# GONDWANA UNIVERSITY GADCHIROLI CHOICE BASED CREDIT SYSTEM SYLLABUS FOR BLISC/MLISC-I AND MLISC-II FROM SESSION 2016-17

#### **GENERAL INSTRUCTIONS:**

- 1. Bachelor of Library and Information Science One Year Course will be in two semester( Semester-I and Semester-II) on the basis of Credit Based Semester pattern. It is recommended that it will be treated as equivalent to First Year of the M LISc (Two Years Integrated /choice Based Credit System pattern Course.
- 2. Semester I and Semester II will be for BLISc (CBS) and MLISc Part-I (CBCS) and Semester III and IV will be for MLISc Part-II (CBCS)
- 3. There shall be 5 Theory papers and 4 Practical papers in each Semester for BLISc(CBS) and MLISc Part-I (CBCS). All the papers are Core and compulsory.
- 4. There Shall be 5 Core, 4 Elective and 1 Foundation Paper for MLISc Part II (CBCS) for each semester. The student has to take all the 5 Core papers, any 1 Elective Papers from the options given in the syllabus for Semester III and IV. The Foundation paper given in the syllabus is for the Students coming from other P.G. Departments. MLISc Part II (CBCS) Semester III and IV Students should select the Foundation Course from any other P.G. Department of their choice. They should earn the credits from the respective departments.
- 5. There will be 100 marks in each paper, out of which 80 marks will be for University Examination and 20 marks will be for Internal Assessment.
- 6. There will be 4 credits in each paper.
- 7. Details of minimum passing marks for each paper is appended as examination scheme.
- 8. The students will be required to pass in university examination and internal assessment aggregative.
- 9. Credits will be calculated on marks obtained out of 100 or 50.

#### **QUESTION PAPER PATTERN:**

- 10. There will be 4 units in each paper and one question will be asked on each unit. Question paper will consist of five questions and all questions shall be compulsory. Each question will carry 16 marks.
- 11. First four questions will be based on four units as specified in the syllabi of the given subject with internal choice only.
- 12. Fifth question will be compulsory having subject question from each of the four units with equal weight-age and there will be no internal choice.
- 13. Total marks of each Theory paper will be 100 marks.
- 14. Time duration of each Theory paper will be Three (3) Hours.
- 15. Minimum passing marks (Theory, Practical and Internal Assessment) will be 40%.

#### INTERNAL ASSESSMENT MARKS DISTRIBUTION:

16. Internal Assessment of 20 marks for each paper, The internal assessment shall be done by the college. The internal assessment marks will be awarded on the basis of assignments like class test, attendance, project assignment, seminar, study (educational) tour, visit to libraries and information centres, group discussion any other innovative practice/activity.

#### **ADMISSION**

- 17. Subject to the compliance with the provisions of this Direction and of the ordinances in force from time to time an applicant for admission to semester –I examination shall have passed the Bachelor Degree examination of this university or of any other statutory recognized university as equivalent to the Bachelor Degree of this university other than B.L.I.Sc
- 18. Admission of Post graduate programs (MLISc 4 semester course ) and BLISc will be based on merit at the graduation level.
- 19. ATKT refers to allowed to keep them in higher semester as per University norms.

#### **ABSORPTION SCHEME**

- 20. BLISc (CBS) as well as BLISc Yearly Pattern passed students shall be admission to third semester directly.
- 21. For Second semester candidate should have satisfactory completed the term work and appeared at least 01 theory paper of Semester- I exam.
- 22. For third semester (MLISc –Two years integrated Choice Based Credit System pattern course ) student should have passed 60% subject each of semester-I and semester-II together.
- 23. For forth semester student should have passed 60% subject each of semester -I & semester-II and appeared at least 01 theory paper of semester III exam.
- 24. Student shall get requisite credit from the concerned college where he / she is mutually permitted on terms mutually agreed to complete the same and be eligible to appear for Semester End Examination conducted by Gondwana University, Gadchiroli.
- 25. Without prejudice to other ordinances in force relating to the examination the provisions said ordinance shall apply to every student admitted to this degree.
- 26. The fees for the tuition, examination, laboratory and other fees shall be as prescribed by the university from time to time.
- 27. The scope of the subject shall be as prescribed in the syllabus.
- 28. The medium of instruction and examination shall be in Marathi/ Hindi /English.
- 29. The number of paper and maximum marks assigned to each paper and minimum marks / grade, as examinee must obtain in order to pass the examination shall be as prescribed in appendix 1 & 2 as the case may be.
- 30. The examinee at each of the examination shall have option of not being declared successful at the examination in case he / she does not secure a minimum of grade equivalent to 55% marks at the examination. Once this option is exercised, the option shall be binding on the examinee for that Semester examination only and it shall not be revoked under any circumstances.

- 31. The classification of the examinee successful at the Semester end examinations and at the end of final Semester examination shall be as per the rules and regulations of Credit Based Semester Pattern.
- 32. The provisions of Direction no. 3 of 2007 for the award of grace marks for passing an examination, securing higher grade in subject(s) as updated from time to time shall apply to the examination under this direction.
- 33. The provisions of ordinance regarding improvement of Grade / Division shall be applicable.
- 34. The names of the successful examinee passing the examination as a whole in the minimum prescribed period and obtaining prescribed number of places securing the grades equivalent to first and second division shall be arranged in order of merit as provided in ordinance 6 relating to examination in general.
- 35. No candidate shall be admitted to an examination under this direction, if he / she have already passed the same examination of this university or of any other university.
- 36. Examinee successful at the final examination shall on payment of the prescribed fees, will be entitled for the award of the degree in the prescribed form signed by the Vice Chancellor.
- 37. This course is based on Credit Based Semester Pattern and therefore, it will be also regulated by guidelines and regulation issued by the university from time to time.
- 38. Every student after completion of M.L.I.Sc II semester examination (B.Lib.I.Sc./M.lib.I.sc. Integrated course four semester) shall be required to undergo a course of practical library work (internship) for a period of not less than thirty working days during vacation after second semester in any of the libraries of the affiliated colleges/institutions recognized by the university.
- 39. Grade & Grade Point -Marks of each paper which requires minimum passing percentage as 40% would be converted to grades and grade point as shown in Table given below.

Table: Conversion of Marks to grades and grade point in credit System

Range of Marks Obtained Out of 100 or Equivalent	Letter		
Fraction	Grade	<b>Grade Point</b>	Description
75 -100	0	10	Outstanding
60-74	Α	9	Excellent
55-59	В	8	Very Good
50-54	С	7	Good
45-49	D	6	Fair
40-44	Е	5	Average
Less than 40	F	0	Dropped or Fail
Absent in Examination	Х		

- 40. Credit Point (C) Credit Point is calculated for each and every successful papers / course as per following formula.
  - Credit Point (C) = Credit x Grade Point
- 41. On clearing all the papers in a Semester, a student will be allotted a Semester Grade Point Average (SGPA) for that particular Semester.
- 42. The computation of Semester Grade Point Average (SGPA) of an examinee shall be as per the formula given below:
- a. The marks shall be given in all examinations which will include the college assessment marks, and total marks for each Theory / Practical and shall be converted into Grades as per above table. SGPA shall be computed based on Grade Points corresponding to Grade as given in above table and the credits allotted to respective Theory / Practical shown in the scheme for respective Semester.
- b. SGPA shall be computed for every Semester as per formula given below SGPA =

Where C1 = Credit of individual Theory / Practical

G1 = Corresponding Grade Point obtained in the respective Theory / Practical

C1 x G 1 + C2 x G2 + C3 x G3 + C4 x G4

$$C1 + C2 + C3 + C4$$

43. A student will be allotted a Cumulative Grade Point Average (CGPA) after clearing all the four Semesters and it shall be calculated as per the following formula CGPA =

Where, (SGPA) I = SGPA of Semester-I; (Cr) I = Total Credits for Semester-I

(SGPA) II = SGPA of Semester-II; (Cr) II = Total Credits for Semester-II (SGPA) III = SGPA of Semester -III; (Cr) III = Total Credits for Semester-III (SGPA) IV = SGPA of Semester-IV; (Cr) IV = Total Credits for Semester-IV

The conversion of CGPA in to grade shall be as follows

Sr. No.	Grad Points	Final Grade
01	5.0 to 6.0	0
02	4.50 to 4.99	Α
03	3.50 to 4.49	В
04	2.50 to 3.49	С
05	1.50 to 2.49	D
06	0.50 to 1.49	Е
07	0.00 to 0.49	F

Final Mark List will only show the Grade and the Grade Points and not the marks.

- 44. For declaring the result, verification and revaluation the existing relevant ordinances are applicable.
- 45. The candidate may take all the examinations as per the provisions of ATKT simultaneously but his result of final Semester shall not be declared unless he is declared successful at all lower examinations.

- 46. Internal Assessment marks shall be awarded on the basis of Seminar, Viva, and Assessment/Test exam conducted by College.
- 47. Right of Rejection:

Candidate shall have right to reject the result of Semester, subject to following conditions:

- a. The candidate shall have option to reject the result of Semester/Term End Examination and can appear afresh with all papers for rejected Semester End Examination. b. Subject wise rejection will not be permitted.
- c. Candidate who rejects the result shall be allowed to appear in the subsequent Examinations.

(SGPA)-I x (Cr) I + (SGPA) II x (Cr) II + (SGPA) III x (Cr) I II + (SGPA) IV x (Cr) IV (Cr) I + (Cr) II + (Cr) III + (Cr) IV

- d. Rejection shall be exercised only once in each semester and rejection once exercised cannot be revoked under any circumstances.
- e. Candidate should submit the application for the rejection along with Original Statement of Marks and payment of prescribed fees to university through college within the 15 days from the date of declaration of result of that semester.

# **Course Structure for**

# Degree of Master of Library and Information Science (MLISc)

(2 Year Integrated Course: Semester, Choice Based Credit System)

#### And

# Bachelor of Library and Information Science (BLISc)

( Equivalent to MLISc first Year CBCS)

		Credit Di	stribution	Marks Distribution			
Course	Course Name	Theory	Practical	Univ.	Internal	Grand	
code				Exam.	Assessment	Total	
FIRST SE	MESTER						
LIS/I/T/01	Foundation of Library and	04	00	80	20	100	
	Information Science						
LIS/I/T/02	Knowledge Organization and	04	00	80	20	100	
	Library Classification						
LIS/I/T/03	Library Cataloguing	04	00	80	20	100	
LIS/I/T/04	Information Sources	04	00	80	20	100	
LIS/I/T/05	Information Technology	04	00	80	20	100	
	Basics						
LIS/I/P/06	Classification Practice (Part-I)	00	04	80	20	100	
LIS/I/P/07	Cataloguing Practice (Part-I)	00	04	80	20	100	
LIS/I/P/08	Information Technology	00	04	80	20	100	
	Basics Practice (Part-I)						
LIS/I/P/09	Information Sources Practice	00	04	80	20	100	
	(Part-I)						
	otal	20	16	720	180	900	
SECOND	SEMESTER	_				•	
LIS/II/T/10	Library House Keeping	04	00	80	20	100	
	Operation						
LIS/II/T/11	Management of Libraries and	04	00	80	20	100	
	Information Centres						
LIS/II/T/12	Information Services	04	00	80	20	100	
LIS/II/T/13	Library Automation	04	00	80	20	100	
LIS/II/T/14	Research Methods and	04	00	80	20	100	
	Statistical Techniques						
LIS/II/P/15	Classification Practice (Part –	00	04	80	20	100	
	II)						
LIS/II/P/16	Cataloguing Practice (Part-II)	00	04	80	20	100	
LIS/II/P/17	Information Technology	00	04	80	20	100	
	Basics Practice (Part-II)						
LIS/II/P/18	Information Sources Practice	00	04	80	20	100	
	(Part –II)						
Т	otal	20	16	720	180	900	

# Degree of Master of Library and Information Science (MLISc)

# (2 Year Integrated Course : Semester, Choice Based Credit System) Second Year

# And

# Degree of Master of Library and Information Science (MLISc)

		Credit Di	Credit Distribution		Marks Distribution		
Course	Course Name	Theory	Practical	Univ.	Internal	Grand	
code				Exam.	Assessment	Total	
THIRD SEN	ИESTER						
LIS/III/T/19	Information Analysis,	04	00	80	20	100	
	Repackaging and						
	Consolidation						
LIS/III/T/20	Information Storage,	04	00	80	20	100	
	Retrieval and Bibliographical						
116 /111 / <del>T</del> /24	Control	0.4	00	00	20	100	
LIS/III/T/21	System Analysis and	04	00	80	20	100	
LIS/III/T/22	Bibliometrics	04	00	80	20	100	
LI3/III/1/22	ICT Applications in Libraries and Information Centres	04	00	80	20	100	
	Elective Papers : Any one of	04	00	80	20	100	
	the following	04			20	100	
LIS/III/T/23-	Elective 1- Industrial						
EL.1	Information System						
LIS/III/T/2-	Elective 2- Agricultural						
El.2	Information System						
LIS/III/T/23-	Elective 3- Legal Information						
EL.3	System						
LIS/III/T/2-	Academic Library and						
EL.4	Information System						
LIS/III/P/24	Information Technology	00	04	80	20	100	
	Application (Part-I)						
LIS/III/P/25	Educational Tour Report,	00	02	00	50	50	
	Survey of \libraries and						
	Information Centres						
LIS/III/P/26	Internship	00	02	00	50	50	
LIS/III/P/27	Project Seminar	00	02	00	50	50	
	Total	20	10	480	270	750	
Foundation I Students)	Paper –Only for Other P.G. Depa	rtment (In	terdisciplina	ıry) Stude	ents (Not for LI	S	
LIS/III/T/28	Fundamentals of Library	04	00	80	20	100	
/ FC- Part -I	Science						

FOURTH SEM	1ESTER					
LIS/IV/T/29	Information System and Networks	04	00	80	20	100
LIS/IV/T/30	Management of ICU, Marketing and Technical Writing	04	00	80	20	100
LIS/IV/T/31	Computer Generated Indexes and Retrieval Techniques	04	00	80	20	100
LIS/IV/T/32	Digital Libraries	04	00	80	20	100
	Elective Papers- Any one of the following	04	00	80	20	100
LIS/IV/T/33 EL.1	Archival, Museums and Archaeological Information System					
LIS/IV/T/33	Bio-technology Information					
-LE.2	System					
LIS/IV/T/33	Engineering and					
-EL.3	Technological Library and					
	Information System					
LIS/IV/T/33	Public Library and					
-EL.4	Information System					
LIS/IV/P/34	Information Technology Applications (Part-II)	00	04	80	20	100
LIS/IV/P/35	Project Work Report	00	04	80	20	150
	Vivo Voce		02	50		
	Total	20	10	610	140	750
Foundation F Students)	Paper –Only for Other P.G. Depar	tment (Int	terdisciplina	ary) Stude	ents (Not for LIS	5
LIS/IV/T/36 / FC-Part II	Fundamentals of Information Science	04	00	80	20	100

# Master of Library and Information Science

M.Lib.I.Sc (CBCS) (Two years in Four semesters Integrated Course)

and

Bachelor of Library and Information Science

B.Lib.I.Sc (CBS)

Statement showing semester, theory and practical paper, teaching scheme, credits, duration, maximum and minimum marks in order to pass the examination.

### SEMESTER I

Sr.No	Theory Paper	Teaching	Credits	Examination Scheme						
	Scheme		Duration	Duration Maximum		Total	Minimum			
		(Hrs/Week)	ek)	(Hrs)	External	Internal	Marks	Passing		
					Marks	Assessment		Marks		
					(Univ.)	Marks				
1	LIS/I/T/01	4	4	3	80	20	100	40		
2	LIS/I/T/02	4	4	3	80	20	100	40		
3	LIS/I/T/03	4	4	3	80	20	100	40		
4	LIS/I/T/04	4	4	3	80	20	100	40		
5	LIS/I/T/05	4	4	3	80	20	100	40		
	Total	20	20	15	400	100	500	200		
	Practical Papers									
6	LIS/I/P/06	8	4	3	80	20	100	40		
7	LIS/I/P/07	8	4	3	80	20	100	40		
8	LIS/I/P/08	8	4	3	80	20	100	40		
9	LIS/I/P/09	8	4	3	80	20	100	40		
	Total	32	16	12	320	80	400	160		
Net to	tal (Theory and Practical)	52	36	27	720	180	900	360		

# SEMESTER- II

Sr.No	Theory Paper	Teaching	Credits	Examination Scheme				
		Scheme		Duration	Maximu	m Marks	n Marks Total	
		(Hrs/Week)		(Hrs)	External	Internal	Marks	Passing
					Marks	Assessment		mark
					(Univ.)	Marks		
1	LIS/II/T/10	4	4	3	80	20	100	40
2	LIS/II/T/11	4	4	3	80	20	100	40
3	LIS/II/T/12	4	4	3	80	20	100	40
4	LIS/II/T/13	4	4	3	80	20	100	40
5	LIS/II/T/14	4	4	3	80	20	100	40
	Total	20	20	15	400	100	500	200
	Practical Papers							
6	LIS/II/P/15	8	4	3	80	20	100	40
7	LIS/II/P/16	8	4	3	80	20	100	40
8	LIS/II/P/17	8	4	3	80	20	100	40
9	LIS/II/P/18	8	4	3	80	20	100	40
	Total	32	16	12	320	80	400	160
Net to	tal (Theory and Practical)	52	36	27	720	180	900	360

# Master of Library and Information Science

(M.Lib.I.Sc.)

# Semester wise Syllabus

# (Paper, Subjects, Denomination of Total Marks and Theory, Practical Internal Assessment and Total Marks) SEMESTER III

Sr.No	Sr.No Theory Paper Teaching Scheme (Hrs/Week)		Credits	Examination Scheme				
			Duration (Hrs)	Maxim External Marks (Univ.)	um Marks Internal Assessmen t Marks	Total Marks	Minimum Passing Marks	
Core	LIS/III/T/19	4	4	3	80	20	100	40
Core	LIS/III/T/20	4	4	3	80	20	100	40
Core	LIS/III/T/21	4	4	3	80	20	100	40
Core	LIS/III/T/22	4	4	3	80	20	100	40
Elective	LIS/III/T/23-EL.1 LIS/III/T/2-EI.2 LIS/III/T/23-EL.3 LIS/III/T/2-EL.4	4	4	3	80	20	100	40
	Total	20	20	15	400	100	500	200
	Practical Papers							
Core	LIS/III/P/24	8	4	3	80	20	100	40
Core	LIS/III/P/25		2			50	50	20
Core	LIS/III/P/26		2	30 Working days		50	50	20
Core	LIS/III/P/27	4	2	3		50	50	20
	Total	12	10	06	80	170	250	100
Net total (Th	eory and Practical)	32	30	21	480	270	750	300
Foundation	LIS/III/T/28/ FC- Part -I	4	4	3	80	20	100	40

# Master of Library and Information Science Semester wise Syllabus

# (Paper, Subjects, Denomination of Total Marks and Theory, Practical, Internal Assessment and Total Marks) SEMESTER IV

Sr.No	Theory Paper	Teaching Scheme (Hrs/Week)	Credits	Credits Examination Scheme					
				Duration	Maxim	um Marks	Total	Minimum	
				(Hrs)	External	Internal	Marks	Passing	
					Marks	Assessment		Marks	
					(Univ.)	Marks			
Core	LIS/IV/T/29	4	4	3	80	20	100	40	
Core	LIS/IV/T/30	4	4	3	80	20	100	40	
Core	LIS/IV/T/31	4	4	3	80	20	100	40	
Core	LIS/IV/T/32	4	4	3	80	20	100	40	
Elective	LIS/IV/T/33EL.1	4	4	3	80	20	100	40	
	LIS/IV/T/33-LE.2								
	LIS/IV/T/33-EL.3								
	LIS/IV/T/33-EL.4								
	Total	20	20	15	400	100	500	200	
	Practical Papers						•		
Core	LIS/IV/P/34	8	4	3	80	20	100	40	
Core	LIS/IV/P/35	8	4+2		80+50	20	150	40+20	
	Total	16	10	3	210	40	250	100	
Net total (Ti	heory and Practical)	36	30	18	610	140	750	300	
Foundation	LIS/IV/T/36/ FC-Part II	4	4	3	80	20	100	40	

### **Details of Syllabus**

# B.Lib/M.Lib.I.Sc

#### **SEMESTER-I**

Examination Leading to the Degree of Library and Information Science

# LIS/I/T/01: Foundation of Library and Information Science

Unit-I: Laws of Library Science and Role of Libraries

- Five Laws of Library Science
- Implications of Five Laws in Library and Information Science
- Library as a social Institution
- Role of Library and Information Centres in Modern Society

#### Unit-II: Types of Libraries

- Academic Libraries: School, College and University Libraries
- Special Libraries and Information Centres
- Public Libraries
- National Library of India: Concept, functions and Services
- Mobile Libraries and Children Libraries

#### Unit-III: Library Development & Legislation

- History and Development of Library, writing material and printing in India
- Recent Trends in Library and Information activities in India
- Library Legislation: Need, Purposes, Objectives
- Library Legislation in India
- Maharashtra Public Libraries Act-1967
- Press and Registration Act, Copyright Act

#### **Unit-IV: Professional Associations**

- National LIS associations: ILA, IASLIC, IATLIS
- International LIS associations: IFLA, ALA
- Role of professional associations in the growth of LIS profession

# LIS/I/T/02: Knowledge Organization and Library Classification

#### Unit-I: Universe of Knowledge

- Knowledge: Concept, Definition, Types
- Structure, Nature and Attributes of Universe of Subject
- Modes of formation of Subject

#### Unit-II: Library Classification Theory

- Definition, Need and Purpose of Classification
- Planes, Canons, Principles, Fundamental Categories, Postulates, Facet Analysis and Facet Sequence
- Phase Relation, Common Isolates, Devices, Mnemonics
- Knowledge Classification Vs Book Classification

#### Unit-III: Classification Schemes

- Species of Library Classification Schemes
- Salient feature of Colon Classification, Dewey Decimal classification, and Universal Decimal Classification
- Mapping of Subjects in DDC, UDC, and CC

#### Unit-IV: Notational Techniques and Recent Trends in Library Classification

- Notation : Definition, Types, Function, Qualities and Techniques
- Design and Development of Classification Schedules
- Recent Trends in Library Classification

# LIS/I/T/03: Library Cataloguing

#### **Unit-I: Cataloguing Principles**

- Catalogue: Definition, Objectives, Need and Functions
- Types of Catalogue and Physical Forms of Catalogue
- Principles of Cataloguing : Ranganathan's Cannon
- Introduction to Catalogue Codes : CCC, AACR- II

#### Unit-II: Entry Element, Filing and Subject Headings

- Kinds of Entries: Main Entry, Added Entry, Reference Entry, Cross Reference Entry, Index Entry and their elements
- Subject Heading List and Their Features: LC and Sear's List of Subject Heading
- Principle of Subject Cataloguing
- OPAC, WEBOPAC

#### Unit -III Cataloguing

- Selective and Simplified Cataloguing
- Centralized and Co-operative Cataloguing
- Union Catalogue
- Cataloguing of Non book Material
- Organization of Cataloguing Department

#### Unit-IV Bibliographic Description

- ISBD, FRAD (Functional Requirements for Authorized Decription), GARR (Guidelines for Authority Record and References), RDA(Resources Description and Access)
- SBN. ISSN
- Bibliographic Records Format- MARC 21, CCF

# LIS/I/T/04: Information Sources

#### **Unit-I: Information Sources**

- Meaning, Definition and Need for Information Sources in Libraries
- Kinds of Information : Primary, Secondary and Tertiary Sources of Information
- Sources of Information: Documentary and Non Documentary (Human and Institutional)

#### **Unit-II: Reference Sources**

- Meaning, Definition and Kinds of Reference Sources
- Bibliographical sources: INB, BNB an trade bibliographies
- Nature and characteristics of Reference books
- Need and Criteria for evaluation of Reference Books
- Evaluation of selected Reference Books
- Types of Users
- Approaches and Needs of Users
- User Studies: Purpose and Techniques
- Information Seeking Behavior

#### Unit-IV: User Education, Organizational Aspects of Reference Service

- User Education: Objectives and Techniques
- User Education in Public, Academic and Special Libraries
- Organization of Reference Department/ Reference Service
- Qualities of a Reference Services

# LIS/I/T/05: Information Technology – Basics

#### Unit-I: Information Technology

- Definition, Need, Scope and Objectives
- Components of Information Technology
- Computer Technology –History, Classification and generation of computers.
- Applications of IT in Libraries and Information Centers
- Memory: Primary and Secondary
- Input Devices
- Output Devices
- Secondary Storage Devices
- Operating System; Single and Multi User Systems
- MS-DOS, MS-Windows, XP, Vista, Windows NT, LINUX, UNIX
- Programming Languages
- Algorithms and Flow Charting

#### Unit-IV: Application software

- Word Processor
- Spread Sheets
- DBMS Packages
- Introduction to Library Management Software

#### SEMISTER -I PRACTICE

#### LIS/I/P/06 : Classification Practice (Part I)

- Classification of Subject using DDC (Latest Edition)
- Basic Subject and Compound Subject
- Tables: 1, 2 and 3
- "Add" Instruction

### LIS/I/P/07: Cataloguing Practice (Part I)

- Cataloguing of Documents using AACR (Latest Edition)
- Single, Joint Author, Corporate Author, Composite Books, Pseudonymous
- Structure of Main entries, Added entries, Reference entries

#### LIS/I/P/08: Information Technology Basics Practice (Part-I)

- MS-Office
- Creation of Purchase Order, Bio-data in Word file
- Creation of presentation in MS-Power Point
- Creation of Mark sheet, Salary Slips, Accession Register in MS-Excel
- Creation of Charts

#### LIS/I/P/09: Information Sources Practice (Part – I)

- Study of various Reference Sources with special reference to India: Dictionaries,
- Encyclopedias, Year Books and Directories
- Evaluation of selected standard Reference Sources
- Finding information from above standard reference sources

#### SEMESTER II

# LIS/II/T/10: Library House Keeping Operations

#### Unit-I: Collection Development

- Different Operation : Mechanism and components.
- Collection development : Purpose and Policy
- Selection Acquisition of documents: Principles, Tools and Functions
- Acquisition: Mechanism of Procurement, functions and problems

#### Unit-II: Technical Processing, Serials Management

- Technical Processing: Need, Role and Procedure
- Serials : Concept and types
- Serials Management: Selection and Acquisition Recording, Circulation, Problems and Issues
- Serial Control Systems : Traditional and Automated systems

#### Unit-III: Circulation Control System and Preservation

- Circulation : Concept, Need and Function
- Charging and Discharging Systems: Traditional and Modern System
- Protection against enemies of Books, Binding
- Conservation, Preservation and Restoration of Print, Non-Print, and Electronic Materials
- Stock Verification : Methods and Tools
- Stock Evaluation, loss and write off books
- Library Records: Purpose, Types
- Annual Report: Contents, Compilation
- Library statistics: Purpose, Items including methods of Compilations

# LIS/I/T/11: Management of Libraries and Information Centres

#### Unit-I: Management Concept, Planning and Principles

- Concept, Definition and scope of Management
- Schools of thoughts in Management
- Modern Approaches to Management
- Principles of Scientific Management- Their application to Libraries and Information Centers
- Planning: Concept, Need and Purpose, Steps, planning of library and information centers, Forecasting techniques

#### Unit-II: Human Resource Management

- Human Resources Planning
- Recruitment, Selection and Job Description
- Training and Development, Performance Appraisal
- Leadership: Styles and skills
- Motivation

#### Unit-III: Financial Resource Management

- Sources of Finances and Resource Mobilization
- Budget and Budgeting Traditional Methods; PPBS, Zero Based Budgeting
- Budgetary and Non Budgetary Control

#### Unit-IV: Trends in Management Techniques

- MBO,TQM
- SWOT Analysis
- Management of Change
- Six-Sigma
- Out sourcing, Re-engineering, MIS

# LIS/II/T/12: Information Services

#### **Unit-I: Information Services**

- Information Services: Definition, Scope,, Need ,Functions and Trends
- Types of Information Services; Reference Service, Referral Services, Bibliographic Service, Translation Service, CAS/Alerting Service, SDI service
- Document Delivery Service

#### Unit-II: Abstracting and Indexing Services

- Types of Abstracts and their use
- Techniques of Preparation of abstract
- International and National Abstracting Services
- Index: Meaning, Types and use
- International and National Indexing Services

#### Unit-III: Trends in Reference and Information Services

- Impact on IT on Reference and Information Services: Databases, Electronic Reference Sources Service
- Electronic document Delivery
- Internet as a source of Information service

#### Unit-IV: National and International Information Centers

- Information Centers and Systems National Information Centers and Systems (NISCAIR, NASSDOC, DESIDOC, NCSI)
- International Information Systems (INIS, AGRIS, DEVSIS, MEDLARS)

# LIS/II/T/13: Library Automation

Unit-I: Planning of Library Automation

- Steps in Planning Library automation: Feasibility Study, system analysis, Design, Implementation and Evaluation
- Selection of Hardware
- Selection of software Human Resource Development For IT Challenges
- Automated Acquisition System
- Automated Cataloguing System
- Automated Circulation System
- Automated Serial control system

#### Unit-III: Library Management Software

- CDS/ISIS
- LIBSIS
- SOUL
- Open Source Library Management software
- e-Granthalaya
- Fundamentals of Communication Technology: Media, Mode and Components
- Network Media: Optical Fiber, Ethernet, Network Interface Card, Hubs, Routers and Modems
- Types of Network: LAN, MAN, WAN

# LIS/II/T/14: Research Methods and Statistical Techniques

#### Unit-I: Research

- Concept, Meaning, Importance and Purpose of Research
- Types of Research- Fundamental and Applied including interdisciplinary and multidisciplinary research
- Aims and Objectives
- Scope and Limitations
- Problem identification and formulation
- Hypothesis
- Designing of Research Proposal
- Research Method :Scientific, Historical, Case Study, Survey, Descriptive, Experimental Method
- Research Tools: Questionnaires, Schedule, Interview, Observation, Scales and Check lists
- Library Record and Report
- Sampling Techniques

#### Unit- IV: Statistical Techniques

- Measures of Central Tendency : Mean, Median and Mode and Standard Deviation
- Measure of Dispersion, Variance and Covariance
- Z-test, T-test, Chi Square Test
- Presentation of Data: Tabular, Graphic, Bar Diagram, Pie Chart, etc.
- Data Analysis : SPSS, MS-Excel

#### SEMISTER -II PRACTICE

#### LIS/II/P/15 : Classification Practice (Part-II)

- Library Classification of subject using DDC (Latest Edition)
- Complex Subject
- Tables 4, 5, 6 and 7
- Assigning Book Number (Using at least one standard Book Numbering System)

#### LIS/II/ P/16: Cataloguing Practice (Part-II)

- Library Cataloguing of Documents using AACR (Latest Edition)
- Government Publications, Serial Publications, Collected Work, Series
- Non-Book Materials: Audio Video Disks, Microforms, Maps, Atlases, Globes
- Assigning Subject Heading either by standard Subject Heading Lists or by Chain Procedure

### LIS/II/ P/17: Information Technology Basics Practice(Part-II)

- Database Creation using at least one DBMS Software
- Database creation using any Library Automation Software
- Searching of Bibliographic database, OPAC
- Creation of Users Database

#### LIS/II/P /18: Information Sources (Part II)

- Study of various reference sources with special reference to India: Bibliographical sources,
   Geographical sources, Special Reference Sources, Bibliographical Sources
- Evaluation of selected above standard reference sources.

#### SEMESTER III

# LIS/III/T/19: Information Analysis, Repackaging and Consolidation

Unit-I: Information analysis

Concept, Definition, need and Methods of Information analysis Abstracting: types, Techniques and guidelines in preparing abstract

Unit-II: Repackaging and Consolidation

Concept of Repackaging Of Information Need for Repackaging and Consolidation Method and tools of consolidation

Formatting Content analysis

Unit-III: Information products

Information Products: Nature and concept

Types of Information Products: Abstract Bulletins, Records, Digests, Trend Report, State-of-the-art report

Design and development of information product

Unit-IV: Research Trends in Information Analysis, Repackaging and Consolidation

**Trends** 

**Electronic Content Creation** 

#### LIS/III/T/20: Information Storage and Retrieval and Bibliographical Control

Unit-I: Information Storage and Retrieval System

Concept, Objectives , Importance , Functions, and Parameters

Components, Operations involved

**Document Representation and Document Description** 

Unit-II: Bibliographic Description

Bibliographic Description: Concept, Rules, Principles and Practices Standard of Bibliographic Record format, Bibliographic Control Document Description Standards: National and International Level Current Trends in Standardization and information exchange

Unit- III Indexing Process and Models

Concept, Objectives, Importance and process of Indexing

Indexing Models: Subject Index, PRECIS, POPSI, KWIC /KWOC and Citation Index

Unit-IV: Indexing Language

Characteristics and Types Vocabulary Control Natural and Controlled

Language Semantic and Syntax

Thesaurus: Purpose, Function, Design and Construction

# LIS/III/T/21: System Analysis and Bibliometrics

#### Unit- I: Computerized Information System

- Automated sub-system of a library
- Planning and Development of Computerized Information System
- Database Management System Management Information System

#### Unit -II: System Analysis

- Concepts, Need and Types of System Study
- System Analysis
- Role of System Analyst
- Professional skills for System Analyst

#### Unit -III: System Design and Development

- Structured System Development
- Methodology for System Development
- Feasibility Study
- System Development Life Cycle
- Flowcharts
- Concept, Definition and Objectives of Bibliometrics
- Bibliometrics Laws :Zipf's Law, Lotka's Law, Bradford's Law
- Informatrics
- Webometrics

# LIS/III/T/22: ICT Application in Libraries and Information Centers

#### Unit- I: Communication Technology

- Fundamentals of Telecommunication Technology and Media
- Network Media, UTP, Optical Fiber, Ethernet, Network Interface Card, Hubs, Router and Modem
- Network types and Topologies: LAN, WAN, and MAN
- Bus, Star, Ring, Token Ring etc.

#### Unit- II: Internet: Basic Features and Tools

- Basics of Internet: History and Development
- Web Browsers, Search Engines, Meta Search Engines
- Connectivity: Drupe, Leased Lines, ISDN, Digital Subscriber lines
- E-mail, SMTP, Wireless
- Protocols: TCP/IP, FTP, HTTP,
- Internet Security

#### Unit- III: Web Technologies, Library Network and Consortia

- Library Websites: Contents, Design and Evaluation
- Web OPACs
- Web2.0 and Web 3.0 :Functions and features
- Web 2. 0 Tools and their applications in Libraries Weblogs, Podcasts, RSS Feed, Instant Messaging, Wikis, Flicker, Social Networking
- Major Library Networks : INFLIBNET, DELNET, OCLC
- Library Consortia: UGC Infonet, INDEST-AICTE, National Knowledge Resource Consortium

#### Unit- I V: Emerging Technologies in Libraries

- Library Security Technology: RFID, Bar Code, Smart Card, Biometrics, CCTV
- Video Conferencing and Audio Conferencing: Concept, Tools and Techniques
- Cloud Computing

# **Elective Papers**

#### LIS/III/T/23-EL.1: Industrial Information Systems

#### Unit I: Information Services and Products

- Reference, referral and technical inquiry services
- Alerting Services CAS, SDI
- Translation and Document delivery services
- Information Analysis and Consolidation Products Trend Reports, Reviews, Digest Service, Market Survey Reports, etc.
- Marketing of Industrial Information Services and Products

#### Unit- II: Impact of IT on Industrial Information System

- Impact on Collection Development e-resources
- Use of Industrial Databases CD-ROM and Online
- Use of Internet and digital resources
- Resource sharing and networking including consortia

#### Unit- III: Management Information System for Industries

- Data Servers, Data Banks
- Digest Service, technical notes and management briefs
- Preparation of feasibility study reports, market survey reports, company profiles, etc.
- Design and development of in-house databases

#### Unit-I V: Industrial Information Systems and Centers

- National Systems and Centers CSIR and its national laboratories, NISCAIR, SENDOC, Patent Information System, TIFAC, etc
- Role of International Organizations in Industrial Information UNIDO, UNDP, OECD, ISO, etc

# LIS/III/T/23-EL.2: Agricultural Information System

#### Unit- I: Agricultural Services and Products

- Information Services rendered to faculty and research scholars
- Extension Services
- Web based Services
- Advanced Information Services and Products

#### Unit- II: Agricultural Information Centers

- Agricultural Information Centers: National
- Agricultural Information Centers: International

#### Unit -III: Agricultural Information Systems and Networks

- Agricultural Information Systems in India
- Agricultural Information Systems: International
- Agricultural Networks in India Agricultural Networks: International
- Resource sharing and Networking in Agricultural Libraries

#### Unit- IV: Professional Associations

- Objectives of Agricultural Professional Associations
- Role of Professional Associations in promotion of Agricultural Research
- Professional Associations: National and International

## LIS/III/T/23-EL.3: Legal Information System

#### Unit- I: Information Services and Products

- Information Services to Law students, faculty and Research Scholars
- Special Information Services to Layers
- Services to Judges and other Legal professionals
- Dissemination methods and techniques Advanced Information Services and Products

#### Unit -II: Web based Legal Information

- Online Legal Information
- Digitization of Legal documents and Information Resources
- Web based Information Retrieval
- E-Court

#### Unit- III: Laws for Allied Fields

- Industrial Laws
- Environmental Laws
- Intellectual Property Laws
- Cyber Crimes and Cyber Laws

#### Unit -IV: Legal Information Systems and Networks

- Legal Information Systems in India: Structure and Services
- Legal Information Systems: International
- Resource sharing and Networks of Legal Information

# LIS/III/T/23-EL.4: Academic Library and Information System

#### Unit – I: Academic Libraries and their Development

- Objectives and Functions
- History and Development of Libraries with Special Reference to India
- Role of Libraries in Formal and Non-Formal Education System
- UGC and its Role in the Development of College and University Libraries

#### Unit – II: Collection Development and Management

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

#### Unit – III: Library Organization and Administration and Services

- Organizational Structure
- Staff Manual, Library Surveys, Statistics and Standards, etc.
- CAS, SDI, Abstracting and Indexing Services
- Library Bulletin, Newspaper Clipping Services
- Computerized Services
- Resource Sharing and Networking:INFLIBNET, UGC-INFONET Digital Library Consortium, etc.
- Information Literacy Programmes

#### Unit - IV: Financial and Human Resource Management

- Determination of Finance, Sources of Finance
- Types of Budget
- Nature, Size, Selection, Recruitment, Qualification and Training
- Responsibilities and Duties
- Competency Development

#### SEMESTER- III PRACTICE

# LIS/III/P/24: Information Technology Applications (Part I) Marks -100

- Information Searching from CD-ROM Databases and Retrieval: LISA Novice, Advanced and Expert Search
- Automated Circulation Systems
- Creation of E-mail ID, Sending and receiving mails, File attachments
- Internet Searching from websites Library Networks, Library Consortia, Library Associations,
   Vidyanidhi, NDLTD, LIS Gateways, Info librarian, Information Systems, Digital Libraries, Open Source Software

# LIS/III/ P/ 25 Educational Tour Report, Survey of libraries and Information Centers (Mark -050)

 Students are required to prepare a report on working systems and management of visited libraries and information centers of a place (state/outside the state preferably of metropolitan city.)

# LIS/III/ P/ 26: Internship (Marks – 050)

 Students are required to complete 30 working days internship any nearest academic library and submit their certificate to the institute.

# LIS/III/P/27: Project Seminar (Marks -050)

• Students should give pre presentation(PPT) and submit synopsis of Project work.

# <u>Foundation Paper – Only for other P.G. Department (Interdisciplinary)</u> <u>Students (Not for LIS Students)</u>

#### LIS/III/T/28: Fundamentals of Library Science

Unit-I: Concepts, Types and Role of Libraries

- Social and historical foundations of Library: Library as an institution and its evolution, Library as a socio and cultural institution.
- Types of Libraries: Features and functions of National, Public, Academic and Special Libraries
- Five Laws of Library Science and their implications.
- Role of Library: formal / informal education and Modern Society

#### Unit- II: Library Services and Books Delivery Act

- Library Extension Services
- Resource Sharing: Concept, Need, Purpose and Areas of resource sharing
- Delivery of Books and News paper Act, 1954 and 1956

#### Unit-III: Library Classification and Cataloguing

- Classification: Fundamental of Library Classification, Classification Schemes (DDC, CC and UDC)
- Library Cataloguing: Fundamental of Library cataloguing, types of Library Cataloguing, Kinds of Entries

#### Unit-IV: Library Profession, Professional Association and development

- Library Profession : Attributes of a profession, Librarianship as a profession, Professional ethics and qualities, Professional education and research.
- Professional Association : Objectives, functions and activities of National and International Association (IFLA, ILA, IASLIC, SLA)
- History of Libraries, History of writing an printing material in India
- Growth and Development of Libraries in India

# **SEMESTER - IV**

#### LIS/IV/T/29: Information Systems and Networks

#### Unit I: Policies and Programmes

- National and International Policies on Library and Information Science: NAPLIS, UNESCO
- IT Policy and IT Act
- Right to Information and Intellectual Property Rights
- Right to Education
- Information Literacy Programmes

#### Unit II: Information Systems

- National Information Systems: NISSAT, BTIS, ENVIS, FOSTIS
- International Information Systems: UNISIST, INIS, AGRIS, BIOSIS, And MEDLARS

#### Unit III: Information Networks

- Growth and development of Library and Information Networks
- NICNET, ERNET, SIRNET
- INFLIBNET: Growth, Development and Services

#### Unit IV: Knowledge Management and Evaluation of Information Systems

- Information Management
- Knowledge Management
- Objectives of Evaluation
- Criteria for Evaluation
- Tools and Techniques

# LIS/IV/T/30 : Management of ICU, Marketing, Information Agencies, Technical Writing

#### Unit-I: Management of Information consolidation Units (ICUs)

- Planning
- Resources, Manpower, Material
- Knowledge and Skill

#### Unit-II: Marketing of Information services and Products

- Concept of Marketing
- Marketing for Non-Profit Organization
- Market Analysis
- Pricing of Information Services and Products
- Marketing Tools
- Information analysis Centers (IAC)
- Government and Non-Government Information Agencies: NISCAIR, NASSDOC,
- DESIDOC, SENDOC, PIS, CMIE etc
- Characteristic features of Technical Writing
- Editing and Editorial Process
- Editorial Tools: Style Manual, Standards, Specification etc.
- Publication Ethics

# LIS/IV/T/31: Computer Generated Indexes and Retrieval Techniques

#### Unit-I: Computer Generated Indexes

- Role of Computers in Generation of Indexes
- Manual Vs Computerized Indexes
- Computer Based Indexing System: KWIC, KWOC
- Citation Indexing

#### Unit-II: Search Processes

- Search Strategy: Concept and Steps
- Search Strategy in Various
- Indexing System

#### Unit-III: Manual and Automated Search Process

- Offline and Online Information Retrieval Techniques
- Natural Language Processing and their Retrieval

#### Unit-IV: Evolution and Trends

- Evolution of Information Retrieval System
- Research in Information Retrieval System: Research Trends

#### LIS/IV/T/32- Digital Libraries

#### Unit- I: Digital Libraries

- Definitions, Concept
- Objectives and Scope
- Electronic Library: development and Services
- Digital Library: Growth, development and Services
- Virtual Libraries: development and Services

#### Unit -II: Organization of Digital Libraries

- Collection Development
- Image formats, Audio formats
- Storage Media Formats
- Institutional Repositories
- Digitization ,Tools and Process
- Equipments: Scanners, Digital Camera

#### Unit- III: Building Digital Libraries

- Hardware and Software, OCR, Image Editing Software
- Open Source Software: Displace, e-print, Greenstone, Fedora
- Metadata: Definition, Types, Creation, Standards
- Preservation Technologies

#### Unit -IV: Intellectual Property Rights (IPR)

- IPR issues in Digitization
- Open Access, Copyright and Creative Commons
- Fair Use of digital information
- Plagiarism and Infringement

# **Elective Papers**

# LIS/IV/T/33-EL.1: Archival, Museums and Archaeological Information System

Unit -I: History, Development and Management of Archival and Manuscripts

- History and Development and types of Archival Centres
- Acquisition, Classification, Cataloguing and Indexing of Archival material
- Source material on Archival , Manuscripts
- Machine Readable and Microfilm of Archival records
- Database and Digitization of Archives
- Role of UNESCO and other agencies
- Building Design
- Planning and furniture and Fillings
- Use of Copy Right to information in relation to

#### archives Unit -III: Preservation of Archives

- Objective and Purpose
- Cause of Deterioration
- Environmental Pollution : Physical , Chemical and Atmospheric
- Biological enemies of materials : Mould , Fungi , Insect and

#### Rodents Unit-IV: Rehabilitation of Documents

- Cleaning, removal of Stains
- Repair and restoration techniques
- Lamination
- Standards for Storage Conditions

# LIS/IV/T/33-EL.2: Bio-technology Information System

#### Unit I: Biotechnology Information Sources

- Documentary
- Non-Documentary
- Electronic Resources
- Biotechnology Databases
- Information Services rendered to faculty and research scholars
- Web based Services Advanced Information Services and

#### Products Unit III: Biotechnology Information Centres

- Biotechnology Information Centres: National
- Biotechnology Information Centres: International
- Biotechnology and allied Information Systems in India BTIS: Structure and Organization (Study of DICs and DISCs)
- Biotechnology Information Systems: International
- Biotechnology Networks in India (BTISNET and others)
- Biotechnology Networks: International
- Resource sharing in Biotechnology Information systems

# LIS/IV/T/33-EL.3: Engineering and Technological Library and Information System

Unit – I: Engineering and Technological Libraries and their Development

- Objectives and Functions
- History and Development of Libraries with Special Reference to India
- Role of Engineering and Technological Libraries
- Role of Agencies in the Growth and Development of Engineering and Technological Libraries in
- Periodicals, Conference Literature, Grey Literature, Patents, Standards, Specifications and Government Publications
- Non-Book Materials
- Electronic Resources and Online Databases
- Organizational Structure
- Staff Manual, Library Surveys, Statistics and Standards, etc.
- CAS, SDI, Abstracting and Indexing Services
- Library Bulletin, Newspaper Clipping Services
- Computerized Services
- Resource Sharing and Networking:
- INDEST AICTE Consortium
- Information Literacy Programmes
- Determination of Finance, Sources of Finance
- Types of Budget
- Nature, Size, Selection, Recruitment, Qualification and Training
- Responsibilities and Duties
- Competency Development

# LIS/IV/T/33-EL.4: Public Library and Information System

#### Unit – I: Public Libraries and their Development

- Objectives and Functions
- History and Development of Libraries with Special Reference to India
- Role of Public Libraries in Society
- Agencies and their Role in Promotion and Development of Public Libraries in India

#### Unit – II: Collection Development and Management

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

#### Unit – III: Library Organization and Administration and Services

- Organizational Structure
- Staff Manual, Library Surveys, Statistics and Standards, etc.
- CAS, SDI, Abstracting and Indexing Services
- Library Bulletin, Newspaper Clipping Services
- Computerized Services
- Resource Sharing and Networking

#### Unit-I V: Financial and Human Resource Management

- Determination of Finance, Sources of Finance
- Types of Budget
- Nature, Size, Selection, Recruitment, Qualification and Training
- Responsibilities and Duties
- Competency Development

### SEMISTER -IV PRACTICE

# LIS/IV/P /34: Information Technology Applications (Part II) Marks – 100

- Internet Searching from Websites E-Books, E-Reference Sources, OCLC Database, Web
- OPAC, DOAJ, DOAR, DLIST, E-Print
- Social Networking Sites
- Evaluation of Library WebPages
- Creation of Weblogs
- Hands on Experience on any Digital Library Software
- Uploading of data in disciplinary archives Scanning and digitizing documents

# LIS/IV/P/35 : Project Work Report (Marks 100) & Vivo Voce (Marks 050)

Students should submit the Project Report and present for vivo voce

# <u>Foundation Paper – Only for other P.G. Department (Interdisciplinary)</u> <u>Students (Not for LIS Students)</u>

# LIS/IV/T/36: Fundamentals of Information Science

#### Unit-I: Introduction of Information Science

- Concept, Definitions of Information, Information Science, Information Society
- Information Transfer Cycle- Generation, Collection, Storage and dissemination
- Role of Information in Planning, Management, Social –economic development, Technology transfer.

#### Unit -II: Reference and Information Sources

- Introduction to Reference /Information Sources: meaning, definition, nature, evolution, characteristics, functions, importance and criteria for evaluiation,
- Type of information Sources : Primary, Secondary ,Tertiary
- Non Print Sources: Offline and Online

#### Unit -III: Information Services

- Information Services : Definition, Scope, Need, and Functions
- Types of Information Services: Ready and Long Range Reference Services, Referral Services, Bibliographic Services, Translation Services, Indexing & Abstracting Services, Reprographic Services
- CAS/Alerting Services, SDI,
- On-line Reference/ Information Services

#### Unit – IV : Information Policy

- Right to Information Act
- Information Technology Act
- Copyright -Intellectual Property Rights and copyright in India
- National Information Policy
- National and International Information centres:, NISCAIR, DESIDOC, NASSDOC, UNESCO, INIS, AGRIS

# **Books Recommended for Study**

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- 7. Girija Kumar and Krishan Kumar. Bibliography, New Delhi: Vikas Publications, 1990.
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