

STUDY GUIDE

MASTER OF LIBRARY AND INFORMATION SCIENCES

INFORMATION SOURCES AND SERVICES

CODE NO. 5502



Department of Library & Information Sciences

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CONTENTS

Organization of the Course	6
Course Introduction	10
Course Objective	13
Required Readings	13
UNIT-1 GENERAL REFERENCE SOURCES	17
1.1 Introduction	18
1.2 Objectives	21
1.3 Compulsory Readings	21
1.4 Suggested Readings	22
1.5 Self Assessment Questions	22
1.6 Activity	23
UNIT-2 SECPAIL REFERENCE SOURCES- SCIENCE AND TECHNOLOGY	25
2.1 Introduction	25
2.2 Objectives	28
2.3 Compulsory Readings	28
2.4 Suggested Readings	28
2.5 Self Assessments Questions	28
2.6 Activities	29
UNIT-3 SPECIAL REFERENCE SOURCES-HUMANTIES AND SOCIAL SCIENCES	31
3.1 Introduction	31
3.2 Objectives	37
3.3 Compulsory Readings	37
3.4 Suggested Readings	38
3.5 Self Assessment Questions	38
3.6 Activity	38
UNIT-4 EVALUATION OF REFERENCE SOURCES	39
4.1 Introduction	40
4.2 Objectives	41

	4.3	Compulsory Readings	41
	4.4	Suggested Readings	42
	4.5	Self Assessments Questions	42
	4.6	Activities	42
UNIT-5		REFERENCE AND INFORMATION SERVICES	44
	5.1	Introduction	45
	5.2	Objectives	46
	5.3	Compulsory Readings	47
	5.4	Suggested Readings	47
	5.5	Self Assessment Questions	48
	5.6	Activities	49
UNIT-6		USE OF MACHINE READABLE SOURCES	50
	6.1	Introduction	51
	6.2	Objectives	53
	6.3	Compulsory Readings	53
	6.4	Suggested Readings	54
	6.5	Self Assessment Questions	55
	6.6	Activities	55
UNIT-7		MANAGEMENT OF REFERENCE AND INFORMATION DEPARTMENT	56
	7.1	Introduction	57
	7.2	Objectives	59
	7.3	Compulsory Readings	59
	7.4	Suggested Readings	59
	7.5	Self Assessment Questions	60
	7.6	Activities	60
UNIT-8		BIBLIOGRAPHIC SOURCES	61
	8.1	Introduction	62
	8.2	Objectives	63
	8.3	Compulsory Readings	64
	8.4	Suggested Readings	64
	8.5	Self Assessment Questions	65
	8.6	Activities	65
UNIT-9		BIBLIOGRAPHIC CONTROL IN PAKISTAN	66
	9.1	Introduction	67
	9.2	Objectives	69
	9.3	Compulsory Readings	69
	9.4	Suggest Readings	70
	9.5	Self Assessments Questions	71
	9.6	Activities	71

ORGANIZATION OF THE COURSE

Structure of the course

The course has been structured to make it as easy as possible for you to complete the required course work. This course consists of nine units. Each unit consists of study material of one week if you study 12-16 hours in a week. This will include studying the prescribed reading material and carrying out the various self-learning assessments.

We have organized this course to enable you to acquire the skill of self-learning. You will find a course introduction at the end of this part, which will provide you an overall view of the course. This study guide has been written to enhance the foundation of sociological ideas and issues, which are presented in the textbook. A section *course introduction* consists of a brief review of the unit in paragraph form. An effort was made to simplify those concepts, which are covered in the compulsory readings, by giving examples of our own society. Specific learning *objectives* are given which identify the basic knowledge; explanation, comparison and understanding, a student should have after studying the unit. Hence, the study guide is intended to be a concise preview and learning tool to accompany the compulsory reading. So the contents are introduced briefly in the study guide.

For each unit, prescribed reading material has been classified as compulsory and suggested reading. Studying all this material is compulsory for successful completion of the course. This study guide is based on prescribed reading. After listing required reading, we have given you a few self-assessment questions and activities. These questions are meant to facilitate you in understanding and self-assessment that how much you have learned.

For this course, *fortnightly tutorials* are arranged in university's study centres. These tutorials are not formal lectures given in any formal university; rather these are meant for group and individual discussion with the course tutor to facilitate you. So before going to attend a tutorial, prepare yourself to discuss course material with your tutor.

How To use reading material

As this is a course through distance education, so we have organized the required course work in the following manner to help you

in evolving a self-learning process in absence of formal classroom teaching.

- a. Course introduction and objectives
- b. Unit introduction and objectives
- c. The major theme of the unit is divided into sub-themes. They are listed in the beginning of every unit. A brief and simplified introduction of major topic is given in the study guide so that you can get acquainted with the material.
- d. Required reading for each unit is listed as compulsory and suggested reading.
- e. At the end of every unit we have given you few self-assessment questions for each topic or theme. These questions are not only meant to facilitate you in understanding the required reading but also to provide you an opportunity to assess yourself how far you have learned.

Although you choose your own way of studying the required reading material, you are advised to follow the steps, which are given here.

Study chart

- | | |
|--------|---|
| Step-1 | For clear identification of your reading material, thoroughly read description of the course. |
| Step-2 | Read carefully the way the reading material is to be used. |
| Step-3 | Complete the first quick reading of your required study materials. |
| Step-4 | Carefully make the second reading and note down some of the points you were not able to fully understand. |
| Step-5 | Carry out the self-assessment question with the help of your study material. |
| Step-6 | Revise your notes. It is quite possible that many of those points which you did not understand previously become clearer to you during the process of carrying out self assessment questions. |
| Step-7 | Prepare yourself for the tutorial meeting i.e. note down the points for discussion with other members of your group and with your course tutor. |
| Step-8 | Make a third and final reading of your study material. At this stage, you are also advised to keep in view the homework assignments. These |

assignments are compulsory for the successful completion of the course.

How to attend a tutorial

Before attending the tutorial you are required to prepare yourself in the following manner to get maximum benefit. The first tutorial is an 'introductory tutorial' for which you are required to do following work:

- Step-1 Go through first part of the study guide, which includes:
- i. organization of the course
 - ii. structure of the programme
 - iii. how to use the reading material, and
 - iv. assessment.
- Step-2 Read carefully course introduction 2-3 times to have a better understanding of the course. It will give you an overview of the whole course. Make notes of those points which you could not fully understand or wish to discuss with your course tutor.
- The way we have arranged these tutorials, will give you an opportunity to discuss two units in one tutorial. Please see schedule of the tutorial meetings.
- Step-3 Read summary of the main themes of the concerned units around which the units is constructed.
- Step-4 Study required reading and make notes of those points you are not able to fully understand and wish to discuss with your course tutor.

Methods of assessment

For each course the registered student will be assessed as following:

Assignments

Assignments are written exercises that you are required to complete while being at home or place of work after having studied the required material prescribed in the study guide. They are designed in a way to motivate you in reading the required readings and enabling you to relate your reading with the objectives.

After completion, you will send the assignments to your tutor within a time schedule for assessment and necessary

guidance. The tutor is supposed to return the same after marking and providing necessary academic guidance and supervision.

The successful completion of assignments will make you eligible to take final examination to be held at the end of the semester. To qualify each assignment, you have to obtain a minimum 40 % marks.

Workshops

Workshops are compulsory component of the post-graduate programmes. The university near the end of every semester will organize the workshops. Detail of the workshops will be sent to you with the course materials.

Final Assessment

Final examination (a three hour written examination) will take place at the end of the semester.

These two components (assignments and final examination) contribute 30:70 to get students final course grade.

The conditions to qualify each component are given below:

- i. A minimum of 40 % in assignments
- ii. A minimum of 33 % of the final written examination
- iii. An aggregate of 40% of the both components i.e. assignments and final examination
- iv. To take final examination the student has to pass assignment component.
- v. The grade will be determined as following:

40% - 54%	C
55% - 69 %	B
70% - 79%	A
80% and above	A+

Course Introduction

In any library there are some sources which are consulted more frequently than others for certain kinds of information. There are books, which, because of their organization and arrangement, lend themselves to quick and easy use; and there are publications, which are referred for information rather than to be read completely. When this collection is placed together it is called reference collection.

Personal assistance was occasionally provided even during early period of library development. Reference service came into being only when personal assistance began to be considered a basic function of the library and provided in the form of a deliberate programme. According to Rothstein, in United States the very notion of reference service goes back no farther than 1875. In the sub-continent S.R. Ranganathan's *Laws of Library Science* projected this idea which were published in 1931. However, it was 1937 that a post designated as 'reference librarian' was accepted. In Pakistan the idea has not yet taken the roots. Though the tradition of designating the 'reference desk' and 'reference sections' is popular every where but the designation as 'reference librarian' has not been accepted so far. Any person with the title 'librarian', 'assistant librarian', or 'library assistant' is designated to perform duty on the reference desk. Only some institutions like Lahore University of Management Sciences have designated professional librarians as 'reference librarian'.

The reference service differs from library to library. So, functions of reference service vary from library to library. To fulfill information needs of their user libraries select, acquire, organize, and then retrieve recorded knowledge. Commonly the collection used by reference librarians for answering patron's queries is called 'reference collection'.

There are two types of reference books:

- (1) Those which contain the needed information, such as dictionaries, encyclopedias, almanacs, yearbooks, directories, handbooks, biographical dictionaries, atlases, and gazetteers; and
- (2) Those which tell the user where the information can be found, such as indexes and bibliographies. With the introduction of information technology then electronic reference sources are becoming popular day-by-day. CD-ROM was a popular form in developing countries. However, the introduction of Internet has surpassed every form and resource and is gaining momentum day and night. It's why the idea of paperless society seems to be proven.

For becoming a competent and effective reference librarian it is needed that one must have full command of the reference process and its elements. Reference work is often referred to as if it was purely and simply the answering of enquiries through the use of reference material. In its widest connotation, however, it may be said to encompass everything, which is essential, if users' queries are to be dealt with swiftly, efficiently, effectively, and economically. First and the foremost element for the success of reference service is personal traits of the reference librarian. He should be tactful, intelligent, imaginative, ingenious, helpful, emphatic, curious, persistent, energetic, sensitive, polite and assured.

The major ingredients of reference process are reference question, reference interview, search strategy and communication of results. At the first instance reference librarians should differentiate among factual/ready reference, moderate, and complicated or research type of queries. Some times the questions are very clear. But in many cases a reference interview is to be conducted to clarify and refine the question. Based on results of interview the reference librarian formulates his/her search strategy.

It will be a great success of the reference librarian if needed information is provided in the first attempt. However, in some cases the inquirer is not satisfied in first attempt, then the process is to be repeated by rescheduling the reference interview and the questions are redefined. A successful librarian answers the queries in a way most suitable to the inquirer.

To fulfill information the needs of clients of a particular library the librarian has to be very much thoughtful and evaluative. There is no library that could acquire every thing published. So, librarians have to develop certain criteria for building collections and improving their services. Reference books are always expensive. Currency, accuracy and comprehensiveness are qualities essential to the typical reference work. A reference librarian should have a quality to apply the principles of authority, scope, treatment, arrangement, format, and the special feature to a reference work and decide which source best suits the library.

For an effective reference service bibliographical tools are of much important Tertiary sources refer towards the secondary and primary sources from where information of readers' interest could be found. Bibliographies are the usual means of tracing both older and newly published materials. If one library has a collection of good bibliographies, it could provide reference and referral services of high degree. Due to the importance of bibliographical sources UNESCO and IFLA have put great emphasis on developing national and universal bibliographic control. Though Pakistan does not have an effective bibliographical control, however, the National Library of Pakistan, some other governmental and non-governmental organizations and individuals have played an important role towards this end.

Dear students, this overview provides only foundation for a more vivid picture of reference and information services. For becoming a successful librarian of the future it is required that you go through the full range of readings given in this course and much

more, you find elsewhere. As a student of distance learning, it is up to you that how you interact with your tutor(s), senior librarians, and fellow students. Your success lies in more and more discussions for concept clarification, thorough study, command on a wide range of reference sources, and grasp on reference techniques.

1.1 Course Objectives

This course will enable you to

1. explain reference sources and various kinds of reference collection
2. discuss the fields of science and technology and knowledge of major sources of the field
3. discuss the fields of humanities and social sciences, and knowledge of major sources
4. define reference process and its elements
5. illustrate electronic reference sources
6. express potential of evaluating reference sources and services
7. discuss solid background in managing the reference collection and the reference department
8. classify bibliographical sources, their kinds and uses
9. Discuss the bibliographical control and scenario of bibliographical control in Pakistan.

Required Readings

1. Balay, Robert, ed. Guide to Reference Books. 11th ed. Chicago: ALA, 1996.
2. Benson, James and Murray, Ruth K. Principles of searching in Reference and Information Services: A reader, ed. by Bill Katz and Andrea Tarr. Metuchen, N.J.: Scarecrow Press, 1978.
3. Blazek, Ron and Aversa, Elizabeth. The Humanities: A Selective Guide to Information Sources. 3rd ed. Englewood: Libraries Unlimited, 1988.

4. Block, Eleanor S. and Bracken, James K. *Communication and the Mass Media: A Guide to the Reference Literature* Englewood: Libraries Unlimited, 1991.
5. Bloomberg, Marty. *Introduction to Public Services for Library Technicians*. 4th ed. Littleton: Libraries Unlimited, 1985. 'Reference Materials'.
6. Brownmiller, Sara and others. "Online – Ready - Reference Searching in an academic Library. " RQ 24, no. 3(spring 1985): 320-326.
7. Brown, Diane M." Telephone Reference Questions: A Characterization by subject, Answer, and Level of complexity." RQ 24, no. 3 (spring 1985): 290-303.
8. Buckland, Michael K."Inquiries." Chap. in *Library Services in Theory and Context*. New York: Pergamon Press, 1983.
9. Bush, Clesson B. "Finding Education and Training Technology: A Gap Between ERIC and NTIS?" In *Reference Service Expertise*, ed. by Bill Katz. New York: The Haworth Press, 1993.
10. Champlin, Peggy. "The Online Search: Some Perils and Pitfalls." RQ 25, no. 2 (winter 1985): 213-217.
11. Dervin, Brenda and Dewdney, Patricia. "Natural Questioning: A New Approach to the Reference Interview." RQ 25, no. 4 (summer 1986): 506-513.
12. Dewey, Patrick R. *303 CD-ROMs to Use in Your library: Description, Evaluations, and Practical Advice*. Chicago: ALA, 1996.
13. Eatonton, Nancy L. and others. *CD-ROM and Other Optical information systems: Implementation Issues for libraries*. Phoenix: Oryx Press, 1989.
14. Grogan, Denis. *Science and Technology: An Introduction to the Literature*. London: Clive Bingley, 1976.
15. *Guide to Reference Books*. 11th ed. Chicago: American Library Association, 1996, Part-E, pp. 378-1377.

16. Hahn, Harley and Stout, Rick. 'Catalog of Internet Resources.' The Internet Complete reference. Berkeley: Osborne McGraw-Hill, 1994. pp. 537-684.
17. Higgins, Gavin, ed. Printed Reference Material. London: The Library Association, 1980.
18. Hines, Theodore C. and others. "Microcomputers for reference and Adult Services." RQ 22, no. 4 (Summer 1983): 360-363.
19. Huang, Samuel T., ed. Modern Library Technology and Reference Service. New York: The Haworth Press, 1993.
20. Jahoda, Gerald and Braunagel, Judith Schiek. The Librarian and Reference Queries: A Systematic Approach. New York: Academic Press, 1980.
21. Jahoda, Gerald and others. "Instruction in Negotiating the Reference query." In Reference and Information Services: A Reader, ed. by Bill Katz and Andrea Tarr. Metuchen, N.J.: Scarecrow Press, 1978.
22. Katz, Bill and Clifford, Anne, comp. Reference and Information Services: A New Reader. Metuchen, N.J.: the Scarecrow Press, 1982
23. Katz, Bill and Ruth A. Fraley, ed. Evaluation of Reference Services. The Haworth Press, 1984.
24. Katz, William. Introduction to Reference Work. Vol.I: Basic Information Sources. 6th ed. New York: McGraw-Hill, 1992.
25. Katz, William. Your Library: A reference guide. 2nd ed. New York: Holt, Rinehard and Winston, 1984.
26. Kriz, Harry M. and Kok, Victoria T. "The Computerized reference department: Buying the Future." RQ 25, no. 2 (winter 1985) 198-203.
27. Kumar, Krishan. Reference Service. 2nd rev. ed. New Delhi: Vikas, 1978. Chapters: 8-24.
28. Library Instruction and Reference Services. New York: The Haworth Press, 1984.

29. McDaniel, Julie Ann and Judith K. Ohles. "Reference Interview." Chap. in Training Paraprofessionals for Reference Service: A How-to-do-it-Manual for Librarians. New York: Neal-Schuman Publishers, 1993.
30. Sharma, Jagdish Saran. "Organization of reference Section and Sources of Information. New Delhi: Ess Ess Publications, 1987. pp 73-88.
31. Sharma, Jagdish Saran and Grover, D.R. Reference Service and Sources of Information. New Delhi: Ess Ess Publications, 1987. Chapters:12-25.
32. Thompson, Dorothea M. "OCLC--A Personal Network?!" RQ 24. No. 3(Spring 1985): 327-332.
33. Thomas, Diana M. and others. The Effective Reference Librarian. New York: Academic press 1981. Chap. 6 and Appendix B.
34. Wilson, Thomas D. and Stephenson, James. "Sources of Information". Chapter in Dissemination of Information. 2nd ed. rev. London: Clive Bingley, 1969.
35. Wolf, Carolyn and Richard Wolf. "General Reference Sources". Basic Library Skills. 3rd ed. Jefferson, N.C.:Mcfarland, 1993.

UNIT-1

GENERAL REFERENCE SOURCES

1.1 Introduction

Commonly, libraries have two types of collections, i.e. general and reference. A reference book differs from any ordinary book in many respects. The reference sources are always part of a library's reference collection. In most of the cases these sources are not loaned out from the library, neither they are for reading from beginning to end. According to the ALA Glossary of Library and Information Sciences (1983) reference book is "a book designed by the arrangement and treatment of its subject matter to be consulted for definite items of information rather than to be read consecutively". Due to specific characteristics of reference books these can easily be identified.

The general reference sources are the types of information sources, which include information of general nature or that, which applies to almost all fields of human knowledge. Generally they include: dictionaries, encyclopaedias, acronyms and abbreviations compilations, almanacs, bibliographies, biographies, catalogues of collections, directories, government publications, handbooks and yearbooks, indexes and abstracts, and quotation books.

1. Encyclopaedias are of different type i.e. one-volume, multi-volumes, CD-ROM/multimedia, and Internet/Online formats.

For example:

- a. One-Volume:

The Concise Columbia Encyclopaedia. 2nd ed. New York: Columbia University Press, 1989. 944p.

- b. Multi-Volume:

The New Encyclopaedia Britannica. 15th ed. Chicago: Encyclopaedia Britannica, 1994. 30 vols.

- c. CD-ROM Encyclopaedia

Compton's Multimedia Encyclopaedia. Carlsbad: Compton's New Media, 1989.

- d. Online Encyclopaedia:

Britannica Online.

2. Dictionaries have the following types: unabridged, abridged or desk, reduced-words, children's, historical, bilingual, polyglot, and machine-readable dictionaries. Following is the example of a dictionary.

The Oxford English Dictionary/comp. By J.A. Simpson and E.S.C. Weiner. 2nd ed. Oxford: Clarendon Press, 1989. 20 vols.

For Oriental language dictionaries, see the Oriental languages section in Unit "Reference Sources in Humanities".

3. Yearbooks and almanacs are found as general or confined to a particular subject. Following are the example:

- a. Information Please Almanac, atlas and yearbook. New York: Simon & Schuster (Annual).
- b. Whitaker's Almanak. 125th ed. London: Whitaker (Annual).

4. Directories are normally used to have name and address of persons/organizations. They are found in the following types: International, regional, national, local/city, and specified to some specific area, i.e. scientific, trade, professions, etc. Listed below are some directories:

- a. Directory of Library & Information Professionals. Woodbridge, Con: Research Publication, 1988. 2 vols.
- b. American Library Directory: A classified list of libraries in the United States and Canada, with Personnel and Statistical Data. New York: Bowker (Annual).

5. Biographical reference sources provide information about various aspects of a person's life. They have the following types: indexes to biographical sources, international, national and limited to profession(s) and subject(s). The following are some of the sources:

- a. International who's who. London: Europa (Annual).
 - b. Who's who in the World. Chicago: Marquis (Biennial).
6. Geographical reference tools are invaluable part of any reference collection. They may include name of a place, pronunciation, location, area, population, and geographical and physical description, economic and historical data, etc. The types of geographical reference sources are gazetteers, guide books, and travel guides, maps, atlases, and globes. Listed here are some common geographical sources:
- a. Webster's New Geographical Dictionary. Springfield, Mass.: Merriam-Webster, 1988.
 - b. Chambers World Gazetteer: An A-Z of Geographical Information/ ed. by David Munro. 5th ed. Edinburgh: Chambers, 1988.
 - c. National Geographic Atlas of the World. Rev. 6th ed. Washington, D.C.: National Geographic Society, 1992.
 - d. Rand McNally Atlas of the Oceans. New York: Rand McNally, 1977.
7. Bibliographical reference sources are based on components of bibliographic records of information sources, i.e. author, title, statement of responsibility, edition, material specific details, place of publication, publisher, year of publication, etc. The major types of bibliographical reference sources are catalog, union catalog, bibliography, national bibliography, indexing service, and abstracting service. Listed below for your information and acquaintance are some outstanding bibliographical sources:
- a. Guide to Reference Books / ed. by Robert Balay. 11th ed. Chicago: ALA, 1996.
 - b. Cumulative Book Index. Minneapolis: Wilson, 1989.

8. Reference sources do not end to the above mentioned types. There are still a number of other types of reference sources, which are always part of a reference collection. The other common reference sources are: sources of statistics, handbooks, manuals, and government publications. We are mentioning herewith two for example:
 - a. Statistical Yearbook for Asia and the Pacific. Bangkok: Economic and Social Commission for Asia and the Pacific (Annual).
 - b. UNESCO Statistical Yearbook 2000. Paris: UNESCO, 2000.
9. Electronic reference sources are growing rapidly. Almost all types of above mentioned reference sources are available in electronic form. The major forms are LAN databases, CD-ROMs, Online, and Internet.

1.2 Objectives

After studying this unit, you should be able to:

1. define reference sources and differentiate the reference sources from non-reference sources of information
2. know the various kinds of reference sources
3. define and comprehend general types of dictionaries, encyclopaedias, yearbooks, directories, and almanacs; have an understanding that what type of questions can answer with the help of these
4. define and comprehend general types of electronic reference sources
5. identify outstanding reference sources of the above mentioned categories.

1.3 Compulsory Readings

1. Balay, Robert, ed: Guide to Reference Books. 11th ed. Chicago: ALA, 1996.

- 2 Bloomberg, Marty. Introduction to Public Services for Library Technicians. 4th ed. Littleton: Libraries Unlimited, 1985. 'Reference Materials'.
- 3 Doyle, James M. and Grimes, George H. Reference Resources: A systematic approach. Metuchen, N.J.: Scarecrow Press, 1976. Chapter "The Bibliographic Chain".
- 4 Higgins, Gavin, ed. Printed Reference Material. London: The Library Association, 1980.
- 5 Katz, William. Introduction to Reference Work. Vol.I: Basic Information Sources. 6th ed. New York: McGraw-Hill, 1992.

1.4 Suggested Readings

1. Cheney, Frances Neel and Williams, Wiley J. Fundamental Reference Sources. 2nd ed. Chicago: ALA, 1980.
2. Katz, William. Your Library: A reference guide. 2nd ed. New York: Holt, Rinehard and Winston, 1984.
3. Krishan Kumar. Reference Service. 2nd rev. ed. New Delhi: Vikas, 1978. Chapters: 8-24.
4. Sharma, Jagdesh Saran and Grover, D.R. Reference Service and Sources of Information. New Delhi: Ess Ess Publications, 1987. Chapters: 12-25.
5. Wilson, Thomas D. and Stephenson, James. "Sources of Information". Chapter in Dissemination of Information. 2nd ed. rev. London: Clive Bingley, 1969.
6. Wolf, Carolyn and Richard Wolf. "General Reference Sources". Basic Library Skills. 3rd ed. Jefferson, N.C.: McFarland, 1993.
7. ———. "Periodicals and Newspapers". Basic Library Skills. 3rd ed. Jefferson, N.C.: McFarland, 1993.

1.5 Self Assessment Questions

- Q.1. What is a reference source? How is it different from a non-reference source of information? Discuss in detail.

- Q.2. What do you know about the various kinds of reference sources? How are they important?
- Q.3. Define dictionary, encyclopaedia, yearbook, directory, and almanac; and tell what type of questions can be answered with the help of the respective source?
- Q.4. Define and explain various kinds of biographical reference sources, geographical sources, and bibliographical sources. What type of questions can be answered with the help of the respective source?
- Q.5. Define and explain various types of electronic reference sources. Describe how they are changing the information providing capabilities of libraries
- Q.6. Which are the outstanding reference sources in respect of different categories? Mention at least three sources in each category, which are not listed in this Unit.

1.6 Activity

Visit some major local libraries and check, which of the reference sources mentioned in the unit are available in which library. If no source is available in any of the libraries then list three of each category missing, which are available and not listed in this unit.

UNIT- 2

**SPECIAL REFERENCE SOURCES
SCIENCE AND TECHNOLOGY**

2.1 Introduction

Scientific and technical literature is published in a variety of forms and formats. However, three distinct categories or types of literature can be identified and these are commonly referred to as the primary, secondary and tertiary literature.

Primary literature comprises the original detailed reports of scientific and technical research. Some of these reports may be largely observational or descriptive, but the majorities are accounts of experimental work with results and conclusions. The following kinds are known to be primary sources of information: theses, patents, reports, pre-prints, periodicals, and conference proceedings.

Secondary literature is also of great importance in science and technology. Most of the problems and difficulties which scientist encounter while using the scientific literature are a consequence of the immense volume of published literature. At present the volume of scientific papers, already exceeding twenty million items, is thought to be growing by about two million papers a year. It is obvious that it would be totally impracticable to locate relevant information by searching through the primary literature. Some form of guide to the content of the primary literature is required and this is provided by the secondary sources. The following are some of the secondary sources in the field of science and technology: abstracting journals, indexing journals, citation indexes, current-awareness journals, review series, and other types of reference books.

Tertiary literature is a less well defined group of publications comprising literature guides and search aids, which are designed to help the scientist identify the primary and secondary literature sources in a particular research field. These include bibliographies of bibliographies, directories, and guides to literature.

There are innumerable reference sources in the field of science and technology. As an example, we are quoting here common reference sources relating to some subjects:

Natural Sciences, Mathematics, Medical and Engineering etc.

This section covers the reference sources, which include information on all subjects or most of the subject of the field.

1. World list of Scientific Periodicals published in the years 1900-1960. 4th ed. Stratton, Was: Butterworths, 1963-65. 3 vols.
2. McGraw-Hill Encyclopaedia of Science and Technology. 7th ed. New York: McGraw-Hill, 1992. 20 vols.
3. World Guide to Scientific Associations and Learned Societies. ed. by Michael Sachs. 5th ed. New York: K.G. Saur, 1990.
4. International Organization for Standardization. ISO Catalog. Geneva: The Organization (Quarterly with Annual cumulation).
5. Encyclopaedia of Mathematics: An updated and annotated translation of the Soviet "Mathematical Encyclopaedia". Boston: Reidel, 1988-1994, 10 vols.
6. International Encyclopedia of Statistics, ed. by William H. Kruskal and Judith M. Tanur. New York: Free Press, 1978, 2 vols.
7. The Astronomy and Astrophysics Encyclopedia, ed. by Stephen P. Maran. New York: Van Nostrand Reinhold, 1992.
8. The Cambridge Atlas of Astronomy, ed. by Jean Audouze and Guy Israel. 2nd ed. New York: Cambridge University press, 1988.
9. Information Sources in Physics, ed. by Dennis F. Shaw. 3rd ed. London: Bowker- Saur, 1994.
10. The Nobel Prize Winners: Physics, ed by Frank N. Magill. Pasadena, Calif: Salem Press, 1989. 3 vols.
11. Information Sources in the Earth Sciences, ed. by David N. Wood, Joan E. Hardy, and Anthony p. Harvey .2nd ed. London: Bowker- Saur, 1989.
12. Glossary of Geology, ed. by Robert of Bates and Julia A Jackson 3rd ed. Alexandria, Va: American Geological Institute, 1987.
13. The Literature of Mineralogy. London: Science Reference and Information Service; The British Library, 1986.
14. Handbook of Physical Properties of Rocks, ed. by Robert S Carmichael. Boca Raton, Fla: CRC Press, 1982-84, 3 vols.

15. Encyclopaedia of Human Biology, ed. by Renato Dulbecco. San Diego, Calif.: Academic Press, 1991. 8 vols.
16. Davis, Elisabeth B. Guide to Information Sources in the Botanical Sciences. Littleton, Col: Libraries Unlimited, 1987.
17. The Concise Oxford Dictionary of Zoology ed. by Micheal Allabu. Oxford: Oxford University Press, 1991.
18. Maclean, Norman. Dictionary of Genetics & Cell Biology. New York: New York University Press, 1987.
19. Information Sources in the Medical Sciences, ed. by L.T. Morton and Shane Godbolt. 4th ed. London: Bowker-Saur, 1992.
20. Index Medicus. Washington, D.C.: National Library of Medicine (Monthly).
21. AGRICOLA. Beltsville, M.D.: U.S. National Agricultural Library (Monthly).
22. Encyclopaedia of Food Science and Technology, ed. by Y.H. Hui and others. New York: Wiley, 1992. 4 vols.
23. Information Sources in Engineering, ed. by L.J. Anthony. 2nd ed. London: Butterworths, 1985.
24. Encyclopedia of Electronics by Stan Gibilisco and Neil Sclater. 2nd ed. Blue ridge Summit, Pa: TAB Professional and Reference Books, 1990.
25. Microsoft Press Computer Dictionary: The Comprehensive Standard for Business, School, Library, and Home. 2nd ed. Redmond, Wash: Microsoft Press. 1994.
26. Nayler, G.H.F. Dictionary of Mechanical Engineering. 3rd ed. London: Butterworths, 1985.
27. Petroleum Engineering Handbook, ed by B. Bradely and others. Richardson, Tex.: Society of Petroleum Engineers, 1987.
28. Information Sources in Chemistry, ed. by R.T. Bottle and J. F. B. Rowland. 4th ed. London: Bowker-Saur, 1992.

2.2 Objectives

After having studied the unit you would be able to

1. define the structure and organization of the scientific literature
2. Introduce kinds of information sources in the field
3. differentiate among primary, secondary, and tertiary sources of information
4. Identify range of science and technology field
4. comprehend major reference sources in the field of science and technology.

2.3 Compulsory Readings

1. Balay, Robert, ed. *Guide to Reference Books*. 11th ed. Chicago: American Library Association, 1996, Part- E. pp. 1378-1596.
2. Bloomberg, Marty. "Reference Materials: Sciences." Chap in. *Introduction to Public Service for Library Technicians*. 4th ed. Littleton: Libraries Unlimited, 1985.
3. Katz, William. "Science and Technology." *Your Library: A Reference Guide*. 2nd ed. New York: Holt, Rinehart and Winston, 1984.

2.4 Suggested Readings

1. Grogan, Denis. *Science and Technology: An Introduction to the Literature*. London: Clive Bingley, 1976.
2. Higgins, Gavin, ed. *Printed Reference Material*. London: The Library Association, 1980.

2.5 Self-Assessment Questions

- Q.1. Discuss in detail the formats in which scientific literature is produced?
- Q.2. What do you know about the primary, secondary, and tertiary forms of literature? How much they are important in science and technology?

- Q.3. Enumerate the major fields and sub-fields of science and technology?
- Q.4. How scientists work and what type of literature they prefer to keep handy?
- Q.5. List at least ten major reference sources of major scientific and technological field including at least three sources which are available in any local library.

2.6 Activities

- 1. Visit any major local library and identify primary, secondary and tertiary sources found there.
- 2. Visit local libraries of repute and prepare a list of same number of reference sources as many listed in this unit.

UNIT-3

**SPECIAL REFERENCE
SOURCES
HUMANITIES & SOCIAL
SCIENCES**

3.1 Introduction

A. HUMANTIES

The essence of the humanities is a spirit to attitude toward humanity. It includes those fields of knowledge, which are dedicated to the disciplined development of verbal, perceptible and imaginative skills needed to understand experience. The fields for the purpose of this guide are philosophy, religion, visual arts, performing arts, language and literature.

Unlike natural scientists or even, to a lesser degree, the social scientists, the humanist finds research to be such an intimately personal matter. Humanistic research revolves around a person, not a group of persons or physical things. These are the bread of life for the humanistic scholar, whether dealing with a poem, a piece of music, a painting, religious doctrine, or philosophical theory. Thus, humanistic scholarship has traditionally been intimately intertwined with considerations of value.

For humanist library is the heart of the research enterprise as he prefers using books as compared to social scientist who mainly go for journal articles and the natural scientist who in addition to journal articles relies on laboratory experiments. They go for original writings and publications of greater time spread are more valuable to them as compared to natural scientist that prefers latest publication.

A scholar in a humanistic discipline tends to perceive the material with which to work. These may be categorized into following three broad categories:

- i) original texts or artifacts
- ii) critical Literature, and
- iii) literature designed for specific groups or purpose.

The heart of all humanistic study is the original creative work, whether this is a poem, a piece of sculpture, a symphony, a

devotional psalm, or a discourse on the nature of good life. Following are a few major reference sources of the field:

1. Arts & Humanities Citation Index. Philadelphia: Institute for Scientific Information (Semi annual).
2. Humanities Index. New York: Wilson (Quarterly with annual cumulation).
3. Encyclopedia of Philosophy, ed. by Paul Edwards and others. New York : Macmillan, 1967, 8 vols.
4. Adam Charles J. A Reader's Guide to the Great Religions. 2nd ed. New York : Free Press, 1977.
5. The Encyclopedia of Islam. New ed. Leiden; Brill (In progress).
6. Muhammad; Encyclopedia of Seerah, comp. & ed. by Afzalur Rahman. London: The Muslim Schools Trust, 1981-1992, 8 Vols.
7. Campbell, George L. Compendium of the World's Languages. London: Routledge, 1991, 2 vols.
8. Webster's New International Dictionary of the English Language, ed. by William Allan Nelson and others. Springfield, Mass.: Merriam, 1961.
9. The Oxford English-Arabic Dictionary of Current Usage, ed. by N.S. Doniach. Oxford: Clarendon Press, 1972.
10. Qaumi Angraizi-Urdu Lught, Mudeer Jamil Jalibi. Islamabad: Muqtadrah Qaumi Zuban, 1992.
11. Farhang-e-Aasfia, murattabah Syed Ahmad Dehlvi. Lahore: Sang-e-Meel Publications, 1986, 2 vol.
12. Encyclopedia of World Literature in the 20th Century : Based on the First Edition by Wolfgang Bernard Fleischmann, ed. by Leonard S. Klein and others. New York: Ungar, 1981-1993, 5 vols.
13. Urdu Ghazal; Intikhab, 1976-1979. Islamabad : Akadmi Adbiyat, 1980.
14. The Cambridge Guide to Literature in English, ed. by Ian Ousby. Rev.ed. Cambridge: Cambridge University Press, 1993.

15. The Norton Anthology of American Literature, ed. by Nina Baym, and others. 4th ed. New York: Norton, 1992, 2 vols.
16. The Cambridge History of Arabic Literature. Cambridge: Cambridge University Press, 1983-92, 4 vols. (In Progress)
17. Encyclopedia of World Art. New York: McGraw-Hill, 1959-87, 17 vols.
18. Zafar Haider. Islamic Arms and Armour of Muslim India. Lahore: Bahadur Publishers, 1991.
19. Ehresmann, Donald L. Architecture: A Bibliographic Guide to Basic Reference Works Histories, and Handbook. 3rd ed. Littleton, Colo.: Libraries Unlimited, 1984.
20. The Oxford Companion to the decorative Arts, ed. by Harold Osborne, Oxford: Clarendon Press, 1975.
21. Dictionary of Furniture, ed. by Charles Boyce. New York: Facts on File, 1985.
22. Rain Water, Dorothy T. Encyclopedia of American Silver Manufacturers. 3rd ed. West Chester, Penn.: Schiffer Publ., 1986.
23. Erdmann, Kurt. Seven Hundred Years of Oriental Carpets, ed. by Hanna Erdmann. London: Faber, 1970.
24. Doty, Richard G. The Macmillan Encyclopedic Dictionary of Numismatics. New York: Macmillan, 1982.
25. Cabeen, Richard McP. Standard Handbook of Stamp Collecting. New rev. ed. New York: Crowell, 1979.
26. Pruett, Barbara J. Popular Entertainment Research: How to Do it and How to Use it. Metuchen, N.J.: Scarecrow, 1992.
27. International Index to film Periodicals. London: International Federation of Film Archives (Annual).
28. Brown, Les. Les Brown's Encyclopedia of Television. 3rd ed. Detroit: Gale, 1992.
29. The New Oxford Companion to Music, ed. by Denis Arnold and others. Oxford: Oxford University Press, 1983. 2 vols.

30. Pakistan Sports; Ann almanac of Pakistan sports with Complete records from 1947 to 1989. Comp & ed. by Mukhtar Bhatti. Lahore: Bhatti Publications, 1990.
31. Encyclopedia of Physical Education Fitness, and Sportsmanship ed. by Thomas K. Cureton, Jr., and others. Salt Lake City, Utah; Brighton Publishing Co., 1977-85, 4 vols.

B. SOCIAL AND BEHAVIORAL SCIENCES

Edwin R.A. Seligman defined " Social Sciences" in Encyclopedia of the Social Sciences (1930-1935) as "those mental or cultural sciences which deal with the activities of the individual as a member of a group. " He divided the social sciences into three groups. The purely social sciences are the older discipline of **political science**, economics, history, and jurisprudence, and those of more recent origin: anthropology, penology, sociology, and social work. The semi-social sciences are social in origin or have acquired a social aspect: ethics, education, philosophy, and psychology. Seligman's **third category** consists of natural and cultural sciences with **recognized social implications**: biology, geography, linguistics, and art. However, there is no agreement as to which disciplines constitute the social sciences. For the purpose of this unit, social sciences include education, sociology, psychology, anthropology, statistics, economics, political science, law, geography, and history. However, three distinct categories or types of literature can be identified and these are commonly referred to as the primary, secondary and tertiary literature.

Primary literature comprises the original detailed reports of scientific and technical research. Some of these reports may be largely observational or descriptive, but the majorities are accounts of experimental work with results and conclusions. The following kinds are known to be primary sources of information: theses, patents, reports, pre-prints, periodicals, and conference proceedings.

Secondary literature is also of great importance in social and behavioral science and technology. Most of the problems and difficulties which social scientist encounter while using the literature are a consequence of the immense volume of published literature. At present the volume of social and behavioral science literature exceeds millions of items. It is obvious that it would be totally impracticable to locate relevant information by searching through the primary literature. Some form of guide to the content of the primary literature is required and this is provided by the secondary sources. The following are the secondary sources in the field of science and technology: abstracting and indexing journals, citation indexes, current-awareness journals, review series, and other types of reference books.

Tertiary literature is a less well defined group of publications comprising literature guides and search aids, which are designed to help the social scientist identify the primary and secondary literature sources in a particular research field. These include bibliographies of bibliographies, directories, and guides to literature.

Following are worth mentioning reference sources of the field:

1. The Social Sciences: A Cross-disciplinary Guide to Selected Sources, ed. by William H. Webb and others, Englewood, Colo.: Libraries Unlimited, 1989.
2. Encyclopedia of Educational Research, ed. by Marvin C. Alkin and others, New York: Macmillan, 1992. 4 vols.
3. International Handbook of Universities and Other Institutions of Higher Education, Paris: International Association of Universities (Triennial).
4. Encyclopaedia of Sociology, ed. by Edgar F. Borgatta and others, New York: Macmillan, 1992. 4 vols.
5. International Encyclopedia of Psychiatry, Psychoanalysis, and Neurology, ed. by Benjamin B. Wolman, New York: Aesculapius Publishing., 1977. 12 vols.

6. Encyclopedia of World Culture, ed. by David Levinson and others. Boston: G.K. Hall, 1991-1994. vol. 1-7(In progress).
7. International Encyclopedia of Population. New York: Free Press, 1982. 2 vols.
8. Pakistan Federal Bureau of Statistics. 50 Years of Pakistan in Statistics, 1947-1997. Karachi: The Manager of Publications, 1997. 4 vols.
9. The McGraw-Hill Encyclopedia of Economics, ed. by Douglas Greenwald and others. New York: McGraw-Hill, 1994.
10. Wiechmann, Jack. NTC'S Dictionary of Advertising. 2nd ed. Lincolnwood, Ill: National Textbook , 1993.
11. Handbook of Human Resources Administration, ed. by Joseph J. Famularo. 2nd ed. New York: McGraw-Hill, 1986.
12. The Oxford Companion to Politics of World, ed. by Joel Krieger and others. New York: Oxford University Press, 1993.
13. The Transfer of Power, 1942-47: Constitutional Relations between Britain and India, ed. by Nicholas Mansergh and others. London: H.M.S.O, 1970-83. 12 vols.
14. International Encyclopedia for Labour Law and Industrial Relations, ed. by R. Blanpain. Deventer, Neth: Kluwer, 1977-94. 21 vols.
15. The World Book Encyclopedia of People and Places. Chicago: World Book, 1993. 6 vols.
16. Chamber World Gazetteer: An A-Z of Geographical Information, ed. by David Munro. 5th ed. Edinburgh: Chambers, 1985.
17. National Geographic Atlas of the World. Rev. 6th ed. Washington D.C.: National Geographic Society, 1992.
18. The Time Atlas of World History, ed. by Geoffrey Barraclough. 4th ed. London: Times Books, 1993.
19. History Atlas of Africa, ed. by J.F. Ade Ajaya and Michael Crowder. Cambridge: Cambridge University Press, 1985.

20. The Cambridge Encyclopedia India, Pakistan, Bangladesh Sri Lanka, Nepal, Bhutan and Maldives, ed. by Francis Robinson. Cambridge: Cambridge University Press, 1968.

3.2 Objectives

After going through the unit you would be able to:

1. define the structure and organization of the scientific literature in humanities and social sciences
2. discuss attributes of humanists and social scientists;
3. differentiate among primary, secondary, and tertiary sources of information;
4. indicate range of humanities and social sciences fields;
5. explain major reference sources in the field of humanities and social sciences.

3.3 Compulsory Readings

1. Guide to Reference Books. 11th ed. Chicago: American Library Association, 1996, Part- E, pp. 378-1377.
2. Blazek, Ron and Aversa, Elizabeth. The Humanities: A Selective Guide to Information Sources. 3rd ed. Englewood: Libraries Unlimited, 1988.
3. Block, Eleanor S. and Bracken, James K. Communication and the Mass Media: A Guide to the Reference Literature. Englewood: Libraries Unlimited, 1991.
4. Bloomberg, Marty. "Reference Materials. Humanities" Introduction to Public Service for Library Technicians. 4th ed. Littleton: Libraries Unlimited, 1985. (Concerned pages).
5. Katz, William. "The Humanities." Your Library: A Reference Guide. 2nd ed. New York: Holt, Rinehart and Winston, 1984. (Concerned pages).

3.4 Suggested Readings

1. Grogan, Denis. Science and Technology: An Introduction to the Literature. London: Clive Bingley. 1976. (Concerned pages)
2. Printed Reference Material. London: The Library Association, 1980 (Concerned pages).

3.5 Self-Assessment Questions

- Q. 1 What do you mean by humanities? Discuss by explaining scope of each subject covered in this area.
- Q.2. What is meant by social sciences? Discuss in detail scope of each subject covered in this area.
- Q.3. How do humanists and social scientists conduct research in their respective fields? How is their pattern of research different from each other and that of the scientists?
- Q.4. Enumerate major and sub branches of humanities and social sciences by giving basic definition of each branch and sub branch.
- Q.5. Suppose you are a reference librarian. Which sources, mentioned in this unit, would you like to keep in your library and why?

3.6 Activity

Visit local libraries of repute and prepare a list of same number of reference sources (exactly the same or of same nature) in the field of humanities and social sciences.

UNIT-4

**EVALUATION OF REFERENCE
SOURCES**

4.1 Introduction

Evaluation is the critical appraisal of reference works. Through this process students learn appropriateness of reference sources for a library. In order to achieve a thorough understanding of reference books, it is essential to know how to evaluate a reference book. A reference book must be able to provide specific and accurate answers to questions. There are some factors that librarians can keep in mind while evaluating a reference source, i.e. funding, sources already available, level of clientele, etc.

In the modern age of information explosion and economic constraints librarians have to be very much careful in acquiring reference materials. It is not wise that a library tries to get everything, which is published within its scope. Librarians must always look forward to get cost effective sources. Before acquiring a reference source very careful evaluation is required.

For evaluating reference sources one should have a set of questions developed keeping in mind objectives, clientele, financial resources, physical facilities of the library. Simple questions which are: What is purpose of the source? What is its scope? What is its authority? Who will be the users? How the subject matter is treated? What is the arrangement and physical format? And what are the special features which differentiate it from the others. Based on these basic questions students must develop a detailed checklist. In addition to keeping in mind the above mentioned questions, you must be aware of the fact that each category of the reference source has its particular nature and use, i.e., dictionary has to tell meaning of words, atlas describes some area cartographically, and encyclopedia describes in detail the topics.

Based on this introduction you will go through in detail and know about the general principles of evaluating the reference sources, and the sources helpful in evaluating reference books. You will develop set of general questions to be asked while evaluating a reference source. Moreover, you are required to know about the

specific principles for evaluating each category of the reference sources, i.e. encyclopaedias, dictionaries, yearbooks, almanacs, directories, bibliographic sources, geographical sources, statistical sources, handbooks, manuals, electronic reference sources, etc.

You are advised to thoroughly study the compulsory readings and develop your background in the subject area. Your command on the subject will be reflected through that how easily and comprehensively you may answer the questions and perform the activities given at the end.

4.2 Objectives

This unit will enable you to:

1. justify importance of evaluation of reference books
2. discuss overall process of evaluation of reference sources
3. know about the sources which can help in evaluation of reference books
4. comprehend particular set of rules for evaluating specific types of reference books, i.e. encyclopaedias, dictionaries, yearbooks, directories, etc.
5. evaluate electronic reference sources
6. evaluate reference services and introduce improvements.

4.3 Compulsory Readings

1. Chency, Frances Neel and Williams, Wiley J. "Appendix" Guidelines for Particular Types of Reference Works." In Fundamental Reference Sources. 2nd ed. Chicago: ALA, 1980. pp. 315-326.
2. Katz, William A. Introduction to Reference Work, Vol. 1 Basic Reference Sources. 6th ed. New York: McGraw-Hill, 1992. Sub-heading "Evaluation" in Chapters 3 to 12.
3. -----, "Evaluation on Reference Services and Librarians." Chap. in Introduction to Reference Work, Vol. II: Reference

Services and Reference Processes. 6th ed. New York: McGraw-Hill, 1992, Chap. 10.

4. Kumar, Krishan. "Kinds of Reference Books and Their Evaluation." Chap. in Reference Service. 2nd re. Ed. New Delhi: Vikas, 1980, Sub-heading "Evaluation" in Chapters 9 to 12.

4.4 Suggested Readings

1. "Evaluating Reference Sources." Part in Evaluation of Reference Services, ed. by Bill Katz and Ruth A. Fraley. The Haworth Press, 1984.
2. Sharma, Jagdish Saran and Grover, D.R. Reference Service and Sources of Information. New Delhi: Ess Ess Publications, 1987. Sub-heading "Evaluation" in Chapters 13 to 24.
3. Thomas, Diana M. et al "Evaluating Reference Sources." Chap. in The Effective Reference Librarian. New York: Academic Press, 1981.

4.5 Self-Assessment Questions

- Q.1. What aspects do come to your mind for evaluating a reference book ? Discuss in detail.
- Q.2. Name the sources, which can be helpful for evaluating reference books, and discuss why they are helpful
- Q.3. How will you evaluate encyclopaedias and dictionaries?
- Q.4. What will be the principles for evaluating bibliographical and geographical sources?
- Q.5. What special features are to be considered for evaluating yearbooks, almanacs, directories and statistical sources.

4.6 Activities

1. Visit any local library of repute and write down its evaluation criteria by discussing with the librarian.

2. Visit any local library of repute and get two dictionaries of English language and evaluate them keeping in mind the standard procedure of evaluating dictionaries.
3. Visit any local library of repute and get two encyclopaedias of English language and two of Urdu language and evaluate them keeping in mind the standard procedure of evaluating encyclopaedias.
4. Visit local library of repute and get five items of cartographic reference sources and evaluate them keeping in mind the standard procedure of evaluating geographical sources.

UNIT-5

**REFERENCE AND INFORMATION
SERVICES**

5.1 Introduction

Now it is the proven fact that reference service is the face of a library. All other services like acquisition, technical services and housekeeping services are called to be supporting services. In other words the overall objective of a library is achieved through reference and information services. In the modern age of scarce financial resources and competition among service institutions its importance is growing. However, the extent and nature of the service is dependent on the nature of library, i.e., school, college, university, public, special.

In simple words the reference work is that phase of library work which is directly concerned with assistance to readers in securing information and in using the resources of the library in study and research. In real sense the librarians perform two types of reference and information services, called direct and indirect. Representative of the first type is instruction in the use of the library and information services, ranging from answering simple question to supply information based on search in the collection of library. Indirect reference involves preparation and development of catalogue, bibliographies, and all other reference aids which help in providing access to the library's collection. From this it is evident that reference service has to perform the following six functions; supervision, information, guidance, bibliographic, and appraisal.

The purpose of reference and information service is to allow information to flow efficiently from information sources to those who need information. Without the librarian bringing source and seeker together, the flow would either never take place at all, or only take place effectively. This efficient flow of information will be dependent on characteristics of the inquirer, the question, capabilities of librarians to analyse the question, the sources available, and means for communicating responses. As a whole this activity is called reference process.

The first step in reference process is the identification of what does the inquirer actually need. At this stage librarian analyses the query or reference question, whether it is ready reference, moderate or search type of question. Some times for clarification of actual need, negotiation with the inquirer is required which is called reference interview. Once the actual information has been clarified through reference interview, librarian develops a search strategy for finding the exact information from the reference sources. The process is completed when the information retrieved is communicated to the patron. If patron is not satisfied with the answer and the information given, the query is renegotiated and the whole process is repeated till the patron is satisfied.

Dear students, this introduction provides you overview of the components of reference and information services. To have complete mastery on the subject area and for becoming a successful reference librarian it is required that you go through the readings list completely and whenever required discuss with your tutor the concepts which you could not understand. Further, by solving the self-assessment questions and performing the activities listed herein, you will find yourself fully conversant with the reference and information process.

5.2 Objectives

This unit will enable you to:

1. define nature and meaning of reference and referral services
2. discuss about the extent of reference service in different types of libraries
3. state various functions of reference service
4. explain the reference process
5. explain reference question, reference interview, search strategy and process, and methods of communicating answers.

5.3 Compulsory Readings

1. Cheney, Frances Neel and Williams, Wiley J. "The Nature of reference/Information Services". Chap. In *Fundamental Reference Sources*. Chicago: ALA, 1980. pp. 1-14.
2. Grogan, Denis. *Practical Reference Work*. London: Clive Bingley, 1979.
3. Jahoda, Gerald and Braunagel, Judith Schiek. *The Librarian and Reference Queries: A Systematic Approach*. New York: Academic press, 1980.
4. Katz, William A. *Introduction to Reference Work, Vol. II Reference Service and reference Process*. 6th ed. New York: McGraw-Hill, 1992.
5. Sharma, Jagdesh Saran and Grover, D.R. *Reference Service and sources of information*. New Delhi: Ess Ess Publications, 1987. Chapters: 1-11.

5.4 Suggested Readings

1. American Library Association. "A Commitment to information Services: developmental guidelines." In *Reference and Information Services: A reader*, edited by Bill Katz and Andrea Tarr. Metuchen, N. J: Scarecrow Press, 1978.
2. Benson, James and Murray, Ruth K. *Principles of searching in Reference and Information Services: A reader*, ed. by Bill Katz and Andrea Tarr. Metuchen, N.J.: Scarecrow Press, 1978.
3. Blooming, Marty. "Reference Services." Chap. in *Introduction to public services for Library Technicians*. 4th ed. Littleton: Libraries Unlimited, 1985.
4. ——— "Reference Work: Footnotes and bibliography Entries." Chap. in *Introduction to Public Services for Library Technicians*. 4th ed. Littleton: Libraries Unlimited, 1985.
5. Brown, Diane M. "Telephone Reference Questions: A Characterization by subject, Answer, and Level of complexity." *RQ* 24, no. 3 (spring 1985): 290-303.

6. Buckland, Michael K. "Inquiries." Chap. in *Library Services in Theory and Context*. New York: Pergamon Press, 1983.
7. ——— "Retrieval." Chap. in *Library Services in Theory and Context*. New York: pergamonpress, 1983.
8. Dervin, Brenda and Dewdney, Patricia. "Natural Questioning: A New Approach to the Reference Interview." *RQ* 25, no. 4 (summer 1986): 506-513.
9. Doyle, James M. and Grimes, George H. "The Searching Process." Chap. in *Reference Resources: A Systematic approach*. Metuchen, N.J.: Scarecrow Press, 1976.
10. Jahoda, Gerald and others. "Instruction in Negotiating the Reference query." In *Reference and Information Services: A Reader*, ed. by Bill Katz and Andrea Tarr. Metuchen, N.J.: Scarecrow Press, 1978.
11. Katz, Bill and Anne Clifford, comp. *Reference and Information Services: A New Reader*. Metuchen, N.J.: the Scarecrow Press, 1982.
12. Katz, Bill and Ruth A. Fraley, ed. *Evaluation of Reference Services*. The Haworth Press, 1984.
13. ———. *Library Instruction and Reference Services*. New York: The Haworth Press, 1984.
14. Kumar, Krishan. *Reference Service*. 2nd ed. New Delhi: Vikas, 1978.
15. McDeniel, Julie Ann and Judith K. Ohles. "Reference Interview." Chap. in *Training Paraprofessionals for Reference Service: A How-to-do-it-Manual for Librarians*. New York: Neal-Schuman Publishers, 1993.

5.5 Self-Assessment Questions

- Q.1. What is reference work? Discuss in depth.
- Q.2. What are the functions of reference service? Explain.
- Q.3. It is said that different kinds of libraries perform different nature of reference services, discuss.

Q.4. What are the components of reference process?

Q.5. , Write detailed notes on the following:

- a. Reference Question.
- b. Reference interview.
- c. Search Strategy.

Q. 6. Different modes of communication are to be adopted to answer different types of questions, discuss in detail.

5.6 Activities

1. Visit a local library of repute and observe which functions of reference service it is observing.
6. By visiting a local library draw a model of its reference service.
7. By negotiating with librarian of any local library know that what records of reference service he is keeping. Evaluate this record and suggest model record to be kept.

UNIT-6

**USE OF MACHINE READABLE
SOURCES**

6.1 Introduction

You may have had full understanding of the working of computer in library automation course. Here you are briefed about the use of computers in reference service. You will also be introduced with the electronic reference sources. The computer-aided search has certain advantages over the manual search. The speed of searching, convenience and possibility of in-depth searching are some of the main advantages of the machine-readable sources. These sources provide a number of access points. Searches can be made by using single words, strings of subjects and even by using phrases. Due to multiple access points, in depth searching is possible. The data can also be duplicated easily.

Machine-readable sources commonly include independent PC based databases, databases to be operated in network environment, CD-ROM databases, and Online or Internet. With the development in information technology Internet is gaining popularity and its information potential is growing. However, the other sources are also being used side by side. The basic delivery system, whether it is CD-ROM, online, hypertext, or any other consists of a terminal, a memory system, a printout, and related technologies.

By the help of standard program development tools you can write a program on your personal computer or mini/main frame. And through this program any sort of database can be developed. However, for CD-ROM and Internet databases you will have to rely on alien sources. For this purpose you must have to equipment compatible to run those programs and database. Using the computer to search database for information is an acquired skill, but it is a skill built in traditional reference principles. If one appreciates

- (a) how to isolate a question in terms of probable sources of answers, and
- (b) how to use key words to find the precise answer, one knows what is necessary to perform a successful search.

CD-ROM contains the same type of information that the traditional computer media of diskettes and hard-disk drives contain. The physical arrangement of a CD is quite simple. The shiny side, which contains the data, consists of a single line of 1s and 0s approximately three and one-half miles long and is the same size as the standard 5.25-inch floppy disk. A single CD may contain the equivalent of 345 floppy disks, or 350,000 pages of text. Thousands of books or even hundreds of thousands periodicals or newspaper articles can be squeezed onto single CD, all easily searchable.

The growing and the future's most powerful source of information is the internet. It is gaining popularity as most effective tool of libraries and the information world. Commonly, Internet is known as network of networks. It is a huge, worldwide collection of computer networks that connect government, military, educational, and commercial institutions, as well as private citizens. The Internet connects all of these groups to wide range of services, resources, information, entertainment, and more. Although the computers that make up the Internet are diverse, including many different kinds of networks, operating systems, and interfaces, the Internet looks like big homogeneous system. Most of the reference sources that were previously available in hard copy now can be accessed through Internet. Hundred of millions of pages are available on the Internet free of charges if you have dial up connection. However, in some cases you will have to subscribe to certain data bases for having access to them.

As an Internet user, you can send and receive message from anyone else on the Internet. This function is called electronic mail, or commonly e-mail. For using Internet one has to establish a connection to any Internet Server. And then through any Navigator, Netscape or Microsoft then any web site can be searched. Internet provides so many facilities, it is up to the user that how he uses it. Now the worldwide web represented by www and commonly known

" the Web " is mostly used for searching. It is a hypertext-based tool that allows you to retrieve and display database on keyword searches. What makes the Web so powerful is the idea of hypertext data that contains links to other data.

Dear students, here are presented only basic hints of computer technology, using which a librarian could provide reference and information services effectively, timely, and accurately. For having full command on the subject you must consult to your Library Automation study guide and the readings given there in. However, for the purpose of using computer technology for reference and information service, the following readings will be sufficient. You must go through them thoroughly and use the technology practically.

6.2 Objectives

This unit will enable you to:

1. present an overview of modern information technology
2. justify the nature of databases which could be used as reference tools
3. explain working of computer in reference environment
4. classify knowledge of CD-ROM and Internet technology and there uses in reference service.
5. analyse futuristic trends in machine-readable reference sources.

6.3 Compulsory Readings

1. Brownmiller, Sara and others. "Online-Ready-Refer Searching in an Academic Library. " RQ 24, no. 3(spring 1970) 320-326.
2. Eatonton, Nancy L. and others. CD-ROM and Other Optical Information Systems: Implementation Issues for Libraries. Phoenix: Oryx Press, 1989.

3. Hahn, Harley and Stout, Rick. 'Catalog of Internet Resources.' *The Internet Complete Reference*. Berkeley: Osborne McGraw-Hill, 1994. pp. 537-684.
4. Hines, Theodore C. and others. "Microcomputers for Reference and Adult Services." *RQ* 22, no. 4 (Summer 1983): 360-363.
5. Huang, Samuel T., ed. *Modern Library Technology and Reference Service*. New York: The Haworth Press, 1993.
6. Katz, William A. "Computer and reference Service". Chap. in *Introduction to Reference Work*, Vol. 1: Basic Information Sources. 6th ed. New York: McGraw-Hill, 1992. pp 33-56.
7. Katz, William A. "Database Guides" Chap. in *Introduction to Reference Work*, Vol. II: Reference Service and Reference Process. 6th. ed New York: McGraw-Hill, 1992. pp. 125-142.
8. Katz, William A. "Patterns of Computerized Reference Search." Chap. in *Introduction to Reference Work*, Vol. II Reference Service and Reference Process. 6th ed. New York: McGraw-Hill, 1992. pp. 93-123.
9. Kriz, Harry M. and Kok, Victoria T. "The Computerized Reference Department: Buying the Future." *RQ* 25, no. 2 (winter 1985) 198-203.
10. Maloy, Timothy K. *The Internet Research Guide: A Concise, Friendly, and Practical Handbook for Anyone Researching in the Wide World of Cyberspace*. New York: Allworth Press, 1996.
11. Wolf, Carolyn and Wolf, Richard. "CD-ROM Indexes and On-line Database Searching." Chap. in *Basic Library Skills*. 3rd ed. Jefferson, N.C: McFarland, 1993.

6.4 Suggested Readings

1. Bush, Clesson B. "Finding Education and Training Technology: A Gap Between ERIC and NTIS" In *Reference Service Expertise*, ed. by Bill Katz. New York: The Haworth Press, 1993.
2. Champlin, Peggy. "The Online Search: Some Perils and Pitfalls." *RQ* 25, no. 2 (winter 1985): 213-217.

3. Dewey, Patrick R. 303 CD-ROMs to Use in Your library: Description, Evaluations, and Practical Advice, Chicago: ALA, 1996.
4. Katz, William. "The Computer in the Library." Chap. in Your library: A Reference Guide." 2nd ed. New York: Holt, Rinehart and Winston, 1984.
5. Plotnik, Art. " OCLC for You – and Me?!" in Reference and Information Services: A Reader, ed. by Bill Katz and Andrea Tarr. Metuchen: Scarecrow press, 1978.
6. Thompson, Dorothea M. "OCLC--A Personal Network?!" RQ 24. No. 3(Spring 1985): 327-332.

6.5 Self-Assessment Questions

- Q.1. Through machine-readable sources we can provide more efficient and accurate reference service. Please discuss.
- Q.2. How is computer used for the reference service in a library?
- Q.3. CD-ROM is powerful technology for reference purposes. Discuss.
- Q.4. Internet is called to be the future information resources of librarians. Discuss and compare with the CD-ROM technology.
- Q.5. Write detailed essay on Internet and its uses in reference service.
- Q.6. Discuss in detail the uses of Search Engines for reference purposes.

6.6 Activities

1. Visit a local modern library and observe how that library is using machine-readable sources in reference service.
2. Through using CD-ROM and Internet compare which technology best suits to Pakistani Libraries.
3. By using Internet identify which web sites are best for reference purposes.

UNIT-7

**MANAGEMENT OF REFERENCE
AND
INFORMATION DEPARTMENT**

7.1 Introduction

Providing reference services in a library and information centre should be recognized as a critical responsibility in meeting the information needs of users. It should be organized to provide, as appropriate, for coordinated access to the information resource existing within an area or a given field of endeavor, 'so say the RASD's *A Commitment to Information Services: Developmental Guidelines of 1979*. These guidelines provide a foundation for developing reference and information services. From here stemmed out the managerial requirements of the reference department. In this unit administration and management of reference services is considered, with the terms used interchangeably.

Basic decisions as to which services should be offered through a reference unit in a particular library will affect the unit's organizational scheme. For example, technical processing of reference materials, management of periodicals and indexes, interlibrary loan, Government documents services, and computer-based searching may be responsibility of this unit; or each of these services may be organizationally separate. Such decisions are taken keeping in mind the size of library, objectives, and extent of services to be offered. A library is a social institution with interdependent parts organized into a system. A reference section must be organized, keeping in view that it is part of an organized system. The quality of reference service will greatly depend upon proper organization of the reference section."

It is said that persons are important than materials. Therefore, in any organization persons come first. There is no single formula for successful personnel administration; what works in one library will fail in another. What works with one person, for that matter, will fail when attempted with another. Library may have hierarchical, participative or any other standard management system. Reference section has to work within that system. Responsibilities and authorities assigned to this section will affect

its working. Moreover, the persons selected to perform reference duties, organization pattern, work organization, education and training facilities, services being offered, equipment and materials available and budgetary provisions all make a combined set up of reference department. As now computer is thought to be integral part of a library and it is definite that future libraries will not only maintain the written records to meet their patrons' needs. So, in addition to the traditional qualities of a reference librarian, his grasp on information technology is also need of the day.

As for as management of materials is concerned, the major component in a traditional library is books. Traditionally reference section is organized separately in almost all libraries. In Pakistan for the shelving arrangement and classification of books Dewey Decimal system is used. For cataloguing now AACR-2 is in practice. Catalogue cards of reference books are normally filed in alphabetical order within the general public catalogue. However, shelf list of reference books is maintained separately. Where there is a lot of reference questions traffic, reference librarians keep those sources handy from which major part of the queries could be answered. The other important component, of course of a modern library, is computer and related paraphernalia. It is always kept in the reach of reference librarian. However, if more terminals are provided for patrons, they are put at place(s) where it is easy for the reference librarian to assist the users.

Dear students, it is the crucial unit of this subject area. If you want to be a successful librarian, you must study this unit, related materials deeply and with help of practical, try to keep you up dated with the modern technology. In this case you will have to do a lot of observations. Try to identify some good and well-informed reference librarians. Stay with them for some time every or at least every alternate working day, and observe their managerial and query handling skills.

7.2 Objectives

Through this unit you will be able to:

1. measure the guidelines for providing information services
2. assess the characteristics of reference librarian
3. identify organizational aspects of reference department
4. comprehend how information material is managed in reference department.
5. analyse decisions independently for managing reference section of a library.

7.3 Compulsory Readings

1. Katz, William A. "Reference Service Policies and Personnel." Chap. in *Introduction to Reference Work*, Vol. II: *Reference Service and Reference Process*, 6th ed. New York: McGraw-Hill 1992. pp. 191-221.
2. Kumar, Krishan. "Organization of a Reference Section." Chap. in *Reference Service*, 2nd rev. ed. New Delhi: Vikas, 1978. pp. 400-416.
3. Sharma, Jagdish Saran. "Organization of Reference Section and Sources of Information." New Delhi: Ess Ess Publications, 1987. pp 73-88.
4. Thomas, Diana M. and others. *The Effective Reference Librarian*. New York: Academic Press 1981. Chap. 6 and Appendix B.

7.4 Suggested Readings.

5. Doyle, James M. and Grimes, George H. "User Characteristics." Chap. in *Reference Resources: A Systematic Approach* Metuchen, N.J.: Scarecrow Press, 1976.
6. Katz, Bill and Fraley, Ruth A. eds. *Personnel Issues in Reference Services*. New York: The Haworth Press, 1986.

7.5 Self-Assessment Questions

- Q.1. You are appointed as head of reference department of a medium size public library. What decisions will you take for providing efficient services?
- Q.2. You are made member of a selection board for selecting reference librarian of research Library, what qualities would you like to see in a suitable candidate?
- Q.3. As a head of reference section of a university library how would you organize the information providing tools, i.e. books, computers, CD-ROMs etc.
- Q.4. What training and learning facilities would you prefer for professional and para-professional staff of reference department of a large library?
- Q.5. Discuss critically the RASD Development Guidelines for information service in the light of Pakistani situation and conclude that how and up to what extent they could be implemented in Pakistan.

7.6 Activities

- 1. Visit a local library of repute and observe how its reference section is being managed.
- 2. Discussing with librarians and going through management models of some libraries, develop an ideal hierarchical model for a library, highlighting authorities and responsibilities of staff of reference department.
- 3. By visiting local public libraries and having discussions with their reference staff, prepare a list of 10 reference books, which are frequently used, for answering reference queries and librarians prefer to keep them handy.

UNIT-8

BIBLIOGRAPHIC SOURCES

8.1 Introduction

You have already read in Unit 1 that commonly bibliography represents a list of books. But originally bibliography was defined as the writing (in mechanical sense) and transcription of books. However, now bibliography is considered a list of technically and systematically produced list of information sources. A Major function of reference department is the compilation of bibliographies and providing bibliographic information for library users. Bibliographies are important means of locating materials of one's interest. Bibliographies are not necessarily confined to books they may list, too, other forms of communication from films and recordings to computer software and photographs.

Bibliography has assumed a major role because of technological developments. Through online services and Internet you can access to hundreds of thousands of items all over the world. The proliferation of information, and ability to locate and acquire such data through bibliography is impressive. You must be aware of that

- (a) How a bibliography is constructed,
- (b) How a bibliography can be used, and
- (c) How to discover among thousands of dozen or so which will really assist the user.

There are three major branches of bibliography i.e.,

- (1) systematic bibliography,
- (2) analytical bibliography, and
- (3) historical bibliography

Here we are mostly concerned with the first form. You may have in-depth other forms in any other subject. The systematic bibliography has also its sub branches, namely:

- (1) universal bibliography,
- (2) national bibliography
- (3) Trade bibliography
- (4) Incunabula or book rarities bibliography

- (5) selective bibliography
- (6) subject bibliographies
- (7) bibliographies of dissertations
- (8) author bibliography
- (9) current bibliography
- (10) retrospective bibliography.

This shows that by defining particular characteristics a bibliography can be developed.

An effective bibliography needs several elements if it is to meet the needs of its users adequately. The most important points are:

- (a) it should be complete within the defined limits
- (b) it should identify macro as well as micro thoughts
- (c) it should be comprehensive to the extent that it includes all print as well as non print materials
- (d) it should provide maximum information for identification and verification of works included in it
- (e) location of manufacturer or place of publication should be identifiable
- (f) it should be helpful in selecting materials of one's interest.

While you have been introduced with some major bibliographical sources in unit 1, it is desired that you search for more and more sources and learn to differentiate among various kinds of the bibliographical sources. For achieving this goal you will have to study the readings very minutely and discuss with your tutor if some confusion arises. However, the next unit and its reading list will also help you in building up your background in the field.

8.2 Objectives

This unit will enable you to

1. assess current use of the word 'bibliography'
2. justify Importance and uses of bibliographical sources

3. introduce various kinds of bibliographical sources
4. explain Elements and methods of compilation of bibliographies.
5. define Major bibliographical sources, national as well as international.

8.3 Compulsory Readings

1. Bloomberg, Marty. "Reference Materials: Bibliographical Information." Chap. in Introduction to Public Services for Library Technicians. 4th ed. Littleton: Libraries unlimited, 1985.
2. ----. "Reference Marterials: Bibliographic Sources for Nonbook Materials." Chap. In Introduction to Public Services for Library Technicians. 4th ed. Littleton: Libraries Unlimited. 1985.
3. ----. "Reference Materials: Bibliographies of Bibliographic Guides. " Chap. in Introduction to Public Services for Library Technicians. 4th ed. Littleton: Libraries Unlimited, 1985.
4. Katz, William. " Introduction: Bibliographies and subject Sources." Chap. in Your Library: A Reference Guide. 2nd ed. New York: Holt, Rinehart and Winston, 1984.
5. Katz, William. Introduction to Reference Work, Vol.I: Basic Information Sources. 6th ed. New York:McGraw-Hill,1992. Chaps. 3 and 4.

8.4 Suggested Readings

1. Chency, Frances Neel and Williams, Wiley J. "Sources of Bibliographic Information." Chap. in Fundamental Reference Sources. Chicago: ALA, 1980.
2. Kumar, Krishan. Reference Service. 2nd rev. ed. New Delhi: Vikas, 1978, Chaps. 6,17, 18, 19, 20, 21 and 24.
3. Roy, R. Mohan, Paul. Concept of Bibliography and Bibliographic Control. New Delhi: Phoenix Publishing House, 1994.

4. Sharma, Jagdish Saran and Grover, D. R. Reference Service and Sources of Information. New Delhi: Ess Ess Publications, 1987. Chap. 19.

8.5 Self-Assessment Questions

- Q.1. Define the word 'bibliography' beginning from its roots to the modern usage.
- Q.2. Discuss in detail the importance of bibliographical sources.
- Q.3. What are the elements of a bibliographical entry? Describe in detail why these elements are necessary to be included.
- Q.4. What do you know about the standard method of compiling a bibliography?
- Q.5. Discuss in detail any five bibliographical sources in international level, describing their utility for the book world.
- Q.6. It is said that computers are powerful tools of information retrieval, in this context discuss that do bibliographies still matter?

8.6 Activities

1. Visit some local libraries. Identify the type of bibliographies they are compiling. Also evaluate those bibliographies according to standard practice.
2. Discuss with librarians you visit that for what purpose they use their bibliographies and how computers are being used for such purposes.
3. Survey local major libraries. Identify which bibliographic sources of international standard they house and for what purposes these are being used.

UNIT-9

**BIBLIOGRAPHIC CONTROL
IN PAKISTAN**

9.1 Introduction

Ever since published material appeared in quantity, librarians and scholars have been trying to control the bibliographic record of material. During this process the bibliographic tools were developed for the purpose to answer a variety of questions. Such compilations founded the bases of bibliographic control. This reveals that bibliographic control is the development and maintenance of a system of adequate recording of all forms of material published and unpublished, printed, audio-visual or otherwise, add to the sum of human knowledge and information.

UNESCO and IFLA (formerly F. I. D.) have played a vital role in this respect as envisaged the proceedings of UNESCO Conference held in Paris in 1950. These proceedings embody and enumerate various kinds of record of human communication needing to be controlled. It emphasized on national bibliographical control. The concept of national bibliography has its genesis in the legal deposit of documents and need to systematize the holdings of a national library. The UNESCO Conference on the Improvement of Bibliographic sources in 1951 urged all the governments to adopt copyright laws, which is the first step towards national bibliography.

In 1974 IFLA presented a working paper to UNESCO which proposed that UNESCO should adopt universal bibliographical control as its major policy objective to promote a worldwide system for the control and exchange of bibliographic information. IFLA, alongwith other agencies has been responsible for the supply of an organizational framework to enable necessary research and development to be carried out in order to produce internationally acceptable guidelines and standards of procedure for more effective articulation of bibliographic activity. It is said that the concept of Universal Bibliographic Control (UBC) as a programme activity is the brainchild of IFLA.

In Pakistan bibliographical activities were started when the dust of partition was some what settled. However, with the establishment of Pakistan Bibliographical Working Group in 1950 at the instance of UNESCO the activities were properly started. The Copyright Act of 1914 of the British India was replaced by the Copyright Ordinance No. XXXIV passed in 1962. It became effective on 27th February 1967. This Ordinance provides for deposit of all publications to designated libraries. In Pakistan the compilation of National Bibliography was started by National Bibliographical Unit and was taken over by the National Library of Pakistan later on. Though the bibliography does not cover entire publications, a number of volumes have been published covering 1962 and onward.

The National Bibliographical Unit and the National Library of Pakistan do not stand-alone in this field. Some other institutions have also been contributing in this respect. The worth mentioning institutions are:

1. National Book Center of Pakistan (NBCP)
2. Pakistan National Scientific and Technical Documentation Center (PANSDOC), renamed as Pakistan Scientific and Technological Information Center (PASTIC) in 1974.
3. National Agricultural Research Council (NARC).
4. Pakistan Institute of Nuclear Science and Technology (PINSTECH).
5. National Documentation Center, Library and Information Network (NDC).
6. National Language Authority (NLA)
7. National Academy of Higher Education (NAHE), University Grants Commission (UGC)
8. Pakistan Institute of Development Economics (PIDE).

It does not end here. There are many other organizations and individuals who have been involved in compilation of

bibliographies. However, due to lack of coordination and cooperation the over all picture of bibliographical control in Pakistan is not clear.

Dear students! keep in mind that there is a vast array of reading materials on above-mentioned topics. You must not limit yourself to the prescribed compulsory and suggested readings. Keep on searching from various library collections and discuss with your tutors and other well-informed library scientists. Definitely, you will find more and more.

9.2 Objectives

After studying this unit you will be able to

1. illustrate the meaning and scope of bibliographic control
2. define the role of UNESCO and IFLA in developing national bibliographies and Universal Bibliographical Control (UBC)
3. judge the problems being faced in achieving comprehensive UBC.
4. name the present scene of Bibliographic Control (BC) in Pakistan and contribution of various institutions and individuals in this regard
5. Evaluate the legal provisions in respect of Bibliographic Control in Pakistan.
6. Analyse the problems being faced in Pakistan in achieving comprehensive Bibliographic Control.

9.3 Compulsory Readings

1. Brenin, Vito J., ed. Essays on Bibliography. Metuchen, N.J.: the Scarecrow Press, 1975. pp. 124-202.
2. Davinson, Donald. Bibliographic Control. 2nd ed. London: Clive Bingley, 1981.
3. Qureshi, Afzal Haq. Pakistan Main Kitabyati Zabt Kay Idarey " In Hallmark of Library and Information Services in Pakistan, ed. by

- Muhammad Asghar and others. Lahore: Punjab University Library Science Alumni Association (PULSAA). 1993.
4. Roy, R. Paul Mohan. Concept of Bibliography and Bibliographic Control. New Delhi: Phoenix Publishing House, 1994.
 5. Siddiqui, Akhtar H and Nasim Fatima. Bibliographical Services and Resources in Pakistan. Karachi: Idara Kitabyat-e-Pakistan /Library Promotion Bureau, 1993.

9.4 Self-Assessment Questions

- Q.1. What is meant by bibliographic control?
- Q.2. What role did UNESCO and IFLA play in developing national bibliographies and UBC?
- Q.3. What problems are being faced in achieving comprehensive UBC?
- Q.4. What is the scene of BC in Pakistan and who played what role in this regard?
- Q.5. What legal provisions have been made available in Pakistan for achieving BC?
- Q.6. What problems are being faced in Pakistan in achieving comprehensive BC?

9.5 Activities

1. Visit the National Library of Pakistan and learn how the library is working on national bibliography.
2. Visit some leading institutions involved in compilation of bibliographies and learn which projects have been completed and which are under process.
3. By discussing with senior librarians and your tutor compile recommendations for achieving comprehensive Bibliographic Control in Pakistan.

