaries	Identifying and deriving the classification number by using auxiliary table in UDC	К6
5.	Main Tables	Deriving the classification number from Universal Decimal Classification Schedule	К6

#### C. References

- T1: Kumar, P. S. G. (2004). *Knowledge Organisation, Information Processing and Retrieval: Practice: (papers III of UGC Model Curriculum)*. BR Publishing Corporation.
- T2: Raju, A A A (1991). *Universal Decimal Classification (ime, 1985): a Practical and Self.* Madras: T.R. Publications.
- T3: British Standard Institution (2000). Universal Decimal Classification London: British Association of Social Workers.

#### D. Mapping of COs to POs

P15LS2P2	PO1	P02	PO3	P04	P05	P06	P07	P08	P09	PS01	PS02	PS03	PS04
CO1	M	M	-	Н	Н	Н	-	-	1	-	-	Н	-
CO2	M	M	-	Н	M	Н	-	-	-	Н	-	Н	-
CO3	Н	M	-	M	Н	M	-	L	-	Н	-	Н	-
CO4	M	M	-	Н	Н	Н	-	-	-	_	-	Н	-
CO5	M	M	-	Н	M	Н	-	-	-	Н	-	Н	-
CO6	Н	M	-	M	Н	M	-	L	-	Н	-	Н	-

L- Low M- Medium H-High

#### 5. Course Assessment Methods

- 1. Continuous Assessment test: T1, T2 (Theory components) Open Book Test
- 2. Record Writing & Performances- Open Book Test
- 3. Pre-Semester, End-Semester Examination Open Book Test

#### **ELECTIVE - II: KNOWLEDGE MANAGEMENT**

Semester II Course Code: P19LS2:2

Credits 4

#### 1. Course outcomes:

S.No.	Course Outcome	Level	Unit Covered
1.	Understand the basic concept of Knowledge Management, Knowledge Society, Knowledge Economy, Knowledge Management System & different types of knowledge.	K2	Unit 1
2.	Apply & analyze knowledge creation model, knowledge capture techniques and build knowledge architecture.	K4	Unit 2
3.	Understand the concept of Knowledge codification, needs and discover knowledge codification tools.	K4	Unit 3
4.	Examine content development & management analysis. Apply & make use of norms and guidelines for web content development	K4	Unit 4
5.	Basic ideas & concepts of Ontology in sharing and reusable of knowledge	K2	Unit 4
6.	Categories knowledge workers and skill requirements in knowledge centers by adapting legal and ethical issues.	K4	Unit 5

#### 2. Syllabus

#### Unit -I (12 Hours)

#### Management of Knowledge

Knowledge Society – Knowledge Economy, Understanding Knowledge Management – Concept – Definition – Types and Challenges in Building KM System.

#### Unit- II (12 Hours)

#### Knowledge Creation & Knowledge Architecture

Knowledge Creation – Knowledge Capture – Knowledge Creation Models – Knowledge Capture Techniques - Knowledge Architecture – People Core – Technical Core- Content Core

#### Unit -III (12 Hours)

#### **Knowledge Codification**

Knowledge Codification – Definition, Need – Codification Tools, Procedures – Knowledge Maps – Decision Tables – Decision Trees.

### Unit-IV (12 Hours)

#### **Content Analysis**

Content Analysis – Quantitative and Qualitative Aspect applications – Content Management and Development – Norms and Guidelines - Web Based Content Development – HTML/XML – Ontologies.

#### Unit-V (12 Hours) Ethical & Legal Issues

Knowledge Workers – Skills Requirement - Ethical – Legal Issues.

#### a. Topics for Self-study:

- 1. National information infrastructure: <a href="https://www.youtube.com/watch?v=15WkiLWHMgA&feature=youtu.be">https://www.youtube.com/watch?v=15WkiLWHMgA&feature=youtu.be</a>
- 2. Social Media for Library Services: https://youtu.be/ATiaazorr7E
- 3. National information infrastructure: <a href="https://www.youtube.com/watch?v=15WkiLWHMgA&feature=youtu.be">https://www.youtube.com/watch?v=15WkiLWHMgA&feature=youtu.be</a>
- 4. Knowledge organization in Digital Libraries: https://www.youtube.com/watch?v=MhPVk zFROs

#### b. Reference Books:

- R1. Aiwar Thothathri Raman,2008 *Knowledge Management Resource book*, Excel books, New Delhi.
- R2 Abell, Angello, Competing with Knowledge: The information Professional to Knowledge Era, London, LA publishing, 2001.
- R3. Jhothari Raman, *Knowledge Management: A Resource Book*, New Delhi, Excel,2008.
- R4. Harish Chandra, *Knowledge Management for Competitive Advantages*, New Delhi, Excel, 2005.
- R5. Kanti Srikantaiah T. Knowledge Management for Information Professional, New Delhi ,Ess Ess,2008.
- R6. Tiwana, Amrit *The Essential Guide to Knowledge Management*, Pearson Education, Singapore, 2000.
- R7. Tiwana Amrit. *The Knowledge Management Tool Kit*, NJ, Prentice Hall, 2000.
- R8. Wenger, Etienne, *A guide to Managing Knowledge Cultivating Communities of Practice*, Harword Business School Press, 2002.

3. Specific Learning Outcomes (SLO):

Unit/ Secti on	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction
Ι	Management of Knowledge		
1.1	Knowledge Management : Concept , Definition and Types	Understand the basic concept of Knowledge management	K2
1.2	Knowledge Society & Knowledge Economy	Understand the concept of Knowledge Economy and Society	K2
1.3	KMBS	Analyze and evaluate challenges in building KM systems.	K4
II	Knowledge Creation & Knowl	edge Architecture	

		Understand the concept						
		of knowledge creation						
		and knowledge capture						
0.1								
2.1	Vac-riodes anotice	Discover different types						
		Knowledge creation, of knowledge creation						
	capture and models	model and knowledge						
		capture methods.						
		Understand and						
2.2	Knowledge capture and	apply knowledge	***					
	Techniques	capture and	К3					
	1	techniques						
		Apply and build						
0.0		knowledge architecture						
2.3	Vaccorded as Analite strans	with people core,	K4					
	Knowledge Architecture	content core & technical	K4					
777		core						
III	Knowledge Codification	TT 1 / 1/1						
		Understand the concept						
3.1	T. 1 1 0 1:0 1:	of knowledge	K2					
	Knowledge Codification	vledge Codification codification and its						
		needs.						
		Discover and create						
2.0	Codification tools and	different tools and						
3.2	Codification tools and	Codification tools and procedure for knowledge						
	Procedures.	codification	K6					
IV	Content Analysis	Codification						
1 V	Content Analysis	Understand the basic						
4.1	Content analysis	concept of content analysis and content	K2					
	Content analysis		KZ					
		management Apply and make use of						
	Content management and	norms & guidelines for						
4.2	development, norms and	content management						
	guidelines	and development	K3					
		Understand concept of						
4.3	Web based content	web based content						
	development	management	K2					
		Basic ideas & concepts						
		of Ontology in sharing						
4.4	Ontology	and reusable of	K2					
	3	knowledge						
V	Ethical & Legal Issues	1	1					
		Analyze and evaluate						
5.1	Knowledge workers &	skill requirement for						
	Skill requirement	knowledge workers	K5					
<b>F</b> 0	*** * * * *	Concept and ideas of						
5.2	Ethical and legal issues	Ethical and legal issues	K4					

P19LS2:1	P01	P02	РОЗ	P04	P05	P06	P07	P08	P09	PS01	PS02	PSO3	PS04
CO1	M	M	Н	L	Н	Н	L	M	L	M	M	Н	Н
CO2	Н	Н	M	-	M	M	-	M	L	M	Н	M	-
соз	M	Н	M	-	L	L	-	L	M	Н	Н	M	-
CO4	M	M	Н	L	Н	Н	L	M	L	M	M	Н	Н
CO5	Н	Н	M	-	M	M	-	M	L	M	Н	M	
C06	M	Н	M	-	L	L	-	L	M	Н	Н	M	-

#### L-Low M- Medium H-High

#### 5. Course Assessment Methods

#### I. Direct Method:

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

Teacher Incharge

#### Dr, William Abraham

#### **ELECTIVE III: SOFT SKILLS FOR LIBRARY PROFESSIONALS**

Course Code: P19LS2:3

**SEMESTERII** Credits

4. Course Outcomes

S.No.	Course Outcome	Level	Unit Covered
1.	Understand the concept Soft Skills and apply them in Library and Information Centres	K2	1
2.	Understand the importance of Attitude Formation and Develop positive attitude	K2	1
3.	Understand the significance of Communication and Communication Skills	K2	2

4.	Apply Interpersonal Skills in the work place	K4	3
5.	Evaluate the presentation skills and develop	K6	4
	their Presentation Skills		
6.	Understand the importance Ethics and apply	K4	5
	the same in Personal and Professional Life		

#### 2. Syllabus

**Unit – I** (12 Hrs.)

#### **Soft Skills**

Soft Skills – Concept – Employability skills – need – types – Attitude Formation Creativity-Decision Making.

Unit – II (12 Hrs.)

#### **Communication Skills**

Communication - Significance - Types - Listening - Meta Communication - Telephonic - Online - Organizational - Body Language.

Unit – III (12 Hrs.)

#### **Personal Effectiveness**

Personal Effectiveness –Self Esteem- Intra- Inter Personal Skills - Team Building – Change Management - Time Management - Stress Management.

Unit – IV (12 Hrs.)

#### **Presentation Skills**

Presentation Skill - Resume Writing- Interview - Preparation - Presentation - Performance - Mock Interview.

Unit - V (12 Hrs.)

#### **Professional Ethics**

Ethics - Professional Ethics - Seven Lamps of Conduct - Duty to Documents - Customers - Profession.

#### a. Topics for Self-Study:

1. Self - Motivation

https://www.lifehack.org/articles/featured/8-steps-to-continuous-self-motivation.html

2. Responsibility

 $\underline{https://www.toppr.com/guides/fundamentals-of-economics-and-management/organising/concept-of-responsibility/}$ 

#### 3. Problem Solving

https://www.thebalancecareers.com/problem-solving-skills-with-examples-2063764

#### 4. Flexibility

https://www.thebalancecareers.com/workplace-flexibility-definition-with-examples-2059699

#### b. Reference Books

- R1: Dhanavel S P, English and Soft Skills, Orient Black Swan, Hydrabad, 2010
- R2: Jeff Butterfield, Soft Skills for Everyone, Cengage Learning, New Delhi, 2010
- R3: Edgar Thorpe and Showick Thorpe, Winning at Interview, Pearson Education, 2004

R4: Dale Carnegie, How to Win Friends and Influence People, Simon & Schuster, New York, 1998

### 3. Specific Learning Outcomes (SLO)

Unit/ Course Content Section		Learning Outcomes	Blooms Taxonomic Levels of Transaction		
I	Soft Skills		(12 Hrs.)		
1.1	Soft Skills-Concept	K2			
1.2	Employability Skills – Need - Types	Understand and apply Employability Skills in Work Place	КЗ		
1.3	Attitude Formation, Creativity, Decision Making	Understand the importance of Attitude Formation, Creativity and Decision Making and Develop them	К6		
II	Communication Ski	lls (12 Hrs.)			
2.1	Communication – Significance, Types				

Unit	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction
2.2	Listening, Meta Communication	Evaluate the Listening Skills and improve Meta Communication Skills	K5
2.32.3	Telephonic Communication, Online Communication, Organisational Communication Organisational Communication Organisational Communication Organisational Communication and Develop them		K6
2.42.4	Body Language	Understand the importance of Body Language and Develop it	K6
III	Personal Effectiveness (12 I	Hrs)	
3.1	Personal Effectiveness – Self Esteem	Evaluate the Personal Effectiveness and Self Esteem and Develop them	K6
3.2	Intra – Inter Personal Skills	Analyse the Intra-Inter Personal Skills and Develop them	K6
3.3	Team Building	Develop Team Building Skills	K6
3.4	Change Management, Time Management, Stress Management	Understand the concepts Change Management, Time Management and Stress Management and Develop skills	K6
IV	Presentation Skills (12 Hrs)		
4.1	Presentation Skill- Resume Writing	Develop Presentation Skills and Resume Writing Skills	K6
4.2	Interview – Preparation - Presentation	Understand the different steps in the preparation of Interview and Develop them	K6
4.3	Performance-Mock Interview	Analyse their performance through Mock Interviews	K4
v	Professional Ethics (12 Hrs	)	

5.1	Ethics-Professional Ethics	Apply Ethics in Personal and Professional Life	K3
5.2	Seven Lamps of Conduct	Apply the Seven Lamps of Conduct in Work Place	K3
5.35.3	Duty to Documents – Customers-Profession	Evaluate their Duty towards Documents, Customers and Develop them	K6

P19LS2:2	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3	PSO4
CO1	L	M	Н	L	Н	-	L	-	L	-	L	Н	-
CO2	L	L	L	L	Н	-	L	-	L	-	L	Н	-
CO3	M	Н	M	L	Н	-	L	L	L	-	M	Н	-
CO4	L	M	L	L	Н	-	L	L	L	-	L	Н	-
CO5	Н	Н	L	-	Н	-	L	M	-	-	L	Н	-
CO6	L	L	L	-	Н	1	L	Н	-	-	M	Н	-

L-Low M- Medium H-High

#### 5. Course Assessment Methods

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

#### **CORE-VII: RESEARCH METHODOLOGY**

Semester III Course Code: P18LS307

#### Credits 5

#### 2. Course Outcomes

S. No	Course Outcomes	ve1	it Covered
1	Understand the concept of Research, its characteristics and types.	Low	Unit – 1
2	ifying Research process & Build a research design for various research types.	dium	Unit – 2
3	ing the process of Review of Literature and its characteristics in research.	dium	Unit – 2
4	rstand and relate the different types of research methods.	Low	Unit – 3
5	zing and choosing the types of data to be collected and applying in the various types of research.	dium	Unit – 4
6	ing and compiling the data for testing various an analysis methods using statistical tools and Construct a Research Report using proper style and Structure.	High	Unit – 5

#### 3. Syllabus

Unit – I (12 Hrs.)

#### **Introduction to Research**

Research: Concept, Characteristics and Types; Pure, Applied, Action and Inter Disciplinary Research – Logic and Scientific investigation.

Unit – II (12 Hrs.)

#### Research Problem and Research Design

Research Problem: Identification, Selection and Formulation of a Research Problem - Research design-Literature Search and Review of Literature – Hypothesis: Definition, Types and Characteristics.

Unit – III (11 H rs.)

#### **Research Methods**

Research Methods- Survey – Historical – Case study – Experimental etc; Sampling – Definition, Types and Relevance.

Unit – IV (11 Hrs.)

#### **Data Collection Methods**

Data Collection: Data Sources - Primary Sources and Secondary Sources;

Data Collection Methods - Questionnaire, Interview, Observation etc.

Unit – V (12 Hrs.)

#### **Data Analysis and Interpretation**

Data Analysis: Analysis and Interpretation – Statistical Tools and Techniques- SPSS; Measures of Central Tendency, Frequency Distribution, Regression and Correlation; Report Writing - Style and Structure, Presentation of data.

#### Topics for Self - Study

1. Plagiarism:

https://la.psu.edu/current-students/documents/TypesofPlagiarism.pdf

3. Citation Analysis tools and Citation database:

 $\frac{https://libraryguides.helsinki.fi/metrics/citations\#:\sim:text=Citation\%20databases\%20a}{nd\%20tools\&text=The\%20three\%20best\%20known\%20citation,and\%20Google\%20Scho}\\ \frac{lar\%20(GS)}{nd}.$ 

4. Data analysis: Computer Processing:

https://www.questionpro.com/blog/data-analysis-in-research/

5. Project planning:

https://www.plymouth.ac.uk/uploads/production/document/path/8/8015/a-printable-step-by-step-guide-to-planning-your-research-project.pdf

#### C. Reference Books

R1: Santhosh Gupta, Research Methodology and statistical Techniques, Deep and Deep Publications, New Delhi.

R2: Kothari, C.R., 2012, Research Methodology: Methods and Techniques; 2nd ed., New Age International Publisher

R3: Ranjith Kumar, 2011, Research Methodology: A step by step guide for beginners; 3rd ed., SAGE Publications, New Delhi.

R4: Crano, D. William, Brewer, B. Marilynn, and Lac, Andrew; 2015., I 3rd ed., Routledge, New York,

#### 4. Specific Learning Outcomes (SLO)

Unit / Section	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction
I	Introduction to Research	12 Hrs	

1.1	Research:	Understand and	
	Concept, Meaning,	Remember the basic ideas	
	Characteristics,	& Concept of Research	K2
	Approaches &	Methods.	
	Significance		
1.2	Types of Research	Understanding the main	_
		outline of different types	K2
		in Research.	
1.3	Research Process	Remembering &	
		Understanding the	K2
		process of Research	
1.4	Criteria of Good	Stating the main idea	K2
	Research	of good research.	1.5
II	Research Problem and	Research Design	14 Hrs
2.1	Research problem:	Understanding the	_
	Concept & Definitions	basic concept of	K2
		research problem	
2.2	Selection of	Selecting & Formulating	К3
	Research	of Research Problem	120
	Problem		
2.3	Techniques in Research	Applying & Analyzing the	КЗ
	Problem	various techniques used	
		in research problem	
2.4	Research	Remembering &	K2
	Design:	Understanding the	
	Concept	concept and meaning of	
	&Meaning	research design.	
2.5	Principles & Types of	Understanding the types	K2
	Research Design	of research design	
2.6	Review of	Understanding and	КЗ
	Literature	applying the concept of	
	Concepts &	Literature Search and	
	Types	its types.	
2.7	Concept of Hypothesis	Understanding the	K2
		concept of Hypothesis	
2.8	Types of Hypothesis	Identifying and applying	K4
		the different types of	
2.0		hypothesis inresearch	
2.9	Testing of Hypothesis	Choosing and Analyzing	K5
		the various types of	
		hypothesis by testing in	
TTT	Decemb Wett - 1-	data analysis process.	11 77
III	Research Methods		11 Hrs
3.1	Research Methods	Understanding the	K2
		concept of Various types of	
2.0		research Methods.	
3.2	Case Study	Understanding	K4
	Research	& analyzing the concept of	
	Method	Case study Method in	

		Research	
3.3	Survey Research	Understanding &	K4
	Method	Analyzing the concept of	
		Survey Research Method	
3.4	Historical Research	Understanding &	K4
	Method	Analyzing the concept of	
		Historical Research	
		method	
3.5	Experimental Research	Understanding &	K4
	Method	Analyzing the concept of	
		Experimental Research	
		Method	
IV	Data Collection Method	ls	11 Hrs
4.1	Data collection in	Understanding the	K2
	Research Methodology	concept of Primary and	
	1100001011110011000	Secondary data in	
		research	
4.2	Duim our Correct		K2
	Primary Sources in Research	Understanding the	
		concept of Primary Sources	
4.3	Methodology		K2
4.3	Secondary Sources in	Understanding the	KZ
	Research	concept of Secondary Sources	
		Sources	
4.4	Methodology  Data Collection	Applying and Analyzing	K4
1. 1	Methods	the data collection	17.1
	Wethous	methods in research	
4.5	Different types of	Applying and Analyzing	K4
.,,	Data Collection	the types in data	
	Methods	collection methods in	
	1.10 0110 015	research	
V	Data Analysis and Inter		12 Hrs
5.1	Data Analysis	Understanding the concept	K2
		of Data analysis in	
		research	
5.2	Types of data analysis	Applying and Analyzing	K4
	process in research	the types of data analysis	
		process in research	
5.3	Data Interpretation	Understanding the	K2
	Method	concept of Data	
		Interpretation in research	
5.4	Statistical Tools and	Understanding the	K2
	Techniques	concept of Statistical	
		Tools and Techniques in	
		research	
5.5	Statistical Analysis	Evaluate the Statistical	K5
	types: Measures of	Techniques in Research	
	Central Tendency,	reciniques in research	
	Frequency		

	Distribution, Correlation & Regression		
5.6	Report Writing	Evaluate and Create a report by compiling the data	К6
5.7	Presentation of Research Data	Evaluate and Create the presentation of data	К6

Mapping	PO1	P02	PO3	P04	P05	P06	PO7	P08	P09	PS01	PS02	PSO3	PS04
CO1	L	Н	M	L	Н	M	Н	L	M	Н	Н	M	M
CO2	M	Н	Н	L	M	Н	Н	L	M	L	M	Н	L
CO3	L	M	Н	L	M	Н	Н	L	Н	L	Н	M	L
CO4	L	M	M	L	M	Н	Н	M	L	Н	M	M	L
CO5	M	M	Н	L	M	Н	Н	L	M	Н	M	M	L
CO6	L	M	M	Н	Н	Н	Н	L	M	Н	M	M	Н

#### L-Low M- Medium H-High

#### 5. Course Assessment Methods

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

#### **CORE-VIII: DIGITAL LIBRARIES**

Semester III Course Code: P18LS308

Credits 5

#### 1. Course Outcomes

S. No.	Course Outcomes	Level	Unit Covered
1.	Analyse the different National and International digital library initiatives	K4	I
2.	Develop the digitalization process and digital storage of documents.	K4	II
3.	Plan for the collection development building and management of digital content.	К6	III
4.	Classify the different types of digital library open source software.	K4	IV
5.	Examine the structure, models and theories of library consortia initiatives.	К6	V
6.	Measure the scope and functions of digital resource management standards	K5	VI

#### 2. Syllabus

#### Unit - I (20 Hrs.)

**Digital Library Initiatives** Digital Libraries Definition, Need and Purpose, Components, Types, Advantages and Disadvantages – Digital Library Initiatives; International / National

#### Unit - II (15 Hrs.)

#### Digitalization Process 15 Hrs.

Digitalization Process – Digital Storage Mechanism: Digital Library Architecture Management, standards – Naming of files.

#### Unit - III (20 Hrs.)

#### **Collection Management**

Collection Management: Collection Building, Access, Management and Preservation – Institutional Repositories – Overview of Digital Library Software, GSDL, Dspace, E-prints and Digital Archives

## Unit - IV (20 Hrs.)

#### Library Consortia

Library Consortia: Definition, Need, Structure, Functions, Planning and Implementation – Models and Theories – Library Consortia Initiatives: FORSA,

# Unit – V (15 Hrs.) Digital Resource Management

Digital Resource Management – Scope, Need, Functions – Digital Resource Management Standards.

.

#### a. Topics for Self-Study

- 1. National Digital Library of India- <a href="https://ndl.iitkgp.ac.in/">https://ndl.iitkgp.ac.in/</a>
- 2. Digital Libraries and semantic web- https://youtu.be/aDcn4mocCpE
- 3. Search & Browse Interface in Digital Library-https://youtu.be/cGDHv3h0e-k
- 4. Knowledge Organisation in Digital Library- https://youtu.be/MhPVk\_zFROs

#### b. Text Books:

T1: Singh, G. (2011). Digital libraries and digitization. Ess Ess Publications.

T2: Kumar, P. S. G. (2004). *Information Technology: Applications: (papers XIII & XIV of UGC Model Curriculum)*. BR Publishing Corporation.

#### c. Internet Resources:

https://epgp.inflibnet.ac.in

https://ess.inflibnet.ac.in

#### 3. Specific Learning Outcomes (SLO)

Unit/ Section	Course Content  Digital Library I	Learning Outcomes	Blooms Taxonomic Levels of Transaction 2
_	Digital Dibiary II	iitiatives	Õ
1.1	Digital Libraries: Definition, Need and Purpose	Understand the Need and Purpose of Digital Libraries.	K2
1.2	Components, Types, Advantages and Limitations	<ul> <li>Understand the components and Types of Digital Libraries.</li> <li>Remember the Advantages and Limitations of Digital Libraries.</li> </ul>	K2
1.3	Digital Library Initiatives; International / National	<ul> <li>Analyze the different digital library initiatives in India.</li> <li>Evaluate the National and International digital library initiatives.</li> </ul>	K5

II	Dig	gitalization Process	15
2.1	Digitalization Process	<ul><li>Understand the digitalization process.</li><li>Create the digitalization process</li></ul>	K6
2.2	Digital Storage Mechani sm	<ul> <li>Understand the digital storage mechanism.</li> <li>Create mechanism to store the digital content.</li> </ul>	К6
2.3	Digital Library Architec ture Management	<ul> <li>Understand the Digital Library Architecture.</li> <li>Evaluate the digital library architecture.</li> </ul>	K5
III	Ŭ	ection Management	20
3.1	Collection Management :	Create/ manage the digital content.	K6
3.2	Collection building, Access, Management and Preservation	<ul> <li>Understand the collection building and management of digital content.</li> <li>Apply the various techniques of digital preservation.</li> </ul>	КЗ
3.3	Institutional Repositories	Create Institutional repository.	К6
3.4	Overview of Digital Library Software: GSDL, Dspace, E- Prints, Digital Archives	<ul> <li>Remember the various digital library software.</li> <li>Analyses the features of digital library software.</li> </ul>	K4
IV		Library Consortia	20
4.1	Library Consortia: Definition, Need, Structure, functions	Understand the need, structure and functions of library consortia.	K2
4.2	Planning and Implemen tation	Create and implement the Library consortia.	К6
4.3	Models and Theories of Consortia	Evaluate the different models and theories of Library consortia.	K5
4.4	Library Consortia Initiatives: FORSA, INDEST, UGC-INFONET	<ul> <li>Understand the library consortia initiatives.</li> <li>Critically evaluate the features of different initiatives.</li> </ul>	K5
V		Resource Management	15
5.1	Digital Resource Management: Scope need,	Understand scope, need and functions of DRM.	K2

	functions		
5.2	Digital Resource Manageme nt Standards	<ul> <li>Apply the DRM's standards in digital library.</li> </ul>	К3

Mapping	PO1	P02	PO3	P04	P05	P06	PO7	P08	P09	PSO1	PS02	PSO3	PS04
CO1	L	Н	Н	-	Н	Н	-	M	M	M	-	Н	-
CO2	-	-	M	Н	Н	H	-	M	M	M	-	Н	-
CO3	L	Н	M	Н	-	Н	-	L	M	L	-	Н	Н
CO4	L	-	-	Н	-	Н	-	L	M	L	-	Н	Н
CO5	M	-	M	M	Н	Н	-	L	L	L	-	-	Н
CO6	-	L	M	Н	-	Н	-	M	M	M	-	Н	-

#### L-Low M- Medium H-High

#### 5. Course Assessment Methods

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Virtual Learning, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

# CORE PRACTICAL-III: OPEN SOURCE SOFTWARE PRACTICE Semester III Course Code: P18LS3P3

#### Credits 3

#### A. Course Outcomes:

#### At the end of the course the learner will be able to:

- CO1: Understand the basics of LINUX operating system.
- CO2: Compile the bibliographic details of books, periodicals and dissertations using CDS/ISIS.
- CO3: Discover the functions of KOHA Library Automation Software.
- CO4: Apply and modules: Automation, Acquisition, Cataloguing and Circulation using KOHA
- CO5: Develop Digital Library Collection Using DSpace Digital Library Software
- CO6: Create, design & develop Library Collections by using Drupal Content Management Software

#### B. Course Plan

Unit	Course Content	Learning Outcomes	Blooms Taxonomic levels of Transaction
UI	LINUX: Operating System	Understand& Apply the basics of LINUX operating system	K5
U II	Bibliography Software: CDS/ISIS	Compile & Create the bibliographic details of books, periodicals and dissertations using CDS/ISIS	K5
U III	Library Automation Software: KOHA	Discover the functions of KOHA Library Automation Software.	K5
U IV	Digital Library Software: Dspace	Develop Digital library collections using DSpace Digital Library Software	K5

Unit	Course Content	Learning Outcomes	Blooms Taxonomic levels of Transaction
υv	Content Management Software: Drupal	Create, Design &Develop library collections by using Drupal Content Management Software	K5
UI	LINUX: Operating System	Understand& Apply the basics of LINUX operating system	K5

#### C. References:

- a) <a href="https://www.tutorialspoint.com/ubuntu/index.htm">https://www.tutorialspoint.com/ubuntu/index.htm</a> www.cds/isis.org
- b) http://egyankosh.ac.in/youtubevideo.jsp?src=l0yqX9WHIdc&t&title=CDS/ISIS%20for%20%20windows%20an%20introduction
- c) https://koha-community.org/demo/
- d) http://egyankosh.ac.in/youtubevideo.jsp?src=C6G9VttuDio&feature&title=Dspace
- e) https://www.tutorialspoint.com/drupal/index.htm

#### D. Mapping Scheme for the PO, PSO & COs

P18LS3P3	PO1	P02	PO3	P04	P05	P06	PO7	P08	P09	PS01	PS02	PS03	PS04
CO1	L	L	Н	Н	Н	Н	M	-	M	L	Н	M	Н
CO2	L	L	Н	Н	Н	Н	M	-	M	L	H	M	Н
CO3	M	L	Н	Н	Н	Н	M	-	M	L	Н	M	Н
CO4	L	M	Н	M	Н	Н	M	-	M	L	Н	M	Н
CO5	M	M	Н	M	M	M	M	-	M	L	Н	M	Н
CO6	L	M	Н	Н	Н	Н	M	-	M	L	Н	M	Н

#### L- Low M- Medium H-High

#### 5. Course Assessment Methods

- 1. Continuous Assessment test: T1, T2 (Practical components)
- 2. Record Writing & Performances
- 3. Pre-Semester, End-Semester Examination

#### CORE PRACTICAL -IV: LIBRARY AUTOMATION PRACTICE

Semester III Course Code: P18LS3P4

Credits 3

#### A. Course Outcomes:

#### At the end of the course the learner will be able to:

CO1: Understand the basics in the computerization of different Library operations and apply the same using Visual Foxpro

CO2: Apply Visual Foxpro in Acquisition Module

CO3: Apply Visual Foxpro in Circulation Module

CO4: Apply Visual Foxpro in Catalogue Module

CO5: Apply Visual Foxpro in Serials Control Module

CO6: Evaluate different Library Automation Softwares and acquired thorough knowledge in various housekeeping routines in library using Visual Foxpro

#### B. Course Plan

Unit	Course Content	Learning Outcomes	Blooms Taxonomic levels of Transaction
U I	Overview of Visual Foxpro	Understand & Apply the basics of Library Automation and Visual Foxpro	К3
U II	Application of Visual Foxpro for Acquisition Module	Create book database for execute Acquisition Function using Visual Foxpro	К6
U III	Application of Visual Foxpro for Circulation Module	Create book database and user database and execute Circulation Function using Visual Foxpro	K6

Unit	Course Content	Learning Outcomes	Blooms Taxonomic levels of Transaction
U IV	Application of Visual Foxpro for Cataloguing Module	Develop a Catalogue Module using Visual Foxpro and Execute the same	К6
U V	Application of Visual Foxpro for Serials Control Module	Develop Serials Control Module and Execute the same using Visual Foxpro	К6

#### E. Mapping Scheme for the PO, PSO & COs

P18LS3P4	PO1	P02	PO3	P04	P05	P06	P07	P08	P09	PS01	PS02	PS03	PS04
CO1	L	M	L	M	M	Н	-	-	L	L	-	M	Н
CO2	-	-	L	Н	L	Н	-	-	M	M	-	M	Н
соз	-	-	M	Н	M	Н	-	-	L	M	-	Н	Н
CO4	-	-	M	Н	M	Н	-	-	M	M	-	Н	Н
CO5	-	-	M	Н	M	Н	-	-	M	M	-	Н	Н
CO6	Н	M	Н	Н	Н	M	=	-	M	Н	-	Н	Н

L- Low M- Medium H-High

#### 5. Course Assessment Methods

- 1. Continuous Assessment test: T1, T2 (Practical components)
- 2. Record Writing & Performances
- 3. Pre-Semester, End-Semester Examination

#### **ELECTIVE - IV: INFORMATION MARKETING**

Semester III Course Code: P19LS3:4

Credits 4

#### 1.Course Outcomes

S. No.	Course Outcomes	Level	Unit Covered
1	Understand the basic concept of Information Products & its types.	K2	1
2	Apply the concept of marketing and discover the various types & approaches of marketing.	K4	2
3	Analyze the various techniques of marketing research.	K4	3
4	Recognize the types of Philip Kotler's Marketing mix and competition analysis.	K4	4
5	Apply the different types of marketing segmentation.	K4	5
6	Apply the various methods of Information Product Advertisements through SNS.	K4	5

#### 2. Syllabus

#### Unit - 1(12 Hrs.)

#### **Information Marketing Products, Methods**

Information as a Commodity and Resource – Information Products – Nature and Types – Marketing of Information – Need – Methods

#### Unit-II (12 Hrs.)

#### Marketing approaches, strategy

Marketing - Concept, Need, Scope, Types - Approaches- Corporate Strategy

#### Unit -III (12 Hrs.)

#### Marketing research

Marketing Research; Definition, Functions, Types and Scope – Application – Techniques – Marketing Information System – Components – Functions.

#### Unit -IV (12 Hrs.)

#### Marketing mix, branding and pricing methods

Marketing Mix: Designing – Branding – Strategies – Kotlers Four C's McCarthy's Four P's - Competition Analysis – Pricing Methods.

#### Unit - V (12 Hrs.)

Segmentations, behaviors, Social networking and advertisement Market

Segmentation – Geographic – Demographic – Behavioral –Psychographical Segmentation – User Behaviour – Marketing Advertisement, Role of SNS.

#### a. Topics for the Self-Study

- 1. Marketing of Academic Library and Services <a href="https://youtu.be/0I81VNrXUe0">https://youtu.be/0I81VNrXUe0</a>
- 2. Management Information system <a href="https://youtu.be/WrKGBWni2A0">https://youtu.be/WrKGBWni2A0</a>
- 3. Marketing Porducts and services <a href="https://youtu.be/7PcCnJMK6Ac">https://youtu.be/7PcCnJMK6Ac</a>
- 4. Topic Marketing of Information Services. <a href="https://youtu.be/27W56w6U2fw">https://youtu.be/27W56w6U2fw</a>

#### b. Reference Books

- R1.Seethraman,2015,"Marketing in library and Information Centres",EssEss Publication,New Delhi.
- R2. Philip Kotler, 2004, "Marketing Management", New Delhi: Pearson Education.
- R3. Pillai RSN, 2002, "Modern Marketing", New Delhi, S. Chand& Co.
- R4.Barclay Donald A, 2011,"Teaching and Marketing Electronic Information Programs", Chennai, NFSBO.
- R5.Fisher Karen, 2008," Theories of Information Behavior", New Delhi, EssEss.
- R6.Fisher Patricia.H,2009," Blue print for your Library Marketing Plan", New Delhi,

EssEss.

R7.Mathews Brian,2009,"Marketing Today's Academic Library", New Delhi.Ess Ess.

#### 3. Specific Learning Outcomes

Unit/ Section	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction		
1	Information	n Marketing Products, N	<b>Iethods</b>		
1.1	Information as a commodity and resource	Understand the concept of information Products and Information as commodity	K2		
1.2	Information products: Nature & types	Understand the concept of information	K2		

		products-nature, types	
1,3	Need & methods of	Apply & analyse the	K2
1,0	information	needs and various	1124
	marketing	methods of	
		information	
		marketing	
2	Marke	ting approaches, strate	gy
2.1	Marketing concept	Understand the	K2
		basic concepts of	
		Information	
		marketing & its	
		needs	
2.2	Marketing	Understand the	K2
	Need/Scopes/	scope, needs, types	
	Types/Approaches	and approaches of	
		marketing	
2.3	Corporate Strategy.	Apply & analyze the	K4
		various approaches	
		of corporate	
		strategies in	
2		marketing.	
<b>3</b>		Marketing Research Understand the	K2
3.1	Marketing Research		KZ
		concept of marketing research its	
		functions.	
3.2	Marketing Research	Distinguish different	K2
0.2	types	types of marketing	112
	l cypes	research	
3.3	Marketing Research	Distinguish different	K2
0.0	Application/	types of marketing	
	Techniques	research application	
	1	and techniques.	
3.4	Marketing	Understand the	K2
	Information System	concept, functions,	
		needs &components	
		of MIS	
4	Marketing mi	x, branding and pricing	methods
4.1	`Marketing Mix	Choose and classify	K4
		different types of	
		Philip Kotler's	
		Marketing mix and	
		competition analysis.	
4.2	Information products	Understanding the	K2
	branding.	concept of	
		information	
		branding	
4.3	Branding Strategies,	Apply various	K4
	Pricing methods	strategic types in	

		branding and Pricing methods	
5		aviors, Social networki	ng and
	advertisement		
5.1	Market Segmentation	Understand the	K2
		concept of market	
		segmentations like,	
		Geographic,	
		Demographic,	
		Behavioral and	
		Psychographic.	
5.2	User Behavior	Understand the	K2
		concept of user	
		behavior & patterns	
5.3	Marketing	Apply & analyze the	K4
	Advertisement	concept of marketing	
		advertisement and	
		its importance.	
5.4	SNS	Adapt Social	K6
		Networking Sites for	
		Advertisements.	

P18LS3:1	P01	P02	P03	P04	P05	P06	P07	P08	P09	PS01	PS02	PSO3	PS04
CO1	Н	Н	L	M	M	-	L	-	M	Н	-	M	-
CO2	Н	Н	L	-	M	-	L	-	M	Н	-	L	-
соз	L	M	Н	-	Н	Н	-	-	M	M	-	L	-
CO4	Н	Н	M	-	M	M	L	-	M	Н		L	-
CO5	Н	Н	M	-	M	L	L	-	M	Н	-	Н	-
CO6	Н	Н	M	L	M	M	-	-	M	Н	-	Н	-

# L-Low M- Medium H-High 5. Course Assessment Methods

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Virtual Learning, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

#### **CORE - IX: INFORMETRICS**

Semester IV Course Code: P18LS409

Credits 5 Total Hrs. : 60

#### 1. Course Outcomes:

S.No.	Course Outcome	Level	Unit Covered
1.	Understand the origin and development of Informerics.	K2	Unit 1
2.	Understand the concept of different types of metric studies like Bibliometrics, Librametrics, Scientometrics, Webometrics, Cybermetrics and Altmetrics.	K2	Unit 1
3.	Understand and discover the various concepts, theories, laws and parameters of Bibliometrics.	K6	Unit 2
4.	Distinguish the ideas of Quantitative and Qualitative Analysis Techniques.	K4	Unit 3
5.	Apply and analyze the functions of Citation Analysis and identify the importance of Ranking in Citation Indexing process.	K4	Unit 4
6.	Utilize and examine the concept of Impact factor and its importance.	К6	Unit 5

#### 2. Syllabus

#### Unit - 1 (12 Hrs.)

#### **Evolution of the concept of Infometrics**

Evolution of the concept of Infometrics – Librametry, Bibliometrics, Scientometrics, Webometrics, Cybermetrics, Altmatrics

# Unit -II (12 Hrs.)

#### Theory and Laws

Theory and Laws - Zipf's law, Lotka's Law, Bradford's Law. Price Theory and Circulation Theory; Garfield theory

#### Unit - III (15 Hrs.)

# Quantitative and Qualitative Techniques

Quantitative and Qualitative Techniques: Types, Multidimensional Scaling, Cluster Analysis, Correspondence Analysis and Media and Audience Analysis.

# Unit -IV (12 Hrs.)

# Citation Analysis

Citation Analysis; Definition, Theory of Citing, Forms, Age of Citations, Types, Ranking; h-index, g-index, i – 10 Google index, Citation Indices.

#### Unit -V (9 Hrs.)

#### **Impact factor**

Impact factor – Journal Impact Factor collaborative coefficient

# a. Topics for Self-Study:

1. National Mapping of Science:

https://www.youtube.com/watch?v=gGtC-y1wGrs&feature=youtu.be

2. Scientometrics & Altmetrics: Trends & issues

https://www.youtube.com/watch?v=wn-kKgClU5g

3. Google Analytics: Metrics and Dimensions

https://guides.library.upenn.edu/googleanalytics/ga\_metrics

4. Introducing CiteScore metrics

https://www.youtube.com/watch?v=vTlCmI652aQ

#### b. Reference Books:

R1: Shri S.K. Sen,2017 Block-1 Foundation of Informetrics and Scientometrics; IGNOU

R2: Sociology of Science and Scientometrics, 2017, Block-1 Foundation of Informetrics and Scientometrics; IGNOU

R3: https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=21 (Paper No : 10 Informetrics and Scientometrics Module : 01 Librametry, Bibliometrics, Scientometrics, Informetrics and Webometrics: Historical Development)

R4: https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=21 (Paper No : 10 Informetrics and Scientometrics Module : 10 Citation Analysis)

R5: https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=21 (Paper No :10 Informetrics and Scientometrics Module : 17 Webometrics, Cybermetrics and Nettometrics)

3. Specific Learning Outcomes (SLO)

Unit/ Secti on	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction
I	Evolution of the concept of Inf	ometrics	
1.1	Informetrics: Origin and Development of Informetrics	Understand and Remember the basic ideas & Concept of Informetrics	K2
1.2	Bibliometrics: Origin and Development of Bibliometrics	Understand and Remember the basic ideas & Concept of Bibliometrics	K2
1.3	Webometric/Cybermetrics: Origin and Development of Webometrics	Understand and Remember the basic ideas & Concept of Webometrics	K2
1.4	Scientometrics: Origin and Development of Scientometrics	Understand and Remember the basic ideas & Concept of Scientometrics	K2
1.5	Librametrics: Origin and Development of	Understand and Remember the basic ideas & Concept of	K2

	Librametrics	Librametrics	
II	Theory and Laws	•	
2.1	Zipf's Law: Concept and its Process	Understanding the main ideas of Zipf's Law and its concept.	K2
2.2	Bradford's Law: Concept and its Process	Understanding the main ideas of Bradford's Law and its concept.	K2
2.3	Lotka's Law: Concept and its Process	Understanding the main ideas of Lotka's Law and its concept.	K2
2.4	Bibliometric Theories	Understanding the concept of Garfield theory, Price theory and Circulation Theory in bibliometrics	K2
III	Quantitative and Qualitative	Techniques -	_
3.1	Quantitative & Qualitative Techniques	Distinguish the ideas of Quantitative and Qualitative Analysis Techniques	K4
3.2	Types of Quantitative & Qualitative Analysis Techniques	Distinguish the types of Quantitative and Qualitative Analysis Techniques	K4
3.3	Analysis Concept	Understanding the concept of Cluster analysis, Multidimensional scaling, Correspondence analysis & Media Analysis.	K4
IV	Citation Theory & Analysis		
4.1	Theory of Citation	Apply and analyze the functions of Citation Analysis and identify the importance of Ranking in Citation Indexing process.	K4
4.2	Ranking	Apply and analyses the concept of ranking like google index, h index,	K4

		g index & i-10 indexing processes	
V	Impact factor		
5.1	Impact Factor	Understanding the concept of Impact Factor	K2
5.2	Journal Impact Factor	Understanding the concept of JIF with working process	K2

# 4. Mapping of COs to POs & PSOs

P18LS409	PO1	P02	PO3	P04	P05	P06	P07	P08	P09	PS01	PS02	PSO3	PSO4
CO1	L	L	L	-	L	-	-	L	L	L	L	-	-
CO2	L	L	L	-	L	ı	ı	L	L	L	L	-	-
соз	Н	Н	Н	-	Н	-	-	Н	Н	Н	Н	-	-
CO4	Н	Н	Н	-	Н	-	-	Н	Н	Н	Н	-	-
CO5	M	M	M	-	M	-	-	M	M	M	M	-	-
CO6	Н	Н	Н	-	Н	-	-	Н	Н	Н	Н	-	-

L- Low M- Medium H-High

#### 5. Course Assessment Methods

#### I. Direct Method:

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

# CORE-X: DATABASE MANAGEMENT SYSTEM FOR LIBRARY AND INFORMATION CENTRES

Semester IV Course Code: P18LS410

Credits 5

#### 1. Course Outcomes

At the end of the course, the students will be able to

S. No.	Course Outcomes	Level	Unit Covered
1.	Understand the basic concepts, structure and components of DBMS.	K2	I
2.	Identify the different data models in database management.	K4	II
3.	Differentiate between Structure Query Language (SQL) - Query by Example (QBE).	К6	III
4.	Classify the different types of databases being utilized in libraries.	K4	IV
5.	Recognize the databases in the diverse disciplines/subjects.	K6	V
6.	Determine role of database support services in enhancing visibility of the LIS professionals.	K4	VI

#### 2. Syllabus

#### Unit -I (20 Hrs.)

## **Basic concepts of DBMS**

Basic concepts of DBMS - Definition, Need and Entities - Records, FILES - Components - Advantages and Disadvantages - Application of Database Management Systems in Libraries and Information Centers.

# Unit -II (15 Hrs.) Models in DBMS

File organization - Data Models - Classification: Relational Model, Network model and Hierarchal model - Types of files - Indexing and Retrieval.

# Unit – III (20 Hrs.) Data Manipulation

Data Manipulation – Query Formulation - Structure Query Language (SQL) - Query by Example (QBE) Relational Data Base Management System (RDBMS)

# Unit – IV (20 Hrs.) Types of Databases

Databases – Types of Databases (Bibliographic, Abstracting, Citation, Numerical, Full Text and Factual). Education Resources Information Centre (ERIC), Excerpta Medica Database (EMBASE), Math Sci net, Library and Information Science Technology Abstract(LISTA).

# Unit - V (15 Hrs.)

# **Database Support Services**

Database Support Services – IEEE, COMPENDEX, PUBMED, EBSCO-SCOPUS – GOOGLE SCHOLAR – WEB OF SCIENCES – PROQUEST, Subject Gateways.

### a. Topics for Self-Study

1. Web Information Retrieval Models-

https://link.springer.com/referenceworkentry/10.1007%2F978-1-4614-8265-9\_928

2.Online Information Retrieval System

http://www.lisbdnet.com/online-information-retrieval-syste/

3. Multimedia Informational Retrieval

https://youtu.be/j7FhR4R9xls

4. Data Warehouse

https://www.datawarehouse4u.info/

#### b. Reference Book

Alexis Leon & Mathews Leon (1999) Database Management Systems, Leon Vikas.

#### c. Internet Resources

http://www.ignouhelp.in/ignou-mlii-104-study-material

http://epgp.inflibnet.ac.in/Home/ViewSubject?catid=2h

ttps://mathscinet.ams.org/mathscinet

https://whc.unesco.org/

https://www.ebsco.com/

https://www.amu.ac.in/pdf/amulib/Subject\_Wise\_Gateways.pdf

# 3. Specific Learning Outcomes (SLO)

Unit/ Sectio n	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction
I	Basic concepts of DBMS	3 20 Hrs.	20 Hrs.
1.1	Basic concepts of DBMS-Definition, Needs, Entities, Records and Files	<ul> <li>Understand the concepts of and need for DBMS.</li> <li>Define entities, records and files in DBMS.</li> </ul>	K2

1.2	Components of DBMS, Advantages and	Point out the	K4
1.4	Disadvantages	components of DBMS.	
		<ul> <li>Discuss the advantages and disadvantages of</li> </ul>	
		DBMS.	
	Applications of DBMS	Recognise the	К6
1.3	Libraries and	emerging areas where	
	Information Centers	DBMS is applicable.	
II		els in DBMS	15 Hrs.
	File organization and	• Define File organization.	K5
2.1	Data Models	Determine the	
		functions Data Models.	
	Classification:	Classify the different	K4
2.2	Relational Model,	models of DBMS.	
4.4	Network model and	Analyse the	
	Hierarchal model	functions of	
		models of DBMS.	
	Types of files: Indexing	• Relate the types	K4
2.3	and retrieval	of files	
۷.۵		Databases.	
III	Data I	Manipulation	20 Hrs.
	Data Manipulation and	Define Data	
3.1	Query Formulation	Manipulation.	K2
		Describe Query	
		Formulation.	
	Structure Query	Understand the	
3.2	Language (SQL) and	concepts of SQL and	K4
0.4	Query by Example	QBE.	
	(QBE)	Differentiate	
		between Structure	
		Query Language	
		and Query by	
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	(KDDMO)		
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IV	Types	of Databases	20 Hrs.
	Types of Databases	Recall the types of	K5
	(Bibliographic,	Databases.	
4.1	Abstracting, Citation, Numerical, Full Text	Evaluate the special	
IV	Types of Databases (Bibliographic,	Query Language and Query by Example.  • Recognise the impact of Relational Database Management System.  • Recall the types of	

	and Factual)	features of each database.	
4.2	Education Resources Information Centre (ERIC) and Excerpta Medica Database (EMBASE)	• Examine the usefulness of ERIC and EMBASE.	К3
4.3	Math Sci Net	<ul> <li>Summarise the features of Math Sci Net.</li> </ul>	К6
4.4	Library and Information Science Technology Abstract (LISTA)	Summarise the features of LISTA.	К6
V	Database	Support Services	15 Hrs.
5.1	Database Support Services: IEEE, COMPENDEX, PUBMED and PROQUEST	<ul> <li>Give examples of Database Support Service.</li> <li>Specify the features of IEEE, COMPENDEX, PUBMED and PROQUEST.</li> </ul>	К6
5.2	EBSCO, SCOPUS, GOOGLE SCHOLAR WEB OF SCIENCE	<ul> <li>Rank the citation analysis databases based on their coverage of subjects.</li> </ul>	K6
5.3	Subject Gateways	<ul> <li>Justify the importance of subject gateways in knowledge disseminations.</li> </ul>	K5

# 4. Mapping of COs to POs & PSOs

P16LS410	PO1	P02	PO3	P04	P05	P06	P07	P08	P09	PS01	PS02	PS03	PS04
CO1	L	L	L	L	L	L	-	L	L	L	=	L	
CO2	L	-	L	L	L	L	-	L	L	L	-	L	
CO3	M	M	M	M	M	M	_	M	M	M	-	M	
CO4	M	M	M	M	M	M	-	M	M	M	=	M	
CO5	Н	_	Н	Н	Н	Н	_	-	Н	Н	-	Н	
CO6	Н	_	Н	Н	Н	Н	-	Н	-	Н	-	Н	

#### 5. Course Assessment Methods

#### I. Direct Method:

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

#### **ELECTIVE V: CORPORATE LIBRARIES AND INFORMATION SYSTEMS**

Semester: IV Course Code :P19LS4:5

Credits: 4

## 1.Course Outcomes

S.No.	Course Outcomes	Level	Unit Covered
1	Explain the concept, nature, structures	K2	1
	and functions of corporate library.		
2	Distinguish different type of information	K2	2
	products and sources.		
3	Determine the essential skills required	К6	3
	to the knowledge managers.		
4	Summaries the various computerized	К6	4
	information services offered to the		
	corporate library users.		
5	Distinguish information condensation	K2	5
	and consolidation.		
6	Develop the tools for e-governance, e-	K4	5
	learning tools and e-metrics.		

#### 2. Syllabus

Unit- I (16 Hrs.)

# Corporate library structures, functions

Corporate Libraries: Concept - Nature - Objectives - Structure - Functions

Unit –II (18 Hrs.)

### Types, collection development

Nature and Types of Information Sources in Corporate Libraries – Collection Development.

Unit –III (18 Hrs.)

#### Different type of skills

Skills Set: Communication, Presentation, Interpersonal, Negotiation and Marketing Skills

Unit –IV (20 Hrs.)

#### **Information Services**

Services and Products: Abstracting and Indexing: SDI, CAS, Mail Alerting, Bulletin Board Service – Information Condensation and Consolidation – Computerised Information Services, Mail Alerting: Using Lotus Notes and Outlook Express and Web Archives

Unit -V (18 Hrs.)

### E-goverence, E-learning

E-Governance – Digital Rights Management (DRM) – Licensing – E- Learning Concept, Tools - E-metrics

### a. Topics for Self-Study

- 1. The emergence of Hybrid special library <a href="https://youtu.be/iR2Q3m1Cruk">https://youtu.be/iR2Q3m1Cruk</a>
- 2. Planning and Acquisition of equipment <a href="https://youtu.be/3889LxaZHxM">https://youtu.be/3889LxaZHxM</a>
- 3. Collection development policies and procedures <a href="https://youtu.be/Wqapgxxo09M">https://youtu.be/Wqapgxxo09M</a>
- 4. Current awareness services (CAS) and selective dissemination of information (SDI) <a href="https://youtu.be/vZapCv4t\_Xg">https://youtu.be/vZapCv4t\_Xg</a>

#### b. Reference Books

- R1. Anil Kumar Dhiman (2008). *A Handbook of Special Libraries*. EssEss Publication.
- R2. Baby M.D. (2000). Changing Trends in Library and Information science. EssEss Publication.
- R3. Bailey Russell, D. (2012). *Transforming Library service Through Information Commons*. Indiana Publishing House.
- R4. Gangadharaiah G. (2012). *Management of Information Products and services in University Libraries*. Commonwealth.
- R5. https://epgp.inflibnet.ac.in/ahl.php?csrno=21

# 3. Specific Learning Outcomes

Unit/ Section	Course Content	Learning Outcomes	Blooms Taxonomic Levels of Transaction	
1	Corporate	library structures, fur	ections	
1.1	Concept and Nature	Understand		
	of Corporate libraries.	concept and nature	K2	
1.2	Objectives and	Discuss the		

	structure of corporate libraries.	objectives and structure	K2
1.3	Functions of corporate libraries	Summarise the functions of corporate libraries	К6
2	-	, Collection developme	ent
2.1	Nature and types of information sources in corporate library	Describe the nature and types of information	K2
2.2	Collection development in corporate library	Design the collection developments	K2
3	Di	fferent type of Skills	
3.1	Skill set in communication	Apply communication skills in the library	K3
3.2	Presentation skills, Interpersonal skills and negotiation Skills	Apply presentation, interpersonal and negotiation skill	К3
3.3	Marketing Skills	Explain then importance of marketing skills	К3
4	Ir	formation Services	
4.1	Information Services: Abstracting service, Indexing service, SDI,CAS and Mail alerting service	Evaluate the various information services and products	K5
4.2	Bulletin board services and computerized service	Appraise the importance of BBS and compuerised services.	K5
4.3	Information condensation and consolidation	Analyse the condensation and consolidation of information products	K4
5	E-Go	overnance, E-learning	,
5.1	E-Governance, digital rights management and licensing	Appy the E- governance, digital rights management and licensing	К3
5.2	E-Learning concepts, tools and E-metrics	Develop the E- learning concepts and E-metrics	K4

# 4. Mapping of COs to POs & PSOs

Mapping	P01	P02	PO3	P04	P05	P06	PO7	P08	P09	PS01	PS02	PS03	PSO4
CO1	L	L	L	-	L	L	-	-	-	L	-	L	1
CO2	L	L	L	-	L	L	-	-	-	L	-	L	L
CO3	Н	Н	=	-	Н	Н	-	-	Н	Н	=	Н	-
CO4	Н	Н	Н	Н	Н	Н	-	-	=	Н	=	Н	Н
CO5	L	L	L	L	L	L	ı	-	L	L	-	L	_
CO6	M	M	M	M	M	M	_	-	-	M	_	M	_

L- Low M - Moderate H- High

#### 5. Course Assessment Methods

# I. Direct Method:

- 1. Continuous Assessment test: T1, T2 (Theory components) Closed Book
- 2. Cooperative Learning Report, Assignment, Group Presentation, Group Discussion, Project Reports, Field work Report, Poster Presentation, Seminar, Quiz (Written)- Open Book Test
- 3. Pre-Semester, End-Semester Examination Closed Book

#### FIELD WORK AND INTERNSHIP TRAINING

Semester IV Course Code: P18LS4F1

Credits 3 Total Hrs : 90

#### **Course Outcomes:**

At the end of the field work and Internship, the students will be able to

- CO1. Understand different library routines and analyse various information resources.
- CO2. Apply modern technologies in various library operations and services.
- CO3. Evaluate the different types of library automation softwares and digital libraries softwares.
- CO4. Acquire hands on experience in managing different libraries.
- CO5. Analyse the work culture of different libraries.
- CO6. Develop the skills in solving real time problems.

#### B. Course Plan:

Unit	Course Content	Course Content Learning Outcomes						
	Public Library System	Develop information resources and users to the public library.	K4					
Field Work	Academic Library System	Determine the functions of the college and university library.	K5					
	Special Library System	<ol> <li>Compare the functions of engineering and management libraries.</li> <li>Evaluate the functions of special libraries.</li> </ol>	K5					

Unit	Course Content	Learning Outcomes	Blooms Taxonomic levels of Transaction
Internship	Reputed Libraries and Information Centres across the Country	<ol> <li>Group the activities of library and acquire hands on experience in managing different libraries.</li> <li>Evaluate the work culture of the diverse libraries.</li> </ol>	K6

# Mapping of COs to POs

Mapping	P01	P02	P03	P04	P05	P06	PO7	P08	P09	PS01	PS02	PS03	PS04
CO1	L	L	L	-	-	-	L	-	-	L	L	-	-
CO2	-	M	M	-	-	-	M	-	-	-	M	-	-
CO3	-	Н	-	Н	-	-	Н	-	-	-	Н	-	Н
CO4	-	L	-	-	-	-	L	-	-	-	L	-	-
CO5	=	M	-	-	M	-	M	-	-	-	M	-	M
CO6	_	L	-	-	-	M	L	-	-	-	L	Н	-

L-Low M-Moderate H- High

# 5. Course Assessment Methods

# I. Direct Method:

- 1. Cooperative Learning Report, Group Presentation, Group Discussion, Field work & Internship Report & Poster Presentation.
- 2. Field Visit & Library Tour.
- 3. Viva-Voce

# II. Indirect Method:

1. Course end Survey (Feedback)

#### **CORE PROJECT**

Semester: IV Code: P18LS4PJ

Credits: 5 Total Hrs: 90

#### **Course Outcomes**:

# After Completing the project, the students will be able to:

**CO1:** Choose an appropriate problem and suitable methodology with respect to current challenges in the field

**CO2**: Survey literature sources to know the origin and development of a problem to fill up the research gap

**CO3**: Compile project findings for presenting the solution to broader audience

CO4: Practice ethical and professional values

**CO5**: Justify the findings and give recommendations

**CO6**: Propose new, sustainable and innovative solutions for real time problems in Library and Information Centres

Course Content	Course Content  Learning Outcomes  Discover a suitable topic on								
Choose a suitable area of research	K4								
Objectives and Methodology	Devise the methodology, Plan for the execution of the project work, and sketch the work plan	K4							
Analysis	Solve the problem through various Statistical techniques	К6							
Interpretation	Interpret project findings	К6							
Report Preparation	<ul> <li>Justify results in logical and scientific way</li> </ul>	К6							
Report Preparation	Summarize the findings	K5							
Viva-Voce	Defend the findings	K5							
viva-voce	Justify the conclusion	К6							

# Mapping Scheme for the PO, PSOs and COs

Mapping	P01	P02	PO3	P04	P05	P06	PO7	P08	P09	PS01	PS02	PS03	PS04
CO1	L	Н	Н	-	L	Н	Н	M	-	Н	L	M	-
CO2	-	Н	Н	L	M	Н	Н	L	-	Н	L	M	-
CO3	-	-	-	-	-	Н	Н	M	-	Н	_	M	-
CO4	-	-	-	-	Н	M	M	Н	-	L	L	Н	-
CO5	-	-	-	-	-	Н	Н	L	-	Н	-	L	-
CO6	-	-	-	-	-	Н	Н	L	-	М	-	Н	-

L-Low M-Moderate
Course Assessment Methods

H- High

# I. Direct Method:

- 1. Data Collection, Cooperative Learning Report, Group Discussion & Poster Presentation.
- 2. Report Writing, Dissertation Submission.
- 3. Viva-Voce

# II. Indirect Method:

1. Course end Survey (Feedback)