

MASTER OF LIBRARY AND INFORMATION SCIENCE (M.Lib.I.Sc.)

TANSCHE SYLLABUS FOR THE ACADEMIC YEAR 2023-24



TANSCHE RI	EGULATIONS ON LEARNING OUTCOMES-BASED CURRICULUM FRAMEWORK FOR POSTGRADUATE EDUCATION
Programme	M.Lib.I.Sc.,
Programme Code	
Duration	PG - Two Years
Programme	PO1: Problem Solving Skill
Outcomes (Pos)	Apply knowledge of Management theories and Human Resource practices to solve business problems through research in Global context.
	PO2: Decision Making Skill
	Foster analytical and critical thinking abilities for data-based decision-making.
	PO3: Ethical Value
	Ability to incorporate quality, ethical and legal value-based perspectives to all organizational activities.
	PO4: Communication Skill
	Ability to develop communication, managerial and interpersonal skills.
	PO5: Individual and Team Leadership Skill
	Capability to lead themselves and the team to achieve organizational goals.
	PO6: Employability Skill
	Inculcate contemporary business practices to enhance employability skills in the competitive environment.
	PO7: Entrepreneurial Skill
	Equip with skills and competencies to become an entrepreneur.
	PO8: Contribution to Society
	Succeed in career endeavors and contribute significantly to society.
	PO 9 Multicultural competence
	Possess knowledge of the values and beliefs of multiple cultures and a global perspective.
	PO 10: Moral and ethical awareness/reasoning
	Ability to embrace moral/ethical values in conducting one's life.

Programme
Specific
Outcomes

(PSOs)

PSO1 – Placement

To prepare the students who will demonstrate respectful engagement with others' ideas, behaviors, beliefs and apply diverse frames of reference to decisions and actions.

PSO 2 - Entrepreneur

To create effective entrepreneurs by enhancing their critical thinking, problem solving, decision making and leadership skill that will facilitate startups and high potential organizations.

PSO3 – Research and Development

Design and implement HR systems and practices grounded in research that comply with employment laws, leading the organization towards growth and development.

PSO4 – Contribution to Business World

To produce employable, ethical and innovative professionals to sustain in the dynamic business world.

PSO 5 – Contribution to the Society

To contribute to the development of the society by collaborating with stakeholders for mutual benefit.

Semester -I	Cr ed it	H o u rs	Semest er-II	C r e di t	H ou rs	Semest er-III	Cred it	H o u rs	Semester– IV	C r e di t	H o u r s
Core-I	5	7	Core- IV	5	6	Core- VII	5	6	Core-XI	5	6
Core-II	5	7	Core-V	5	6	Core- VIII	5	6	Core-XII	5	6
Core – III	4	6	Core – VI	4	6	Core – IX	5	6	Project with viva voce	7	8
Elective - I Disciplin e Centric	3	5	Elective - III Discipli ne Centric	3	4	Core – X	4	6	Elective - VI (Industry / Entreprene urship) 20% Theory 80% Practical	3	4
Elective- II Generic:	3	5	Elective -IV Generic :	3	4	Elective - V Discipli ne Centric	3	3	Skill Enhancem ent course / Profession al Competen cy Skill	2	4
			NME I	2	4	NME II	2	3	Extension Activity	1	
						Internsh ip/ Industri	2	-	Extra Credit	2	2

					al Activity			Course: VLO		
	20	30	22	30		26	30		23	3
		I	To	otal Cre	edit Points -	91				

Component wise Credit Distribution

Credits	Sem I	Sem II	Sem III	Sem IV	Total
Part A	18	18	18	18	72
Part B					
(i)Discipline– Centric/Generic Skill	2	2	2	2	8
(ii)Soft Skill	2	2	2	2	
(iii)Summer Internship/			2		10
Industrial Training					
Part C				1	1
Total	22	22	24	23	91

Choice Based Credit System (CBCS), Learning Outcomes Based Curriculum Framework (LOCF) Guideline Based Credits and Hours Distribution System for all Post – Graduate Courses including Lab Hours

C	D4	C	C T'4-	Course	Hours /	Cre	_	Marks	
Sem.	Part	Course	Course Title	Code	week	dits	CIA	ESE	Total
		Core Paper I	Foundations of Library and Information Science	P23LS101	7	5	25	75	100
		Core Paper II	Information Sources	P23LS102	7	5	25	75	100
I	Part	Core Paper III	Knowledge Organisation Theory	P23LS103	6	4	25	75	100
	A	Elective I	Management of Library and Information Centres	P23LS1:A	5	3	25	75	100
		Elective II	Information and Communication Technology	P23LS1:B	5	3	25	75	100
					30	20		ı	
		Core Paper IV	Information Systems and Services	P23LS204	6	5	25	75	100
II	Part A	Core Practical I	Knowledge Organisation Practice I (Classification)	P23LS2P1	6	5	40	60	100
		Core Practical II	Knowledge Organisation Practice II (Cataloguing and Metadata)	P23LS2P2	6	4	40	60	100

		Elective III	Library Automation and Digital Library (Theory)	P23LS2:A	4	3	25	75	100
		Elective IV	Knowledge Management	P23LS2:B	4	3	25	75	100
		NMEC I	Digital Information Resources	P23LS2E1	4	2	25	75	100
					30	22			
		Core Paper V	Information Retrieval System	P23LS305	6	5	25	75	100
		Core Paper VI	Research Methods	P23LS306	6	5	25	75	100
		Core Practical III	Library Automation Practice	P23LS3P3	6	5	40	60	100
III	Part A	Core Practical IV	Digital Library Software Practice	P23LS3P4	6	4	40	60	100
		Elective V	Marketing of Information Products and Services	P23LS3:A	3	3	25	75	100
		NMEC II	Technical Writing	P23LS3E2	3	2	25	75	100
		Internship	Internship / Industrial Activity	P23LS3I1		2	100		100
					30	26			
		Core Paper VII	Informetrics	P23LS407	6	5	25	75	100
		Core Paper VIII	Corporate Library and Information System	P23LS408	6	5	40	60	100
	Part	Core Project	Core Project with Viva Voce	P23LS4PJ	8	7	40	60	100
IV	A	Elective VI	Web Technology	P23LS4:A	4	3	25	75	100
		SEC	Soft Skills for Library Professionals	P23LS4S1	4	2	100		100
		Extension Activity	Extension Activity	P23ETA4 1		1			
	Part	VLO	The Big Picture	P23VLO4 1	2	2	100		100
	В	VLO	Flying High	P23VLO4 2	۷	۷	100		100
					30	25			

Total Credits :	91+2

Total 91 Credits for PG Courses

	METHODS OF EVALUATION						
Internal	Continuous Internal Assessment Test						
Evaluation	Assignments / Snap Test / Quiz	25 Marks					
	Seminars						
	Attendance and Class Participation	-					
External	End Semester Examination	75 Marks					
Evaluation							
	Total	100 Marks					
	METHODS OF ASSESSMENT						
Remembering (K1)	 The lowest level of questions require stu information from the course content Knowledge questions usually require stude information in the textbook. 						
Understanding (K2)	 Understanding of facts and ideas by organizing, comparing, translating, interpreting in their own words. The questions go beyond simple recal students to combine datatogether 	erpolating and					
Application (K3)	 Students have to solve problems by usin concept learned in the classroom. Students must use their knowledge to determine the concept learned in the classroom. 						
Analyze (K4)	 Analyzing the question is one that asks to break down something into its component process. Analyzing requires students to identify reamotives and reach conclusions or generalized. 	parts. asons causes or					
Evaluate (K5)	 Evaluation requires an individual to make something. Questions to be asked to judge the value character, a work of art, or a solution to a period of the solution. Students are engaged in decision-making solving. Evaluation questions do not have single right. 	e of an idea, a problem. and problem –					
Create (K6)	 The questions of this category challenge engaged in creative andoriginal thinking. Developing original ideas and problem solving 						

SEMESTER - I

Course code:	P23LS101	FOUNDATION OF LIBRARY AND INFORMATION SCIENCE	L	T	P	C		
Core/Elective	/Supportive	CORE I	-	-	 -	5		
Pre-requisite Library Professionals may learn to Library and Information Science								
Course Objec	ctives: At the	end of completing this course, students will ha	ave basio	c knowl	edge (on		
library and infe								
The main obje	ctives of this c	ourse are to:						
1. Know the	nature of infor	mation and its characteristics						
2. Understand	d communicati	on concepts						
3. Gain know	ledge on types	of library associations, legislation and promo	oters of	service.				
Expected Cou	rse Outcomes	: :						
On the succes	ssful completion	on of the course, student will be able to:						
1 Rememb	per the nature of	f information			K	[
2 Understa	and the channe	ls of communication			K2	2		
3 apply the	e five laws of l	ibrary science			K3	3		
4 Analyze	the library mo	vements			K4	1		
5 Evaluate	the library sch	nools			K.	5		
K1 - Remem	ber; K2 - Unde	erstand; K3 - Apply; K4 - Analyze; K5 - Eval	luate; K	6 - Crea	te			
Unit:1	Inf	ormation: Nature, Property and Scope			14	hours		
Notion and nat	ture of Informa	tion: Definition: data, information, knowledge	e and wi	sdom cl	naract	eristics		
of information	; various patter	rns & models of information - Growth of infor	mation,	informa	ation t	ransfer		
cycle; Impact	of socio-econo	mic changes.						
Unit:2		Concepts of Communication			14	hours		
Concepts of Communication: Concept, definition, theories and models, channels of communication:								
Barriers of communication.								
Unit:3	Type	s of Library and Library Associations			14	hours		

Library: Types, Five Laws of Library Science and their implications; librarianship; Role of Professional Associations: National and International – ILA, IASLIC, IATLIS, IFLA, ALA, and FID. Professional ethics of Library

Unit:4	Unit:4 Library Legislation							
Library move	Library movement & legislation in India- Model Library Bill, Delivery of Books and Newspaper Act –							
Intellectual Pr	roperty Rights – Information Policy, Right to Information.							
Unit:5	Promoters of Library Services	14 hours						

Promoters of Library and Information Services – UNESCO, RRRLF, Library Networking and Consortia, Information Science as discipline – Evolution, growth and development of LIS Schools in India – Current Trends.

Ur	nit:6	Contemporary Issues	2 hours
		Expert Lectures, Online Seminars - Webinars	
		Total Lecture hours	72 hours
Te	ext Book(s)	
1	Khanna,	J.K. Library and Society. Kurushektra: Research Publication, 1987.	
2	Rangana	than, S.R. Five Laws of library science. Vikas, New Delhi, 1957.	
Re	eference I	Books	
1	Atherton	, .Pauline. Handbook of Information, system and services. Paris: UN	NESCO, 1977.
2	Benge, F	R.C. Libraries and cultural change. London: Clive Bingley, 1983.	
3	Gravey,	William. D. Communication: Essence of Science facilitating information	ation exchange
	among li	braries, Scientists, Engineers and students. Oxford: Perganton Press,	, 1979.
Re	elated On	line Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1	https://	www.mooc-list.com/instructor/helen-tibbo	
2	https://	www.mooc-list.com/certificate/yes-verified-certificate-paid?page	
3	https://	www.mooc-list.com/tags/logic	
4	https://	www.youtube.com/watch?v=iOI4Q-TbhA4	

Mappin	Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	
CO1	S	S	M	S	S	M	S	M	M	S	
CO2	M	S	S	L	M	S	M	M	S	M	
CO3	S	M	M	S	S	M	L	M	M	S	
CO4	M	S	S	M	M	S	M	L	S	M	
CO5	L	M	M	S	M	M	S	L	M	S	

^{*}S-Strong; M-Medium; L-Low

LTPC

Course code P23LS102

and institutional websites.

Course	code	P23L8102	INFORMATION SOURCES L I P								
Core/E	lective/	Supportive	CORE II	-	-	-	5				
D	• .•4 .		Students should know the basic knowledge		ı						
Pre-req	uisite		of information sources and services								
Course	Object	ives:									
1. Lear	n about	the information	sources and services, different types of resources	s and o	liffere	ent typ	es of				
serv	ices whi	ich are included i	n the field of library and information science in	detail							
2. Deve	elop eva	aluative skills for	selecting both in print and electronic information	n sou	rces;						
3. Train	n the stu	idents to use the	major information sources to answer day-to-day	user	enqui	ries					
Expecte	d Cour	rse Outcomes:									
On the	success	ful completion o	f the course, student will be able to:								
1.	Known different types of documentary & non-documentary sources										
2.	Under	stand, identify an	d explore the different types of information sou	rces		ŀ	K2				
3.	Provid	le library services	s using sources such as blogs, portals, wikies, su	bject		I,	K3				
<i>J</i> .		ays, digital librar				1	.13				
4.	_		eilitate access to the electronic resources, such a	s e-		ŀ	K4				
	_		pases and institutional repositories								
5.		• • • •	of users and their needs.				K5				
K1 - R	ememb	er; K2 - Understa	and; K3 - Apply; K4 - Analyze; K5 - Evaluate;	K6 - (Create						
Unit:1			Basics of Information Sources			14 ho	urs				
Sources	of infor	mation and their	characteristics Documentary and Non-document	itary s	ource	s and t	ypes				
– print,	non-pri	int and electronic	c sources; categories of information sources. I	Evalua	ation	criteria	a for				
informat	ion sou	rces.									
Unit:2		Types o	f Documentary, Non-Documentary Sources			14 ho	urs				
Docume	entary l	Primary Seconda	ry Sources – Tertiary Sources – Non-Documen	tary S	Sourc	es: Hu	ıman				
and inst	itutiona	l sources of infor	mation, government ministries and department	s, R&	D org	anizat	ions,				
learned :	societies	s, publishing hou	ses, archives, data banks, information analysis co	enters	, refer	ral cer	iters,				

Unit:3	B Electronic Resources Overview	14 hours
Electro	nic Resources: Overview, concept, definition, evolution, need, characteristics	, benefits and
drawba	cks – E-Resource life cycle.	
Unit:4	Electronic Resource Management Systems (ERMS)	14
		hours
Electro	nic Resource Management Systems (ERMS): Selecting, acquiring/ subscription/	purchasing,
-	entation, evaluation and renewing electronic resources/ cancellation. Techniques	
Resource	ce Management (TERMS), Strategic planning for ERM – Media and Format Mig	1
Unit:5	Electronic Information Sources and Databases	14 hours
Resource Digital Science	t Information Resources – PLOS, DOAJ, E- Books, Open Access Resources, Open Ces. Listserve, Subject Gateways Databases (Full text, Citation and Bibliographics) Library, IEEE/IEE Electronic Library Online (IEL), Emerald, EBSCO, Psychology, PubMed Central, J-Gate, JSTOR, Web of Science, Scopus, SciFinder Scholars, for the evaluation of information sources – print and electronic	raphic): ACM NFO, Elsevier
Unit:	Contemporary Issues	2 hours
	Expert Lectures, Online Seminars - Webinars	
	Total Lecture hours	72 hours
Text I	Book(s)	
1.	Bopp, Richard E. (2011). Reference and Information Services: an Introduction. Calif.: Libraries Unlimited,	4th ed. Santa
2.	Sewasingh: Hand book of International Sources on Reference and Information N Crest Publication,2001	New Delhi:
3.	Sharma, J.S & Grover, D.R: Reference Service and Sources of Information, New EssEss, 1998.	v Delhi:
4.	Singh, Gurudev. (2013). Information sources, services, and systems. New Delhi Learning Pvt. Ltd. ISBN – 9788120346390	: PHI
5.	Subramanayam, K: Scientific and Technical Information Resources, New Delhi	:
Refer	ence Books	
1.	Choudhury, G. G. (2001). <i>Information Sources and Searching on the World Wide</i> London: Facet Publishing.	le Web.
2.	G. G. Chowdhruy and Sudatta Chowdhury: Searching CD-ROM and Online Info Sources. London: Facet Publishing, 2001.	ormation
3.	G.G. Chowdhury and Sudatta Chowdhury. Information Sources and Searching of Wide Web. London: Facet Publishing, 2001.	on the World

4.	Guha, B. (1999). <i>Documentation and Information Services</i> (2nd ed.). Calcutta: World Press. Ikoja-Odongo, Robert, and Janneke Mostert. (2006) "Information seeking behaviour:
5.	Kumar (P.S.G).Ed. Indian Encyclopedia of Library & Information Science. New Delhi: S. Chand & Co., 2001.
6.	Smith, L. C., & Wong, M. A. (Eds.). (2016). Reference and Information Services: An Introduction: An Introduction. ABC-CLIO.
Rela	ted Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]
1.	eprints.rclis.org/19405/1/ALIS%2059(4)%20247-279%20(1).pdf
2.	www.inflibnet.ac.in Epg pathsala
3.	http://www.expertsmind.com/questions/qualities-of-indexing-and-abstractingperiodicals-30121941.aspx
4.	www.ejil.org/about/services.php?

Mappin	Mapping with Programme Outcomes											
COs	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10		
CO1	S	S	M	M	M	M	M	M	L	L		
CO2	S	S	S	S	S	S	S	S	M	M		
CO3	S	S	S	S	S	S	M	M	M	S		
CO4	S	S	S	S	M	M	S	S	S	S		
CO5	S	S	S	S	S	S	S	S	S	S		

^{*}S-Strong; M-Medium; L-Low

Course code	P23LS103	KNOWLEDGE ORGANIZATION THEORY	L	T	P	C		
Core/Elective/S	Supportive	Core III	-	-	-	4		
Pre-requisite		Understanding of the basics of grouping						
Tre-requisite		Purpose of libraries						
Course Objecti	ves: At the end of	f completing this course, students will have basic kno	wledg	ge o	n			
theory and prac	ctice of classificat	ion.						
The main objectives of this course are to:								
		nilosophy of library classification and cataloguing the	ory To	o ex	plai	in		
the need f	or technical prod	cessing of library materials.						
-	steps in technica							
		ation in library classification and cataloguing						
-		and cataloguing as foundation study of librarianship;	to exp	pose	sor	ne		
	problems of libra	ry classification.						
Expected Cour								
On the successful completion of the course, student will be able to:								
	The learners will gain knowledge about the categorization of the universe							
	f knowledge							
		erstand about the arrangement of materials in suc	ch a		K	(2		
		specialization is maintained.						
		be able to carry out arrangement of documents to			K	Κ3		
		rage and retrievals and attain satisfaction of user r	needs					
		pare of various methods of Classification				<u>4</u>		
		er usage of Classification in various libraries			K	<u>K5</u>		
	er; K2 - Understa	and; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - C	reate					
Unit:1	<u> </u>	Library Classification			hou			
-	-	- Canons and Postulates - Knowledge Classifica						
		aning, Need, Functions, Types, Qualities, Call num		Jniv	erse	of		
		- Subject: Meaning, Types (Basic, Compound, Comp	iex)-					
Unit:2	v	ect Formation and Laws of Classification	<u> </u>		hou			
	•	Universe of Knowledge as Mapped in Different Classic						
· ·		Principles of Classification - Canons, Laws, Principles	ciples	s an	a tl	neir		
	Fundamental cate	gories - Facet Sequences: Phase - Facet analysis -	I	1.6	•			
Unit:3	Unit:3 Catalogue and Law of Catalogue 14 hor							

	Purpose, Structure, types and Functions, Normative Principles of Canciples and their Implications.	ataloging -Canons						
Unit:4	Types and Standard of Catalogue	14 hours						
Types of	Catalogues -Physical Forms- Inner Forms- Subject Catalogues, S							
• •	subject heading lists; thesauri and vocabulary control, Formats and St							
Ū	I, Dublin Core, ISO 2709, UNIMARC, CCF and National formats.							
Unit:5	Catalogue Arrangement	14 hours						
	ed and Co-operative Cataloguing - Union Catalogue- Arrangement and							
	ion of digital resources Metadata standards Dublin core, Mark up	C						
U	; DOI (Digital Object identifier)							
Unit-6	Contemporary Issues	2hours						
	Expert Lectures, Online Seminars – Webinars.							
	Total Lecture hours	72 hours						
Text Book	k(s)							
1	Krishan Kumar (1980). Theory of library classification ERd.2,New I	Delhi Vikas.						
2	Kumar :PSG.(2003). Knowledge organization Information Processing	g and Retrieval						
	theory Delhi:BR							
3	Ramalingam, MS. (2000) Library Cataloguing and classification system Delhi							
	Kalpaz.							
4	Ramalingam, SR(1957 & 1965) Prolegomena to library classification I	Ed2, London LA						
5	Srivastav. A.P.(1993) Theory of Knowledge Classification in Librar	rires New Delhi						
	sage							
Reference	e Rooks							
		11' 1'						
1	Krishna Kumar, Theory of Classification 4 th Rev.Ed, Delhi, Vikas P House 1988.	ublishing						
2	Kumar .PSG Knowledge organization Information Processing and I Delhi:BR 2003	Retrieval theory						
3	Ranganathan.S.R. Prolegomena to Libray classification Ed3.Bangalo SRELS,2006	re						
4	Sinha Suresh C and Dhiman Anil K. Prolegomena to Universe of	Knowledge						
	New Delhi EssEss, 2002	J						
5	Srivastav, A. P Theory of knowledge classification in Libraries New	v Delhi sage						
	1933.							
Related O	Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]							
1	http://epgp.inflibnet.ac.in/Home/ViewSubject?catid=21							
2	https://www.tutorialspoint.com/public_library_management/public_lib	orary manageme						
_	nt_knowledge_organization.htm	Jiai y_iiiaiiageiile						
	m_knowledge_organization.nun							

3	https://www.youtube.com/watch?v=ttFJZgNdryQ
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Mappin	Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	
CO1	S	S	M	S	S	M	S	S	M	S	
CO2	S	S	L	S	S	S	S	M	L	S	
CO3	S	M	M	S	S	L	S	S	S	S	
CO4	S	S	S	M	S	M	M	S	S	S	
CO5	S	S	M	M	M	S	S	S	S	S	

*S-Strong; M-Medium; L-Low

Course code	P23LS1:A	MANAGEMENT OF LIBRARY AND INFORMATION CENTRE	L	T	P	C
Core/Elective/Su	pportive	Core	-	-	-	
Pre-requisite		Management knowledge may learn to Library and Information Center				
Course Objectiv	es: At the end of co	ompleting this course, students will have know	ledge or	1		
Management of I	ibraries and Informa	ation Centers.				
The main objective	ves of this course are	e to:				
1. To provide kr	owledge on library	management				
2. To enable stu	dents to understand	the various sections and their routine				
3. To facilitate s	tudents to plan libra	ries and to understand library governance				
Expected Course						
		course, student will be able to:			K1	
1 Student can remember the management concepts						
	2 Students can understand the various sections in library					
		ethods of subscription			K3	
	nts can analyze the l	ibrary staff formula			K4	
		valuate the library building			K5	
K1 - Remember	; K2 - Understand; l	K3 - Apply; K4 - Analyze; K5 - Evaluate; K6	- Create	;		
Unit:1		Introduction to Management		14	hour	·s
Management:	 	pt, Schools of Management Thought,	Funct	ior	ns of	
Management Management	benintion, conce	pt, schools of Wanagement Thought,	, runci	101	15 01	
			ı			
Unit:2		Various Sections in Library			hour	
		tine work Acquisition, Evidence and Pattern		_		
		e, Reference and Binding Sections- Books s	selection:	N	eed a	nd
purpose, Princip	les and theories, Bo	ok selection tools, Weeding out.				
Unit:3	Routine of	the Periodical and Circulation Sections		14	hour	'S
		subscription, recording methods and problem				
procurement- Cha		ing methods- Maintenance: Shelving methods		-		

_	Governance- Library authority and Library committee, nee		
Sources	Governance- Library authority and Library committee, nec	d and functions-	. Library Finance:
	of finance; Budgeting techniques, cost benefit analysis. H	uman resources	management.
Unit:5	Planning of Library		14 hours
_	- Library Building, Furniture and equipment, - Library rul	les and regulation	ons, Annual report
- Library	statistic Green Library Technology Building.		
1			
Unit:6	Contemporary Issues		2 hours
	Expert Lectures, Online Seminars - We	binars	
<u> </u>			
	Total L	ecture hours	72 hours
Text Bo	ook(s)		
1	Mittal, RL Library Administration: Theory and Practice.	5 th ed. Delhi . M	etropolitan ,1984.
2	Narayana , G.J. Library and Information Management , N		991.
3	Ranganathan, S.R.: Library administration. 2 nd ed. Bon	nbay : Asia	
4	Sharma, J.S. Library Organization. New Delhi: Vikas, 1	978.	
Referen	nce Books		
1	Katz, W.A. Collection development, the selection of ma	aterials for libra	ries . New York .
	Holt, Rinohart and Winston, 1980.		
2	Krishan Kumar: Library Administration and Manageme	nt. New Delhi:	Vikas, 1987.
	<u>I</u>		
Related	Online Contents [MOOC, SWAYAM, NPTEL, Website	s etc.1	
1	https://www.mooc-list.com/length/3-weeks?page=23		
2	https://www.mooc-list.com/?page=1%20		
3	https://www.mooc-list.com//business-technology-man	agement- speci	alization

Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	M	S	S	M	S	M	M	S
CO2	M	S	S	M	L	S	M	M	S	M
CO3	S	M	M	S	S	M	S	L	M	S
CO4	M	S	S	M	M	S	M	M	S	L
CO5	L	M	M	S	M	M	S	M	M	S

^{*}S-Strong; M-Medium; L-Low

Course co	de P23LS1:B	INFORMATION AND COMMUNICATION TECHNOLOGY	L	Т	P	C			
Core/Elect	ive/Supportive	Elective II	-	-	-	3			
Pre-requis	ite	Students should know the basic knowledge of communication technology		1					
Course Ob	jectives:		ı			-			
2. Acquoffice 3. Unde	mation Centres. ire skills required management. rstand the concept	plying Information and Communication Technology for handling different operating systems and use app s of communication and networking technologies.							
	Course Outcome								
	On the successful completion of the course, student will be able to: Remember the concept of information communication technology. K1								
_,									
_,	erstand the compu					K2			
3. Ider	tify the communic	cation tools and techniques.				K3			
4. Des	ign library networ	ks: Internal and external networks; network function	ıs.			K4			
5. Eva	luate internet prote	ocols, standard and security.				K5			
K1 - Rem	ember; K2 - Unde	erstand; K3 - Apply; K4 - Analyze; K5 - Evaluate; I	X6 - C	reate					
Unit:1		Components of ICT	Components of ICT						
		ntion Technology: Need and Purpose-Components ntres - Computer Hardware, Storage Devices; Input							
Unit:2		Computer Software		1	4 ho	ırs			
•	ware and Applica NIX. Working wit	tion Software; Programming Concepts, Operating S h Windows.	ystem	s: Wi	ndows	; &			
Unit:3		Telecommunication Technology		1	4 ho	ars			
Multiplexin Conferencia	Communication Technology: Telecommunication - Transmission media: Switching, Band with, Multiplexing, Modulation Protocols - Wireless Communication tools and techniques: Fax, Tele Conferencing, Video Conferencing, Teletext, Video Text and Bulletin Board Services.								
Unit:4		Networking Technology			14 ho	urs			
Networking Technology: Concept, Topologies - Types: LAN, WAN and MAN, Internet-Intranet, Integrated service digital network (ISDN) – Open system inter connection (OSI).									

Uni	it:5	Internet Protocols, Standards and Security	14 hours					
Netw	-	ols and standards – HTTP, SHTTP, FTP, SMTP, TCP/IP, URI, URL. Data curity, Firewalls, Cryptographic techniques, Anti-virus software, Anti-spywn.	•					
Uni	t:6	Contemporary Issues	2 hours					
		Expert Lectures, Online Seminars - Webinars						
		Total Lecture hours	72 hours					
Tex	t Book(s)							
1.	Bansal, S	S.K. (2005). <i>Information Technology and Globalisation</i> , New Delhi: A.P.H.	I. Pub					
2.	_	a, S.K. (2002). Computers Today and Globalisation, New Delhi:Golgotia.						
3.		R.S, (2002) Information Resources for library and information technolog ternational.	y Navyug					
4.	Anil Dhiman, K & Yashodarani, (2014) <i>Learn information and reference source and services</i> , ESS ESS Publications.							
5.	Chakrava	Chakravarthi RC, Information technology and library science, Pacific, New Delhi, 2011.						
6.	Cheran S	rivasta, Fundementals of information technology, Kalyani, New Delhi, 200	00.					
7.	Jain, VK	Information technology for digital library management, Atlantic, New De	elhi, 2008.					
8.		S Information technology today, Golgotia, New Delhi, 2004. 5. Kumar PSogy basis, B.R., New Delhi, 2000.	G. Information					
9.	Leon, Al	exis Fundamentals of information technology, Vikas, New Delhi, 1999. 7.						
10.	Manak. S	Sunders, R. (2000). Computers Today. (Edition 2), John Wiley.						
11.	Satyanar	ayana, R. (2005). Information Technology and its facets. Delhi						
Ref	erence Bo	oks						
1.	Sathaiah, Pvt. Ltd	B, (1999) Information technology in university libraries, Commonwealth	Publishers					
2.		pala, T, Ratnakumari, C & Rani, B.A, (2001) <i>Information technology and library</i> , Commonwealth Publishers pvt. Ltd	cary					
3.	Nadhoni	Ashok, K, Information technology, BPB New Delhi, 2008. 8. Satya Naray	ana.					
4.	Informat	ion Technology, Cosmo, New Delhi, 1998. 9. Utpal K Banarjee Information Man, D von Nostrond, New York, 1992.						
5.	Deeson,	Eric (2000). Managing with information technology, Great Britan: Kogan J	page Ltd.					
6.		W.H. (2002) & Rowlands, J.L. The online searcher's compansion. Londo						
Rela	ated Onlin	ne Contents [MOOC, SWAYAM, NPTEL, Websites etc.]						
1.	www.ir	nflibnet.ac.in Epg pathshala						

Mappi	Mapping with Programme Outcomes									
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1 0
CO1	S	S	M	M	M	M	M	M	L	L
CO2	S	S	S	S	S	S	S	S	M	M
CO3	S	S	S	S	S	S	M	M	M	S
CO4	S	S	S	S	M	M	S	S	S	S
CO5	S	S	S	S	S	S	S	S	S	S

^{*}S-Strong; M-Medium; L-Low

<u>SEMESTER – II</u>

Course co	ode	P23LS204	INFORMATION SYSTEMS AND SERVICES	L	T	F	С				
Core/Elec	ctive/	Supportive	Core IV	-	-	-	5				
Pre-requ	uicito		Must have basic knowledge on various								
Fre-req	uisite		subjects/sub class of the given subject								
Course C)bject	tives: At the end	d of completing this course, students will have basic kn	now	ledge	0	1				
Information	on Sy	stems and Servi	ces								
The main	The main objectives of this course are to:										
1. To	o learı	n about the infor	mation systems and different types of information serv	vice	S						
			onal and International information centres								
			use the major networks and contemporary library serv	ices							
_		rse Outcomes:									
			of the course, student will be able to:								
	Understand the concept and types of information systems.										
2	Apply the different types of information services in libraries. K3										
3	Analyse the National and International Information Centres. K4										
4	Evalu	ate the National	and International Information Networks.				K4				
5	Analy	yse the mobile b	ased information services in library and information ce	ente	s.		K5				
K1 - Rei	memb	er; K2 - Unders	tand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 -	Cre	ate						
Unit:1			Information Systems			14	4 hours				
			epts, Characteristics, Types and Functions; Nati Mission on Libraries (NML).	iona	l Kı	ov	wledge	e			
Unit:2			Information Services			14	hour	s			
Informat	tion S	ervices & Refer	ence Service: Definition, Need and Types; CAS, SDI,	Inde	exing	,					
Abstract Compila		Bibliography, Tr	anslation and Referral Services; Information Products:	Pre	parat	ioı	and				
Unit:3			Information Centres			14	hour	'S			
National	 Info	ormation Centre	es- NIScPR, NASSDOC, SENDOC, and DESID	OC:	Inte	rn	ationa	 1			
			GRIS, MEDLARS, BIOSIS and ENVIS.	<i>-</i>							
Unit:4			Information Networks			14	hour	'S			
		•	,	AN	ET,	E	RNET	٠,			
MANLI	MANLIBNET, and National Knowledge Network (NKN).										

Unit:5	Contemporary Library Services	14 hours					
	sed library services, Virtual Reality, Augmented Reality, Web based se	rvices, Alert Services					
and marke	et space.						
Unit-6	Contemporary Issues	2hours					
	Expert Lectures, Online Seminars - Webinars						
	Total Lecture hours	72 hours					
Text Bo	ok(s)						
1.	Singh, G. (2013). Information Sources, Services and Systems. PHI Lea	arning Pvt. Ltd					
2.	Sharma, J.S & Grover, D.R: Reference Service and Sources of Inform EssEss, 1998.	ation, New Delhi:					
3.	Singh, Gurudev. (2013). Information sources, services, and systems. New Delhi: PHI Learning Pvt. Ltd. ISBN – 9788120346390						
Referen	ce Books						
1.	Devarajan, G., & Pulikutheil, J. K. (2011). Information Access, Tools,	Services and Systems.					
	Ess Ess Publications						
2.	Kumar, P. S. G. (2004). Library and Users: Theory & Practice: (Paper	s VIII of UGC Model					
	Curriculum). BR Publishing Corporation.						
3.	Kumar, P.S.G. (2004). Information Analysis, Repacking, Consolidation						
	Retrieval: (papers X & XI of UGC Model Curriculum). BR Publishing						
	Information Sources and Services: Theory & Practice: (papers VI & V	II of UGC Model					
	Curriculum). BR Publishing Corporation. Corporation						
4.	Kumar, P. S. G. (2004). Information Technology: Applications: (paper	rs XIII& XIV of UGC					
	Model Curriculum). BR Publishing Corporation.						
Related	Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]						
1.	http://www.nmlindia.nic.in (accessed 25 July 2020)						
2.	https://epgp.inflibnet.ac.in						
3.	https://whc.unesco.org (accessed 25 July 2020)						
4.	https://www.nic.in/services/cloud/nic-net-2 (accessed 25 July 2020)						

Mappi	Mapping with Programme Outcomes									
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	M	M	M	M	M	M	L	L
CO2	S	S	S	S	S	S	S	S	M	M
CO3	S	S	S	S	S	S	M	M	M	S
CO4	S	S	S	S	M	M	S	S	S	S

CO5	S	S	S	S	S	S	S	S	S	S	
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*S-Strong; M-Medium; L-Low

Course code	P23LS2P1	KNOWLEDGE ORGANIZATION Practice – I (Classification)	L	T	P	C		
Core/Electiv	ve/Supportive	Core Practical I	-	-	-	5		
		The ability to know the various terns used						
Pre-requisi	te	in any given subject and bibliographical						
		terms						
Course Obj	ectives: At the end	of completing this course, students will have be	asic kn	owle	dge	on		
ibrary classi	fication practice.							
The main ob	jectives of this cour	rse are to:						
. Classific	ation, list out and	describe according to a consistent plan, the	e Print	reso	urces	ı		
available	in the library.							
2. Direct th	e users to similar	materials						
	he collection of the	•						
4. Indicate	the location of the	e resources						
	ourse Outcomes:							
		of the course, student will be able to:						
1 Know	w which information from a bibliographic data K1							
	e included in the e	-						
		rmation is presented on a classifying entry of	or in a		K	2		
		e sorted in the classification.						
		k entries of library Classification			K	.3		
4 Unders	tand the various me	ethods of Classification the reading in any librar	У		K	[4		
5 Evalua	e the Classification	procedure in any library			K	5		
K1 - Reme	mber; K2 - Underst	and; K3 - Apply; K4 - Analyze; K5 - Evaluate;	K6 – 0	Creat	e			
Unit 1		Colon Classification			2	4 hour		
	•	6 th Edition	•					
Unit 2		Dewey Decimal Classification			2	4 hour		
	•	23 rd Edition						
Unit 3	Uı	niversal Decimal Classification		24	hour	.*S		
	•	3 th Edition						
Unit 4		Contemporary Issues				2hour		
	Ex	pert Lectures, Online Seminars – Webinars.						
		Total Lecture hours			7	2 hour		
Text Book	(s)	-						
	*	nowledge Organization: Information Processin	g and	Retri	eval	Practic		
	Delhi: B.R Publish		-					

	th
2	Ranganathan, S. R (1963). Colon Classification. 6 ed. Bangalore: Sarada Ranganathan
	Endowment for Library Science.
3	Khanna,J K(1982).Colon Classification; Theory and Practice. New Delhi: EssEss
4	Chan, Lois Mai [et al.] (1996). Dewey decimal classification: A Practical Guide. 2nd ed.
	revision for DDC-21. Albany, New York: Forest Press
5	Sachdev, Mohan Singh (1983). Colon Classification; Theory and Practice. NewDelhi: Sterling
6	British Standard Institution (2000). Universal Decimal Classification London: British Association
	of Social Workers
Refe	rence Books
1	Mitchell, Joan S (2003). Dewey decimal classification and Relative Index. 22 nd ed. 4 Vol. New
	York: Forest Press
2	Comaromi, John P (1989). Dewey decimal classification and Relative Index. 20 th ed. 4 Vol.
	New York: Forest Press
3	Custer, Benjamin A. (1979). Dewey decimal classification and Relative Index. 19 th ed. 3 Vol.
	New York: Forest Press.
4	Comaromi, John P. and Satija, M.P. (1990). Exercises in the 20th Edition of the Dewey decimal
	classification. New Delhi: Sterling.
5	British Standard Institution (2000). Universal Decimal Classification London: British
	Association of Social Workers
Rela	ted Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]
1	http://epgp.inflibnet.ac.in/Home/ViewSubject?catid=21
2	https://www.tutorialspoint.com/public_library_management/public_library_management_kno
	wledge_organization.htm
3	https://www.youtube.com/watch?v=ttFJZgNdryQ
4	http://epgp.inflibnet.ac.in/Home/ViewSubject?catid=21
5	https://www.tutorialspoint.com/public_library_management/public_library_management_kno
	wledge_organization.htm
6	https://www.youtube.com/watch?v=ttFJZgNdryQ

Mapping	Mapping with Programme Outcomes									
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	S	S	S	S	S	S	S
CO2	S	S	M	S	S	S	S	S	S	S
CO3	S	S	S	S	M	S	M	S	S	M
CO4	S	S	S	S	S	S	S	S	S	S
CO5	S	S	S	S	S	M	S	S	S	S

^{*}S-Strong; M-Medium; L-Low

			KNOWLEDGE ORGANIZATION						
Cours	se code	P23LS2P2	Practice –II (Cataloguing and	L	T	P	C		
			Metadata)						
Core/	Elective/	Supportive (Core Practical II	-	-	-	4		
			The ability to know the various terns used						
Pre-	requisite		in any given subject and bibliographical						
			terms						
	-		of completing this course, students will have b	asic kno	wled	ge on			
	library cataloguing practice.								
	•	ectives of this cou							
			ms of catalogue to the print and non-book mat	erials					
		he users to similar							
		the collection of t the location of th	· · · · · · · · · · · · · · · · · · ·						
		rse Outcomes:	C 1050d1005						
			the course, student will be able to:						
1									
1	cataloging record and how the entries should be sorted in the catalogue								
2			ed entries of library catalogue	<u>U</u>		K	K2		
3	Understa	and the various me	thods of cataloguing the reading /Audio visua	materi	al in	K	3		
	the libra	ry							
4	Analyse	and differentiate the	ne manual and MARC cataloguing			K	4		
5	Create a	catalogue entry us	ing various tags			K	6		
K1 -	Rememb	oer; K2 - Understa	nd; K3 - Apply; K4 - Analyze; K5 - Evaluate;	K6 – C	reate	I			
		Anglo	American Catalogue Rules - II			35 h	ours		
Cata	loguing	of Books, Non-Bo	ok Materials and Periodicals according to	Anglo A	meri	can			
Cata	logue Ru	les - II (AACR-II).						
			MARC 21			35 h	ours		
Cata	loguing	of Books, Non-Bo	ok Materials and Periodicals according to	MARC	21 (N	I etada	ta)		
Unit-	6		Contemporary Issues			2h	ours		
		Expe	ert Lectures, Online Seminars – Webinars.						
			Total Lecture hours			72 h	ours		
Text Book(s)									
1	Krishna	a Kumar (1980). 7	Theory of library classification ERd.2,New D	elhi Vil	kas.				
2	Kumar	PSG. (2003). Knov	wledge organization Information Processing	and R	etriev	al the	ory		
	Delhi: BR								

3	Ramalingam, MS. (2000) Library Cataloguing and classification system Delhi Kalpaz.
4	Srivastava. A.P.(1993) Theory of Knowledge Classification in Libraries New Delhi sage
Refe	rence Books
1	Krishna Kumar (1980). Theory of library classification ERd.2, New Delhi Vikas.
2	Kumar PSG. (2003). Knowledge organization Information Processing and Retrieval theory
	Delhi: BR
3	Ramalingam, MS. (2000) Library Cataloguing and classification system Delhi Kalpaz.
4	Srivastava. A.P.(1993) Theory of Knowledge Classification in Libraries New Delhi sage
Rela	ted Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]
1	http://epgp.inflibnet.ac.in/Home/ViewSubject?catid=21
2	https://www.tutorialspoint.com/public_library_management/public_library_management_kno
	wledge_organization.htm
3	https://www.youtube.com/watch?v=ttFJZgNdryQ
4	http://epgp.inflibnet.ac.in/Home/ViewSubject?catid=21
5	https://www.tutorialspoint.com/public_library_management/public_library_management_kno
	wledge_organization.htm
6	https://www.youtube.com/watch?v=ttFJZgNdryQ

Mapping	Mapping with Programme Outcomes											
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10		
CO1	S	S	S	S	S	S	S	S	S	S		
CO2	S	S	M	S	S	S	S	S	S	S		
CO3	S	S	S	S	M	S	M	S	S	M		
CO4	S	S	S	S	S	S	S	S	S	S		
CO5	S	S	S	S	S	M	S	S	S	S		

^{*}S-Strong; M-Medium; L-Low

Cou	ırse de	P23LS2:A	LIBRARY AUTOMATION AND DIGITAL LIBRARY (THEORY)	L	T]	P	C
Core	/Electiv	e/Supportive		-	-	-		3
ъ			Basic understanding of Computers and their			I		
Pre-	requisi	te	applications in a library.					
Cour	se Obje	ctives: At the	e end of completing this course, students will have b	asic kn	owledg	ge or	1	
librar	y autom	ation and digi	tal library softwares.					
1.	. To kn	ow the concep	ot, functions of library automation and digital library	y softw	are.			
2.	Under	stand the desi	gn and development of digital libraries and institution	onal				
	reposi	tories.						
3.	To ev	aluate suitable	library automation software and digital library soft	ware to	build 1	libra	ry	
	collec	tion.						
Expe	cted Co	urse Outcom	es:					
On t	he succe	essful complet	ion of the course, student will be able to:					
1.	Under	stand the basic	c concept, origin and				K2)
	Develo	opment of Lib	rary Automation and Digital Library Standards					
2.	Apply	the different i	modules of automationsoftware.				K3	,
3.	Analy	ze the differen	t between open source and commercial Software.				K 4	+
4.	Develo	op the digitaliz	zation process and digital storage of documents				K 4	-
5.	Evalua	ate various dig	ital library software's				K5	j
K1 -	- Remen	nber; K2 - Un	derstand; K3 - Apply; K4 - Analyze; K5 - Evaluate	; K 6 –	Create			
Unit	t:1	L	ibrary Automation and digital library			14	h	ours
Basi	ic conce	pts, definition	, need and functions, planning and implementation	of libra	ry autoi	mati	on	and
digit	tal librar	y-Library auto	omation and Digital library Standards.					
Unit	t:2		Library Automation			14	h	ours
Auto	omation	of in-house	operations -Acquisition, Cataloguing, Circulati	on, Se	rials, (OPA	·C	and
Adn	ninistrat	ion and Repor	ts Generation.					
Unit	t:3		Automation Software			14	ho	ours
Auto	omation	Software-WI	NISIS, Java ISIS; Open Source : Koha, NewGenLit	; Com	mercial	: LI	BS	YS,
and	SOUL.							
Unit	t:4		Digitalization Process			14	ho	ours
Digi	talizatio	n Process, D	igital Storage Mechanism, Digital Library Archit	tecture	Manag	eme	nt	and
Stan	dards, I	Digital Archive	es and Preservation and Naming of files					
Unit	t:5		Digital Collection Management			14	h	ours
Coll	ection	Building, Ac	cess, Management; Institutional Repositories, Over	erview	of Digi	ital l	Lib	rary
Soft	ware: G	SDL, DSpace	, E-Prints.					
Unit	t-6		Contemporary Issues			2	ho	ours
					_	_		

		Expert lectures, online seminars – webinars.	
		Total Lecture hours	72 hours
Te	ext Book(s)	
1.	Andrew	s, J. (2010). Digital libraries. London: Ashgate.	
2.	Gopal,	K. (2000). Digital libraries in electronic information era	
3.	Arms,	W.Y. (2005). Digital libraries. New Delhi: Ann Peterson – kemp.	
	Gurdev	singh, Digital libraries and digiotization, ESS ESS Publication, New 1	Delhi, 2011.
	Inform	ation technology for digital library management, Atlantic, New Delhi,	2008.4.
	Jesiwo	l, S Information technology today, Golgotia, New Delhi, 2004.	
Re	eference l	Books	
1.	Lesk, M	. (1996). Understanding digital libraries (2 nd ed.). San Francisco: Mora	ngan Kaufman.
2.	Pitkin, C	G. M. (ED.) (1996). The National electronic library: A guide to the futu	re for library
	manager	s. London: Greenwood Press.	
3.	Tedd, L	A., & Large, A. (2005). Digital libraries: Principles and practice in a g	lobal environment.
	Munche	n, Germany: K.G. Saur.	
4.	Cornish,	G.P. (1990). Copyright interpreting the law for libraraies and archives	s. London: Library
	associati	ons.	
5.	Dahl, M	.V., Banarjee, k., & Spalti. M. (2006). Digital libraries: Integrating con	ntents and systems.
6.	Fenner,	A. (Ed.). (2005). Managing digital resources in libraries. New YORK:	Haworth.
Re	elated Or	line Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1.	www.in	flibnet.ac.in Epg pathsala	

Mappin	Mapping with Programme Outcomes												
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10			
CO1	S	S	S	S	S	M	L	S	M	M			
CO2	S	M	S	M	S	M	S	S	M	S			
CO3	S	S	L	M	S	S	M	S	S	M			
CO4	S	S	M	L	S	S	S	M	M	M			
CO5	M	S	S	S	M	L	S	S	S	S			

^{*}S-Strong; M-Medium; L-Low

Course code	P23LS2:B	KNOWLEDGE MANAGEMENT	L	T	P	C
Core/Elective/	Supportive	ELECTIVE IV	-	-	-	3
Pre-requisite		Management of Knowledge may learn to				
1 re-requisite	,	Knowledge Management				
Course Object	tives: At the end	of completing this course, students will have k	nowled	dge or	1	
Knowledge Ma						
The main object	ctives of this cour	se are to:				
1. Helps stud	ents to codify and	organize knowledge				
2. Assist in lea	arning knowledge	transfer and sharing				
3. Make stude	ents to understand	to tools for knowledge management				
	rse Outcomes:					
	1	f the course, student will be able to:				
		Knowledge Management concepts			K	1
2 Students	can understand th	e knowledge creation models			K	2
3 Students	can apply the kno	wledge mapping			K	3
		nowledge sharing			K	4
		valuate the legal and ethical issues			K	5
	•	and; K3 - Apply; K4 - Analyze; K5 - Evaluate	; K6 - (Create	2	
Unit:1	Intro	duction to Knowledge Management			14	hours
Knowledge M	anagement: Cond	cept and definitions - Need for Knowledge	Mana	geme	nt in	the
emerging and o	changing business	s environment – Understanding Knowledge; T	ypes o	f kno	wled	ge –
changing role of	of library and Info	rmation professionals.				
Unit:2		Creation and Capturing				hours
Knowledge cr	reation and captur	ing: knowledge creation model - capturing ta	cit Kno	wledg	ge.	
Unit:3	C	odification and Organization			14	hours
Knowledge co	dification and or	ganization: Knowledge base -knowledge ma	pping,	decis	ion t	rees,
decision tables.	, frames etc.					
Unit:4		Transfer and Sharing				hours
=	=	steps in knowledge transfer. Knowledge transf	er in E	– wor	ld, ro	ole
	Business / $E - co$					
Unit:5		Tools				hours
	•	ent- neural networks data mining - legal an	d ethic	al issi	ues i	n
Knowledge Ma	anagement	C. 4				\ 1
Unit:6		Contemporary Issues			U2	2 hours
_	Ex	pert Lectures, Online Seminars - Webinars			=-	
		Total Lecture hours			72	hours

Te	ext Book(s)
1	Ramesh Babu, B, Ed. (et al.) Knowledge Management: Today and Tomorrow- 2003.
2	Awad, E.M & G.H.M – Knowledge Management, 2004.
3	Shemon, Lee – Managing the Modern Document 2001.
Re	eference Books
1	Robert, W.S. – "Knowledge everywhere" Knowledge Management 2001.
2	Hayes – Roth, F. and Jacob stein, N- State of Knowledge based systems 1994.
Re	elated Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]
1	https://www.mooc-list.com/university-entity/hkpolyux
2	https://www.mooc-list.com/tags/public-library
3	https://www.mooc-list.com/tags/knowledge-management

Mappin	g with Pr	Mapping with Programme Outcomes												
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10				
CO1	S	S	S	S	S	M	S	S	S	S				
CO2	S	S	M	S	S	S	M	S	S	S				
CO3	S	S	M	S	S	S	M	S	M	S				
CO4	S	M	S	M	S	S	S	M	S	S				
CO5	M	S	S	S	L	S	M	S	S	L				

^{*}S-Strong; M-Medium; L-Low

Course co	de P23LS2E1	DIGITAL INFORMATION RESOURCES	L	T	P	C					
Core/Elec	tive/Supportive	NMEC I	-	-	-	2					
Pre-requ	isite	Student should know the basic concept of digital information resources			1 1						
Course Ol	ojectives:										
The main o	objectives of this co	ourse are to:									
1. Know	the nature of Digita	ll information Sources and Services									
2. Assist	to learn various Op	en Educational Resources and Union Catalogues									
3. Gain k	nowledge on Socia	l Networking Sites as well as Academic Social Net	worki	ng S	ites						
Expected	Course Outcomes	:									
On the su	ccessful completion	n of the course, student will be able to:									
1. Unde	erstand the concept	, features and types of Digital Information Resource	es		K	2					
2. Analyze the different kinds of digital information services like ePGPathshala, N-LIST.											
		urce of information available in digital format.			K	4					
4. Evalu	uate the scope, col	lections and coverage of NDLI			K	5					
	tes the awareness a l networking sites.	mong LIS students about the important and the imp	oacts (of	K	6					
K1 - Rem	ember; K2 - Unde	rstand; K3 - Apply; K4 - Analyze; K5 - Evaluate; 1	K6 - (Creat	e						
Unit:1	Intro	oduction to Digital Information Resources			07	hour					
Digital In and Web		es: Nature, Features and Types, Subject Gateways,	Subje	ect D	irecto	ories					
Unit:2		Digital Information Services			07	hour					
	Library and Informations, Coverage and Ac	rmation Services Infrastructure for Scholarly Cocess.	onten	it (N	-LIS	Γ):					
Unit:3		Open Educational Resources			07	hour					
•	wayamPrabha and OASIS and Open	Spoken Tutorials, Collections, Coverage and Acce Textbooks.	ess, O	ER							
Unit:4		NDLI & Union Catalogues			07	hour					
National	Digital Library of I	ndia (NDLI), INDcat, and WorldCat: -Collections,	Cove	rage	and						
Access. Unit:5 Networking Sites 07 h											

Web 2.0 and Library 2.0; Social Networking Sites: Blogs, WIKIS and Wikipedia, Academic Social Networking Sites: Research Gate, Academia.edu. Unit:6 **Contemporary Issues** 01 hours Expert lectures, online seminars - webinars **Total Lecture hours** 36 hours Text Book(s) Churchill, Daniel Digital Resources for Learning, 2017. ISBN - 9789811037757 Baker, David & Ellis, Lucy (Eds) Future Directions in Digital Information 2. Predictions, Practice, Participation. ISBN - 9780128221440 Shaw, Marie Keen Library Technology and Digital Resources, 2015. ISBN -3. 9781442256453 **Reference Books** Jeyapragash, B Academic Social Networking and Online Tools for Research, 2017. ISBN: 978-81-932961-5-8 Thanuskodi, S. Challenges and Opportunities of Open Educational Resources Management, 2020. 2. ISBN 0-9781799835615. Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.] https://www.mooc-list.com/tags/resources 1. 2. https://onlinecourses.nptel.ac.in/noc23_cs69 https://swayam.gov.in/about 3.

Mappir	Mapping with Programme Outcomes											
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10		
CO1	L	L	S	S	L	S	S	S	M	S		
CO2	L	M	S	L	Н	Н	S	M	S	L		
CO3	M	S	M	S	M	S	M	S	S	L		
CO4	M	M	S	L	M	S	L	L	S	M		
CO5	Н	Н	M	Н	Н	M	S	М	S	M		

^{*}S-Strong; M-Medium; L-Low

SEMESTER - III

Course code	P23LS305	INFORMATION RETRIEVAL SYSTEM	L	T	P	C
Core/Elective/S	upportive	Core V	-	-	-	5
Dro requisite		Must have basic knowledge on various				
Pre-requisite		subjects/sub class of the given subject				
Course Objectiv	ves: At the en	nd of completing this course, students will have basic	know	ledge	on	
Information stora						
The main objecti	ives of this co	urse are to:				
Provide know	wledge on Info	ormation Storage and Retrieval system.				
	tudents on mo	•				
3. To enable do	cuments retri	eval by using different search strategies.				
Retrieve doc	uments precis	ely by using different search strategies				
Expected Cours	e Outcomes:					
On the successf	ul completion	of the course, student will be able to:				
1 The Stu	dents will kno	ow the importance of IRS and the process of IRS		K	.1	
2 To unde	erstand the con	ncept of information storage &Retrieval		K	2	
3 To appl	y Illustrate in	formation retrieval models			K	3
4 To analy	yze information	on retrieval systems			K	4
5 To com	pare and evalu	uate the database searching method			K	5
K1 - Remembe	r; K2 - Under	rstand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6	- Cre	ate		
Unit:1		Information Processing and Retrieval:		14	1 hou	ırs
Information Stoclassification –	_	rieval, Concepts, Definition and Types –Impact of v JDC	arious	sche	emes	of
Unit:2	Inc	dexing Languages and Vocabulary Control		14	4 hou	ırs
Indexing Langu	ages concept	s and Types –Thesaurus – Need – Steps in compilation	n Bi	ibliog	raph	ic
Control: UBC	- UAP					
Unit:3		Indexing Systems		1	4hou	ırs
Indexing System	ns Concepts,	Definition and Types –Pre Co-ordinate and Post Co-o	rdinat	e ind	exin	g –
PRECIS,- Cha	in Indexing -	- Uniterm Indexing – Title indexes : KWIC - KWC	C etc	:., — (Citati	ion
Indexing : Engi	neering Villag	ge, Proquest, SCOPUS, etc				
Unit:4		Search Strategies		14	4 hou	ırs
Search and Sear	rch Statement	s - Formulation of Search Strategies – Tools and Tech	hnique	es – F	Boole	an
Logic						
Unit:5		Evaluation of IRS				

Evaluation of Indexing Systems - Criteria for Evaluation of IRS – Recall – Precision – Specificity –

Unit	-6 Contemporary Issues	2hours							
	Expert Lectures, Online Seminars - Webinars	S							
	Total Lecture h	ours 72 hours							
Text	Book(s)								
1.	Information Storage and Retrieval by Robert R. Korfhage 1 January	ary 2006							
2.	Information Storage and Retrieval Systems: Theory and Implemen	ntation 2e							
	by Gerald J. Kowalski 1 January 2009								
3.	Introduction to Information Retrieval by Manning Christopher D. (Author), Raghavan								
	Prabhakar (Author), <u>Schütze Hinrich</u> (Author)								
Refe	rence Books								
1.	Atchison, Jean and Gilchrist, Alan. Thesaurus Construction: A Pra	ctical Manual, London:							
	ASLIB. 1972								
2.	Chowdhry, G. G. Introduction to Modern Information Retrieval. 2	nd ed. London: Facet, 2003							
3.	Foskett, A.C. The Subject Approach to Information. 4th Ed. London	on: Clive Bingley, 982							
4.	Lancaster, F. W. Information Retrieval Systems: Characteristics, 7 Ed., 197	Sesting and Evaluation. 2nd							
5.	Ranganathan, S. R. Prolegomena to Library Classification. Vol. 1.	Bangalore: SRELS, 1967.							
6.	Salton, G. Automatic Information Organization and Retrieval, 190	58.							
7.	Stokes, Adrian. Concise Encyclopedia of Information Technology	. 3rd Ed. Hants Wild Wood,							
	198								
Rela	ted Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.								
1.	http://epgp.inflibnet.ac.in/Home/ViewSubject?catid=21								
2.	https://www.tutorialspoint.com/public_library_management/public_librar	lic_library_management_kn							
	owledge_organization.htm								
3.	https://www.youtube.com/watch?v=ttFJZgNdryQ								

Mapping	Mapping with Programme Outcomes												
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10			
CO1	S	S	S	S	M	M	MM	M	M	M			
CO2	S	S	S	S	M	M	M	M	L	L			
CO3	S	S	S	S	S	S	M	M	L	L			
CO4	S	S	S	S	S	S	S	S	S	S			
CO5	S	S	S	S	S	S	S	S	S	S			

^{*}S-Strong; M-Medium; L-Low

Course code	P23LS306	RESEARCH METHODS	L	T	P	C
Core/Elective/S	upportive	Core VI	-	-	-	5
Pre-requisite		Students should know the basic knowledge of research				

Course Objectives:

- 1. To develop a research orientation among the students and acquaint them with fundamentals of research methods.
- 2. The course aims at introducing them to the basic concepts used in research and to scientific social research methods and their approach.
- 3. It includes discussions on sampling techniques, research design, techniques of analysis, research report writing methods and teaches how to write a research proposal.

Expected Course Outcomes:

On the successful completion of the course, student will be able to:

1.	Remember the basic concept of the research	K1
2.	Gain knowledge of the research process	K2
3.	Apply suitable research methods & techniques to solve library management problems and issues	К3
4.	Develop necessary critical thinking skills in order to evaluate different research approaches utilized in the library services	K4
5.	Demonstrate knowledge and understanding of data analysis and interpretation in relation to the research process.	K5

K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create

Unit:1	Basics of Research	14 hours
		l I

Research Meaning, Fundamental of Research Concept, Types and Significance – Research Problem – Identification, Selection and Formulation – Literature Review – Sources, Process, and Limitations – Logic and Scientific Method.

Unit:2 Research Design 14 hours

Definition, Need, Types and Components – Hypothesis – Definition, Formulation, Types and Testing – Sampling – Concept and Need of study population and Sampling, Types of Sampling Techniques – Probability and Non- Probability, Derivation of Sample, Sample Bias and Error – Preparation of a Research Proposal – Components and Steps.

Unit:3 Research Methods 14 hours

Survey, Experimental, Case-study, Historical, and Scientific – Sources of Data – Primary, Secondary, and Tertiary – Data Collection Tools - Questionnaire, Interview, Observation, Delphi – Measures and Scaling Techniques.

Unit:	4	Tools for Research	14 hours
Need a	nd Import	ance, Descriptive and Inferential Statistics – Measures of Central	Tendency – Standard
Deviati	on - T-T	Test, Chi-Square, ANOVA, Correlation Analysis – Introduction	on to SPSS and its
applica	tions.		
Unit:	5	Presentation and Reporting	14 hours
Present	ation of	Data-Tables, Charts and Figures- Interpretation, Inferences-Dedu	uctive and Inductive-
Report	Writing- 0	Components and Evaluation of a Research Report-Style Manuals-	Chicago, MLA, APA
- Intro	duction to	Reference Manager - Ethics in Research and Publication. To	rends in Library and
Informa	ation Scie	nce Research-Metric Studies in LIS.	
Unit:	6	Contemporary Issues	02 hours
		Expert Lectures, Online Seminars - Webinars	
		Total Lecture hours	72 hours
Text l	Book(s)		
1.	Goode, V	W.J & Hatt, P.K (1989). Method of Social Research. McGraw Hill	l. Auckland.
2.	Krishna	Kumar (1992).Research methods in library in social science. Vika	as, New Delhi.
3.	Charles,	H. et.al (1993). Research Methods in Librarianship: Techniques of	and Interpretations.
	New Del	hi, Sage.	
Refer	ence Boo	ks	
1.	Auger (1	961).Current trends in scientific research. UNESCO, Paris.	
2.	Bundy.M	I.L & Wasserman.P (1970). Reader in research methods in librar	ianship; techniques
	and inter	pretation: academic, New York.	
3.	Busha, C	Charles, H. and Harter, Stephen, S (1980). Research Methods in Li	brarianship.
4.		R.B & Down, E (1966). How to do library research. University of	Illinois Press,
	Urbana.		
5.	•	I.H (1990). An introduction to research procedure in social science	<u>*</u>
6.	•	Paul, D. and Ormrod Jeanne Ellis (2016). Practical research:	planning and design,
_		ty of northern, Colorado	
7.		Margaret (1990). Research, methods in library and information science.	· · · · · · · · · · · · · · · · · · ·
8.		M.F and Stephens, I.R (1968). <i>Library surveys</i> . Columbia Univers	sity Press, New York.
Relate	ed Online	e Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1.	https://d	onlinecourses.swayam2.ac.in/cec20_mg14/preview	

	Mapping with Programme Outcomes												
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1 0			
CO1	S	S	M	M	M	M	M	M	L	L			
CO2	S	S	S	S	S	S	S	S	M	M			
CO3	S	S	S	S	S	S	M	M	M	S			
CO4	S	S	S	S	M	M	S	S	S	S			
CO5	S	S	S	S	S	S	S	S	S	S			

^{*}S-Strong; M-Medium; L-Low

Course Code	P23LS3P3	LIBRARY AUTOMATION PRACTICE	L	T	P	C					
Core/Electiv	ve/Supportive	Core Practice III	-	-							
Pre-requisite		Students should know basic of			<u> </u> _						
1 re-requisite		computer and typing skills									
Course Object	tives:		II.								
1. To enable s	tudents to gain ha	ands on experience using library automatio	n softwa	re pac	kages.						
•	•	ase using any software packages available		arket							
		al collections and management systems in l	ibrary.								
Expected Cour											
	-	f the course, student will be able to:									
1. Remen	mber various libra	ary computerized services			K	.1					
2. Under	stand the basics of	of KOHA Software.			K	4					
3. Disco	ver the functions	of KOHA Library Automation Software.			K	4					
4. Disco	ver the functions	of NewGenLib Library Automation Softwa	are.		K	.6					
5. Apply	the modules in	Automation, Acquisition, Cataloguing and	Circulat	tion	K	6					
	NewGenLib Soft	_									
K1 - Rememb	er; K2 - Underst	and; K3 - Apply; K4 - Analyze; K5 - Evalu	uate; K6	- Crea	ite						
Unit:1		Koha			35	hours					
Installation - A	dministration - A	cquisition – Cataloguing -Patrons – Circula	ation – S	Serial C	Controls-						
Report Generat											
Unit:2		NewGenLib			35	hours					
		cquisition – Cataloguing -Patrons – Circul	ation – S	Serial C	Controls						
Report Generat	.10n										
Unit		Contemporary Issues			02	2hours					
Expert lecture	s, online seminar	s - webinars									
		Total Lecture	hours		72	hours					
Text Book(s)											
	ta and Savitra Si 81849510820	rohi (2010) Koha 3 Library Management S	System,	Packt	Publish	ing,					
		Managing library automation. 2nd ed. Long	don:								
Reference Bo	ooks										

1.	Mishra, Vinod Kumar (2016). Basics of library automation, Koha library management software and data migration: Challenges with case studies. New Delhi: EssEss Publications.
2.	Theresabala, T, Ratnakumari, C & Rani, B.A, (2001) <i>Information technology, and library automation</i> , Common wealth Publishers pvt. Ltd
3.	Poliwali, R.S, (2001) <i>Information resources for library and information technology</i> , Navug Books International.
4.	Anil Dhiman, K & Yashodarani, (2014) <i>Leran information and reference sources and services</i> , ESS ESS Publications.
Re	lated Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]
1.	www.inflibnet.ac.in Epg pathsala
2.	http://debian.koha-community.org/koha

Mappi	Mapping with Programme Outcomes											
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1 0		
CO 1	S	S	M	M	M	M	M	M	L	L		
CO 2	S	S	S	S	S	S	S	S	M	M		
CO 3	S	S	S	S	S	S	M	M	M	S		
CO 4	S	S	S	S	M	M	S	S	S	S		
CO 5	S	S	S	S	S	S	S	S	S	S		

^{*}S-Strong; M-Medium; L-Low

Course Code	P23LS3P4	DIGITAL LIBRARY PRACTICE	L	T	P	C
Core/Elec	tive/Supportive	Core Practice IV	-	-	-	5
Duo magnisita		Students should know basic of				
Pre-requisite	;	computer and typing skills				
Course Objec	tives:				·L	
1. To	enable students to g	ain hands on experience using digital library	softwa	re pac	kages	
		database using any digital library software p	oackages	s avail	lable i	n the
	rket	dicital callestians and many assert assets	: 1:1 ₋₁₁			
	rse Outcomes:	digital collections and management systems	in iibra	ry.		
		the course, student will be able to:				
		the course, student will be able to.			TZ 4	
1 Un	derstand the basics of	of open source digital librarysoftware.			K4	
	•	library software to develop the digital libra	ry		K4	
	lection.		- DC		W.C	
		op communities and sub-communities usin	g DSpa	ce	K6	
		pository using E-Prints			K5	
5 De	velop Digital Librar	y Collection using Wordpress			K6	
K1 - Remem	per; K2 - Understand	d; K3 - Apply; K4 - Analyze; K5 - Evaluate	; K6 - (Create	;	
Unit:1	I	OSpace: Digital Library Software			17 ho	urs
	Digital	Library Collection-Collection Building				
Unit:2	F	EPrints: Digital Library Software			17 hours	
	Digital	l Library Collection-Collection Building				
Unity 3		Word Press			17 ho	urs
We	b content manageme	ent – Creating websites – library collection i	manager	ment		
Unit 4		Drupal - CMS			17 ho	urs
We	b content manageme	ent – Creating websites – library collection i	manager	ment		
		Contemporary Issues			02ho	urs
Unit 5		. 1 . 1' ' 1'				
Unit 5	Expe	ert lectures, online seminars - webinars				
Unit 5	Ехре	Total Lecture h	ours		72 ho	urs

2	Gopal, K. (2000). Digital libraries in electronic information era
Refe	rence Books
1	Lesk, M. (1996). Understanding digital libraries (2 nd ed.). San Francisco: Moragan Kaufman.
2	Pitkin, G. M. (ED.) (1996). The National electronic library: A guide to the future for library managers. London: Greenwood Press.
3	Cornish, G.P. (1990). Copyright interpreting the law for libraraies and archives. London: Library associations.
4	Dahl, M.V., Banarjee, k., & Spalti. M. (2006). Digital libraries: Integrating contents and systems.
Relat	ted Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]
1.	www.inflibnet.ac.in Epg pathsala
2.	https://www.tutorialspoint.com/drupal/index.htm
3.	WWW.dspace.org
4.	https://www.eprints.org
5.	https://www.tutorialspoint.com/wordpress/index.htm

Mappii	Mapping with Programme Outcomes											
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1 0		
CO1	S	S	M	M	M	M	M	M	L	L		
CO2	S	S	S	S	S	S	S	S	M	M		
CO3	S	S	S	S	S	S	М	M	M	S		
CO4	S	S	S	S	M	M	S	S	S	S		
CO5	S	S	S	S	S	S	S	S	S	S		

^{*}S-Strong; M-Medium; L-Low

Cour	se code	P23LS3:A	MARKETING OF INFORMATION PRODUCTS AND SERVICES	L	Т	P	C
Core	/Elective/	Supportive	ELECTIVE V	-	-	-	3
Dro	-requisite		Students should know basic of marketing				
	_		of information products and services.				
Cour	se Object	tives: At the end	of completing this course, students will have kn	owled	lge o	n	
		nformation produc					
	=	ctives of this cour					
•	-		us information products.				
			nformation services.				
		need for marketin	g of information.				
_		rse Outcomes:					
On t	the succes	sful completion of	of the course, student will be able to:				
1	Student c	an understand the	e marketing of information.			K	1
2	Students	can understand th	ne marketing model and matrix			K	2
3	Students	can apply the ma	rketing mix			K	.3
4	Students	can understand th	ne marketing plan & research			K4	
5	Students	can understand t	he information industry			K	.5
K1 -	- Rememb	er; K2 - Underst	and; K3 - Apply; K4 - Analyze; K5 - Evaluate;	K6 - (Creat	e	
Unit	t:1		Marketing of Information			14	hours
Info	rmation a	as a Resource: E	conomics of Information; Marketing concepts	- Co	rpora	te M	ission;
Mar	keting Str	ategies					
Unit	t:2]	Marketing Model and Matrix			14	hours
Port	folio Mai	nagement BCG I	Matrix Model; Product Market Matrix; Product	et Life	Cy	cle, l	Pricing
Mod	dels. ANS	OFF Matrix SWO	OT Analysis, bran Management and Advertising				
Uni	t:3		Marketing Mix			14	hours
Mea	ining need	l, purpose and typ	bes of marketing Mix; Kotlers Four "Cs"; McCa	arthy's	Fou	r "Ps	,,
Rece	ent trends	on marketing mix	x, Break even analysis				
Unit	t:4	N	Marketing Plan & Research			14	hours
Mark	eting Plan	n & Research: C	orporate Identity, marketing plan: Marketing l	Resear	ch. I	Mark	et
_			Geographic and Demographic Segmentation;	Beha	viora	al an	ıd
Psych	nographic	s Segmentation; U	Jser Behavior and Adoption				
Unit			Information Industry				hours
		=	ng of information Product & Services. E-M	_		cepts	}
		fication and issue	es. Implementing and evaluating programs in Ma	arketir	ıg.		
Unit	t:6		Contemporary Issues			02	hours
		Ex	pert Lectures, Online Seminars - Webinars				
			Total Lecture hours		_	72	hours
l							

Te	ext Book(s)								
1	Anderson, A.R. Advancing library marketing. Journal of Library Administration. 1(3), 1980,								
	pp. 17 32.								
2	Bellardo, T. and Waldhart, T J. Marketing products and services in academic libraries, Libri.								
	27(3), 1977. pp. 181 194								
3	Berry J. The test of the marketplace. Library Journal. 104. Sept. 1979. pp. 1605.								
Re	Reference Books								
1	Anderson, W. T. Jr., Bentley, C. C. and Sharpe, L K IV. Multi-dimensional marketing:								
	Managerial, societal, and philosophical. Austin TX: Austin Press 1976.								
2	Dragon, A C. Marketing the library. Wilson library bulletin. 53, 1979, pp. 498 500.								
3	Eisner, J, ed. Beyond PR: Marketing for libraries. A Library Journal Special Report, 1981.								
Re	elated Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]								
1	https://idl-bnc-idrc.dspacedirect.org/								
2	https://www.researchgate.net/								
3	http://www.lisbdnetwork.com/								

Mappin	Mapping with Programme Outcomes												
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10			
CO1	M	S	S	S	S	M	S	M	M	S			
CO2	S	M	M	M	M	S	M	S	M	M			
CO3	S	S	M	S	S	S	M	M	M	S			
CO4	S	M	S	M	S	S	S	M	S	S			
CO5	M	S	S	S	L	S	M	S	M	M			

^{*}S-Strong; M-Medium; L-Low

Course code	P23LS3E2	TECHNICAL WRITING	L	Т	P	C					
Core/Elective/Supportive NM Pre-requisite Course Objectives: At the end of country and Information Source The main objectives of this course are		NMEC II	-	-	-	2					
Pre-requisite	:	Knowledge of writing, editing and presentation			1						
Course Objec	tives: At the end	of completing this course, students will have known	owled	lge or	ı tecl	nnical					
writing on Libi	ary and Informati	ion Science.									
The main object	ctives of this cour	se are to:									
1. To equip to	he learner with the	e knowledge of technical documents and reports									
2. To enhance ability of writing, editing and presentation of research proposals and reports											
Expected Course Outcomes:											
On the successful completion of the course, student will be able to:											
1 To know	the need, purpose	e, nature of audience of technical commendation			K	1					
2 To under	stand various type	es of technical documents and pre-writing and ec	liting		K	2					
methods											
		formats in preparing testing the technical docur	nents		K	K3					
4 To build	build the ability of preparing proposals and correspondence										
		anuals and draft the methods of writing proposals			K	5					
K1 - Rememb	per; K2 - Understa	and; K3 - Apply; K4 - Analyze; K5 - Evaluate; I	X6 - (Create	e						
Unit:1		Technical Communication			14	hours					
Definition, p	ourpose, charact	eristics-Audience-Centered communication,	Des	cripti	on	and					
	-	communication, Description and importance-In	mplic	it and	l exp	olicit					
rules of commi	unication.										
Unit:2		Technical Documents				hours					
• •		ts-Prewriting: Determining purpose, Analyzi	-								
_		nications, writing tone and voice, word choi		_	-						
		visual design-Editing: corrections, proof readers	and	revis	ion						
techniques-Ro	1					_					
Unit:3		ements of Technical Documents				hours					
_		ract, definition, description, conclusion, glossar	y, Us	abilit	y tes	ting-					
-	ruiting, Roles of to	esting, Test planning.				_					
Unit:4	1.6.15	Technical Reports	1			hours					
Types in informal, formal-Business reports and proposals-Business correspondence-Technical resumes and letters.											
resumes and ic						1					
Unit:5		Technical Instructions			14	hours					
Unit:5	hods- Methods of	writing proposals.			14	hours					
Unit:5	nods- Methods of					2 hours					

		Total Lecture hours	72 hours							
Te	ext Book(s)									
1	Sajitha Jay	aprakesh, Technical writing: Management Perspective								
2	Raj Mohan	Joshi, Writing skills for Technical Purposes, Isha Book, Delh	i, 2006							
3	Seetharama	an S, Guidelines for Technical Writing for Librarians & Information	rmation Professionals, Ess							
	Ess, New I	Delhi, 2015								
4	Daniel G. I	Daniel G. Riordan and Steven E Pauley, Technical Report writing Today, Biztantra, New Delhi, 2004								
5	Sharon J G	Sharon J Gerson and Steven M. Gerson, Technical Writing, Pearson Education, New Delhi, 2009.								
Re	eference Bo	oks								
1	Michael H	Markel and Mike Markel, Technical Communication, Ill.E	d. St Martins Publisher,							
	Bedford, 2	2012								
2	Meenakshi	Raman and Sangeetha Sharma, Technical Communication: Pr	rinciples and Practice, 3 rd							
	ED, Oxfor	d University Press, London, 2015								
Re	elated Onlir	ne Contents [MOOC, SWAYAM, NPTEL, Websites etc.]								
1	http://wri	tingassist.com								
2	http://site	.lugaza.edu.ps								
4	http://bato	chlibretestes.org								

Mappin	Mapping with Programme Outcomes												
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10			
CO1	S	S	S	S	S	M	S	S	S	S			
CO2	S	S	S	S	M	S	S	S	S	M			
CO3	S	S	S	S	S	S	M	L	S	S			
CO4	S	M	M	S	S	S	S	S	S	S			
CO5	S	S	L	S	S	S	S	M	S	S			

^{*}S-Strong; M-Medium; L-Low

Course code	P23LS3I1	INTERNSHIP AND FIELD WORK	L	T	P	C
Core/Elective/	Supportive		-	-	-	2
Pre-requisite	:					

Course Objectives:

During the internship program, the student shall have to:

- 1. Work in a practical environment and to get hands on experience in handling online databases, handling library management software, practical work related to the library resources and services.
- 2. Procurement of Library Materials-purchase policy (Book and periodicals both print and online)
- 3. Process of subscription of journal and periodical both manual & online.
- 4. Processing of Library Materials
- 5. Shelving and Circulation Policy
- 6. Communication Knowledge
- 7. Knowledge Expansion

Expected Course Outcomes:

At the end of the internship, the student should be able to:

- 1. Acquire complete professional skills-set matching the expectations of the employer and Gained professional confidence with a high level knowledge and skills set in managing a library
- 2. To obtain the knowledge about precise enunciation of user needs, information retrieval with recall and precision document delivery, user study reports, user education programming and service delivery and statistical report generation.
- 3. Attain the knowledge of library budget preparation and presentation for both traditional and digital environment
- 4. Attain the knowledge of the library technical processing works; render effective information services with traditional and digital environment
- 5. Developing professional excellence on supervising and controlling digital library division management, material management, staff management, and overall safety and security management
- 6. Equip sufficient knowledge about internet resources, information harvesting, compilation of online bibliographies and maintenance of Public Relations.
- 7. Acquire the knowledge of creating academic or industrial libraries including institutional repository.

		1
	Total Lecture hours	72 hrs.

Mappin	g with Pr	ogramme	Outcom	es						
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	M	M	M	M	M	M	L	L
CO2	S	S	S	S	S	S	S	S	M	M
CO3	S	S	S	S	S	S	M	M	M	S
CO4	S	S	S	S	M	M	S	S	S	S
CO5	S	S	S	S	S	S	S	S	S	S

^{*}S-Strong; M-Medium; L-Low

SEMESTER - IV

Cour	se code	P23LS407	INFORMETRICS	L	P	C	
Core	/Elective/	Supportive	Core VI	-	-	-	5
			Students will be required to understand and		l		<u> </u>
Pre-r	equisite		apply basic concepts of descriptive and				
			inferential statistics.				
	se Object uring tech		completing this course, students will have kno	wledge (on lite	ratur	e
The n	nain objec	ctives of this course	are to:				
to pre	epare stude	ents for professiona	l practice in the design, application, and evalua	tion of			
(a) Ev	valuative s	studies of scholarly	productivity and popularity,				
(b) Li	ink-based	information retriev	al systems and library services, and				
(c) D	escriptive	and predictive stud	ies of disciplinary structure.				
Expe	cted Cou	rse Outcomes:					
On th	e successi	ful completion of th	ne course, student will be able to:				
1.	Make co	onfident and succes	sful use, in the generation, analysis, and presen	tation of	,	K	1
	bibliom	etric data, of a wide	e range of tools, standards, and techniques				
2.			ate to others, the needs and preferences of infor			K.	2
	seekers,		ers, information systems designers, and research	h			
3.	Particip	ate actively in cont	emporary debates about bibliometric theory and	l practice) .	K.	3
4.	critical a	analyses of the effic	ciency and effectiveness of citation databases			K	4
5.	Conduc	t critical evaluation	s of the impact and influence of documents, aut	thors,		K	5
	journals	, and fields					
K1 -	Rememb	er; K2 - Understan	d; K3 - Apply; K4 - Analyze; K5 - Evaluate; K	6 - Crea	te	•	
Unit:	1		Metrics Evaluation		14	hou	rs
	metrics, C		 Classifications, Librametry, Bibliometrics, Sometrics, Wikimetrics, Open source metrics, Journal 			nd A	lt
Unit:	2		Growth of Literature		14	hou	rs
Grow	th of Lite	erature – Informatio	n Explosion/Publication Explosion				

Unit:3		Metric Laws	14 hours
Biblion	netrics I	Laws – Bradford, Zipf, Lotka, Price, Circulation Theory	
Unit:4		Citation Analysis	14 hours
	•	sis – Forms of citation – Self Citation, Bibliographic coupling, Co-Citation	on, Journal
Citation	n Repor	t.	
Unit:5		Indicators.	14 hours
-		d qualitative indicators. Hi-Index, G-Index, Cited-Half life, citing half life	fe.
i10inde	x, i20in	dex science indicators, web impact assessment link analysis.	
Unit:6		Contemporary Issues	02 hours
Expert	lectures	, online seminars - webinars	
		Total Lecture hours	72 hours
Text l	Book(s)		
1.		r Co-citation Analysis: Quantitative Methods for Mapping the Internationadenic Discipline, 2008	nal Structure of
2.		ellis, Nicola. 2009. Bibliometrics and citation analysis: From the Science ermetrics. Lanham, MD: Scarecrow Press.	Citation Index
3.	Biblio	metrics: New Dimensions and Latest Trend, Srivastava R, Alfa Publicat	ions 2011.
Refer	ence Bo	ooks	
1.		mentric and Citation Analysis from the Science Citation Index to Cybern	
2.		uring Academic Research: How to Undertake a Bibliomentric Study – 20	09, Ana
		s, Chendos Publishing	
Relate	ed Onli	ne Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	

Mapping	Mapping with Programme Outcomes												
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10			
CO1	S	S	S	S	L	S	M	S	S	M			
CO2	S	S	M	M	S	M	S	S	M	S			
CO3	M	M	S	S	S	S	M	L	M	M			
CO4	M	M	L	S	M	S	S	M	S	M			
CO5	S	S	M	M	S	M	S	S	S	L			

^{*}S-Strong; M-Medium; L-Low

Course code	P23LS408	CORPORATE LIBRARIES AND INFORMATION SYSTEMS	L	Т	P	С		
Core/Elective	e/Supportive	Core VII	-	-	-	5		
Pre-requisit	te	Knowledge of different types of libraries and their functions						
		f completing this course, students will have known develop skill set for managing the corporate li	-		l			
The main obj	ectives of this course	are to:						
1. Under	stand the nature and	functions of Corporate Libraries						
		ucts, services of Corporate Librarians						
3. Apply	the skills for efficie	nt functions of Corporate Libraries						
	urse Outcomes:							
		the course, student will be able to:			K			
•	Explain the concept, nature, structures and functions of corporate library							
2 Disting	guish different type o	of information products and sources.			K	2		
3 Determ	nine the essential ski	lls required to the knowledge managers.			K	5		
4 Summ		nputerized information services offered to the co	orpora	ite	K	6		
5 Develo	p the tools for e-gov	rernance, e-learning tools and e-metrics.			K	4		
K1 - Remen	nber; K2 - Understan	ıd; K3 - Apply; K4 - Analyze; K5 - Evaluate; K	6 - C	reate				
Unit:1		Corporate library			14	hours		
Learning re		Nature and Functions of corporate Libraries and orporate Libraries and types of users and the nalysis.						
Unit:2		Collection Development			14	hours		
Collection D	evelopment: Object	ives and Purpose. Advantages of collection	develo	pme	nt pl	anning,		
Implementati	on and evaluation.	Book selection principles and policies, Prod	cedure	es an	d pro	oblems.		
	earching and access.	Use of various search techniques						
Unit:3		Skills Sets			14hours			
Team Buildin	ng, Leadership Skills	s, Problem Solving, Project Management, Stro	ess M	anag	emen	t, Time		
	Presentation, Negoti	ation, and Marketing Skills.						
Unit:4		Information Services and Products			14	hours		
Abstracting	and Indexing: SDI	, CAS, Mail Alerting, Electronic Bulletin	n Bo	ard;	Info	rmation		

Condensation and Consolidation; Computerised Information Services: Mail Alerting and Web Archives, Innovative Library Services, and CSR Activities. Unit:5 **Corporate Communications** 14 hours Corporate communications systems and tools-newsletter. Bulletins, preparing for organizing events, Social talks, Conference, News briefs, Press releases, Editing, Reporting. Knowledge management in corporate Libraries. Unit-6 **Contemporary Issues** 2hours Expert Lectures, Online Seminars - Webinars **Total Lecture hours** 72 hours **Reference books:** Anil Kumar Dhiman (2008). A Handbook of Special Libraries, Ess Ess Publication Baby M.D. (2000). Changing Trends in Library and Information science. 2. **Ess Ess Publication** Bailey Russell, D.(2012). Transforming Library service through Information Commons. 3. Indiana Publishing House. Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.] https://epgp.inflibnet.ac.in/ahl.php?csrno=21 1. 2. https://youtu.be/Wqapgxxo09M 3. https://youtu.be/vZapCv4t Xg

Mappin	Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	
CO1	S	S	S	M	S	S	S	S	S	S	
CO2	S	M	S	S	S	S	S	S	S	S	
CO3	M	S	S	L	S	S	S	L	L	S	
CO4	S	S	M	S	S	M	S	S	S	S	
CO5	S	S	S	S	S	S	S	L	S	S	

^{*}S-Strong; M-Medium; L-Low

Course code	P23LS4PJ	PROJECT WITH VIVA – VOCE	L	T	P	C
Core/Elective	/Supportive		-	-	-	7
Duo no avrigita		Knowledge of Research Methods and		и.		l.
Pre-requisite	2	Techniques				
Course Object	tives: At the end	d of completing this course, students will h	ave kn	owled	ge on t	he
application of	research method	s and techniques in library and information	scienc	ee		
The main obje	ctives of this cou	rse are to:				
1.To develop	the skills on rese	earch methods with field experience				
•		litative measures to evaluate the research o	uit com	ne		
	•		ut COII	iC		
3.To evaluate	the libraries ser	vices, staff and users through surveys				
Expected Cou	rse Outcomes:					
On the succes	ssful completion	of the course, student will be able to:				
1 To know	the ways and m	eans of selecting research topics				K1
2 To under	rstand the method	ds and techniques to adopted for library sci	ience re	esearcl	1	K2
3 To apply	statistical tools	for analysis the data				K3
4 To discu	ss the research o	utcome through analysis and interpretation	l			K4
5 To create	e research reports	s in standard format				
K1 - Remem	ber; K2 - Unders	tand; K3 - Apply; K4 - Analyze; K5 - Eva	luate;	K6 - C	reate	
	PROJECT A	ND COMPREHENSIVE VIVA – VOCE -	- 100			
		MARKS				
		Total Lecture 1	hours			72 h

Mappin	Mapping with Programme Outcomes											
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10		
CO1	S	S	M	M	M	M	M	M	L	L		
CO2	S	S	S	S	S	S	S	S	M	M		
CO3	S	S	S	S	S	S	M	M	M	S		
CO4	S	S	S	S	M	M	S	S	S	S		
CO5	S	S	S	S	S	S	S	S	S	S		

^{*}S-Strong; M-Medium; L-Low

Course code	P23LS4:A	WEB TECHNOLOGY	L	T	P	C	
Core/Elective/	Supportive	Elective VI	-	-	-	3	
Dro roquisito		Students should know basic of web					
Pre-requisite		technology.					
Course Object	tives: At the end	of completing this course, students will hav	e knowled	dge or	ı wel)	
technology							
The main object	ctives of this cour	se are to:					
1. Explain the	evolution of Interi	net and Web					
2. Discuss the f	functions and feat	ures of the Web browsers and Search Engin	es				
3. Differentiate	the Websites bas	ed on the way they function and categorize	them base	ed on	the c	ontent	
and the client is	t caters to.						
Expected Cou	rse Outcomes:						
On the succes	sful completion o	f the course, student will be able to:					
1 Student c	an understand the	web technology.			K	1	
2 Students	can understand th			K	2		
3 Students	3 Students can understand the mark-up languages and scripting languages						
4 Students	4 Students can understand the websites tools and techniques						
5 Students	can understand tl	ne different types search engines			K	5	
K1 - Rememb	oer; K2 - Understa	and; K3 - Apply; K4 - Analyze; K5 - Evalua	ate; K6 - 0	Create	;		
Unit:1	V	Veb Technology – An Overview			14	hours	
Web Servers,	Web Clients – Dis	stributed Information System and Services –	Web 2.0,	Lib 2.	.0, Se	emantic	
Web, Cloud C	Computing. Use of	f Web Server (e.g., Microsoft IIS, Apache V	Veb Serve	er).			
Unit:2		Web Browsers and Services		14 hours			
History, Func	tion, Features of E	Browsers (IE, Firefox, Chrome); Command I	Line Brow	ser (e	.g., (CURL);	
Browser Deve	eloper Tool (e.g.,	Chrome).					
Unit:3	Mark-up	Languages and Scripting Languages			14	hours	
Functions & I	Features of HTML	, XML, DHTML, XHTML, CSS, JavaScrip	ot, CGI, P	HP, P	erl, l	Python	
or other script	ing languages						
Unit:4		Websites			14	hours	
Tools and Tec	hniques; Types o	f Websites, Web contents, Static web con	tents, Dyi	namic	We	b	
Contents – M	ySQL, PostgreSo	QL. MVC (Model, View, Control) archi	itecture; 1	Inforn	natio	n	
Architecture.							
Unit:5		Search Engines			14	hours	
Types, Feature	es, Functions, Ev	valuation - Search Algorithms - Security	Issues -	– Dat	abas	e	
Connectivity. (Open Source Searce	ch Engines (e.g., Lucence).					
Unit:6		Contemporary Issues			02	2 hours	
	Ex	pert Lectures, Online Seminars - Webinars					

	Total Lecture hours 72 hours							
Te	Book(s)							
1	Oash, N. K., Mishra, S., Senthilnathan, S., and Misra, P. K. (2018). Block 1: Communication							
	Pechnology: Basics.							
2	Godbole , Achyut (2003). Web Technologies: TCP/IP to Internet Application Architectures. New							
	Delhi: Tata McGraw-Hill Education							
3	Kavanagh, M. J., and Johnson, R. D. (Eds.). (2017). Human resource information systems: Basics,							
	pplications, and future directions. Sage Publications.							
Re	rence Books							
1	Kumar, R. (2017). Application of Cloud Compouting Technology in Libraries.							
2	edley, Paul (2001). The invisible Web: Searching the hidden parts of the Internet. London: Aslib-							
	MI.							
3	Vhite, C. M. (2016). Social media, crisis communication, and emergency management: Leveraging							
	Veb 2.0 technologies. CRC press.							
Re	ted Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]							
1	https://developer.mozilla.org/							
2	https://www.coursera.org/							
3	http://www.freebookcentre.net/							

Mappin	Mapping with Programme Outcomes											
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10		
CO1	S	S	M	M	M	M	M	M	L	L		
CO2	S	S	S	S	S	S	S	S	M	M		
CO3	S	S	S	M	S	S	S	M	L	S		
CO4	S	S	S	S	S	S	S	S	S	S		
CO5	S	S	S	S	S	S	S	S	S	S		

^{*}S-Strong; M-Medium; L-Low

Course code	P23LS4S1	SOFT SKILLS FOR LIBRARY PROFESSIONALS	L	Т	P	C		
Core/Elective/	Supportive	SEC	-	•	- 2			
Pre-requisite		Acquired knowledge on time saving techniques and developing overall Professional personality.						
Course Object	tives:							

The main objectives of this course are to:

- 1.Help the Students comprehend the various facets of soft skills and different types of communication as a means to develop their professional personality
- 2. Help the students develop Leadership qualities, Motivation and Professional efficiency.
- 3.Help the students to develop their reporting and presentation skills
- 4. Help the students to understand facets related to work culture and Time Management skill, Reading and Writing skills.

Expected Course Outcomes:

On the successful	completion of	the course,	student w	vill be	able to:
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	ı '	
1	Acquired knowledge on the basics of verbal and written communication.	K1
2	Understood the components of Visual and Tele communication.	K2
3	Develop Skills to use digital gadgets and internet communication	К3
4	To analysis the applicability of various skills in library and information centers	K4
5	Create a model of soft skills required for the best practices in libraries and information	K5
	centers	

K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create

Unit:1 Soft Skills 14 hours

Soft Skills: Concept and its Significance; Communication Skills: What, Why, How? Why Communication fails? How to be an Effective Communicator? Mastering the Process of Communication, Oral Communication Skills, Body Language, Optimistic Approach, Managing Conflicts, Gaining Confidence, Methods of Communication: One Way and Two Way Communication; Verbal – Modes, Oral and Written, Nonverbal Communication – Categories and Features; Formal and Informal Communication; Visual Communication, Telecommunication and Internet

Unit:2 **Listening and Speaking Skills**

What, Why? Why we don't listen? How to develop our Listening Skills? Speaking - What is speaking? Accepting invitation to speak, Setting Objectives; Know your Audience, Research the Material, Planning and Writing, Use of Audiovisual aids, Delivering speech, Style of speech and improvement.

Unit:3	Reading and Writing Skills	14 hours
What is readir	ng? Durnosa of reading Types of reading Panding ways 4P M	Nothed and SO2D Methods

What is reading? Purpose of reading, Types of reading, Reading ways, 4R Method and SQ3R Method; Writing – Written Communication, Stages in Effective Writing, Styles of Writing – Choice of Words

and Phrases, Sentence Structure and length, Paragraph Structure and Length, Principles of Paragraph,

	*	s of Good Writing and Basic tools of writing.	i, Timelpies of Taragraph,							
Uı	nit:4	Time Management Skills	14 hours							
Uno	derstanding	Time Management, Time Management Principles – Identifying	Time Loss, Urgency							
and	Importance	e, Effective Decision Making, Setting your Goals, and Defining	Your Objectives;							
Uı	nit:5	Time Saving Techniques	14 hours							
Org	anizing yo	our Work Space, and Communicating Effectively; Deali	ng with Stress -							
Uno	derstanding	Overload, and Negotiating your Workload; Practical Time P	lanning – Planning							
you	r Day, Usi	ng Activity Network, Critical Path Analysis, Effective Res	ource Sharing and							
Pre	paring Plan	ning Diagrams								
Uı	nit:6	Contemporary Issues	02 hours							
	Expert Lectures, Online Seminars - Webinars									
		Total Lecture hours	72 hours							
Te	ext Book(s)									
1	Amer, Bev	verly. Soft Skills at Work: Technology for Career Success, Ceng	gage Learning, 2008, pp90.							
2	Butterfield	, Jeff. Written Communication: Soft Skills for Digital Work Pla	ce, Cengage Learning, 200,							
	pp134.									
3	Rao, M.S.	Soft Skills Enhancing Employability: Connecting Campus with	Corporate. K. International							
	Pvt Ltd, 20	010, pp 256.								
Re	eference Bo	oks								
1	Mitchell, O	Geana Watson. Essential Soft Skills for Success in the Twenty F	irst Century Workforce as							
	perceived	by Alabama Business/marketing Educators. ProQuest, 2008, pp	0134							
2	Klaus, Peg	ggy. The Hard Truth about Soft Skills: Work Place Lessons S	Smart People Wish They'd							
	Learned S	ooner. Collins, 2008, pp208.								
Re	elated Onli	ne Contents [MOOC, SWAYAM, NPTEL, Websites etc.]								
1	http://ww	vw.sessionlab.com								
2	www.ski	llconvered .com								
	•									

Mappin	Mapping with Programme Outcomes										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	
CO1	M	S	S	S	S	M	S	M	M	S	
CO2	S	M	M	M	M	S	M	S	M	M	
CO3	S	S	M	S	S	S	M	M	M	S	
CO4	S	M	S	M	S	S	S	M	S	S	
CO5	M	S	S	S	L	S	M	S	M	M	

^{*}S-Strong; M-Medium; L-Low

https://yptoolsbox.unescapsdd.org