

**DEPARTMENT OF DISTANCE EDUCATION  
PUNJABI UNIVERSITY, PATIALA**



**SYLLABUS  
FOR  
BACHELOR OF  
LIBRARY AND INFORMATION SCIENCE (ONE YEAR)  
(ANNUAL) 2011, 2012 AND 2013 EXAMINATIONS**

**OBJECTIVES OF THE COURSE :**

1. To produce library professionals capable of providing efficient and effective library & information services.
2. To expose students to library philosophy and theory and basics of information technology.

**OUTLINES OF TESTS AND SCHEME OF PAPERS**

<i>Paper</i>	<i>Title</i>	<i>Total Marks</i>
I.	Foundations of Library and Information Science	100
II.	Knowledge Organisation and Information Processing	100
III.	Library Classification (Practice)	100
IV.	Library Cataloguing (Practice)	100
V.	Management of Libraries and Information Centres	100
VI.	Library and Users	100
VII.	Information Sources and Services	100
VIII.	Information Technology : Basics	100

**PAPER-I: FOUNDATIONS OF LIBRARY AND INFORMATION SCIENCE**

**OBJECTIVES:**

1. To acquaint students with basic philosophy of library and information science.
2. To understand the role and evolution of library as a social institution.
3. To understand and appreciate the library and information profession.

**Time Allowed: 3 Hours**

**Max. Marks: 100**

**Pass Marks : 50%**

**INSTRUCTIONS TO THE PAPER-SETTER**

The question paper will consist of five sections: A, B, C, D and E. Sections A, B, C and D will have two questions each from respective sections of the syllabus and carry 15 marks each. Section E will consist of 8 short-answer type questions which will cover the entire syllabus uniformly and each short answer will carry 5 marks. Questions should be evenly spread over the entire

range of syllabus. In no case, question should be asked from outside the syllabus. The question paper should be set strictly according to the instructions mentioned above.

*INSTRUCTIONS TO BE GIVEN IN THE QUESTION PAPER*

**NOTE:**

1. Answer five questions in all, selecting at least one question from each section. The question in section E is compulsory.
2. Questions in sections A, B, C and D carry 15 marks each. The question in section E carries 40 marks in all.

**SECTION-A**

1. Concept of Library: Definition, purpose and functions. Five laws of Library Science.
2. Library in Society : Place of Library in dissemination of information. Changing role of library in socio-economic development, education and recreation.

**SECTION-B**

3. Types of libraries : Public, academic, special and national libraries, Definition, Purpose and functions of each type of library. Brief introduction of automated, electronic, digital, Polymedia and virtual libraries.
4. Library cooperation: Definition, types levels resource sharing and Networking.

**SECTION-C**

5. Comparative Librarianship: Library development in India
6. Library Legislation: Need and purpose. A brief account of its present position in India. Copyright Act, Press and Registration Act and Delivery of Books (Public Libraries) Act.

**SECTION-D**

7. Library profession : Librarianship as a profession, Professional ethics. Role of library associations : ILA, IASLIC, ALA, LA.
8. Promoters of Library and Information Services : At National Level: RRRLF, and at International Level: UNESCO and IFLA : Their role in promotion and development of libraries.

**RECOMMENDED READINGS**

1. Ranganathan (SR) : *Five Laws of Library Science*, Ed. 2, 1957.
2. Lock (RN) : *Manual of Library Economy: A Conspectus of Professional Librarianship for Students and Practitioners*. London: Clive Bingley, 1977.
3. Harrison (KC) : *First step in Librarianship : A Student's Guide*. Ed 5. London: Andre Deutsch, 1980.

4. Mittal (RL) : *Public Library Law : An International Survey*, Delhi: Metropolitan, 1971.
5. *India Advisory Committee for Libraries* : Report, 1971.
6. Gates (JK) : *Introduction to Librarianship*. Latest ed.
7. Ranganathan (SR) and Neelameghan (A) : *Public Library System*, 1972.
8. Gardner (Frank) : *Public Library Legislation : A Comparative Study*, 1971.
9. Kelly (Thomas) : *History of Public Libraries in Great Britain, 1845-1975*, 1977.
10. Jefferson (G) : *Library Cooperation*. Latest ed.
11. Venkatpaiah (V): *Indian Library Legislation*, 2 Vol. Delhi: Daya,, 1990.
12. Butler, P : *An Introduction to Library Science*.
13. Narayana, GJ : *Library and Information Management*.

**PAPER-II : KNOWLEDGE ORGANISATION AND INFORMATION PROCESSING**

**OBJECTIVES:**

- 1 . To acquaint students with the theory of Library Classification, its problems and role in the organisation of library materials.
2. To study the principles and theory of library cataloguing and indexing.

**Max. Marks: 100.**

**Time Allowed: 3 Hours**

**Pass Marks 50%**

***INSTRUCTIONS TO THE PAPER-SETTER***

The question paper will consist of five sections: A, B, C, D and E. Sections A, B, C and D will have two questions each from respective sections of the syllabus and carry 15 marks each. Section E will consist of 8 short-answer type questions which will cover the entire syllabus uniformly and each short answer will carry 5 marks. Questions should be evenly spread over the entire range of syllabus. In no case, question should be asked from outside the syllabus. The question paper should be set strictly according to the instructions mentioned above.

***INSTRUCTIONS TO BE GIVEN IN THE QUESTION PAPER***

**NOTE:**

1. Answer five questions in all, selecting at least one question from each section. The question in section E is compulsory.
2. Questions in sections A, B, C and D carry 15 marks each. The question in section E carries 40 marks in all.

**SECTION-A**

1. Concept of Library Classification : Definition, need and purpose.
2. Theory of subjects: Basic, compound and complex subjects.
3. Models of classification scheme: Enumerative and Faceted: their merits and demerits.
4. Notation : Need, purpose and qualities.

**SECTION-B**

5. Classification Schemes : Introduction to major schemes of classification : Universal Decimal Classification (UDC), Dewey Decimal Classification (DDC) and Colon Classification (CC). Role of CRG, DRTC and ISKO.
6. Classification Theory : Canons/principles of Sayers, Bliss and Ranganathan.
7. Development and trends in classification: Role of Computers.
8. Concept of Call Number : Class Number, Book Number, Collection Number.

**SECTION-C**

9. Concept of library catalogue: Definition, need, purpose and functions.
10. Forms and types of catalogue. Dictionary, Classified, Alphanetic-classified Catalogue; Card, Microfiche, Computerised and online (OPAC) Catalogues.
11. Filing of Entries : Arrangement of entries of Dictionary and Classified catalogue.
12. Descriptive cataloguing : Current trends in Standardization, description and Exchange (ISBD, MARC, CCF).

**SECTION-D**

13. Standard codes of cataloguing: AACR and CCC.
14. Normative principles of Cataloguing: Canons of Cataloguing.
15. Subject Cataloguing and Indexing : Principles of subject cataloguing: Subject Headings Lists and their features (Sears List of Subject Headings and Library of Congress List of Subject Headings).
16. Development and trends: Development and recent trends in cataloguing.

**RECOMMENDED READINGS**

1. *Dewey Decimal Classification, 19<sup>th</sup> ed., 3 vols., 1979.*
2. Foskett, AC : *Subject Approach to Information.*
3. Hunter, EJ and Bakewell, KGB. *Advanced Cataloguing.*
4. Krishan Kumar: *Theory of Classification.*

5. Krishan Kumar: *Theory of Cataloguing*.
6. Ranganathan, SR : *Classified Catalogue Code*. 5<sup>th</sup> ed., 1964.
7. Ranganathan, SR: *Colon Classification*, 6<sup>th</sup> revised edition, 1963.
8. Ranganathan, SR : *Prolegomena to Library Classification*.
9. Sayers, MCB, *Manual of Library Classification for Librarians and Bibliographers*.
10. *Sears' List of Subject Headings*, Ed. 12, 1982.

### **PAPER-III: LIBRARY CLASSIFICATION (PRACTICE)**

**OBJECTIVES :** The aim of this paper is to give practice and train student in the techniques of classifying titles of documents according to Colon Classification, Ed 6 (reprint with amendments) and Dewey Decimal Classification, Ed 19.

**Max. Marks: 100**

**Time Allowed: 3 Hours**

**Pass Marks : 50%**

#### **INSTRUCTIONS TO THE PAPER-SETTER**

Separate titles should be given for classification by CC and DDC. The question Paper should be made out in three parts. Part-I should include titles to be classified according to Colon classification, Ed 6 (Reprinted with amendments). Part-II should include titles to be classified according to Dewey Decimal classification, Ed 19. Each part should be further divided into two sections. Section A of part I CC should carry 30 Marks. In this section, at least twelve simple titles should be given from which candidates be asked to classify any six titles. Section B of Part I (CC) should carry 20 marks. In this section at least five titles of compound and complex nature Should be given from which candidates be asked to classify any two titles. Section C in part II (DDC) should carry 30 marks. In this section, at least twelve titles should be given from which candidates be asked to classify any six titles. Section D in Part II (DDC) should carry 20 marks. In this section, at least five titles of compound and complex nature should be given from which candidates be asked to classify any two titles. Wherever a title warrants use of Chronological Device, the period should be indicated by the paper-setter. Titles should be expressive. Wherever necessary, annotations may be added to clarify the subject of document. No titles warranting use of Classic Device should be given for classification. Colon classification. Ed. 6 (Reprinted with amendments) and Dewey Decimal classification Ed. 19 will be provided to the candidates for use in the examination hall. The candidates will also be provided a standard dictionary for use in the examination hall. In no case, questions should be asked outside the syllabus and question paper should be set strictly according to instructions mentioned above.

**INSTRUCTIONS TO BE GIVEN IN THE QUESTION PAPER****Max. Marks: 100****Time Allowed: 3 Hours****Pass Marks : 50%****NOTE:**

1. Part I and II carry 50 marks each. Both parts are compulsory.
2. Copies of Colon classification, Ed 6 (Reprinted with amendments) and Dewey Decimal classification, Ed 19 and dictionary are available for use.

**PART-I: COLON CLASSIFICATION****SECTION-A**

30 Marks

Classify any six of the following:

**SECTION-B**

20 Marks

Classify any two of the following:

**PART-II: DEWEY DECIMAL CLASSIFICATION****SECTION-C**

30 Marks

Classify any six of the following:

**SECTION-D**

20 Marks

Classify any two of the following:

Classification practice by Colon and Dewey Decimal Schemes of classification (editions mentioned above).

**TEACHING AIDS**

Colon classification, Ed 6 (Reprinted with amendments), 1963.

Dewey Decimal Classification, 3 V. Ed 19, 1979.

Dictionary/Encyclopaedia.

**LIST OF REQUIREMENTS IN THE EXAMINATION HALL**

The following books are to be provided to the candidates :

1. Ranganathan (SR) : *Colon Classification*. Ed 6 (Reprinted with amendments), 1963. One each for a candidate.
2. *Dewey Decimal Classification*. 3 V. Ed. 19, 1979. One set to each candidate.
3. *Language Dictionary*-2 copies.

**Note:** The above books are to be collected by the Superintendent, Examination Centre from the Departmental Library of Distance Education, Punjabi University Library, Patiala.

**PAPER-IV: LIBRARY CATALOGUING (PRACTICE)**

**OBJECTIVE :** To train students in cataloguing of documents according to AACR and CCC.

The following types of documents shall be catalogued to both CCC and AACR II.

Single personal author, joint author, single and joint pseudonym; Works

under editorial direction and of mixed responsibility. Corporate author: Government, institution and Conference. Ordinary Composite book. Multivolumes. Periodicals.

The following types of documents shall be catalogued according to AACR II only:

Uniform Titles. Microforms.

**Note:** (i) Complicated cases of personal names, (ii) Complicated corporate authorship, (iii) Complexities in periodicals, (iv) Complexities in descriptive cataloguing, (v) Uniform titles, are excluded.

Cataloguing of Artificial composite book, Pseudo-series according to AACR II and CCC are excluded.

**Max. Marks: 100**

**Time Allowed: 3 Hours**

**Pass Marks : 50%**

#### ***INSTRUCTIONS TO THE PAPER-SETTER***

Separate titles should be given for cataloguing by CCC and AACR. The question Paper should consist of two parts. Part-I should include four titles to be catalogued according to CCC. Part-II should include six titles covering uniform titles and microforms to be catalogued according to AACR II, supplemented by Sears List of Subject Headings. Candidates should be asked to catalogue fully any five titles in all, selecting two titles from Part-I and three titles from Part-II. Titles having complicated personal names and complicated corporate authorship, complex periodicals and those having complexities in descriptive cataloguing, uniform titles should be excluded. Cataloguing of artificial composite book, Pseudo-series according to CCC are excluded. Cataloguing of special material except microforms should also be excluded according to AACR II. In no case, questions should be asked outside the syllabus and question paper should be set strictly according to instructions mentioned above.

#### ***INSTRUCTIONS TO BE GIVEN IN THE QUESTION PAPER***

**Max. Marks: 100**

**Time Allowed: 3 Hours**

**Pass Marks : 50%**

#### ***NOTE:***

1. All questions carry equal marks.
2. Catalogue fully five titles in all, selecting two titles from Part-I and three titles from Part-II.
3. All catalogue entries for each title should be completed before attempting the next title.
4. For entries according to AACR :
  - (a) Follow Unit Card Systems for added entries.
  - (b) For subject headings, use Sears List of Subject Headings, Ed 12.

5. Copies of Colon Classification, Ed 6 (Reprinted with amendments) and Dewey Decimal Classification, Ed 19 and Sears List of Subject Headings, Ed 12 are available for use.

PART-I : CLASSIFIED CATALOGUE CODE

PART-II: ANGLO-AMERICAN CATALOGUING RULES-II

LIST OF REQUIREMENTS IN THE EXAMINATION HALL

The following books are to be provided to the candidates :

1. Colon classification. Ed 6 (reprinted with amendments), 1963,10 copies.
2. Dewey Decimal Classification, 3 V. Ed 19,10 copies.
3. Sears List of Subject Headings. Ed 12,13 copies.
4. Language Dictionary-2 copies.

**Note:** The above books are to be collected by the Superintendent Examination Centre from the Departmental Library of Distance Education, Punjabi University, Patiala.

*TEXT BOOKS*

1. Ranganathan (SR) : *Classified Catalogue Code with Additional Rules for Dictionary Catalogue Code*. Ed. 5, 1954. Reprinted 1991.
2. *Anglo-American Cataloguing Rules*. Ed 2. 1978.
3. *Sears List of Subject Headings* Ed 12. 1982.

**PAPER-V : MANAGEMENT OF LIBRARIES AND INFORMATION CENTRES**

**OBJECTIVES:**

The aim of this paper is to give students an idea of the principles of management of library and also acquaint them with management techniques, functions, activities and routines of various sections/departments in a library/information centre.

**Max. Marks: 100**

**Time Allowed: 3 Hours**

**Pass Marks : 50%**

***INSTRUCTIONS TO THE PAPER-SETTER***

The question paper will consist of five sections: A, B, C, D and E. Sections A, B, C and D will have two questions each from respective sections of the syllabus and carry 15 marks each. Section E will consist of 8 short-answer type questions which will cover the entire syllabus uniformly and each short answer will carry 5 marks. Questions should be evenly spread over the entire range of syllabus. In no case, question should be asked from outside the syllabus. The question paper should be set strictly according to the instructions mentioned above.

**INSTRUCTIONS TO BE GIVEN IN THE QUESTION PAPER****Max. Marks: 100****Time Allowed: 3 Hours****Pass Marks : 50%****NOTE:**

- 1 . Answer five questions in all, selecting at least one question from each section. The question in section E is compulsory.
2. Questions in sections A, B, C and D carry 15 marks each. The question in section E carries 40 marks in all.

**SECTION-A**

- 1 . Concept of Management : Principles and functions of scientific management and their application to libraries and information centres. Levels of management.
2. Library planning : need, purpose and objectives.
3. Library Organisation: Policy making bodies of library; library authority and library committee. Organisational structure in libraries.
4. Library Finance : Sources of finance, Budgeting procedure and accounts. Cost-effectiveness and cost-benefit analysis.
5. Human Resource Management : Policy and staffing (selection, recruitment, training and development, appraisal), classification of library personnel; staff manual. Outsourcing.

**SECTION-B**

6. Collection Development and Access Management : Need, purpose, Principles and factors. Collection Development policy. Procedure of ordering, appointing vendors. Book trade problems with special reference to India, Accessioning. Good Offices Committee (GOC). Acquisition of non-print/ multimedia materials.
7. Technical Processing of documents : classification, cataloguing and filing routines.
8. Storage and Maintenance Section : Planning and policies, Open vs Closed access, Stacking arrangement, stack maintenance, binding, stock-rectification and stock verification.

**SECTION-C**

9. Periodical section: Acquisition, methods of recording with special reference to Kardex.
10. Circulation Section : Membership/Registration : Charging and discharging systems, Library rules.
11. Reference and Information Section : User Education and bibliographic instruction; Organisation of reference and Information section.

**SECTION-D**

12. Library Building and Equipment: Planning, responsibilities; Library Building; qualities, location and environment etc. Furniture and equipment.
13. Public Relations and Marketing: Definition, need, objectives and methods.
14. Extension Services: Definition, need, objectives and methods.
15. Library Statistics : Need, purpose and types.
16. Annual report : Need purpose and contents.

**RECOMMENDED READINGS**

1. Evans, G : *Management Techniques for Librarians.*
2. Lock (RN) : *Brown's Manual of Library Economy, Latest ed.*
3. Lock (RN), Ed. : *Manual of Library Economy : Conspectus of Professional Librarianship for Students and Practitioners.* London. Clive Bingley, Latest ed.
4. Mittal (RL) : *Library Administration : Theory and Practice, Latest ed.*
5. Narayana (GJ) : *Library and Information Management.*
6. Ranganathan (SR) : *Library Administration, Latest ed.*
7. Wheeler (JL) and Goldhar : *Practical Administration of Public Libraries.* Latest ed.
8. Wilson (LR) and Tauber, MF : *University Library, Latest ed.*

**PAPER-VI: LIBRARY AND USERS****OBJECTIVE:**

1. To develop competence in understanding and evaluating libraries and its services.
2. To understand library users and their information needs and information seeking behaviour.

**Max. Marks: 100****Time Allowed: 3 Hours****Pass Marks : 50%****INSTRUCTIONS TO THE PAPER-SETTER**

The question paper will consist of five sections : A, B, C, D and E. Sections A, B, C and D will have two questions each from respective sections of the syllabus and carry 15 marks each. Section E will consist of 8 short-answer type questions which will cover the entire syllabus uniformly and each short

answer will carry 5 marks. Questions should be evenly spread over the entire range of syllabus. In no case, question should be asked from outside the syllabus. The question paper should be set strictly according to the instructions mentioned above.

**INSTRUCTIONS TO BE GIVEN IN THE QUESTION PAPER**

**Max. Marks: 100**

**Time Allowed: 3 Hours**

**Pass Marks : 50%**

**NOTE:**

1. Answer five questions in all, selecting at least one question from each section. The question in section E is compulsory.
2. Questions in sections A, B, C and D carry 15 marks each. The question in section E carries 40 marks in all.

**SECTION-A**

1. Changing role and status of libraries.
2. Library surveys : Purpose and uses.
3. Library surveys : Planning surveys, collecting information, processing and analysis of data interpretation and presentation (Only basics to be covered)
4. Techniques and tools of library surveys.

**SECTION-B**

5. Evaluation of library sources and services : Books, periodicals, Catalogues.
6. Effectiveness : Cost-benefit/Cost-effectiveness studies.
7. User studies : Methods and techniques.
8. Evaluation of user studies

**SECTION-C**

9. Information: Definition and its nature.
10. Categories of information users.
11. Information needs of users.
12. Information seeking behaviour.

**SECTION-D**

13. User education : Concept, goals and objectives, Levels.
14. User education: Techniques and methods.
15. Evaluation of user educational programmes.
16. Information literacy : Definition, need, Purpose, Programmes.

**PAPER-VII: INFORMATION SOURCES AND SERVICES**

**OBJECTIVES:**

The aim of this paper is to impart knowledge regarding basic reference and information sources to the students and to give them practice in the use of these in answering queries of users.

**Max. Marks: 100****Time Allowed: 3 Hours****Pass Marks : 50%*****INSTRUCTIONS TO THE PAPER-SETTER***

The question paper will consist of five sections : A, B, C, D and E. Sections A, B, C and D will have two questions each from respective sections of the syllabus and carry 15 marks each. The question in Section E carries 40 marks in all.

Each question in Section E should consist of fifteen short answer type reference questions, out of which candidates be asked to answer any ten. Short answer type questions carrying 4 marks each. The candidate should mention at least one standard information/reference source with bibliographical details in answer to each reference question. The reference question should cover different categories of information/reference sources. In no case, question should be asked from outside the syllabus. The question paper should be set strictly according to the instructions mentioned above.

***INSTRUCTIONS TO BE GIVEN IN THE QUESTION PAPER*****Max. Marks: 100****Time Allowed: 3 Hours****Pass Marks : 50%*****NOTE:***

1. Answer five questions in all, selecting at least one question from each section. The question in section E is compulsory.
2. Questions in sections A, B, C and D carry 15 marks each. The question in section E carries 40 marks in all.

***SECTION-A***

1. Reference and Information sources.
2. Documentary sources of Information; print and non-print : categories : primary, secondary and tertiary.
3. Human and institutional sources. The internet, Web as a source of information.

***SECTION-B***

4. Information and Reference sources and their evaluation : Different types of reference and information sources. Criteria for evaluation of reference sources.
5. Bibliographical sources : function, types, uses and criteria for evaluation of different types of bibliographical sources.

***SECTION-C***

6. Reference and Information Services : Concept, definition, need and trends. "Ask-a-librarian", "virtual reference desks".
7. Need, techniques and evaluation of CAS and SDI services.
8. Bibliographical, referral, document delivery and translation services.

**SECTION-D**

9. Documentation and Information Centres. Information Systems and Networks.
10. Services and products of Documentation and Information Centres and Information systems and networks at national level: NISCAIR, DESIDOC, NASSDOC; INFLIBNET, DELNET.
11. Services and products of Documentation and Information Centres, Information systems and Networks at International level: OCLC, Knight Ridder.

**NOTE** : List of reference sources for evaluation and practical work attached as Appendix.

**RECOMMENDED READINGS**

1. Chakaraborty, *Reference Service*.
2. Girja Kumar & Krishan Kumar: *Bibliography*.
3. Katz, WA : *Introduction to Reference Work*. 7<sup>th</sup> ed. New York: McGraw-Hill, 1996, 2 vols.
4. Krishan Kumar : *Reference Service*
5. Shehhy, EP : *Guide to Reference Books*.
6. Ranganathan, SR: *Reference Service*.
7. Satija, MP and Sewa Singh: *Sandharab ate Soochna Sarot*, Patiala: Punjabi University Publication Bureau, 1996 [in Pbi.]
8. Shores, L. : *Basic Reference Sources*.
9. Walford, AJ, ed. *Guide to Reference Material*. London LA. 3 vols.

**PAPER-VIII: INFORMATION TECHNOLOGY: BASICS****OBJECTIVES:**

1. To acquaint students with basic concepts of computers.
2. To develop skills in using computers.
3. To understand various aspects of library automation.

**Max. Marks: 100**

**Time Allowed: 3 Hours**

**Pass Marks : 50%**

**PART-I (THEORY)****INSTRUCTIONS TO THE PAPER-SETTER**

The question paper will consist of five sections: A, B, C, D and E. Sections A, B, C and D will have two questions each from respective sections of the syllabus and carry 15 marks each. Section E will consist of 8 short-answer type questions which will cover the entire syllabus uniformly and each short answer will carry 5 marks. Questions should be evenly spread over the entire range of syllabus. In no case, question should be asked from outside the syllabus. The question paper should be set strictly according to the instructions mentioned above.

**INSTRUCTIONS TO BE GIVEN IN THE QUESTION PAPER****Max. Marks: 100****Time Allowed: 3 Hours****Pass Marks : 50%****NOTE:**

1. Answer five questions in all, selecting at least one question from each section. The question in section E is compulsory.
2. Questions in sections A, B, C and D carry 15 marks each. The question in section E carries 40 marks in all.

**SECTION-A**

1. Introduction to computers : Generations of computers, salient features of computers.
2. Types of computers : Supercomputers, mainframes, mini and micro computers.
3. Computer Hardware : Input & Output devices.
4. Software : System software and application software (Basics Only)

**SECTION-B**

5. Algorithms and flowcharts.
6. Operating systems : Definition and functions, Types. (MSDOS, WINDOWS-95, UNIX) (Basic features)
7. Programming language : Types and functions.
8. Word-Processing software : MS-Word : Creating, editing and formatting a document.

**SECTION-C**

9. Library Automation: Need for computerization in libraries.
10. Application of computers in different areas in libraries.
11. Computerised information services (CAS and SDI).
12. Information Retrieval : Boolean operators.

**SECTION-D**

13. Library softwares : Essential features.
14. Study of features of select library packages : WINISIS, LIBSYS, SOUL.

**RECOMMENDED READINGS**

1. Devarajan, G. *Information Technology in Libraries*, Delhi: Ess Ess, 1990.
2. Ravichandra Rao, IK : *Library Automation*. New Delhi Wiley Eastern.
3. Rowley, J. *The Electronic Library*. 4<sup>th</sup> ed. London : LA, 1998.
4. Satyanarayana, NR : *A Manual of Computerisation in Libraries*.

**ENCYCLOPAEDIAS****GENERAL**

1. *The New Encyclopaedia Britannica*, Chicago: Encyclopaedia Britannica Inc. Latest ed.

2. Encyclopedia Americana, New York: Grolier Inc. 30 vols.
3. *World Book Encyclopaedia* Chicago: World Book-22 vols. Annual revision, Multimedia version 1955.

**SUBJECT :**

4. *International Encyclopaedia of the Social Science, N.Y. :* The Mcmillian and The Free Press, 1968, 18 vols.
5. *McGraw-Hill Encyclopaedia of Science and Technology, N.Y.:* McGraw-Hill.
6. Encyclopaedia of Religion and Ethics.
7. *Encyclopaedia of Library and Information Science, New York:* Marcel Dekker.

**APPENDIX****DICTIONARIES**

1. *The Oxford English Dictionary*, Second edition, Oxford, N.Y. : The Clarendon Press, 1993, 20. vols.
2. *Webster's Third New International Dictionary of the English Language*, Chicago: Encyclopaedia Britannica. Inc., 1961, 3 vols.
3. *Funk and Wagnall's Standard Dictionary of the English Language*, New York: Funk & Wagnalls Company 1964.
4. Raghuvira's *Comprehensive English-Hindi Dictionary of Governmental and Educational Words and Phrases*. Nagpur: Lokesh Chandra International Academy of Indian Culture, 1995.
5. Punjabi Kosh, Patiala : Department of Language, Punjab.
6. Websters Dictionary of Synonyms.
7. Websters Dictionary of Antonyms.

**BIOGRAPHICAL DICTIONARIES:**

1. *Webster's Biographical Dictionary*, Springfield, Mass, G and C Merriam, 1995.
2. *The International Who's Who*, Lodon : Europe.
3. *Dictionary of National Biography*, edited by S.P. Sen, Calcutta, Institute of Historical Studies, 1972-74, 4 vols.
4. *India Who's Who*, New Delhi (India): INFA Publications.
5. *Dictionary of American Biography*, N.Y. : Charles Scribner's, 1928, 37 vols.

**GAZETTEERS/GEOGRAPHICAL DICTIONARIES:**

1. *Columbia Lipponcott Gazetteer of the World*, N. Y. : Columbia University Press, 1952.
2. The Gazetteer of India, New Delhi : Publication Division, Ministry of Information and Broadcasting. Govt. of India, 1978.
3. *Times Atlas of the World, Comprehensive*, 9th ed., London : Times Books 1992, Reprinted 1994.

**YEAR BOOKS:**

1. *The Europa World Yearbook.*, London: Europa Publications, 1976.
2. *The Statesman's Yearbook*, New York : St. Martin's Press, 1864.
3. *India : A Reference Annual*, New Delhi : Publication Division, Ministry of Information and Broadcasting, Govt. of India, 1953.
4. *The Bowker Annual of Library and Book Trade Information*, N. Y. : R. R. Bower, 1955.
5. *Whitaker's Almanac*, London: Whitaker, 1869.
6. *Commonwealth Universities Yearbook*. The Association of Commonwealth Universities, 1914.
7. *The World of Learning*, London : Europa Publications, 1947.
8. *The World Almanack and Book of Facts (Annual)*, N. Y.: Newspaper Enterprise Association Inc. 1968.
9. *Universities Handbook*, New Delhi: AIU.
10. Murray's Guide and handbook for Travlers in India, Pakistan, Burma and Ceylon.
11. Fodor's Guide to India.
12. Tourist Guide : India, New Delhi.

**NEWS DIGESTS:**

1. *Keesing's Record of World Events (Formerly Keesing's Contemporary Archives)*, 1931 -Longman Group, UK.
2. *Asian News Digest (Formerly Asian Recorder) : A Weekly Digest of Outstanding Asian Events*. New Delhi : K. K. Thomas at Recorder Press, 1955.
3. Data India.
4. Press in India.

**STATISTICAL SOURCES:**

1. *United Nations Statistical Yearbook*.
2. *Census of India*.
3. *Statistical Abstracts of Punjab*, Chandigarh : Economic Advisor to Punjab Government.

**BIBLIOGRAPHIES:**

1. *British National Bibliography (BNB)* Boston Spa : British Library National Bibliographica Service, 1950.
2. *Indian National Bibliography (INB)*, Calcutta : Central Reference Library, 1957 (Monthly).
3. *Indian Books in Print*, New Delhi : Indian Bibliographies Bureau.
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