RANI CHANNAMMA UNIVERISTY, BELAGAVI.

DEPARTMENT OF STUDIES AND RESEARCH IN LIBRARY AND INFORMATION SCIENCE UNDER THE SCHOOL OF APPLIED SCIENCES

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

CHOICE BASED CREDIT SYSTEM

(UNDER CBCS & CAGP SCHEME)

REGULATIONS and PROGRAMME STRUCTURE

w.e.f.

ACADEMIC YEAR 2020-21 ONWARDS

RANI CHANNAMMA UNIVERSITY, BELAGAVI.

DEPARTMENT OF STUDIES AND RESEARCH IN LIBRARY AND INFORMATION SCIENCE (MLISC) UNDER THE SCHOOL OF APPLIED SCIENCES.

Regulations for Post-Graduate Programme in Master of Library and Information Science under Choice-Based Credit System (C.B.C.S)

w.e.f. : 2020-21

1.0 Programme Offered: Master of Library and Information Science (MLISC)

2.0 Duration:

The MLISC Programme shall be of Four Semesters and each semester is of 16 weeks' duration. No student shall be permitted to obtain degree earlier than 4 semesters or to take more than 8 semesters, i.e., the student shall complete the programme within four years from the date of admission to the first semester of Post Graduate Programme. The academic session in each semester will provide 90 teaching days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances are allowed to continue and complete the programme with due approval from the Registrar. Candidates shall not register for any other regular programme other than Diploma and Certificate Programmes from in this or any other university during the duration of the PG programme.

The student who shall complete successfully first two semesters shall be considered as the equivalent to **Bachelor of Library and Information Science (B.Lib.I.Sc).** However, this can be applicable for those students who shall complete the MLISC programme within four years from the date of admission to the first semester.

3.0 Eligibility Criteria for Admission:

3.1 The students who have successfully completed the three year/ four-year Degree programme or any other Degree programme of this University or of any other University recognized as equivalent there to by this University having at least 45% of

marks in aggregate at Degree level is eligible to apply. However, relaxation of 5% of marks in respect of SC/ST/Cat-l will be allowed as per prevailing rules of the University and Government Orders from time to time.

3.2 The admission shall be made as per the reservation policy and directions issued in this regard from time to time by the Government of Karnataka and also as per rules as prescribed by the University from time to time.

3.3 Candidates seeking admission to the programme shall be required to appear for entrance test conducted by the University, the selection of students shall be made strictly on merit in each category of reservation.

3.4 The Merit list will be prepared by cumulative percentage 50% of the marks scored in the Basic Degree and 50% of marks obtained in Entrance Test.

4.0 Medium of Instruction:

The medium of Instruction shall be English.

5.0 Programme Structure:

The term 'Course' is used to indicate a logical part of a subject matter of the programme (also referred to as Paper). In essence, the courses are of three types:

1. Compulsory/ Core Subjects (Theory and Practical)
2. Soft Core/Specialization/optional (Theory) and
3. Open Elective Courses (Theory).

Each programme shall have a set of Compulsory Courses that a student must complete to get the degree in the concerned subject / programme. The student shall study 6 compulsory Core and Optional papers in the first Semester. In the second and third semesters, a student shall study 6 compulsory Core, Optional papers and one Open Elective course.

In the fourth semester a student shall study 5 compulsory Core and Optional papers and prepare one Research Project with dissertation which also includes “study tour” (All India).

6.0 Minimum and Maximum Credits:

6.1 "Credit" means the unit by which the course work is measured. For this Regulation, one Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 Credit is equal to 25 marks, 2 Credits are equal to 50 marks, 3 Credits are equal to 75 marks and 4 Credits are equal to 100 marks as used in conventional system.

6.2 All the Courses in the Department shall carry 4 credits.

6.3 A Student shall register for 24credits in each semester.

6.4 Total Credits for Master of Library and Information Science (M.L.I.Sc) shall be 96.

7.0 Attendance:

7.1 Each paper/course shall be taken as a unit for the purpose of calculating the attendance.

7.2 Each student shall sign the attendance or concerned teacher shall indicate either 'P' or 'A' for present or absent for each student in the attendance maintained for each course for every hour of teaching of each paper.

7.3 Marks shall be awarded to the students for attendance as specified in the Regulations concerning the evaluation as shown below:

Attendance (in Percentage)	**90 and above**	**Above 80 and upto 90**	**Above 75 and upto 80**	**75 and Below**
Marks	3	2	1	No Marks

7.4 A Student shall be considered to have satisfied the required attendance for each course, if he/she has attended not less than 75% of the number of instructional hours during the semester.

7.5 There is no provision for condoning shortage of attendance.

7.6 The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the giving semester.

7.7 Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing Regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

8.0 Duration of Teaching Theory and Practical Papers:

8.1 Each Core Subject (Theory) Course covered under the compulsory category shall be taught for 4 hours per week.

8.2 Each Soft Core (Theory) Course covered under the Specialization category shall be taught for 4hours per week.

8.3 Each Open Elective Paper shall be taught for 4 hours per week.

8.4 Practical of any declared course classified under the category of compulsory Core Subject course shall obviously be compulsory and shall be for a period twice the number of credits. For instance, if the Practical is for 2 credits, it shall carry 4 hours of Practical for a week and shall figure accordingly in the Time-Table of the subject.

8.5 For the Open Elective Courses, there will be no Practical.

9.0 Examination:

9.1 There shall be an examination at the end of each semester.

9.2 Unless otherwise provided, there shall be semester end examination of 3 hours duration for 80 marks and internal assessment for 20 marks. Practical examination for Computer Applications for 50 marks shall be conducted for 2(two) hours.

9.3 Every student shall register for each semester end examination as per the University notification by submitting duly completed application form through the proper channel and shall also pay the prescribed fees.

9.4The office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1st Semester end examination. That will be the Register Number of the candidate for all the subsequent appearances and semester examinations.

9.5The answer scripts shall be in the safe custody of the University for a maximum period of six months from the date of announcement of the results. These shall be disposed off after six months.

9.6 The programme under CBCS& CAGP is a fully carry-over system. A candidate reappearing either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).

9.7 Candidates who have failed, remained absent or opted for improvement in any course/s shall appear for such course/s in the immediate two successive examinations that are conducted. However, in the case of candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained if the same is higher.

9.8 Candidates who desire to challenge the marks awarded to them, in the even semester end examinations, may do so by submitting an application along with the prescribed fee to The Registrar (Evaluation) within fifteen days from the announcement of the result.

9.9 Whenever the syllabus is revised, the candidate reappearing shall be allowed for PG Degree examinations only according to the new syllabus.

10.0 Course Weightage:

Course Weightage would be equal to the number of credits awarded to the particular course. For instance, if the Compulsory Course has a credit award of 4, then the appropriate weightage for the course would be 4.

11.0 Course Evaluation:

11.1 Each course shall have two evaluation components - Internal assessment (IA) and the Semester end examinations.

11.2 The IA component in a course shall carry 20 marks (including 3marks for attendance as specified above) and the semester end examination shall carry 80 marks.

11.3 The various components of IA for 20 marks are as follows:

I.	Attendance	--	3 Marks
II.	Test – I (announced)	--	07 Marks
III.	Test – II (announced)	--	10 Marks
	Total	--	**20 Marks**

11.4 Calendar of tests shall be notified in the first week of each semester.

11.5 The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar (Evaluation) before the commencement of semester-end examination, or as directed by the University in this regard from time to time.

11.6 The tests shall be written in a separately designated booklet supplied by the University which shall be open for inspection by the students after evaluation

11.7 There is no provision for seeking improvement of Internal Assessment marks.

11.8 There shall be one semester end examination of 3 hrs duration (for 80 marks per paper) for each course/paper.

11.9 If a candidate remains absent for IA Test, there is no provision for Re-test.

12.0 Declaration of Results:

12.1 Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA / Practical and the semester end examinations marks. However, candidate shall obtain at least 40% of the marks in the Semester end Examination (i.e. 32/80). There is no minimum in the IA / Practical marks. However, after adding the IA / Practical and the semester end examinations marks, the candidate shall score a minimum 40% of the maximum marks for the course/paper.

12.2 Candidates shall secure a minimum of 50% in aggregate in all courses/papers (If a programme in each semester to successfully complete the programme.

12.3 Candidates shall earn the prescribed number of credits (i.e. 96) for the programme to qualify for the PG Degree in Library and Information Science.

12.4 The student who shall complete successfully first two semesters (48 credits) shall be considered as the equivalent to **Bachelor of Library and Information Science (BLISC).** However, this can be applicable for those students who shall complete the MLISC programme within four years from the date of admission to the first semester.

12.5 For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Rank shall not be awarded in case the candidate has not successfully completed each

of the semesters in first attempt or has not completed the programme in the stipulated time or had applied for improvement of results.

12.6 The candidates, seeking improvement of their results shall submit an application along with a prescribed fee to the Registrar (evaluation) and surrender the degree certificate / provisional pass certificate/original marks cards of that semester within 15 days from the date of announcement of the result, or as per the prevailing rules of University from time to time.

13.0 Marks, Credit Points, Grade Points, Grades and Grade Point Average

13.1 The grade points and the grade letters to candidates in each course shall be awarded as follows:

Percentage of Marks	Grade Points	Grade Letter
75 and above, upto 100%	7.5 to 10.00	A
60 and above but less than 75%	6.0 and above but less than 7.5	B
50 and above but less than 60%	5.0 and above but less than 6.0	C
40 and above but less than 50%	4.0 and above but less than 5.0	D
Less than 40.00%	Less than 4.0	F

13.2 Credit Point (CP): The Credit Point for each course/paper shall be calculated by multiplying the grade point obtained by the credit of the course.

13.3 The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

13.4 The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA to date shall be calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

$$\text{GPA for the I Semester} = \frac{\text{Sum of the CP of the I Semester}}{\text{Sum of the credits of the I Semester}}$$

$$\text{GPA for the II Semester} = \frac{\text{Sum of the CP of the I Sem} + \text{Sum of the CP of the II Sem}}{\text{Sum of the credits of the I Sem} + \text{Sum of the credits of the II Sem}}$$

CGPA for the III and IV semesters shall be computed accordingly.

13.5 The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same shall only be awarded at the end of all the semesters based on Cumulative Grade Point Average.

13.6 Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

Cumulative Grade Point Average (CGPA)	**Class to be awarded**
7.5 to 10.0	First Class with Distinction
6.0 and above but below 7.5	First Class
5.0 and above but below 6.0	Second Class
Less than 5.0	Fails

14.0 Miscellaneous:

14.1 The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.

14.2 The University shall issue such orders, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of these Regulations.

14.3 Procedural details may be given by the University from time to time.

14.4 Any unforeseen problems/difficulties may be resolved by the Vice-Chancellor, whose decision in the matter shall be final.

Illustrative Model :

Grade Card

Programme : _____

Name of the Candidate : **Semester : I/II/III/IV**

Seat No. : **Month & Year :**

Papers/Courses	Paper/ Courses Code No.	Credits	Max. Marks	Marks Obtained	Semester Grade Point	Credit Points
Compulsory Paper/ Core Courses						
Paper – I		04	100	60	6.00	24.00
Paper – II		04	100	74	7.40	29.60
Paper – III		04	100	43	4.30	17.20
Paper – IV		04	100	52	5.20	20.80
Specialization/ Optional Papers						
Paper – V		04	100	65	6.50	26.00
*Compulsory Paper / **Open Elective Paper/ ***Project Report Paper – VI		04	100	75	7.5	30.00
Paper – VII		02	50	33	7.5	30.00
Total		24	650	402		177.60

* Core paper for the I semester

** OEC for the II and III semester

*** Project for the IV Semester

$$\text{GPA for I Sem} = \frac{\text{Total no.o f CP}}{\text{Total No.of Credits}} = \frac{177.60}{26.00}$$

CGPA for I semester = GPA = 6.83

$$\text{CGPA for II semester} = \frac{\text{CP (I Sem)} + \text{CP (II Sem)}}{\text{Credits (I Sem)} + \text{Credits (II Sem)}}$$

$$\text{CGPA for III semester} = \frac{\text{CP (I Sem)} + \text{CP (II Sem)} + \text{CP(III Sem)}}{\text{Credits (I Sem)} + \text{Credits (II Sem)} + \text{Credits (III Sem)}}$$

$$\text{CGPA for the programme} = \frac{\text{CP (I Sem)} + \text{CP (II Sem)} + \text{CP(III Sem)} + \text{CP (IV Sem)}}{\text{Credits (I Sem)} + \text{Credits (II Sem)} + \text{Credits (III Sem)} + \text{Credits (IV Sem)}}$$

(*CP : Credit Points)

RANI CHANNAMMA UNIVERSITY, BELAGAVI.
MASTER OF LIBRARY AND INFORMATION SCIENCE (MLISC) PROGRAM
(UNDER CBCS & CAGP SCHEME)

Semester	Paper	Instruction Hrs/Week	Duration of Exam (Hrs)	Marks			Credits
				IA	Exam	Total	
a. I Semester							
Core Subject	3T	3 x 4	3 x 3	2 x 20	3 x 80	3 x 100	3 x 4=12
	2P	2 x 4	2 x 3	2 x 20	2 x 80	2 x 100	2 x 4=08
Soft Core/ Specialization/ Optional	1T	1 x 4	1 x 3	1 x 20	1 x 80	1 x 100	1 x 4=04
Total of credits per semester							**24**
b. II/III Semester							
Core Subject	2T	2 x 4	2 x 3	2 x 20	2 x 80	2 x 100	2 x 4=08
	2P	2 x 4	2 x 3	2 x 20	2 x 80	2 x 100	2 x 4=08
Soft Core/ Specialization/ Optional	1T	1 x 4	1 x 3	1 x 20	1 x 80	1 x 100	1 x 4=04
Open Elective	1T	1 x 4	1 x 3	1 x 20	1 x 80	1 x 100	1 x 4=04
Semester Total of credits							**24**
c. IV Semester							
Core Subject	3T	3 x 4	3 x 3	3 x 20	3 x 80	3 x 100	3 x 4=12
	1P	1 x 4	1 x 3	1 x 20	1 x 80	1 x 100	1 x 4=04
Soft Core/ Specialization/ Optional	1T	1 x 4	1 x 3	1 x 20	1 x 80	1 x 100	1 x 4=04
Project	1P	8	Report Evaluation	1 x 20	1 x 80	1 x 100	1 x 4=04
Semester Total of credits							**24**
Programme Grand Total							**96**

PROGRAMME STRUCTURE
Master of Library and Information Science (MLISC)

RANI CHANNAMMA UNIVERSITY, BELAGAVI.
MASTER OF LIBRARY AND INFORMATION SCIENCE (MLISC) PROGRAM
(UNDER CBCS & CAGP SCHEME)

Semester	Paper No.	Paper	Instruction Hrs /Week	Duration of Exam (Hrs)	Marks			Credits
					IA	Exam	Total	
a) I SEMESTER								
Core Subjects (Theory)	1.1	Foundation of Library & Information Science	4	3	20	80	100	4
	1.2	Knowledge Organization Inf. Processing-Basics (Classification and Cataloguing)	4	3	20	80	100	4
	1.3	Fundamentals of Information Technology Basics	4	3	20	80	100	4
Core Subjects (Practical)	1.4	Knowledge organization Inf. Processing-Basics (Classification and Cataloguing)	4	3	20	80	100	4
	1.5	Fundamentals of Information Technology Basics	4	3	20	80	100	4
Soft Core / Specialization / Optional	1.6	Information Sources	4	3	20	80	100	4
	1.7	Database Management System						
	1.8	Information Literacy						
Total of Credits per Semester								**24**
b) II SEMESTER								
Core Subjects (Theory)	2.1	Management of Library and Information Systems	4	3	20	80	100	4
	2.2	Knowledge Organization Inf. Processing-Advanced (Classification and Cataloguing)	4	3	20	80	100	4
Core Subjects (Practical)	2.3	Knowledge Organization Inf. Processing-Advanced (Classification and Cataloguing)	4	3	20	80	100	4
	2.4	Library Automation	4	3	20	80	100	4

Soft Core / Specialization / Optional	2.5	Library Automation	4	3	20	80	100	4
	2.6	Marketing of Information Products & Services						
	2.7	Conservation & Preservation of Information Resources						
Open Electives	2.8	Information Sources and Services	4	3	20	80	100	4
Total of Credits per Semester								**24**
c) III SEMESTER								
Core Subjects (Theory)	3.1	Information Systems and Services	4	3	20	80	100	4
	3.2	Information consolidation, storage and retrieval	4	3	20	80	100	4
Core Subjects (Practical)	3.3	Content Management Systems	4	3	20	80	100	4
	3.4	Internet & Web Resources & Services	4	3	20	80	100	4
Soft Core / Specialization / Optional	3.5	Information and Communication Studies	4	3	20	80	100	4
	3.6	Technical Writing						
	3.7	Library and Users						
Open Electives	3.8	Electronic Resources & Library Services	4	3	20	80	100	4
Total of Credits per Semester								**24**
c) IV SEMESTER								
Core Subjects (Theory)	4.1	Digital Library	4	3	20	80	100	4
	4.2	Research Methodology	4	3	20	80	100	4
	4.3	Scientometrics	4	3	20	80	100	4
Core Subjects (Practical)	4.4	Digital Library	4	3	20	80	100	4
Soft Core / Specialization / Optional	4.5	Network, Networking, Consortia and Internet Technology	4	3	20	80	100	4
	4.6	Content Management Systems						
	4.7							
Project	4.6	Dissertation and Study Tour (All India)	8	Report Evaluation	20	80	100	4
Total of Credits per Semester								**24**
Program Grand Total								**96**

RANI CHANNAMMA UNIVERISTY, BELAGAVI

Vidyasangama

P.B.N.H. – 4, Belagavi-591156

Two Years Integrated

Degree Programme

in

MASTER OF LIBRARY AND IFNORMATION SCIENCE (M.L.I.Sc)

(Choice-based Credit System- Semester Scheme)

COURSE STRUCTURE

and

Detailed Syllabus

2020-21

PROGRAMME STRUCTURE

Master of Library and Information Science (MLISc)

Semester	Paper No.	Paper	Instruction Hrs /Week	Duration of Exam (Hrs)	Marks			Credits
					IA	Exam	Total	
I SEMESTER								
Core Subjects (Theory)	**1.1**	**Foundation of Library & Information Science**	**4**	**3**	**20**	**80**	**100**	**4**
	1.2	**Knowledge Organization Inf. Processing-Basics (Classification and Cataloguing)**	**4**	**3**	**20**	**80**	**100**	4
	1.3	**Fundamentals of Information Technology Basics**	**4**	**3**	**20**	**80**	**100**	4
Core Subjects (Practical)	**1.4**	**Knowledge organization Inf. Processing-Basics (Classification and Cataloguing)**	**4**	**3**	**20**	**80**	**100**	4
	1.5	**Fundamentals of Information Technology Basics**	**4**	**3**	**20**	**80**	**100**	4
Soft Core / Specialization / Optional	**1.6**	**Information Sources**	**4**	**3**	**20**	**80**	**100**	4
	1.7	**Database Management Systems**						
	1.8	**Information Literacy**						
Total of Credits per Semester								**24**

II SEMESTER								
Core Subjects (Theory	**2.1**	**Management of Library and Information Systems**	**4**	**3**	**20**	**80**	**100**	4
	2.2	**Knowledge Organization Inf. Processing-Advanced (Classification and Cataloguing)**	**4**	**3**	**20**	**80**	**100**	4
Core Subjects (Practical)	**2.3**	**Knowledge Organization Inf. Processing-Advanced (Classification and Cataloguing)**	**4**	**3**	**20**	**80**	**100**	4
	2.4	**Library Automation**	**4**	**3**	**20**	**80**	**100**	4
Soft Core / Specialization / Optional	**2.5**	**Library Automation**	**4**	**3**	**20**	**80**	**100**	4
	2.6	**Marketing of Information Products & Services**						
	2.7	**Conversation & Preservation of Information Resources**						
Open Electives	**2.8**	**Information Sources and Services**	**4**	**3**	**20**	**80**	**100**	4
Total of Credits per Semester								**24**
III SEMESTER								
Core Subjects (Theory)	**3.1**	**Information Systems and Services**	**4**	**3**	**20**	**80**	**100**	4
	3.2	**Information consolidation, storage and retrieval**	**4**	**3**	**20**	**80**	**100**	4
Core Subjects (Practical)	**3.3**	**Content Management Systems**	**4**	**3**	**20**	**80**	**100**	4
	3.4	**Internet & Web Resources & Services**	**4**	**3**	**20**	**80**	**100**	4
Soft Core / Specialization / Optional	**3.5**	**Information and Communication Studies**	**4**	**3**	**20**	**80**	**100**	4
	3.6	**Technical Writing**						
	3.7	**Library and Users**						
Open Electives	**3.8**	**Electronic Resources & Library Services**	**4**	**3**	**20**	**80**	**100**	4
Total of Credits per Semester								**24**
c) IV SEMESTER								
Core Subjects (Theory)	**4.1**	**Digital Library**	**4**	**3**	**20**	**80**	**100**	4
	4.2	**Research Methodology**	**4**	**3**	**20**	**80**	**100**	4
	4.3	**Scientometrics**	**4**	**3**	**20**	**80**	**100**	4

Core Subjects (Practical)	**4.4**	**Digital Library**	**4**	**3**	**20**	**80**	**100**	4
Soft Core / Specialization / Optional	**4.5**	**Network, Networking, Consortia and Internet Technology**	**4**	**3**	**20**	**80**	**100**	4
	4.6	**Content Management Systems**						
	4.7							
Project	**4.6**	**Dissertation and Study Tour (All India)**	**8**	**Report Evaluation**	**20**	**80**	**100**	4
Total of Credits per Semester								**24**
Program Grand Total								**96**

RANI CHANNAMMA UNIVERSITY, BELGAVI

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

M.Lib.Sc.

SYLLABUS

SEMESTER-I

Paper- 1.1. Foundations of Library and Information Science

Unit – 1 : Data Information and knowledge and wisdom

- Information: Meaning, Definition, Nature, Properties
- Notions of Information; DIKW model (Data- Information-Knowledge-Wisdom)
- Information Science: Definition, Evolution, Scope of the discipline and current status
- Data, information & knowledge

Unit – 2 : Social Foundations of Libraries

- Social and historical foundations
- Growth and development of libraries in India with special reference to Karnataka
- Role of Library in formal and non-formal education.
- Modern concept of library and Information science

Unit – 3 : Normative Principles

- Five laws of library science and their implications on libraries
- Variations of five laws of library science
- Types of Libraries, characteristics and functions.
- Development of libraries

Unit – 4 : Library Legislation

- Need, purpose and essential features
- Library Legislation in India
- Public Library Acts
- Karnataka Public Library Act – 1965
- Delivery of books (public libraries) and newspaper Act 1954 – 1956
- Press and Registration Act, Intellectual Property Right, Rights to Information Act (RTI)

Unit – 5 : Library and Information Profession

- Philosophy of Librarianship
- Professional Ethics
- LIS Education in Industries
- Professional Ethics and qualities

Unit – 6 : Professional Association and Institution

- Professional Associations and their role in the development of the profession: Study of KALA, ILA, IASLIC, IATLIS, CILIP, ALA, SLA, IFLA and FID
- LIS education and research

Unit – 7 : Promoters of Library and Information Science

- National Level - RRLF, NKC,
- International Level - UNESCO

Note: Course teacher has to take the students to different types of local libraries and students have to submit a report of libraries visited.

Text books:

1. Ranganathan (S.R) Fives Laws of library Science. New Delhi, ESS Publication 2006;
2. Khanna (J K) Library and Society.New Delhi, ESS Publication 1994;
3. Kumar (PSG): Foundations Of library & Information Science. New Delhi B R Publishing Corporation, 2012
4. Dhiman (A K) & Rani (Y): Library and Society. New Delhi, ESS Publication 1994.
5. Pandey (R) & Pillai (MNV) History of Library and Information Science;
6. Sharma(PSK) :Library and Society 2nd Ed.New Delhi:Ess EssPubn,2000

Additional Reading Material:

1. Chapman (E A) & Lynden (F C) Advances in Librarian ship 24th Vol.San Diego Academic Press ,2000;
2. Vyas (S D): Library & Society Jaipur Panchaseela 1990;
3. Rudinow (J) & Gray Bosch (A): Ehtics and values in Information Age, New York,2000;
4. Gupta (P K)and Das(T) Modern Trends in Library And Information Science.Jaipur:Scientific Publishers,2010
5. Khan (R) Introduction to Library Science.New Delhi: SBS Publishers,2006.
6. Pandey,(R) Library Science Research.New Delhi: Jnanada Prakashan,
7. Meadows (A J): Origin of Information Science 1987;
8. Sarcevic T Information Science Revisited: Rutgers University School of Information and communication studies 1990;

Paper – 1.2. Knowledge Organization Information Processing –

Basics (Classification and Cataloguing) (Theory)

Unit - 1 Methods of Knowledge Organisation

- Library Classification: meaning, definition, need and purpose
- Knowledge Classification, Book classification differences
- Species of Library Classification

Unit - 2 Theory of Classification

- General theory of classification
- Classification terminology
- Normative principle of classification
- Three planes of works, Devices, Mnemonics, Five fundamental categories
- Notation: meaning, definition and types

Unit - 3 Classification Schemes

- Standard schemes of classification and their features: CC, DDC, UDC.
- Major contributions of Dr. S. R. Ranganathan to classification theory

Unit - 4 Bibliographic Description

- Resource description: Concepts and definition. Library Catalogue: meaning, definition, need, purpose and functions of library catalogue.
- Physical forms: Inner forms and Outer forms
- Subject cataloguing – LCSH, SLSH, MeSH
- Kinds of entries (card catalogue to OPAC) their structure and uses. Filing rules and procedures.

Unit - 5 Cataloguing Codes and Practices

- History and development
- AACR2 (latest edition)
- Standardisation of bibliographic description: ISBD, FRBR, CCF, MARC, ISO-2709, RDA
- Co-operative cataloguing, Union cataloguing

Unit - 6 Normative Principles of Cataloguing

- Canons
- Laws
- Principles

a) Textbooks

1. Krishan Kumar. Theory of Classification. 4th Rev. ed. Delhi, Vikas , 1998.
2. Ranganathan, S.R. Prolegomena to Library Classification. 3rd Edition. Assisted by M.A.Gopinath, Bangalore, SRELS, 1989.
3. Maltby, A. : Sayer's manual of Library classification.
4. Anglo American Cataloguing Rules. 2nd Edition Rev. New Delhi, Oxford, 1988
5. Maxwell, Robert and Maxwell, Margaret F. Maxwell's handbook of AACR2R: Explaining and illustrating the Anglo American Cataloguing Rules and the 1993 amendments. Chicago: ACA, 1997.

b) <u>Additional Reading Material</u>

6. Parkhi,R.S. Library classification: Evolution of a dynamic theory. Bombay, Asia, 1977.
7. Ramalingam, MS. Library Cataloguing & Classification Systems. Delhi: Kalpaz, 2000.
8. Fritz, D. A. Cataloguing with AACR2 and US-MARC Records. Chicago, ALA, 1998.
9. Srivastava, AP. Theory of Knowledge Classification in Libraries. New Delhi, Sage, 1993.

Paper – 1.3. Fundamentals of Information Technology: Basics (Theory)

Unit – 1 Information Technology

- Meaning, Definition, Evolution, Scope and Components.

Unit – 2 Introduction to Computer

- Historical developments, Characteristics, Applications, Generations and Classification of Computer.

Unit – 3 Computer Architecture

- Components of a Computer: Central Processing Unit, Input and Output devices, Internal and external storage devices.

Unit - 4 Software

- Computer software: Types and categories - Programming concepts: system analysis, algorithms and flow charts, Open source and proprietary software.
- System software: Purpose, Operating systems; MS-DOS, Microsoft Windows, UNIX, Linux.
- Application software: Word processors, Spreadsheets, Presentation packages and Database Management Systems, Internet browsers, Software suites, Anti-virus programs, Sharewares, Web design tools, HTML Editors.

Unit - 5 Data Representation

- Binary code, Bit, Byte, Standards-ASCII, ISCII (Indian Script code for Information exchange), EBCDIC, UNICODE. Issues with respect to character collation and sorting

Unit - 6 File Organization

- File concepts, methods, functions, Sequential, Inverted, Indexed sequential and other methods.

Unit – 7 Overview of Programming Languages

- Machine, Assembly and High level Programming languages
- Algorithms and flow-charting.

Note: Each student shall compulsorily maintain practical record and submit the same at the time of practical examination

Selected Readings:

1. Arvind Kumar. Ed. Information Technology for All (2 vols.). New Delhi, Anmol, 2006.
2. Bansal, S.K. Information Technology and Globalisation, New Delhi: A.P.H. Publishing corporation, 2005.
3. Basandra , S.K : Computers Today, New Delhi, Golgotia, 2002.
4. Carter, Roger. The Information Technology Hand Book, London Heinemann,1987.
5. Decson, Eric. Managing with Information Technology, Great Britan, Kogan page Ltd. 2000.
6. Dhiman,Anil kumar. Basics of Information technology for librarians and Information Scientists. Ess ess publications, 2003.
7. Elmasri R and Navathe S B : Fundamentals of database systems, 1989.
8. Forrester W.H. and Rowlands, J.L. The Online searcher's companion. London, Library Association, 2002.
9. Gupta, Vikas, Rapidix computer course. New Delhi, Pustak mahal, 2005.
10. Hunter & Shelly: Computers and Common sense, New Delhi, Prentice-Hall, 2002.
11. Kashyap, M.M: Database Systems, New Delhi, Vikas, 2003.
12. Rowely, Jennifer: Information Systems, Ed.2, London, Clive Bingley, 2001.
13. Satyanarayana, R. Information Technology and its facets. Delhi, Manak 2005.
14. Sunders, R: Computers Today Ed.2, John Wiley, 2000.
15. Taxali Ravikant: PC software made easy, New Delhi, 2006.

Paper – 1.4. Knowledge Organisation, Information Processing & Retrieval (Practical)

Classification of Documents (DDC Latest Edition)

Unit – 1 Classification of documents representing simple subject
Classification of documents having common isolates
Unit – 2 Classification of documents representing compound subject
Unit – 3 Classification of documents representing complex subject
Assignment of Book Number

Cataloguing of Documents

Unit – 4 Cataloguing of simple documents
Cataloguing of complex documents
Unit – 5 Cataloguing of serials
Unit - 6 Subject cataloguing
Assigning Subject Headings using at least one Standard list of Subject Headings (Sears List of Subject Heading)

Note: Each student shall compulsorily maintain practical record and submit the same at the time of practical examination

Reference books

1. Raju.,AAN: Universal Decimal and Colon Classification. 1985.
2. Chan, Lois Mai and others: Dewey Decimal Classification. A practical guide. 2nd Ed. Albany, New York, OCLC.
3. Satija, M.P. and Comaromi, J.P. Exercises in the 21st Edition of Dewey Decimal Classification. New Delhi, Concept, 1998.
4. Maxwell, R.L. and Connell, T.H.(eds): Future of cataloguing. Chicago, ALA, 2000.

Paper- 1.5 Fundamentals of Information Technology - Basics (Practical)

Unit -1: Introduction to Computer peripheral devices
Unit -2: Acquaintance with operating systems (Including exercises): MS DOS, Windows, & Linux
Unit – 3: Acquaintance with MS office packages (Including exercises): MS word, Excel, PowerPoint, Access, Open office, PDF etc,
Unit – 4: Creating Email ID, email settings. Basics of Internet searching, advance searching options, downloading information,
Unit – 5: Database search and retrieval. Boolean search options, Social Media usage.

Note: Each student shall compulsorily maintain practical record and submit the same at the time of practical examination

Paper- 1.6. Information Sources

Unit – 1 Introduction to Information Sources

- Information Sources: Meaning, Definition, Nature, Evolution, Characteristics
- Functions, Importance and Criteria for Evaluation.

Unit – 2 Types of Information Sources

- Primary, Secondary and Tertiary sources of information.
- Documentary Sources and Non –Documentary Sources, Human and Institutional sources,
- Non–print and Electronic sources.

Unit – 3 Primary Sources (Print and Electronic Versions)

- Periodicals, Technical reports, Patents, Standards and Specifications, Theses and Dissertations, Conference and Seminar proceedings, Trade literature, etc.

Unit – 4 Secondary Sources (Print and Electronic Versions)

- Dictionaries, Encyclopedias, Yearbooks and Almanacs, Biographical sources, Bibliographies, Geographical sources, Current sources, and Statistical information sources, Handbooks and Manuals, etc.

Unit – 5 Tertiary Sources (Print and Electronic Versions)

- Directories, Guides to reference sources, Bibliography of bibliographies, Monographs, Union catalogues, etc.

Unit –6 Non documentary Sources and their Electronic Versions

- Human Sources: Technological gatekeepers, invisible colleges, consultants, experts/resource persons, personal home pages, representatives of firms, and others.
- Institutional / Organizational Sources: Government ministries and departments, R& D organizations, learned societies, publishing houses, archives, data banks, information analysis centers, referral centers, Institutional web sites, etc.

Unit – 7 Electronic Sources

- Microforms, Audio visual materials, Optical media based databases, Online databases, Internet sources, List servers, Subject gateways, USENET, etc.

Note: Course teacher may adopt participatory discussion / self-study / desk work / seminar presentation by students and such other novel methods that make a student to absorb and assimilate more effectively the contents delivered in the lecture classes. Seminars, case study, discussion sessions etc., are part of tutorial.

Selected Readings:

1. Alan Poulter, Gwyneth Tseng and Goff Sargent : The Library and Information Professional's Guide to the World Wide Web. London : Facet Publishing, 1999.
2. G. G. Chowdhruy and Sudatta Chowdhury : Searching CD-ROM and Online Information Sources. London : Facet Publishing, 2001.
3. G. G. Chowdhury and Sudatta Chowdhury. Information Sources and Searching on the World Wide Web. London : Facet Publishing, 2001.
4. Gopinath, M.A : Information Sources and Communication Media. DRTC Annual Seminar, Bangalore-1984 .
5. Grogan, Dennis: Science & Technology : An Introduction to Literature, London, Clive Bingley,1982.
6. Katz, W.A: Introduction to Reference Work, ,London, Butterworths,2000, 2V.
7. Krishnakumar : Reference Service, Ed.3, New Delhi, Vikas, 2003 .

8. Kumar (PSG). Ed. Indian Encyclopedia of Library & Information Science. New Delhi : S. Chand & Co., 2001.
9. Rao, I.K.R : Electronic Sources of Information, DRTC Annual Seminar, 2001
10. Sewasingh: Hand book of International Sources on Reference and Information New Delhi: Crest Publication,2001.
11. Sharma,J.S & Grover, D.R : Reference Service and Sources of Information, New Delhi: EssEss, 1998.
12. Subramanayam, K : Scientific and Technical Information Resources, New Delhi: Anmol, 2001
13. Teague, S John : Microforms, Video and Electronic media Librarianship, London, Butterwoths,1985.
14. Walford, A.J: Guide to Reference Materials, London, Library Association, 1990, 3V.
15. www.libraryspot.com
16. www.refdesk.com
17. www.infolibrarian.com

Paper 1.7: Database Management Systems

Unit 1: Data Models

- Data Models; Database languages; Transaction; Storage management; Database administrator; Users; Overall system structure
- Entity; Relationship Model: Basic concepts; Mapping constraints; Keys; E-R Diagram; Weak Entity Sets; Reduction of E-R Diagram to tables.

Unit 2: Relational Databases

- Relational Model: Structure, relational algebra, extended operations; Modifications on a database: Views
- SQL: Basic structure, set operations, aggregate functions; nested sub queries, derived relations, views.

Unit 3: Database Design

- Integrity constraints: Domain constraints; referential integrity, assertions, triggers, functional dependencies, relational database design, decomposition, normalization using functional, multi valued, Joint dependencies;
- Domain; Key Normal form; alternative approaches.

Unit 4: **Object oriented databases**

- Object Oriented data Model: Languages;
- Object Relational databases: Nested Relations, Complex types and object Orientation;
- Querying with complex types, creation of complex values and objects, comparison**.**

Unit 5: Database System Architecture

- Database System Architectures: Centralized Systems, Client server systems, Distributed systems
- Parallel databases: introduction, inter query, intra query, intra-operation, interoperation parallelism

Unit 6: Distributed databases

- Distributed databases, distributed data storage, network transparency
- Query processing; Transaction model, Commit protocols; coordinator selection; concurrency control; deadlock handling; multi database systems.

Unit 7: Study and work experience with RDBMS: MySQL / PostgreSQL

Note: Each student shall compulsorily maintain practical record and submit the same at the time of practical examination

References:

Bipin C (1995) 6th ed. Desai, An Introduction to Database Systems, West Publications.

Date, C J (1995) 6th ed. An introduction to database systems, Addison Wesley publications, 6th edition

Hansen, Gary W and Hansen, James V (1996). Database Management and Design, Prentice Hall

Hoffer, Jeffrey A., Prescott, Mary B., Mcfadden, Fred R (2002). Modern Database Management 6th ed, Prentice Hall, 2002

Korth, Henry F and Silberschatz, Abraham and Sudarshan, S (1997). Database System Concepts, 3rd ed, McGraw-Hill

Norman, Ronald J (1996). Oriented Systems Analysis and Design, Prentice Hall.

Paper 1.8: Information Literacy

Unit-1. Information Literacy

- Meaning, Definition, Evolution, Historical perspective

Unit-2. Types of Information Literacy and types of literacies.

- Technology literacy
- Media literacy
- Cultural Literacy
- Digital and computer literacy
- Lifelong learning and its components

Unit-3. Models of Information Literacy

- Models of Information literacy: SCONUL model and CAUL (Australian) model
- Use of a-v aids, programmed instructions in specified disciplines, resource based instructions, etc
- Information Literacy missions, forums and task forces

Unit-4. Global perspectives of Information literacy

- Current trends in Information literacy
- Study of Information literacy programs in the world
- Information Literacy Competencies; Challenges facing Information literacy.
- Selected countries case studies

Unit-5. Guidelines and standards for Information Literacy programmes

- ALA and ACRL
- Information literacy competencies
- Current trends in Information literacy

Note: Course teacher may adopt participatory discussion / self-study / desk work / seminar presentation by students and such other novel methods that make a student to absorb and assimilate more effectively the contents delivered in the lecture classes. Seminars, case study, discussion sessions, etc., are part of tutorial.

Selected Readings:

1. American Library Association. Final Report of Presidential Committee on Information Literacy. www.ala.org/at/nill/litt1sthtml
2. Barker, K. and Londsale, R. Ed. (1994). Skills for life: the value and meaning of literacy. London: Taylor Graham.
3. Bawden, D.(2001). Information and digital literacies: a review of concepts. http://gti/edu.um.es.8080/gomez/hei/intranet/bawden/pdf.
4. Eisenberg, M.B. , Lowe, C.A. & Spitzer, K.L. (2004). Information literacy: Essential skills for Information age. London: Libraries unlimited.
5. Meadows, A.J. Ed. (1991). Knowledge and communication: essays on the Information chain. London: Library Association.
6. Pantry, Sheila and Griffiths, Peter (2002). Creating a successful e-Information service. London: Facet.
7. Zorana Ercegovac (2008). Information literacy: search strategies, tools & resources for high school students and college freshmen. California: ABC-CLIO

SEMESTER-II

Paper-2.1. Management of Library and Information System

Unit – 1 Management

- Concept, Definition and Scope;
- Management theories, styles, schools of thought and approaches;
- Functions and Principles of Scientific Management
- Organisational Structure: Principles of organizational structure, Organizational structure of library and information centres.

Unit – 2 Library House Keeping Operations

- Different Sections of Library and Information Center and their functions
- Collection Development and Management, Policies and Procedures
- Book selection and acquisition – purpose, need and functions. Principles of book selection.
- Technical Processing, Serials Control, Circulation Control, Maintenance etc.
- Binding; Stock Verification – Policies, Procedures and methods.
- Online Bookshops – Identification, Advantages. Online book shops Vs. Traditional Book Shops. URLs.
- Archiving – conservation – preservation, Print and non-print materials

Unit – 3 Human Resource Planning and Management

- Job Description and Analysis, Job Evaluation;
- Inter-personal Relations;
- Recruitment procedures;
- Motivation, Delegation, Decision Making
- Training and Development
- Performance Appraisal
- Leadership Qualities

Unit – 4 Financial Management

- Importance, Sources of Finance
- Resource Mobilization,
- Budgeting Techniques and Methods – PPBS, Zero Based Budgeting
- Budgetary Control
- Cost Effectiveness and Cost Benefit Analysis
- Out sourcing,

Unit – 5 Evaluation of Library and Information Centres

- Performance Measurement
- Management of Information System (MIS): concept, use.
- Project Management, PERT / CPM,

Unit – 6 Total Quality Management (TQM)

- Definition, Concept, Elements
- Use of Technology
- Technology Management
- Risk Management, Contingency Management

Unit – 7 Planning and Reporting

- Concept, Definition, Need and Purpose; Types
- Policies and Procedures, MBO
- Building and Space Management in Libraries and Information Centres
- Library Statistics: Purpose and Types.
- Library Committees: Importance, Functions and Types.
- Library Rules and Regulations: Purpose and Preparation.

- Reporting: Types of Reports, Annual Report – Compilation, contents and style;

Selected Readings:

1. Beardwell, Ian and Holden, Len. Ed. Human Resource Management: Contemporary Perspective. New Delhi: McMillan, 1996.
2. Bratton, John and Gold, Jeffery. Human Resource Management: Theory and Practice. Basingstoke: Mac Millan, 1994.
3. Brophy, Peter and Courling Kote. Quality Management for Information and Library Managers. Bombay: Jaico, 1997.
4. Bryson, J.O. Effective Library and Information Management. Bombay: Jaico, 1996.
5. Evans, Edward G. Ed.Management Information Systems. New Delhi: S. Chand & Co. 1986.
6. Katz, W.A. Collection Development Selection of Materials for Libraries. New York: HRW, 1980.
7. Krishna Kumar. Library Administration and Management. Delhi: Viaks, 1987.
8. Kumar P.S.G. Management of Library and Information Centres.Delhi: B. R. Publishing corporation, 2003.
9. Martino, R.L. Information Management: Dynamics of Management Information Systems. New York: McHill, 1969.
10. MerDick, Robert G. et.al. Information Systems for Modern Management. New Delhi: Prentice Hall, 1992.
11. Mittal, R.L. Library Administration: Theory and Practice. Ed. 4, New Delhi" Metropolitan, 1984.
12. Paliwal, P.K. Compendium of Library Administration. New Delhi: Ess Ess, 2000.
13. Paranjpe, Vivek. Strategic Human Resource Management. New Delhi: Allied, 1997.
14. Parker, Charles and Café, Thomas. Management Information Systems: Strategy and Action. New York: McGraw Hill, 1993.
15. Pearson, R.J. Ed. Management Process: Selection of Readings for Librarians. Chicago: ALA, 1983.
16. Siwatch, Ajit Singh. Library Management: Leadership style strategies and organizational climate. New Delhi: Shree, 2004.
17. Stuert, Robert D. and Moran, Barbara B. Library and Information Center Management. Colorado: Libraries unlimited, 2004.

Paper – 2.2. Knowledge Organisation Information Processing – Advanced (Classification and Cataloguing) (Theory)

Unit - 1 Universe of Subjects

- Concept, Definition
- Structure and attributes of a subjects
- Modes of formation of subjects
- Different types of subject
- Universe of subjects as mapped in different schemes of classification

Unit - 2 Trends in Classification

- Trends in library classification
- Thessauro facet, Classaurus
- Automatic classification research at OCLC; Case studies: GERHARD, SCORPIO, DESIRE, CORA, OASIS
- Web Dewey

Unit - 3 Knowledge Organisation Systems

- Concept, characteristics, levels, tools
- Traditional approach to KO: classification schemes, facet analysis, ontologies, folksonomies, SKOS, OWL, Taxonomies, Authority Files, etc.
- Knowledge organization in digital environment.

Unit - 4 Trends in Cataloguing

- Trends in cataloguing
- Preparing of bibliographic records for different kinds of documents
- Using appropriate standards and software (Use of KOHA, CCF, MARC-21 Tags, using NewGenLib and KOHA)

Unit - 5 Non-book Materials

- Cataloging of non-book materials: Cartographic materials, Computer files, Electronic resources.
- Assigning subject heading using at least one standard subject heading list

Unit - 6 Metadata

- Meaning, definition, Purpose and importance of Metadata
- Basic features of metadata
- Types of Metadata
- Levels of Metadata
- Elements of Metadata

Unit - 7 Metadata Standards

- Metadata standards: Dublin core, MARC-21, TEI, METS, EAD, RDF, VRA core, etc.

Reference books:

1. Raju.,AAN: Universal Decimal and Colon Classification. 1985.
2. Chan, Lois Mai and others: Dewey Decimal Classification. A practical guide. 2nd Ed. Albany, New York, OCLC.
3. Satija, M.P. and Comaromi, J.P. Exercises in the 21st Edition of Dewey Decimal Classification. New Delhi, Concept, 1998.
4. Maxwell, R.L. and Connell, T.H.(eds): Future of cataloguing. Chicago, ALA, 2000.

a) Textbooks:

1. Ranganathan, S.R. Prolegomena to Library Classification. 3rd Edition. Assisted by M.A.Gopinath, Bangalore, SRELS, 1989.
2. Parkhi,R.S. Library classification: Evolution of a dynamic theory. Bom-bay, Asia, 1977.

3. Chan, Lois Mai (2004): Knowledge Organization Schemas and Tools: Introductory Review; The International Seminar on Subject Access to Information, Helsinki, Finland, April 2004.
4. Caplan, Priscilla. Metadata fundamentals for all librarians. Chicago, ALA, 2003.
5. Bacam, Murtha. Introduction to Metadata.
6. Fritz, Deborah. Cataloguing with AACR2 and MARC21 for books, electronic resources, sound recordings, video-recordings & serials. Ed2. Chicago, ALA, 2007.
7. Maxwell, Robert and Maxwell, Margaret F. Maxwell's handbook of AACR2R: Explaining and illustrating the Anglo American Cataloguing Rules and the 1993 amendments. Chicago: ACA, 1997.

b) Additional Reading Material

1. Ramalingam, M.S. Library Cataloguing & Classification Systems. Delhi: Kalpaz, 2000;
2. Fritz, D. A. Cataloguing with AACR2 and US-MARC Records. Chicago, ALA, 1998.

Paper– 2.3. Knowledge Organisation, Information Processing & Retrieval (Classification and Cataloguing) – Advanced (Practical)

Classification of Documents (UDC Latest Edition)

Unit – 1 Classification of documents representing simple subject
Classification of documents having common isolates

Unit – 2 Classification of documents representing compound subject

Unit – 3 Classification of documents representing complex subject
Assignment of Book Number

Cataloguing of Documents

Unit – 4 **Cataloguing of non-book documents:** cartographic materials, electronic sources, Cataloguing use of Dublin core , Metadata scheme for electronic sources

Unit – 5 **Use of MARC-21** and CCF tags and build machine readable catalogues andUnion catalogues using NewGenLib and KOHA

Unit - 6 **Use of Subject Headings List:** Library of Congress (LCSH)

Note: Each student shall compulsorily maintain practical record and submit the same at the time of practical examination

Selected Reading:

1. AACR 2nd Edition Rev. New Delhi 1988;
2. Maxwell, Robert and Maxwell, Margaret F. Maxwell's handbook of AACR2R: Explaining and illustrating the Anglo American Cataloguing Rules and the 1993 amendments. Chicago: ACA, 1997.
3. PSG Kumar. Knowledge Organization, Information Processing and Retrieval Theory. Delhi: BR, 2003.
4. Ramalingam, MS. Library Cataloguing and Classification Systems. Delhi: Kalpaz, 2000.
5. Ranganathan , SR. Headings and Canons. Madras, S Vishwanathan, 1955.
6. Ranganathan, SR. Classified Catalogue Code. Madras, UBSPD, 1988.
7. Ranganathan, SR. Colon Classification, 6th ed. Banalore: Sarada Ranganathan Endowment for Library Science, 1960.

8. Ranganathan, SR. Library Catalogue: Fundamentals and Procedures, Madras, LA, 1950.
9. Ranganathan, SR. Prolegomena to Library Classification, Ed2, London, LA, 1957&1965.
10. Ranganathan, SR. The Five Laws of Library Science. Bangalore: Sarada Ranganathan Endowment for Library Science, 1999.
11. Rijsbergen, CJ Van. Information Retrieval, 2nd ed., London, Butterworths, 1970.
12. Sinha, Suresh C and Dhiman, Anil K. Prolegomena to Universe of Knowledge. New Delhi: Ess Ess, 2002.
13. Srivastava, AP. Theory of Knowledge Classification in Libraries. New Delhi, Sage, 1993.

Paper- 2.4. Library Automation (Theory)

Unit-1. Planning and Development of Library Automation

- Genesis, history, need, rationale, types and areas of library automation;
- Infrastructure requirements: Manpower, Financial, Hardware, Software, Furniture and equipment
- Library automation feasibility study; Planning and preparation
- Request for proposal (RFP)
- Components and costing

Unit -2. DBMS and data conversion techniques

- Concept of database, and DBMS; Types, design, Structure, Organization and Development of databases; Data security
- MS-Access and WINISIS: Overview, System installation, Database construction, Techniques, Menus, Tools and Creation of databases

Unit -3. Data conversion techniques

- Data conversion techniques – ISIS, ASCII, ISISMARC and MARC Edit

Unit- 4. Library Automation software

- Study of SOUL, EASYLIB, NIC-E-Granthalaya, Koha, NewGenLib
- Evaluation of Library automation systems. Criteria for evaluation; Evaluation techniques
- Study of standards &Protocols relevant to Library automation.

Unit- 5. Library Housekeeping operations

- Automated acquisition
- Automated Technical processing
- Automated Circulation
- Automated serials control

Unit- 6. Union Catalogue and WebOPAC

- Concept, Definition, Need and Advantages
- NUCSSI,

Unit-7. Library Automation in India & Trends and Future of Library Automation

- Situation, issues & Problems
- Advent of Internet, Library as web portals, ISO-ILL protocols
- Cooperative library networks, Interoperability, Open Source Software.

Selected Readings:

1. Andrew S. T. & David J.W. (2011). Computer networks. Boston: Pearson Prentice Hall.
2. Balakrishnan, S.(2000). Networking and the future of Libraries. New Delhi: ESS ESS.
3. Barcode basics. http://www.makebarcode.com/info/info.html
4. Bose, K.(1994). Information networks in India: Problems and prospects. New Delhi: ESS ESS.
5. Carter, R.(1987). The Information technology hand book. London: Henemann.
6. Chapman, E.A.(1970). Library systems analysis guidelines. New York: John Wiley.
7. Dhiman, A.K.(2003). Basics of Information technology for librarians and Information scientists. ESS ESS .
8. DRTC(1999). Library networks in India (Seminar Papers). Bangalore, DRTC, ISI.
9. Haravu, L.J.(2004). Library automation: design, principles and practice. London: Allied publishing.
10. Jeanne, F.M. (2006). A librarian's guide to the Internet: A guide to searching and evaluating Information. Oxford: Chandos publishing.
11. Kaul, H K(1992). Library networks: an Indian experience. New Delhi: DELNET.
12. Kumar, P.S.G. (2004). Information technology: Applications (Theory and Practice). DelhiL: B.R. Publishing.
13. Lucy, A. T.(2005). An introduction to computer based Library system. 3rd Ed. Chichester: Wiley.
14. Patnaik, S.(2001). First text book on Information technology. New Delhi: Dhanpat Rai.
15. Ravichandra Rao (1996). Library automation. New Delhi: New Age International.
16. Rich, E. and Knight K.(1994). Artificial Intelligence, 2nd Ed. New Delhi: T.M.H.
17. Richard J.(2006). The institutional repository. Oxford: Chandos publishing.
18. Vishwanathan, T.(1995). Communication technology. New Delhi: T.M.H.
19. Zorkoczy, P .(2005). Information technology: An introduction, London: Pitman.

1. 12. http://www.inflibnet.ac.in
14. http://www.delnet.nic.in
15. http:// www.oclc.org

Paper 2.5. Library Automation (Practical)

Unit-1: Acquaintance, hands on experience and work assignment with any two of the library software- NIC- E-Granthalaya /Koha / NewGenLib / etc.
Unit-2: Customization of library automation software
Unit-3: Working modules of housekeeping operations, OPAC
Unit-4: Data conversion, Retro conversion & Report Generation
Unit-5: Acquaintance, hands on experience on searching and browsing WEBOPACS-World cat, LOC, etc.

Note: Each student shall compulsorily maintain practical record and submit the same at the time of practical examination

Paper- 2.8 A. Open Electives

Paper 2.8.A. Information Sources and Services

Unit-1 Overview of Library. Information sources: Concept, Meaning, Definition, Importance, Characteristics, Functions.

Unit-2 Types of information Resources: Documentary and Non-Documentary, Primary, Secondary, Tertiary. Preparing directory of digital resources.

Unit-3 Introduction to Electronic resources - Concept, Meaning, Definitions, functions, Types

Unit-4 Library & Information Services: Circulation, Reference, Referral, Reprography, Alerting Services -CAS, SDI, RSS. DDS, OPAC, indexing & Abstracting Services. News clipping service.

Unit-5 Library Guidelines: instructions, User manual, library signage, user rights,

Selected Readings

1. Pandey (R) & Pillai (MNV) History of Library and Information Science;
2. Sharma(PSK) :Library and Society 2nd Ed.New Delhi:Ess EssPubn,2000
3. Rudinow (J) & Gray Bosch (A): Ehtics and values in Information Age, New York,2000;
4. G. G. Chowdhury and Sudatta Chowdhury. Information Sources and Searching on the World Wide Web. London : Facet Publishing, 2001.
5. Grogan, Dennis: Science & Technology : An Introduction to Literature, London, Clive Bingley,1982.
6. Sewasingh: Hand book of International Sources on Reference and Information New Delhi: Crest Publication, 2001.
7. Sharma,J.S & Grover, D.R : Reference Service and Sources of Information, New Delhi: Ess Ess, 1998.
8. Walford, A.J: Guide to Reference Materials, London, Library Association, 1990, 3V.

2.8 B. Knowledge Management

Unit – I : Introduction, Definition, Objectives

- Classifying Knowledge
- Components of knowledge management
- Knowledge Models

Unit – II : Knowledge Management

- Definition, Objectives
- Techniques of Knowledge Management
- Need for Knowledge Management

Unit – III : Knowledge Management in Library

- Knowledge Resource Management
- Resource sharing and Networking
- IT Developers
- User Services
- Human Resource Management

Selected Reading:

1. Narayana (G J): Knowledge & Information: New Delhi Perspectives and prospective, EsEsP Publication 2010; Koenig(M E) Knowledge Management Lesson Learnt New Delhi EsEsP Publication 2008;
2. Dhiman (Anilkumar): Knowledge Management and Librarians New Delhi EEP Publication 2009;
3. Bavakutty (M) and Others: Future of Librarianship in Knowledge Society New Delhi EEP Publication 2007;

SEMESTER-III

Paper – 3.1. **Information Systems and Services**

Unit – 1 **Information Systems:** Basic Concept, Types, Characteristics and components.

Unit – 2 **Libraries, Documentation** and Information Centres, Data Banks, Information Analysis Centres, Referral centers, Clearing Houses: Functions, Objectives, Activities, Services

Unit – 3 **Planning, Designing** and Evaluation of National and International Information Systems.

Unit – 4 **National Information Systems and Services:** NISCAIR, DESIDOC, NASSDOC, SENDOC, DELNET, INFLIBNET, UGC information centers

Unit – 5 **International Information Systems and Services:** UNESCO–PGI, AGRIS, INIS, INSPEC, ERIC, DEVSIS, MEDLARS, SPINES, ICSU, BIOSIS.

Unit – 6 **Reference Service and Information Service**

- Information Service: Concept, Definition and trends; Need, Techniques and Criteria for evaluation
- **Study of various services: Reference service, Alerting (CAS and SDI) services, Bibliographical, Referral, Abstracting, Indexing, Web enabled service,** Virtual Reference service, etc.

Unit – 7 **Document Delivery Service**

- Need & Importance.
- Document Delivery Services of INFLIBNET, DELNET

Note: Course teacher may adopt participatory discussion / self-study / desk work / seminar presentation by students and such other novel methods that make a student to absorb and assimilate more effectively the contents delivered in the lecture classes. Seminars, case study, discussion sessions, etc., are part of tutorial.

Selected Readings:

1. Atherton, P. Handbook of Information Systems and Services, 1977.
2. Burch, J.C. and Stretev, F.R. Information Systems: Theory and Practice, 1974.
3. Colin, H. Ed. Management Information Systems in Libraries and Information Services. London: Tayler Graham, 1989.
4. Guha, B. Information and Documentation. Calcutta: World Press, 1983.
5. Gupta, B.M. et.al. Handbook of Libraries, Archives, Information Centres in Indian. New Delhi, Aditya Prakashan, 1991. Related volumes.
6. Kochtanek, Thomas R. and Mathews, Joseph R. Library and Information Systems: From Library automation to distributed information access solutions. West port: Libraries unlimited, 2004.
7. Krishan Kumar. Reference Service. New Delhi:Vikas,1977.
8. Lancaster, F.W. Towards Paperless Information System. New York: Academic Press, 1978.
9. Lucas, Amy, Ed. Encyclopaedia of Information systems and services. Detroit: Gale Research, 1989.
10. Medow, C.T. Analysis of Information Systems. New York: Wiley, 1967.

11. Murdick, Rober G. et.al. Information systems for modern management. 3rd ed. New Delhi: Prentice-Hall, 1996.
12. Osborne, Larry N. and Nakamura, Margaret. System analysis for librarians and information professionals. 2nd ed. Engewood: Libraries unlimited, 2004.
13. Ranganathan, S.R. Reference Service. Bombay: Asia, 1967.
14. Vickery, B. Information Systems. London: Butterworths, 1987.
15. Wiseman, H.M. Information Systems, Services and Centres. New York: Becker and Hanyes, 1972.

Paper- 3.2. Information Retrieval, Repackaging and Processing

Unit - 1 .Information retrieval System

- Concept, Meaning, Definition, Objectives, Characteristics, Components and functions.

Unit – 2.Indexing and Abstracting

- Basic concepts, Indexing languages: Types and Characteristics,
- Vocabulary control, Thesaurus: Structure, function and design.
- Pre-Coordinate and Post –Coordinating Indexing, Citation indexing,
- Computer based indexing (Auto indexing).
- Abstracting: Concept, Meaning and definitions, Types.

Unit - 3 Information Searching

- Common features of search process, Steps in creation of a search file, Search features, Query search and steps in query formulation,
- Search process –strategies and techniques, Search software, Search engines, Multiple database searching.

Unit - 4 Information retrieval Models

- Basic Retrieval methods-manual and automated
- Boolean logic, Cognitive, Fuzzy and Probabilistic.

Unit - 5 Evaluation of IR Systems

- Purpose and criteria's for evaluation, Evaluation experiments: ASLIB, The Crane fields; MEDLARS.

Unit - 6 Trends in IRS

- Developments, Searching and retrieval, Full text retrieval, User interfaces, IR standards and protocols.

Unit - 7 Repackaging and Consolidation Products

- Concept, meaning and utility of repackaging and consolidation of Information products.
- Types of repackaging and consolidation Information products, Document delivery and Reprography techniques.
- Translation Centers, Bureaux, Machine aided Translation

a) Textbooks

1. A course in information consolidation: a handbook for education and training in analysis, synthesis and repackaging of information.General Information Programme and UNISIST, UNESCO, PGI, Paris. 1986.
2. Austin, D. PRECIS: A manual of concept analysis and subject indexing. 2nd ed. 1984.
3. Vickery, B.C. . Techniques of information retrieval. London: Butterworths, 1970.
4. Ghosh, S.B. and Biswas, S.C. Subject Indexing systems: Concepts, methods and techniques. Rev. ed. Calcutta,,IASLIC, 1998.
5. Setharama, S. Information Consolidation and Repackaging. New Delhi, Ess Ess, 1997.

6. C. J. Van Rijsbergen. Information retrieval. 2nd ed. London: Butterworths, 1970. 23 5. Cleaveland, D. B., and Cleveland, A. D. Introduction to Indexing and Abstracting. 1983.

b) Additional Reading Material

1. Crawford, Marshall Jean. Information broking: a new career in information work. London: LA, 1988
2. Chowdhruy, G.G.. Introduction to Modern Information Retrieval. 2nd edn. London, Facet Publishing, 2003.
3. Atchison, Jean & Alan Gilchrist, Alan. Thesaurus construction: a practical manual. London: Aslib. 1972.
4. Lancaster, F. W. Information retrieval systems, characteristics, testing and evaluation. 1968.
5. Lancaster, F.W. Indexing and Abstracting in Theory and Practice. London: Facet Publishing, 2003.

Paper 3.3 Content Management System (CMS)

Unit 1

- Understanding content and content management systems.

Unit 2

- CMS elements, issues, and challenges; Functionality and Interaction issues;

Unit 3

- Studying Information Architecture, Content tagging and Metatoring, and Interaction.

Unit 4

- Study of CMS software packages. CMS software and platforms – Joomla, Drupal, Wordpress and Moodle

Unit 5

- Joomla and Drupal : study of features and functionalities and practical implementation

Unit 6

- Wordpress and Moodle : study of features and functionalities and practical implementation

Note: Each student shall compulsorily maintain practical record and submit the same at the time of practical examination

Selected Readings:

1. Arthur, M.H. (2006). Expanding a digital content management system: for the growing digital media enterprise. Boston: Elsevier Focal Press.
2. Barrie, M. N. (2009). Joomla! 1.5: a user's guide: building a successful Joomla! Powered website. Upper Saddle River, NJ: Prentice Hall.
3. Bradford L. E. (2008). Content management systems in libraries: case studies. Lanham, Md. : Scarecrow Press.
4. Hal Stern, Brad Williams, David Damstra (2010). Professional WordPress : design and development. Indianapolis, IN: Wiley Pub., Inc.
5. Janet Majure (2010). Teach yourself visually Word Press. Indianapolis, IN : Wiley Pub., Inc.
6. Jason, C. (2005). Using Moodle : teaching with the popular open source course management system. Sebastopol, CA : O'Reilly Community Press.
7. Jason, C. &Helen F. (2008). Using Moodle. Sebastopol, CA: O'Reilly Community Press.
8. Jen K.P. & Sarah E. (2010). Joomla! Start to finish. Indianapolis, IN: Wiley Pub., Inc.
9. Jennifer Marriott, Elin Waring(2011). The official Joomla! Book. Upper Saddle River, NJ: Addison-Wesley.
10. Mauthe, A. & Thomas, P. (2004). Professional Content Management Systems: Handling Digital Media Assets. John Wiley & Sons.
11. Ric S. & Brice D. (2011). Drupal 7 bible. Indianapolis, IN: Wiley.
12. Ron S. &Kenneth C. (2010). Using Joomla. Beijing; Cambridge [Mass.]: O'Reilly.
13. Tris H. (2011). Using WordPress. Indianapolis, Ind, : Que.

Paper- 3.4. Internet and Web Resources & Services (Practical)

Unit-1 Acquaintance with Web Designing: HTML

Unit-2 Acquaintance with web browsers & search Engines: Internet explorer, Google chrome, search engines, search strategy

Unit-3 Web Content Management System (CMS).

Unit-4 Learning Management Systems: Black board/Google Classroom/Moodle

Unit-5 Social networks: YouTube, Twitter, Slide share.

Unit-6 email: Setting signature, creating filters, Tele/Video conference demonstration, creating audio-visual content and hosting.

Note: Each student shall compulsorily maintain practical record and submit the same at the time of practical examination

a) Textbooks

1. Allen C. B. Complete Internet companion for librarians. NY, Neal-Schuman, 1995.
2. Pandian, M. Paul and Jabhekar, Ashok: Internet for libraries and Information centers, New Delhi, McGraw Hill, 2001.
3. Susan, Estrada. Connecting to the Internet. London, Orilly, 1993.
4. Winship, I. and Menab, A. The Students guide to the Internet, London, LA, 1999.
5. Darnell, R. and others. HTML 4 Unleashed: The Comprehensive solution. New Delhi, Techmedia, 1999.
6. Goodman, D.: Dynamic HTML: Definitive reference. Cambridge, O'Reilly, 1998.
7. Dawson, A. The Internet for Library and Information Professionals. London, Library Association Publishing, 1997.
8. Parekh, Harsha, Internet in the scholarly communication process. Mumbai, Mukherjee Knowledgeware Association, 1999.
9. Thulasi, K and Rajashekar, T.B. Web resources for Internet use in libraries. NACLIN99, New Delhi, DELNET, 1999.

Paper-3.5.Information and Communication Studies

Unit – 1. : Information, Knowledge and Data

- Information: Characteristics, Nature, Value and Notion of Information
- Data: Types, Nature and Characteristics Features
- Knowledge: Types, Nature, Value and Characteristics features.
- Inter-relationship of Data, Information and Knowledge.

Unit – 2. Communication

- Information Generation and Communication
- Channels and Levels of Communication
- Barriers of Information Communication
- Communication Modes and Models

Unit – 3. Information Science

- Introduction to Information Science
- Origin, Development and Evolution of Information Science
- Theoretical Foundations and Framework of Information Science
- Physical and Cognitive Paradigms
- Education for Library and Information Science

Unit – 4. Information Society

- Genesis, Development and Evolution of Information Society
- Changing Role of Library and Information Centres in the Information Society
- Information Industry: Content creation, content organization and content communication (Generators, Providers and Intermediaries).

Unit – 5. Issues of Information Society

- Social, Political Issues: Policies relating to Information
- Right to Information
- Intellectual Property Rights
- Concept of Freedom, Censorship, Data Security and Fair use.
- National and International information policies and programmes
- UAP, UBC
- Information Technology Taskforce and its objectives.

Unit – 6. Economics of Information and Information Economics

- Economics of Information and Information Economics
- Information as a Resource and Factor of Production
- Economics of Information Sources and Production

Selected Reading:

1. FID: Finding New Values and Services of Information, 1994.
2. Information Flow in non-R & D context: Seminar Papers; 14th IASLIC conference, New Delhi, 1983.
3. Masuda, Y. The Information Society, 1980.
4. McGary K.J. Communication, Knowledge and the Librarians, 1975.
5. McGary K.J. The changing context of Information Technology, 1986.
6. Rodriguez, Mur and Ferrante, A.J. Information Technology for the 21st Century: Managing the change, 1996.
7. Satyanaraana, N.R. and Satyanarayana, R. ed. Problems of Information Science, 1996.
8. Shera, J.H. The Foundations of education Librarianship. Bombay, Asia, 1970.
9. Vickery, B.C. and Vickery, A. Information Science theory and practice, 1994.
10. Wolpert, S.A. and Wolpert, J.F. Economics of Information, 1986.

Paper 3.6 Technical Writing

Unit 1: Technical writing

- Technical writing: Definition, Overview, Purpose, Types, Characteristics, Functions
- Target groups and their requirements
- Planning, drafting editing, finishing and producing the document
- Use of editorial tools viz., Dictionaries, Style Manuals, Standards and specifications

Unit 2: Skills of technical writing

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

Unit 3: Structure and format of technical writing

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

Unit 4: Presentation of technical communications

- Use of PageMaker and MS-Office for the preparation, production and presentation of scientific and technical communications
- Preparation and use of multimedia facilities for presentation

Unit 5: Trends in technical writing

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

Unit 6: Work assignment

- Work assignments on technical writing basics, technical writing process, techniques and style; Acquaintance, hands on experience and work assignment with software packages and business communication

Note: Each student shall compulsorily maintain practical record and submit the same at the time of practical examination

Selected Readings:

1. Anderson, Paul V and Brockamn, R John and Miller, Carolyn (ed) (1997). New essays in Technical and scientific communication: Research, theory and Pracice. Farmingdale: NY, Baywood
2. Day, Robert A (1989). Writing scientific papers in English Ed 2. Philadelphia: ISI
3. Joshi, Yateendra (2003). Commnicating in style. New Delhi: TERI
4. Riodarn, Daniel G and Pauley, Steven E (2004). Technical report writing today. Ed 8. New Deli: Biztantra
5. Society for Technical Communication (1998). Code for communicators. Washington D C. STC
6. Staples, Catherine and Ornatowski, Cezar (Ed) (1997). Foundations for teaching technical Communications: Theory, Practice and Program Design. Greenwitch, CT: Ablex
7. Xerox Publishing standards (1988). A manual of style and design. New York: Xerox press

Paper 3.7 Special Library Systems and Services

Unit – 1 Special Libraries

- Meaning and Definition, Characteristics, Aims and Objectives, Functions.
- Role of special libraries in R&D institutions, Industries, Government Departments
- History and Development of Special Libraries in UK, USA and India.

Unit – 2 Collection Development and Resource Management

- Meaning and Definitions
- Collection Development Process
- Community Analysis and User Studies
- Collection Development Policy and plans
- Organization of Information Materials - Books, Periodicals, Conference Literature, Technical Reports, Patents, Standards and Specification, Learned Society Publication, Government Publication and Non-book Materials

Unit–4 Planning and Organization of Various Information Services and Library Buildings

- Abstracting Service, Indexing Service, Current Awareness Service, Selective Dissemination of Information, Newspaper Clipping Services, Digest Service, Reference and Referral Service, Literature Searching and Bibliographic Service, Micrographic Service
- Planning and Principles of Library Building
- Library Furniture and Equipment

Unit – 5 Resource Sharing and Networking

- Meaning and Definitions, Need for Resource Sharing, Objectives, Factors, Components, Areas of Resource Sharing, Technical Service, Documentation Services
- Networking – Definition, Structure, Advantages, Internet

Unit – 5 Library and Information Personnel

- Nature, Size, Selection and Recruitment, Qualifications, Duties and Responsibilities, Service Conditions
- Training and Education
- Motivation and Control

Unit – 6 Financing and Budgeting

- Meaning and Definitions, Objectives of Budgeting, Attributes of Budget, Factors in Formulation of Budget
- Budgetary Techniques
- Methods of Financial Estimation, Allocation

Unit – 7 Library Users and User Studies

- Historical Perspective and Importance, Need for User Studies, Types of User Studies, Objectives, Types of Users, Nature of Information Needs, Techniques of User Studies

Selected Readings:

1. Ashworth, W. Handbook of Special Librarianship and Information Work. Ed .4. London: ASLIB, 1985.
2. Autherton, P. Handbook of Information Systems and Services. Paris: UNESCO, 1977.
3. Bakewell, KGB. Industrial Libraries throught the World. Oxford: Pergaman, 1969.
4. Burket, J. Trends in Special Librarianship. London: Clive Bingly, 1968.
5. Claderhead, P (Ed). Libraries for Professional Practice. London: Architectural Press, 1972.
6. Jackson, EB. Special Librarianship: A New Reader. Metuchen: Scarecrow Press, 1985.
7. Krishan Kumar. Research Libraries in the Developing Countries. Delhi: Vikas, 1973
8. Mount, E. Management of Scientific and Technical Libraries. New York: Haworth, 1984.
9. Pruett, NJ. Scientific and Technical Libraries. 2vols. Orlando: Academic, 1986.
10. Singh, SP and Krishan Kumar. Special Libraries in the Electronic Environment. New Delhi: Bookwell, 2005.

Paper 3.8 Electronic Resources and Library services

UNIT-1 INTRODUCTION TO E-RESOURCES

Unit – 1 : Electronic Resources:

- Definition, Emergence, features, advantages and disadvantages, Print vs E-resources
- Types of E-Resources: Databases, E-Books, E-Journals, Multimedia objects, E-references, Scholarly materials, Subject Guides, Web Search Tools, Subject Gateways
- Effective E-Resource Framework, E-Resource Life Cycle

UNIT-2 Electronic Resource Management System (ERMS)

- ERMS: Concept, need, features, types, functional requirements, benefits
- Application Modules of ERMS
- ERM Technology Framework: Open URL, DLFERM

UNIT-3 ERM Workflow

- Principles and Policies of E-Resource Development, Selection, Licensing, Renewal, Deselection
- Acquisition, Technical Services, Delivery, ILL, Marketing and maintenance
- Content Providers, Library-vendor relation, and collaboration

UNIT-4 Usage, Evaluation And IPR

-Use Statistics-COUNTER, Citation Studies, Observation Logs, Interviews and Focus Groups

- Evaluation of E-Resources: Need, Criteria and Methods

- Copyright, Fair use, Relevant Acts, Digital Rights Management (DRM)

UNIT-5 Archiving And Preservation

- E-Archives: Meaning, Features, Registry Models

- Preservation

UNIT – 6 : Electronic Resource Organization

- Cataloguing Standards
- MARC
- Dublin Core

UNIT – 7 : Cloud Computing

- Concepts, Meaning
- Library Applications

Selected Readings:

SEMESTER-IV

Paper 4.1: Digital Library and Information Management

Unit – 1 : Digital Library

- Development, trends of Digital Information
- Meaning, Definition, Nature, Objectives
- Characteristics, Born Digital
- Advantages, Disadvantages

Unit – 2 : Digital Technologies

- Design and Organizations
- Architecture
- Interoperability, Compatibility
- Protocols and standards

Unit – 3 : Digital Library Initiatives

- National and International initiative
- Development with reference to libraries.
- Electronic thesis and Dissertations (ETD) Scholarly communication

Unit – 4 : Digital Resource Management

- Identifying, accessing and processing
- Storage and retrieval - usage of digital resource
- Metadata Harvesting OAI-PMH
- Digital Preservation and Conservation
- DRM issues

Unit – 5 : Digital Library Software

- Digital Library Software in detail
- Open Source Software
- Digital Library open courseware
- DL in networked world

Unit – 6 Digital preservation and archiving

- Digital Data formats
- Digital Preservation issues

Unit – 7 Developing a digital library using Dspace/Greenstone/Eprints

Selected Readings:

1. C. Xavier. World Wide Web Design with HTML. New Delhi : TMH, 2000.
2. Cooper. Michael D. Design of Library Automation System: File Structure, Data Structures and Tools. New York: John Wiley, 1996.
3. G. G. Chowdhury. Introduction to Digital Libraries. London : Facet Publishing, 2003.
4. John M. Cohn, Ann L. Kelsey and Keith Michael Fiels , Planning for library automation: A Practical Handbook – London : Library Association, 1998.
5. John M. Coln, AnnL Kelsey, Keith Michael Fiels. Planning for Automagtion : A How-to-do-it for Librarian. 2nd Ed. [S.I.] : Neal-Schuman, 1997.
6. Kausik Bose Information Networks in India : Problems and Prospects / New Delhi : Ess Ess Publications, 1994.

7. Leona Carpenter, Simon Shaw & Andrew Prescott. Towards the Digital Library. London : LA, 1998.
8. Lovecy, Ian. Automating library procedures: a survivor's handbook. London : Library Association, 1984.
9. Paul Pedley. The invisible Web : Searching the hidden parts of the Internet. London : Aslib, 2001.
10. Reynolds, Dennis. Library automation: Issues and applications. New York: Bowker, 1985.
11. Satyanarayana, N. R. A manual of computerization of libraries. New Delhi: Viswa Prakashan, 1995.

Paper- 4.2. Research Methodology

Unit –1. Research

- Concept, Meaning, Need and Process of Research;
- Types of Research – Fundamental and Applied including inter disciplinary and multidisciplinary approach;
- Role of Research in the Development of Scholarship;

Unit – 2. Research Design

- Conceptualisation and Operationlisation
- Types of Research Design;
- Identification and Formulation of problem;
- Hypotheses; Nominal and Operational Definition;
- Designing Research Proposal;
- Ethical aspects of Research;
- Literature search – print, non-print and electronic sources.

Unit – 3. Research Methods

- Scientific Method
- Historical Method
- Descriptive Method;
- Survey Method and Case Study Method;
- Experimental Method and Delphi Method

Unit – 4. Research Techniques and Tools

- Questionnaire;
- Schedule;
- Interview;
- Observation;
- Scales and check lists;
- Library and Record and Reports,
- Sampling Techniques

Unit– 5. Data Analysis and Interpretation

- Descriptive Statistics – Measure of Central Tendency; Mean, Mode, Median,
- Tabulation and Generalization
- Measures of dispersion, Variance and covariance,
- Standard Deviation
- Graphical presentation of data – Bar, pie, line-graphs, Histograms etc.
- Regression – linear and non-linear.
- Chi Square Test,
- Sociometry

Unit – 6 Statistical Package- SPSS

Unit – 7 Research Reporting

- Structure, Style, Contents
- Guidelines of Research Reports,
- Style Manual – Chicago – MLA-APA etc.
- E-Citation and Methods of Research Evaluation.

Selected Readings:

1. Busha, Charles, H. and Harter, Stephen, S. Research Methods in Librarianship. Techniques and Interpretation. Orlando, Academic press, 1980.
2. Charles, H. et.al. Research Methods in Librarianship: Techniques and Interpretations, New Delhi, Sage, 1993.
3. Fowler, F.J. Survey Research Methods, New Delhi, Sage, 1993.
4. Goode, W.J. and Hatt, P.K. Methods in Social Science Research. New Delhi, McGraw Hill, 1986.
5. Krishan Kumar. Research Methods in Library and Information Science, New Delhi, Vikas, 1992.
6. Leddy, Paul D. Practical Research: Planning Design. London, Clive-Bingley, 1980.
7. Line, M.B. Library Surveys, London, Clive Bingley, 1967.
8. Nicholas D. and Ritchil, M. Literature and Bibliometrics. London, Clive Bingley, 1979.
9. Ravichandra Rao, I.K. Quantitative Methods for Library and Information Science, New Delhi, Wiley Eastern, 1985.
10. Slater, M. Research Methods in Library and Information Studies. London, L.A. 1990.
11. Stevens, R.E. Ed. Research Methods in Librarianship. London, Clive Bingley, 1971.

Paper – 4.3. Scientometrics

Unit - 1 Concept of Scientometrics

- Concept, Meaning, Definition, Scope, Need and Purpose of Librametrics to Cybermetrics: an overview

Unit - 2 Citation Analysis

- Meaning and Definition
- Origin of Citation and Citation Studies
- Bibliographic coupling, co-citation
- SCI, SSCI, A&HCI, Google Scholar

Unit - 3 Bibliometrics/scientometrics

- Genesis, Scope, Definitions and Applications
- Science Indicators
- Mapping of Science

Unit - 4 Bibliometric Laws

- Bradford's Law
- Zipf's Law
- Lotka's Law

Unit - 5 **Growth of Literature Studies**

- Growth of Literature
- Growth Models: Exponential Model, Logistic Model, Power Model, and Gompertz Model
- Obsolescence of Literature

Unit - 6 **Science Productivity**

- Authorship Studies
- Collaboration Studies
- Techniques of Authorship Studies

Unit - 7 **Informetrics and Webometrics**

- Informetrics: Genesis, Scope and Definitions
- Webometrics: Genesis, Scope, and Applications
- Application in the evaluation of websites and evaluation parameters

a) Textbooks

1. Nicholas D. and Ritchi, M. Literature & Bibliometrics. London, Clive Bingley, 1979.
2. Ravichandra Rao, I.K. Quantitative Methods for Library and Information Science, New Delhi, Wiley Eastern, 1985.
3. Egghe, Leo and Rousseau, Ronald: Elementary statistics for effective library and information services management. London, Aslib, 2001.
4. Garfield, Eugene: Citation Indexing : Its theory and applications in science, technology and humanities. New York, John Wiley, 1979.
5. Meadows, A.J. : Communication in science. London, Butterworths, 1974.
6. Thelwall, Michael: Introduction to Webometrics: Quantitative Web Research for the Social Sciences. Morgan and Claypool Publishers, 2009.
7. Neuendorf, K. The content analysis guidebook. London: Sage. 2002.

Paper 4.4: DIGITAL LIBRARIES (Practical)

Unit -1: Working with Greenstone/DSpace/EPrints. Building digital collections; Creating Metadata. Searching, Indexing. Modifying user interface.

Unit -2: Identifying and preparing a directory of Open Educational Resources for teaching, learning and research

Unit - 3: Prepare a directory of electronic resources of primary, secondary and tertiary sources.

Unit - 4: Working with multi-media software: Ominipage, Flash, Photoshop.

Unit - 5: Working with Query designing techniques, interfaces, Database searching and retrieval of information.

Unit - 6: Working with Reference Management Software – Zotero, Mendeley.

Note: Each student shall compulsorily maintain practical record and submit the same at the time of practical examination

References:

Arms, Williams (2000). Digital libraries. Cambridge: MIT press

Carpenter, Leona., Shaw, Simon and Prescott, Andrew (1998). Towards the Digital Library. London: LA

Chowdhury, G G (2003). Introduction to Digital Libraries. London: Facet Publishing

Cooper. Michael D (1996). Design of Library Automation System: File Structure, Data Structures and Tools. New York: John Wiley

Deegan, Marylin and Tanner, Simon (2002). Digital futures: Strategies for information age. Chennai: Allied

Dspace: Open source digital library system http://www.dspace.org

Greenstone. http://www.greenstone.org/english/home.html

Lesk, M (1997). Digital libraries: Books, Bytes and Bucks. San Franscisco, Morgan Coffman

Pedley, Paul (2001). The invisible Web: Searching the hidden parts of the Internet. London: Aslib

Stem, D (1999). Digital libraries: Philosophies, technical design consideration and example Scenarios. New York: Haworth

TERI. ICDL 2004 (2004) International conference on digital libraries: Conference papers. 2V. New Delhi: TERI

Xavier, C (2000). World Wide Web Design with HTML. New Delhi : TMH

Paper 4.5: NETWORKS, NETWORKING, CONSORTIA AND INTERNET TECHNOLOGY

Unit 1: Networks

- Networks: Concept, definition, need, uses
- Network topologies and types of networks – LAN, WAN and MAN
- Network architecture, Comparison of different network architectures
- Network protocols – TCP/IP, OSI, Net Bul, IPv4, IPv6, IPX; Network protection and security
- Network Media and Hardware: UTP, Thick and Thin ethernet, Optical fiber, Wireless; Networks Interface cards, Hubs/Switches

Unit 2: Library Networks

- Study of INFLIBNET, DELNET, and ADINET
- Consortia: Concept, Definition, Need, uses, and types of consortia; Criteria for selection of consortia: Content, Added values, Functionality, Technical considerations, Licensing agreements, and service impact;

Unit 3: Consortia

- Consortia: Concept, Definition, Need, uses, and types of consortia; Criteria for selection of consortia: Content, Added values, Functionality, Technical considerations, Licensing agreements, and service impact;
- Consortia Initiatives in India: e-Shodh sindhu consortia, National Knowledge Resource Consortium (CSIR), DAE Consortium (DAE), MCIT Consortium (MCIT), ERMED (MH & FW), DELCON (DBT), CERA (ICAR) and DRDO Consortium (MoD).

Unit 4: Internet Technology

- Internet Technology; tools and protocols: Search Engines**:** Concept of search engines; Parts of a search engines; Study of Google, Yahoo etc; Meta search engines; Search tools; Web search strategies.

Unit 5: Internet Services

- Internet services: E-mail; File Transfer Protocol (FTP); Remote Login, WWW; web 2.0;
- Application of Social Networking cites on Library system - Facebook, Twitter, YouTube etc; Teleconferences, Videoconferencing; Bulletin Board Services and Document Delivery Service

Unit 6: Internet and Web Security

- Cyber laws: Electronic Document; Digital signatures, Digital certificates, Electronic contracts; Regulations of cyber laws
- IT act 2000 and its amendments

Unit 7: Evaluation of Websites and Web-resources

- Web evaluation
- Compilation of web-resources
- Cyber laws

References:

1. Bose, Kaushik (1994). Information networks in India: Problems and prospects. New Delhi: Ess Ess
2. Bradely, Phil (2002). The advanced Internet searcher's Handbook. Ed 2. London: LA
3. Dawson, Andy (1995). The Internet for Library and Information service professionals. London: Aslib
4. DRTC (1993). Library Networks in India: Seminar papers
5. Gopinath M A (1996). and Rama Reddy E (eds). Information access through networks. Hyderabad: Book links,
6. Kaul, H K (1992). Library networks: An Indian experience. New Delhi: Virgo
7. Lancaster, F W (1990). Electronic publishing and their implications for libraries and beyond. London: Clive Bingley
8. Parekh, Harsha (1999). Internet in the scholarly communication process. Mumbai: Knowledge ware
9. Poulten, Allen and Others (1999. The library and Information professionals guide to the world wide web. London: LA
10. Tanenmbanum, Andrew S (1998). Computer networks. Ed 3. New Delhi: Prentice-Hall of India
11. UGC (India) (1989). INFLIBNET report. New Delhi: UGC
12. Zen, B P (1992). The art of the Internet: A beginner's guide. New Delhi: Prentice-Hall Paper -4.6

Paper 4.6: DATABASE SEARCHING AND RETRIVEL OF INFORMATION AND MANAGEMENT SYSTEM (PRACTICAL)

Unit 1:

- Data Models; Database languages; Transaction; Storage management; Database administrator; Users; Overall system structure
- Entity; Relationship Model: Basic concepts; Mapping constraints; Keys; E-R Diagram; Weak Entity Sets; Reduction of E-R Diagram to tables.

Unit 2:

- Relational Model: Structure, relational algebra, extended operations; Modifications on a database: Views
- SQL: Basic structure, set operations, aggregate functions; nested sub queries, derived relations, views.

Unit 3:

- Integrity constraints: Domain constraints; referential integrity, assertions, triggers, functional dependencies, relational database design, decomposition, normalization using functional, multi valued, Joint dependencies;
- Domain; Key Normal form; alternative approaches.

Unit 4:

- Object Oriented data Model: Languages;
- Object Relational databases: Nested Relations, Complex types and object Orientation;
- Querying with complex types, creation of complex values and objects, comparison**.**

Unit 5:

- Database System Architectures: Centralized Systems, Client server systems, Distributed systems
- Parallel databases: introduction, inter query, intra query, intra-operation, interoperation parallelism

Unit 6:

- Distributed databases,distributed data storage, network transparency
- Query processing; Transaction model, Commit protocols; coordinator selection; concurrency control; deadlock handling; multi database systems.

Unit 7: Study and work experience with RDBMS: MySQL/PostgreSQL

References:

Bipin C (1995) 6th ed. Desai, An Introduction to Database Systems, West Publications.

Date, C J (1995) 6th ed. An introduction to database systems, Addison Wesley publications, 6th edition

Hansen, Gary W and Hansen, James V (1996). Database Management and Design, Prentice Hall

Hoffer, Jeffrey A., Prescott, Mary B., Mcfadden, Fred R (2002). Modern Database Management 6th ed, Prentice Hall, 2002

Korth, Henry F and Silberschatz, Abraham and Sudarshan, S (1997). Database System Concepts, 3rd ed, McGraw-Hill

Norman, Ronald J (1996). Oriented Systems Analysis and Design, Prentice Hall.