

**UNIVERSITY OF RAJASTHAN,**  
**JAIPUR**

Faculty of Education  
Master of Library and Information Science  
(Annual Scheme)  
2014

  
15/15

## SYLLABUS

### MASTER OF LIBRARY AND INFORMATION SCIENCE For Exam 2014

#### Objectives:

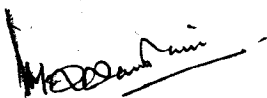
The objectives of the MLISc (One Year) Programme are to:

- impart the students thorough understanding of patterns of knowledge development and its organization.
- train the students in the advanced skills of knowledge organisation, gathering, processing, and retrieval.
- train the students in information knowledge analysis, consolidation and repackaging.
- train the students with the latest trends of ICT applications in information environment including networks and communication systems.
- train the students in the analysis, planning and management of the systems of library and information centres.
- provide an understanding of research methods and activities of research organizations.
- Acquaint the students with the activities and services of National, Regional and International Information Systems and Programmes

O.144 (4): For all examinations (including Library Science) in the Faculty of Education : A candidate shall be required to put in a minimum of 66% attendance at the lectures and 66% at the practicals, separately. Provisions of condonation of shortage in attendance are given in O.145 of the University Hand Book Part II (Volume-II).

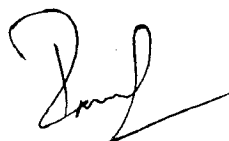
O.329-K2: The duration of the course will be one academic year (July to June) of two semesters—1<sup>st</sup> semester (1<sup>st</sup> July to 31<sup>st</sup> December) and 2<sup>nd</sup> semester (1<sup>st</sup> January to 30<sup>th</sup> June)

O.329-K3: Candidates for admission to the course should possess the degree of Bachelor of Library and Information Science of the University or of any other University recognised by the Syndicate for the purpose or a post - graduate Diploma in Library Science of a recognised University









with a minimum of 50% marks in the said degree or diploma examination.

O.324-K4: Omitted.

O.329-K5: A candidate who has completed a regular course of study and has attended at least 66% of the lectures delivered and has produced a certificate from the competent authority to the effect that he has satisfactorily completed his practical work, will be entitled to take the examination and no exemption from the minimum attendance will be given on ground of either sickness or any personal domestic reasons whatsoever.

### SCHEME OF EXAMINATION

R: 43 B -1: For a pass, a candidate shall be required to secure a minimum of 40% marks in each paper and 50% marks in the aggregate of all the papers. Successful candidates securing at least 60% marks in the aggregate shall be placed in First division and the rest in Second division.

A candidate for the examination shall be required to offer the papers mentioned below. The maximum marks shall be noted against each paper. Each theory paper and practical paper shall be of 3 hours duration.

#### SEMESTER --I

<u>Papers</u>	<u>Maximum Marks</u>
101 Basics of Research and Statistical Methods	100
102 ICT Application in Library and Information Science	100
103 Knowledge Organisation and Information Processing (Theory)	100
111 Knowledge Organisation and Information Processing (Practical)	100

#### SEMESTER --II

<u>Papers</u>	<u>Maximum Marks</u>
201 Information Systems and Services	100
<b>Elective Papers:1</b>	
<b>A01- Management of Library and Information Centres: Academic Library System</b>	<b>100</b>

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OR

A02- Management of Library and Information Centres: Special Library

System Elective Paper: 2 100

B01: Information Sources and Literature in Natural Sciences 100

OR

B02: Information Sources and Literature in Social Sciences 100

211 ICT Applications in LIS (Practical) 100

## SEMESTER-I

Paper – MLS 101: Basics of Research and Statistical Methods

## Unit – I

Concept of knowledge / Subjects, Attributes of Knowledge, Modes of Formation of Subjects.

Patterns of Development of Knowledge - Authoritative, Speculative and Positivistic and their impact on the development of knowledge.

## Unit – II

Types of Research - Basic, Applied, Interdisciplinary. Problems and Barriers in Research Programmes in India and their likely Solutions.

Methods of Research - Scientific, Historical, Descriptive/ Survey with Ranganathan's Spiral of Scientific Method, Case study method.

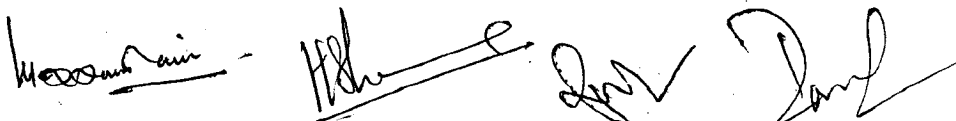
## Unit – III

Research Design: <sup>need</sup> ~~Need~~ and purpose, Formulation and Testing of Hypotheses, Report writing

## Unit – IV

Presentation of Data: Purpose and Importance, Tabulation, Diagrammatic and Graphic

Collection of Data: Sampling, , Schedules, Questionnaires, Interview, Observations, Rating Scales, Action Tendency Scales. Validity & Reliability of Instruments of Data Collection and Analysis, Variables.



**Unit – V**

Bibliometrics: Concept, Need and Purpose, Bradford's Law, Lotka's Law and Zif's Law

**Paper- MLS-102: ICT Application in Library and Information****Unit-1**

Information Technology: Concept, definition and components of IT. Hardware & Software. Operating Systems – Single User, Multi User. Software – Open Source and Proprietary, Implications. Application Software – Types. MS Office and Open Office.

**Unit-2**

Communication Technology: Telecommunications – Signals: Analog and Digital. Modem – types, use. Switching Systems: Concept, Purpose, Types -- Circuit switching, packet switching, cell switching. Gateways, Ethernet, Hub / Switches. Communication Media – Twisted Pair, Coaxial, Optic Fibres, Satellite Communication, VSAT, Microwave. Bandwidth, Multiplexing. ISDN.

**Unit-3**

Electronic Information: Electronic / Digital Information. e-documents: Concept of e-books and e-journals. Trends in Production and availability of e-documents. Impact on Libraries and Information Centres and Users. Preservation and archiving of e-resources.

**Unit-4**

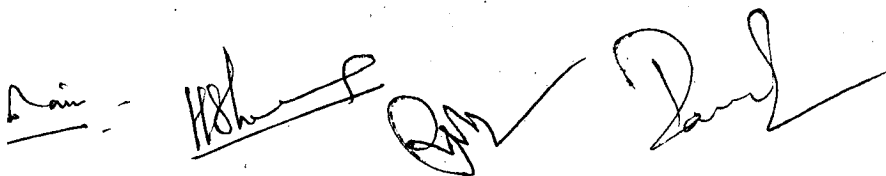
Communication & Networking: An overview: Fax, E-mail, Tele Text, Videotext, Tele Conferencing, Video Conferencing, and Voice Mail. Hyper Text and Hyper Media. Computer networks - definition and types. Network types: LAN, MAN, WAN. Topologies; bus, star, ring, tree, mesh and token ring networks.

**Unit-5**

Internet: Basic features, Tools, Services and Utilities. WWW, E-mail, FTP, Telnet, Mailing lists, Newsgroups. Search engines and Meta search engines. Web-Browsers. Web 2.0 Technologies. Application of Internet in Library and Information services. Network security: Concept, need, purpose. Virus – Definition, effect. Security Methods - Firewall, Anti-virus software. SPAM.

**Unit-6**

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Digital Libraries: Concept, objectives and advantages. Indian initiatives. Features of TKDL (Traditional Knowledge Digital Library). DL Software: Basic features of Greenstone Digital Library (GSDL). Metadata: Definition, Dublin Core Meta Data Element Sets (DCMES).

**Paper: MLS-103 :Knowledge Organisation and Information Processing (Theory)**

**Unit – I**

Salient features of UDC and Purview of CC (7th Edition). Library Classification--- Normative Principles of Bliss and Ranganathan. Formation of Isolates—Devices, Notational Techniques in CC and UDC.

**Unit – II**

Canons for Classification: Idea plane (15) -- Canons for characteristics (4); Canons for succession of characteristics (3); Canons of Array (4); Canons for Chain (2); Canons for Filiatory sequence (2). Verbal Plane (4). Notational Plane (24) -- Basic Canons for notation (12): Canons for mnemonics (5); Canons for growing universe (4); Canons for Book Classification (3).

**Unit – III**

Designing of Schemes for Classification, Depth Schedules Ranganathan Methodology. Role of CRG(London), DRTC(Bang<sup>ga</sup>lore), FID and ISKO in the development of Library Classification.

**Unit – IV**

Principles of Subject Cataloguing, Detailed Study of Sears' List of Subject<sup>Heading</sup> and LC List of Subject Heading, Pre and Post Coordinate Indexing Systems, Unit Term, KWIC, Citation Indexing.

**Unit – V**

Vocabulary Control and Information Retrieval: Concept and Development of ISRS, IR Models.

**Unit – VI**

Repacking and Consolidation: Abstract and Abstracting---Types and Guidelines in preparing Abstract, Repacking, Formatting, and Consolidation, National and International Abstracting Agencies, Progress in Machine Abstracting.

**Paper- MLS 111: Knowledge Organisation and Information Processing**

### (Classification & Cataloguing Practical)

**Part I:** 8 titles out of 12 titles to be classified according to UDC by using step by step techniques of Classification

**Part II:** Practical cataloguing to be done for a Dictionary Catalogue by using AACR II (1978) along with the L.C. List / sears list of subject headings for the later.

**Note:**

1. The practical examination in paper 111 will also take place along with theory paper. The setting and evaluation of the paper will be done on the same pattern as that of theory paper.
2. In part I Classification of Documents, Monographs and Articles by Universal Decimal Classification. 3rd abridge ed.
3. The pattern and structure of part II will be as follows:  
3 Titles to be catalogued out of 5 according to AACR II (1978) and last Title of complex periodical is compulsory.

### SEMESTER-II

**Paper: MLS-201: Information Systems and Services**

**Unit – I**

Information System: Basic Concept, Types, Characteristics and Components.  
Planning and Designing of National, International Information Systems

**Unit – II**

National and International Information Systems: NISCAIR, DESIDOC, NASSDOC, SENDOC, NISSAT, MEDLARS, AGRIS, INIS, DEVSIS, UNISIST, FID.

**Unit – II**

Thesaurus: Concept, Need, Structure and Methods of Construction.

**Unit – III**

Marketing of Information: Concept, Information as a Commodity, Marketing Strategies and Marketing Mix.

**Unit – IV**

Information Services: CAS, SDI, Problems in Compilation of Documentation Lists, Problems of Seepage and Scatter of Documents and their solution.

**ELECTIVE PAPERS:**

Paper- <sup>A01</sup>MLS-A: Management of Library and Information Centres ;

**Paper MLS- A01 : Academic Library System**

**Unit – I**

Role of Library in an academic institution, i.e., Schools, Colleges and Universities. Development of university and college libraries in India; Role of UGC. Study of the recommendations of various committees with regard to academic libraries in India.

**Unit – II**

Human Resources Management : Categories of Staff. Staffing Pattern- Staff Formula of Ranganathan and UGC. Qualifications and pay scales of UGC. Staff requirements- Job Analysis, Job Description & Evaluation. Staff recruitment and selection. Performance Appraisal, Training and Development. Total Quality Management (TQM). Elements of TQM. Implementing TQM Techniques in Library and Information Centre Management. Barriers to Implementing TQM.

**Unit – III**

Financial Management: Methods of Financial estimation. Source of funds. Library Expenditure Planning. Budgetary Techniques and Methods. Budgetary Norms and Standards. Financial Control and Accounting.

**Unit – IV**

Collection Development and Management of Books, Serials & Non-book Materials. Collection Development Policy, Collection care & evaluation. Problems of Collection development in India. Resource Sharing and Networking : Need and Types, Role of INFLIBNET. Use of INFLIBNET Database and Services.

**Unit – V**

Library Analysis and Design Techniques: Project Management, PERT/ CPM, Decision Tables, MIS, Time and Motion Study, SWOT (Strength, Weakness Opportunities Threat), and DFD (Data Flow Diagram).

**Unit – VI**

Disaster Management in Libraries & Information Centres.

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OR

**Paper - MLS- A02: Special Library System**

**Unit – I**

Role of Special Libraries, Relationship with Parent Organisation. Types and Function of Special Libraries : Growth and Development of Special Libraries in UK, USA and India in the Twentieth Century, Role of CSIR in the Development of Special Libraries of India.

**Unit – II**

Human Resources Management : Organisational Structure, Job Description and Analysis, Job Evaluation and Its Methods, Job Satisfaction. Categories of Staff. Staff recruitment and selection. Performance Appraisal, Training and Development. Total Quality Management (TQM). Elements of TQM. Implementing TQM Techniques in Library and Information Centre Management. Barriers to Implementing TQM.

**Unit – III**

Financial Management: Methods of Financial estimation. Source of funds. Library Expenditure Planning. Budgetary Techniques and Methods. Budgetary Norms and Standards. Cost Effectiveness and Cost Benefit Analysis. Financial Control and Accounting.

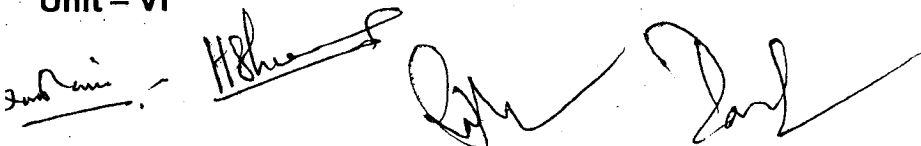
**Unit – IV**

Collection Development and Management of Books, Serials & Non-book Materials, Electronic Documents, CD-ROM and Online Databases. Collection Development Policy, Collection care & evaluation. Problems of Collection development in India. Resource Sharing and Networking : Need and Types, Role of NISSAT, OCLC Database.

**Unit – V**

Planning: Concept and Purpose, Management by Objectives (MBO), Building and Space Management, Infrastructure; Library Standards. Library Analysis and Design Techniques: Project Management, PERT/ CPM, Decision Tables, MIS, Time and Motion Study, SWOT (Strength, Weakness Opportunities Threat), and DFD (Data Flow Diagram).

**Unit – VI**



Disaster Management in Libraries & Information Centres.

**Paper- MLS-B01: Information Sources and Literature in Natural Sciences**

1. Scope of the Subject
2. Brief Survey of the Contributions made by the following Scientists :-
  - Galileo Galilei
  - Archimedes
  - Sir Issac Netwon
  - Charles Darwin
  - Louis Pasteur
  - Gregor Johann Mendel
  - Michael Faraday
  - Madam Marie Curie
  - Albert Einstein
  - C.V. Raman
  - J.C. Bose
  - H.J. Bhabha
  - Hargobind Khurana
3. E- Information Sources in Natural Sciences.
4. Use of Different Types of Primary Documents in the Growth and Development of Natural Sciences Disciplines.
5. Evaluation of the following Secondary Sources of Information in Print and Electronic form:
  - Biological Abstracts
  - Chemical Abstracts
  - Physics Abstracts
  - Indian Science Abstracts
  - Excerpta Medica
  - Index Medicus
  - Nuclear Science Abstracts

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INIS

- Science Citation Index
- INIS Atom Index
- British Technology Index
- Dissertation Abstracts International
- Zoological Records
- Current Contents
- McGraw-Hill Encyclopedia of Science and Technology
- McGraw-Hill Dictionary of Science and Technology
- McGraw-Hill Year Book of Science and Technology

6. Brief Survey of Activities of the following Research Institutions and Professional Organisations in the Growth and Development of Natural Science Disciplines:

- Council of Scientific and Industrial Research (CSIR), Delhi.
- Indian Council of Agricultural Research (ICAR), Delhi.
- Indian Association for Cultivation of Science (IACS), Calcutta.
- National Chemical Laboratory (NCL), Pune
- National Physical Laboratory of India (NPL), Delhi
- Defence Research and Development Organisation (DRDO), Delhi.
- Indian National Science Academy (INSA), Delhi.
- Indian Institute of Fundamental Research (IIFR), Bombay.
- Botanical Survey of India (BSI)
- Zoological Survey of India
- NISCAIR, Delhi.
- All India Institute of Medical Sciences (AIIMS), Delhi
- Royal Society of Science, London
- NASA (US)

OR

**Paper MLS-B02: Information Sources and Literature in Social Sciences**

1. Scope of the Subject.
2. Brief Survey of the Contribution made by the following Social Scientists:

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Kautilaya, Adam Smith, Alfred Marshal, J.M. Keynes, Plato, Aristotle, Thomas Aquinas, Machiavelli, M.K. Gandhi, Max Weber, Emile Dhurkheim, August Compte, Karl Marx, Thomas Robert Mathus, Herod<sup>o</sup>tus, Max Muller.

3. E- Information Sources in Social Sciences.
4. Use of Different Types of Primary Documents in the Growth and Development Social Sciences as Disciplines.
5. Evaluation of the following Secondary Sources of Information in Print and Electronic form.
  - International Encyclopedia of Social Sciences.
  - Social Sciences Index, New York.
  - Science Citation Index, Philadelphia.
  - International Bibliography of Social and Cultural Anthropology, London.
  - International Bibliography of Sociology, London.
  - International Bibliography of Political Science, London.
  - International Bibliography of Economics, London.
  - Bulletin of the Public Affairs Information Services (PAIS), New York.
  - Economic Abstracts, The Hague
  - International Political Science Abstracts, London.
  - Sociological Abstracts, New York.
  - Historical Abstracts, Oxford.
  - Dissertation Abstracts International, US
  - The Times Atlas of World History.
  - World Handbook of Social and Political Indicators.
6. Brief Survey of the Activities of the following Research Institutions and Professional Organisations in the Growth and Development of Social Science Disciplines:-
  - Indian Council of Social Science Research (ICSSR), Delhi
  - Indian Council of World Affairs (ICWA), Delhi
  - National Council of Applied Economic Research (NCAER), Delhi.

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*David*

- Indian Council of Historical Research (ICHR), Delhi.
  - National Council of Educational Research and Training (NCERT), Delhi.
  - Sardar Patel Institute of Economic and Social Research, Ahmedabad.
  - Institute of Constitutional and Parliamentary Studies, Delhi.
- 
- Indian Institute of Public Administration (IIPA), Delhi.
  - G.B. Pant Social Science Institute, Allahabad.
  - Indian Council of Cultural Relations (ICCR), Delhi.
  - Gokhale Institute of Politics and Economics, Pune.
  - Tata Institute of Social Sciences, Bombay.
  - Socio-Economic Research Institute, ~~Calcutta~~ Kolkata.
  - Delhi School of Economics, Delhi.
  - Central Arid Zone Research Institutes (Cazri), Jodhpur.

**Paper: MLS 211: ICT Application in Library and Information Science (Practical)**

**Operating Systems- MS Windows**

Open Office: Text document; Spreadsheet; Presentation,

**Bibliographical Database:** WINISIS (CDS/ISIS for Windows) – Systems Overview, Database Design: FDT preparation; Worksheet design; Display Format language and Format design; Indexing techniques in WINISIS; FST preparation; Data Entry; Search Techniques: Dictionary search, Truncated search, Proximity search, Boolean search, Any search, Search formulation; Sorting & Printing Services; Master File Services; Data Import & Export, ISO 2709.

Practice using integrated library management package: SOUL and ABCD Software

*Mossadim*

*HPD*

*By*

*David*

**Web Page Designing** using HTML; Features i.e. background text, colour, and images; Moving image, etc. Creation of List – Ordered and Unordered, Table, Forms and Frames, Creation of hyperlinked web pages.  
**Internet and Database Searching.**

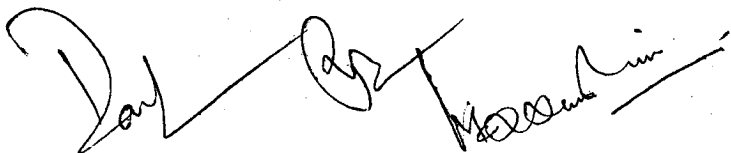
Masood Amin - H. S. Khan → [Signature] [Signature]

## RECOMMENDED BOOKS

### Paper - 101: Basics of Research and Statistical Methods

1. KEMP (DA). The nature of knowledge: An introduction for librarians. 1976. Clive Bingley, London.
2. HAMLYNE (DW). The theory of knowledge. 1970. MacMillan, London.
3. AGARWAL (DS). Lectures on Universe of knowledge. 1985. Delhi Academic Publication, Delhi.
4. MCGARY (KJ). Communication knowledge and library. 1975. Clive Bingley, London.
5. DAMPIER (William Cecil). History of science and its relation with philosophy and religion. 1961. Cambridge University, London.
6. GUPTA (CB). An Introduction to statistical methods. 1979. Vikas Publishing House, Gahaziabad.
7. ADAMS (Gerald R) and SCHVANVELDT (Jay D). Understanding research methods. 1985. Longman, New York.
8. REDDY (T Subbi) and RAO (P Bappa). Research methodology and statistical measure. 1995. Reliance Publishing House, New Delhi.
9. BUSHA (Charles H) and HARTER (Stephen P). Research methods in librarianship: Techniques and interpretation. 1980. Academic Press, New York.
10. YOUNG (DV). Scientific social survey and research. 1982. Prentice Hall, New Delhi.
11. FRANKFORT (Chava) and NACHMIAS (David). Research methods in social sciences. Ed 4. 1992. St. Martin Press, New York.
12. KRISHAN KUMAR. Research methods in library and information science. Rev. ed. 1999. Har - Anand Publication, New Delhi.
13. GHOSH (BN). Scientific methods and social research. 1982. Sterling, New Delhi.
14. GOODS (Carter V) and SCATES (Donglas E). Methods of research. 1954. Appleton - Century - Croft, New York.
15. KERLINGER (Frederick N). Foundation of behavioural research. Ed. 2. 1973. Holt, Rinehart and Winston, New Delhi.
16. SARANTAKOS (Sotirios). Social research. 1993. Macmillan, London.
17. REID (LA). Ways of knowledge and experience. 1961. Allen and Unwin, London.
18. FLOWER (WS). Development of scientific methods. 1963. Pergamory, New York.
19. POWELL (Ronald R). Basic Research methods for librarians. 1985. Ablex, Norwood, N.J.
20. BLISS (HE). Organisation of knowledge and the system of science. 1949. Holt, New York.

### Paper-102 and 211: Advanced ICT Application in Library and Information Science (Theory and Practice)



1. HUNT (Reger) and JOHN (Shelly). Computer and Commansence. 1982. Printice Hall, Delhi.
2. REWLEY (JE). Computers for libraries. 1980. Clive Bingley, London.
3. TEDD (LA). Introduction to Computer-based library system. Ed 2. 1984. Hyden, London.
4. MAYNARD (J). Computer programming - made simple. 1983. ELBS, London.
5. FOSDICK (Howard). Computer basics for librarians and information scientists. 1985. Information Resources Press, Arlington.
6. LEVEY (Ian). Automating library procedure. 1984. Library Association, London.
7. KAUL (HK). Library network: An Indian experience. 1992. Virgo, New Delhi.
8. BROPHY (Peter). The library in the 21st century: New service for information age. 2001. Library Association, London.
9. CHOWDHURY (GG) and CHOWDHARY (Sudatta). Searching CD-ROM and online information sources. 2001. Library Association, London.
10. DICKSON (Garg W) and DESANCTIS (Gerardine). Information technology and the future enterprise: New models for managers. 2001. Prentice Hall, New Jersey.
11. JANCZEWSKI (Lech). Internet and intranet security management: Risks and solutions. 2000. Idea, Hershey.
12. RODRIGUEZ (MVR) and FIRRANTE (AJ). Information technology for the 21st Century: managing the change. 1996. MVR Rodviguez, Milano.
13. LESK (Michael). Practical digital libraries: Books, bytes and bucks. 1997. Morgan Kaufonon. San Francisco.
14. WINSHIP (Ian) and McNAB (Alison). The student's guide to the Internet. 1999. Library Association, London.
15. WISE (Richard). Multimedia: A critical introduction. 2000. Routledge, London.
16. SESHAGIRI (N) and AHAPOV (ARAM), Ed. Multimedia Computer and Communication. 1992. McGraw-Hill, New Delhi.
17. SUZANNE (Bahter), Ed. Information transfer, New age, New wasy. 1983. Kluwer Academic Publishers, London.
18. Getting Started Microsoft Windows 98. Ed 2. 1999. Microsoft Corporation, USA.
19. MINASI (Marks). Mastering in Windows NT server. 1999. BPB, New Delhi.
20. Discovering Microsoft Office 2000 premium and professional 1999. Microsoft Corporation, USA.
21. MINI-MICRO CDS/ISIS. Reference manual and CDS/ISIS PASCAL manual. 1989, Unesco, Paris.

**Paper-103 and 111: Knowledge Organisation and Information Processing  
(Theory & Practice)**

1. RANGNATHAN (SR). Philosophy of library classification.
2. RANGNATHAN (SR). Depth classification.
3. RANGNATHAN (SR). Prolegomena to library classification. Ed. 3.
4. RANGNATHAN (SR). Classification and communication.





5. RANGNATHAN (SR). Classification and international documentation.
6. RANGNATHAN (SR). Library classification, fundamentals and procedure.
7. BLISS (HE). Bibliographic classification.
8. BROWN (JD). Subject classification. New Ed.
9. BLISS (H.E). Organisation of knowledge in libraries and systems of science. Henry Hold Land Co., New York.
10. Annals of Library Science, 1954 (Periodical).
11. Abgila Annals, 1949-1953.
12. Schedules of UDC.
13. Schedules of Library of Congress Classification.
14. International Study Conference on Classification. Proceedings.965. Munksgard, Copenhagen.
15. DRTC. Proceedings (Annual Seminar): 1963-73. DRTC, Bangalore.
16. DE GROLIER (Eric). A Study of general categories.
17. RECHARDSON (EC). Classification: Theoretical and practical. Ed 2. 1972. New York.
18. SAYERS (WCB). Manual of classification for librarians. Rev. by Arthur Maltby. Ed 5. 1975. Andre Deutsch, London.
19. SAYERS (WCB). Introduction to library classification. Rev. by Arthur maltby. Ed 9. 1958. Grafton, London.
20. KRISHAN KUMAR. Theory of classification. 1993. Vikas, New Delhi.
21. RANGNATHAN (SR). Colon classification. Ed 7.
22. RANGNATHAN (SR). Colon classification. Ed 6.
23. DEWEY (Melvil). Dewey decimal classification. Ed 19.
24. UDC International Medium edition (English Text). 1985.
25. International Study Conference on Classification Retrieval, (Dorking). Proceedings. 1957. Aslib, London.
26. American Library Association etc. Anglo-American Cataloguing Rules, North Amerian Text. Chicago, ALA, 1978.
27. Ranganathan (SR): Classified Catalogue Code with Additional Rules for Dictionary catalogue, code, Ed.5 Bombay. Asia, 1964.
28. Ranganathan (SR): Heading and canons: Comparative study of five catalogue codes. Madras, Vishwanathan, 1965.
29. Pettee (Julia): Subject Heading: The History and theory of the alphabetical subject approach to books. New York Wilson, 1948.
30. Daykin (DJ): Subject Heading: A practical guide Washington, Govt. Printing off, 1951.
31. Snyers (WCB): First steps of annotation in catalogue. Rey. Ed. London L.A.
32. Colison (RL): Indexes Indexing. London, Bond, 1953.
33. Osborn (AD): Serial publications: their place and treatment in Libraries Chicago, ALA, 1955.
34. Collison (KL): The treatment of special material in Libraries. New York, Columbia University Press, 1958.
35. Coates (EJ): Subject catalogue: Heading and Structure London, L.A, 1960.



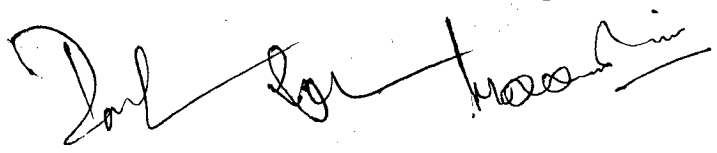
36. International Conference on Cataloguing Principles, Paris 1961, Report, I F L A, London, 1963.

### Paper -201: Information Systems and Services

1. ROWLEY (Jennifer). The basics of information systems. 1996. Library Association, London.
2. KAKABADIE (Nada K) and KAKABADSE (Andrew K). Creating future: Leading change through information systems. 2000. Ashgate, USA.
3. BELL (Simon). Learning with information systems: Learning cycles in information systems development. 1996. Routledge, London.
4. FALKENBERG (Eckhard D) and others, Ed. Information System concepts: Towards a consolidation of views. 1993. Chapman and Hall, London.
5. KUMAR (PGG). Fundamentals of information Science. 1998. B.R. Publishers, Delhi.
6. PRYTHERCH (Ray), Ed. Gover handbook of information management. 1998. Gower, England.
7. FEATHER (John). Information Society. Ed 2. 1998. Library Association, London.
8. TARGOWSKI (Andrew S). Global Information infrastructure : The birth, vision and architecture. 1998. Idea Group Publication, USA.
9. BRADFORD (SC). Documentation. Ed 2. Lockwood, London.
10. RANGANATHAN (SR). Documentation: its genesis and development. 1973. Vikas, Delhi.
11. RANGANATHAN (SR). Documentation and its facets. 1964. Asia, Bombay.
12. PENNA (CV). The Planning of library and Documentation Service. 1970, Unesco, Paris.
13. MUKERJEE (A.K.). Fundamentals of special librarianship and documentation. 1965. Iaslic, Calcutta.
14. FRANK (O), Ed. Modern documentation and information practice. 1961. FID, Hague.
15. PERRY (JW), Documentation and information retrieval. 1959. Interscience Wiley, New York.
16. International Conference on Scientific Information. Proceedings 2V. 1958. Washington.
17. TAUBE (M) and others. Studies in co-ordinate indexing. 5V. 1953-59. DC Documentation Inc., Washington.
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