# DOCUMENTARY SOURCES

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Introduction

With the advent of printing from movable types in 1450s, the production of publications increased enormously giving rise to different types of publications such as books, pamphlets and periodicals. The hand-written documents like manuscripts, notes, and diaries continued to co-exist along with printed documents. All these formed the documentary sources of information. Non-documentary sources of information like the government and non-government offices, institutions and human beings continued as close allies of documentary sources. Documentary and non-documentary sources forms the entire gamut of information sources. In this Block we shall deal only with the documentary sources of information, non-documentary sources of information will be dealt with separately. Information sources may also be divided as published and unpublished sources. Published and unpublished sources can be further divided as primary, secondary and tertiary sources.

In Unit 1 of this Block, first of all, published and unpublished sources are enumerated and then how different authors have tried to categorise the documents is discussed along with the criteria they have followed for categorisation. The characteristics of categorisation by each author are commented upon. Categorisation by different authors has given rise to certain discrepancies which have been discussed item by item, causes of the discrepancies are elaborated, and proper placement of the specific item is also suggested.

In Unit 2, primary sources comprising of research periodicals, technical reports, conference proceedings, patents, standards, theses, project reports, official publications, trade literature, laboratory notebooks, diaries, internal research reports, correspondence, personal files, etc. are defined, explained and discussed with examples. Some of the publications have been divided according to their types, and each type is discussed with definitions and explanations.

In Unit 3, secondary and tertiary sources are dealt with. Secondary sources comprise of bibliographies, secondary periodicals (abstracting, indexing, reviewing, and popular periodicals), and reference books such as encyclopaedias, dictionaries, handbooks, manuals, yearbooks, directories, formularies, and textbooks. All these are discussed with adequate examples. Tertiary sources include bibliography of bibliographies, directory of directories, library catalogues, and guides to information sources. All these have been discussed in some detail with examples whereby you get a fair idea about these sources.

Unit 4 deals with the criteria of evaluation for all these sources. It should be remembered that evaluation criteria vary from category to category. The criteria we use for evaluating a dictionary will not be same for a primary periodical.

Information Source and Information Resource

In the very beginning it is better to be clear about the concepts ‘information source’ and ‘information resource’. The two terms ‘source’ and ‘resource’ have started creating confusion ever since the term ‘information resource’ has appeared on the scene. Prior to the emergence of this term, there was no
confusion about the term ‘information source’ as this term used to connote a document or non-document e.g. an institution that provided information. As such, an encyclopaedia, a specialist, etc. were the ‘source’ of information. Mostly librarians and information scientists deal with information sources. The term ‘information resource’ pertains to information and communication technologies, especially to information management. Sometimes, information management is referred to as ‘information resources management’. Schneyman included five types of information resources for the purpose of information management. The resources are: systems support including computers and telecommunications, processing data, images, etc., conversion and transformation including reprographics, distribution and communication including network management and telecommunications, and finally retention, storage and retrieval which covers libraries, record centres, filing systems and internal and external databases (Feather and Sturges).
UNIT 1 CATEGORISATION OF SOURCES

Structure

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1.0 OBJECTIVES

After reading this Unit, you will be able to:
• explain that information sources can be categorised;
• describe that there are specific criteria for categorisation of information sources such as type, content, media and publication status;
• identify that there is lack of unanimity in categorisation;
• summarise that this type of categorisation generally applies to scientific publications; and
• find out that categorisation has some uses.

1.1 INTRODUCTION

Information sources are many and varied. Since time immemorial human beings are generating information by observation, experimentation,
imagination, reasoning, and experiencing through sensory organs. The information they generated were generally communicated to others for their own interest and survival. In olden days when a human being used to spot a wild animal in the vicinity of her/his habitation, immediately s/he used to inform others so that the animal could be killed to save their own lives and earn a day’s meal. Even today this practice may be seen in remote forests of Africa, Amazon basin, etc. The ancient habit of human beings relating to information still exists and thus they are still powerful sources of information.

In the long path of human progress, a time came when humans started recording information by painting or carving on cave walls and stones. Gradually the media and methods of recording changed. From cave walls and stones they advanced to clay tablets, papyrus, palm leaves, parchment, vellum, paper and finally to electronic media. Also, there was transition from paintings to pictographic writings to letters and alphabets.

Prior to the invention of printing from movable types in 1450s, handwritten books were the order of the day. Scribes in many parts of the world used to copy the books and sell them. Obviously, this particular process could not generate a huge number of books. With the invention of printing, production of books increased manyfold. This change gave birth to a variety of documentary sources like books, pamphlets, journals, newspapers, etc.

Institutions like libraries and universities started emerging more than two thousand years ago. Even by today’s standard, the library in Alexandria that flourished from 3rd century BC to 3rd century AD was a huge library as it contained about four hundred thousand documents. The library harboured almost the entire knowledge generated by human beings till that time in the world and served as a great source of information. It was more or less like today’s Internet which is an unthinkable, huge reservoir of information generated from all parts of the world. In brief, this is the story of the birth of documentary and non-documentary sources of information.

We are all familiar with printed sources like books, newspapers, magazines, and others. Similarly we have seen hand-written documents called manuscripts, letters, notes, and electronic sources like CDs, microfilms, etc. They are non-print sources.

Some sources are produced and distributed by publishers. They may be printed, electronic or micro-documents (i.e. documents in micro-forms). They are usually priced. These are published sources. Typed sources like a thesis, hand-written sources like a letter, are unpublished sources.

When we go through the content of a documentary source, we find that all of them do not contain the same type of information. Some sources provide totally new information that was not known before. They may inform about new discoveries, new inventions, new ideas, new concepts, etc. These are called primary sources. Take for example a research periodical which includes research articles that always report new findings.

Another type of information source is generated by gathering information from primary sources. The information gathered from primary sources is compiled in systematic order and published in the form of a book, journal, etc. These types of sources are known as secondary sources. Indian Science Abstracts is an example of secondary sources of information.
Publications pertaining to tertiary sources are sometimes produced based on secondary sources. A bibliography is a secondary source. Now, if a bibliography of bibliographies is produced, it will be a tertiary source. Guides to reference sources are also tertiary sources as reference sources are secondary sources.

Ranganathan divided documents in two different broad groups – macro documents and micro documents as well as conventional and non-conventional documents. We shall discuss them at relevant places in this Unit.

### 1.2 INFORMATION SOURCES: CATEGORIES

From the discussion above we have got a fair idea about various types of information sources such as documentary and non-documentary, print and non-print, published and unpublished, macro and micro, conventional and non-conventional. We have also noted that documentary sources can be further subdivided as primary, secondary, tertiary according to content. We shall just enumerate the sources here as they will be discussed in detail in subsequent units of this Block.

#### 1.2.1 Documentary Sources

All sources in the form of documents are documentary sources. The connotation of the term ‘document’ has undergone sea change in recent years and now includes books, periodicals, manuscripts, videotapes, computer files, and databases. A selective list of documentary sources is given below:

- Books
  - Treatises
  - Monographs
  - Textbooks
  - Reference Books
- Manuscripts
- Periodicals
- Patents
- Standards
- Theses
- Conference Documents
- Souvenirs
- Festschriften
- Reports (technical, administrative, trip)
- Articles (popular, technical, research)
- Globes
- Diaries
- Letters
- Office Files
- CD-ROM Recordings
- Video Recordings
- Databases
- Computer Files
- Laboratory Notebooks

#### 1.2.2 Non-documentary Sources

We have three types of non-documentary sources of information, i.e. humans, organisations, and World Wide Web.

**Humans**
- Information Professionals
- Consultants
- Experts
- Resource Persons
- Extension Workers
- Representatives of Firms
- Technological Gatekeepers
- Invisible College
- Common Men, etc.
Organisations

- International Agencies
- Government Ministries and Departments
- Research and Development Organisations
- Academic Institutions
- Societies
- Publishing Houses
- Press

Broadcasting Houses

Libraries and Information Centres

Museums

Archives

Exhibitions

Trade Fairs

Database Vendors

Information Analysis Centres

Referral Centres, etc.

World Wide Web

1.2.3 Print Sources

All sources that are in print form are print sources. Some of the examples of print sources are given below:

- Books
- Periodicals
- Patents
- Standards
- Conference Documents
- Souvenirs

- Festschriften
- Reports (technical, administrative, trip)
- Articles (popular, technical, research)

1.2.4 Non-print Sources

Documentary sources that are not printed are all non-print sources, such as the following:

- Manuscripts (typed or hand-written)
- Theses
- Project Reports (typed)
- Diaries
- Letters
- Office Files
- Laboratory Notebooks

- Microforms
- CD Recordings
- Video Recordings
- Databases
- Computer Files
- E-publications
- Humans
- Organisations
- World Wide Web, etc.

1.2.5 Published Sources

These sources are documentary sources, both printed and non-printed. They are brought out by publishers in large number of copies, usually priced and sold. Some of the examples are as follows:

- Books
- Periodicals
- Patents
- Standards
- Conference Documents

- Souvenirs
- Festschriften
- CD Recordings
- Video Recordings
- Databases, etc.
1.2.6 Unpublished Sources

These documentary sources are neither published nor produced in large number of copies, and usually are not for sale. Unpublished sources, at times, can turn into published sources as well. For example, letters written by Rabindranath Tagore have been published in book form by Visva Bharati at a later date. Some of the examples of unpublished sources are given below:

- Manuscripts (typed or hand-written)
- Theses
- Project Reports (typed)
- Diaries
- Letters
- Office Files
- Laboratory Notebooks
- Memoranda
- Medical Records, etc.

1.2.7 Primary Sources

A source will be considered as a primary source in case it carries newly generated information, original work of research, or new interpretation of already known facts. The document is the first and often the only published record of original research. The information contained in primary sources is generally scattered and unorganised. Take for example, the case of swine flu, a new disease for human beings. Ever since the first case was reported in Mexico in April 2009, a lot of research work is going on in the world to find out a vaccine to contain it, medicines to cure those who are already affected, etc. The literature on this is being published in the world in hundreds of sources and scores of languages. Hence, it is highly scattered and unorganised. Another fact is that literature that appears in the primary sources takes time to get assimilated in the universe of knowledge, since results of experiments are double-checked, all findings, new explanations, new ideas, etc. are deliberated upon by peers. When their opinion is favourable, then only these find a chance to enter into the universe of knowledge.

1.2.8 Secondary Sources

A source which is more or less completely dependent on primary sources for its existence is a secondary source. Information in secondary sources is organised and arranged according to a definite plan. Indexing and abstracting periodicals are one of the examples of secondary sources. Indexing periodical, indexes the contents of periodicals or some other type of publications usually on regular basis, whereas abstracting periodical along with the contents also gives the abstract. The abstract can be indicative or informative. Indexing and abstracting periodicals may be either general in nature or on a specific theme. In any abstracting and indexing periodical you will notice that articles of the same topic have all been put together, and of related topics close by. They are no more scattered. Even if the articles are in different languages you will find the abstracts in the same language. In a way it is overcoming the language barrier. As the bibliographical details of the primary sources are usually given in the secondary sources, these sources act as a key to primary sources. In a review article, also a secondary source, the entire information on a particular topic for a certain period is first collected, then digested and finally a report is written wherein the entire matter is organised coherently. Here the entire phenomenon of scattering is done away with and the whole matter gets well-organised. Generally most reference books also draw materials from primary sources.
1.2.9 Tertiary Sources

A source that is entirely dependent on secondary sources or primary and secondary sources for its existence is a tertiary source. Sources like ‘guides to reference sources’ and ‘bibliography of bibliographies’ are examples of tertiary sources. These sources act as key to primary sources as well as secondary sources. Some authors have considered directories, yearbooks, etc. also as tertiary sources as they help the searcher in using primary and secondary sources.

There are sources, like directory of on-going research projects, which are placed under tertiary sources. For such publications data is directly gathered from scientists (primary sources), as such they deserve to be placed under primary sources. Why such publications have been placed under tertiary sources is not quite clear. We shall have further discussion on this in this Unit.

1.2.10 Macro and Micro Sources

Ranganathan, the father of library science in India, conceived the idea of macro documents and micro documents. Documents embodying macro thoughts such as books are macro documents, and those embodying micro thoughts such as journal articles are micro documents. It is to be noted that documents in microforms are not always micro documents since a microfilm can harbour a book – a macro document, or a journal article – a micro document.

1.2.11 Conventional and Non-conventional Sources

Ranganathan termed documents such as books printed on paper as conventional sources, and microfilm, reprograph, etc. as non-conventional sources.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

1) Give examples of primary, secondary and tertiary sources of information.

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1.3 CATEGORISATION OF SOURCES BY GROGAN

Grogan also attempted to categorise documents relating to scientific literature only. Hence, periodicals here mean scientific periodicals, research reports mean scientific research reports, etc. He covered both published and unpublished sources. The coverage is fairly comprehensive.
Primary Sources
- Periodicals (solely devoted to report original work)
- Research Reports
- Conference Proceedings
- Reports of Scientific Expeditions
- Official Publications
- Patents
- Standards
- Trade Literature
- Theses and Dissertations
- Laboratory Notebooks
- Diaries
- Memoranda
- Internal Research Reports
- Minutes of Meetings
- Company Files
- Correspondence
- Personal Files, etc.

Comments – The first item in this category is ‘periodicals’, which implies scientific periodicals only. All scientific periodicals do not fall under this category. That is why the author has to specify the periodicals that fall under this category. We can call them as ‘primary periodicals’. The second item in this category is ‘research reports’. No other author has taken into account ‘reports of scientific expeditions’ in any category. In a way they are also research reports. Their placement here is justified as they report the outcome of original research. Other sources mentioned here are unquestionably primary sources. Some primary sources are missing from the list such as festschriften, research monographs, preprints, reprints, information leaflets, notes, information cards, medical records, audio and video tapes, and computer programs. Electronic sources are not included possibly because they were not that commonplace at the time of the writing of the book as they are today.

Secondary Sources
- Periodicals (non-primary)
  – Abstracting Services
  – Indexing Services
  – Reviews of Progress
- Reference Books, e.g.,
  – Encyclopaedias
  – Dictionaries
  – Handbooks
  – Tables
  – Formularies
- Treatises
- Monographs, and
- Textbooks

Comments – Periodicals are included here also as abstracting, indexing, and reviewing periodicals, are secondary sources of information. Moreover, popular periodicals are also secondary periodicals as often they interpret in lucid terms the advances in science reported in primary periodicals. Express information service, manuals, bibliographies, yearbooks, directories, indexes, translations, etc. are missing in the list as some of them figure under tertiary sources. Express information service is not popular outside Soviet Union that explains its absence in the list. Computerised sources are also missing.
Tertiary Sources
• Yearbooks
• Directories
• Bibliographies (List of Books, Location Lists of Periodicals, Lists of Indexing and Abstracting Services)
• Guides to ‘The Literature’
• Lists of Research in Progress
• Guides to Sources of Information
• Guides to Libraries
• Guides to Organisations

Comments – Majority of the items placed under tertiary sources do not really belong to this category. It has already been pointed out that yearbooks and directories are secondary sources. Bibliographies that list only primary sources belong to secondary sources. Bibliographies that list only secondary sources or both primary and secondary sources should go to tertiary sources. Union catalogues of books as well as of periodicals are tertiary sources. ‘Bibliography of bibliographies’ is also a tertiary source which does not find a mention here. A ‘Lists of research in progress’ provides information about on-going research either just providing citations or citations along with a short description. Citations or the abstracts are primary sources as they are being reported for the first time. A list of such items surely does not belong to tertiary source. As a bibliography of research articles is considered a secondary source, similarly a list of the citations or citations plus description should be considered a secondary source. ‘Guides to libraries’ and ‘Guides to organisations’ are also directories and should belong to secondary sources.

1.4 CATEGORISATION OF SOURCES BY BONN AND SMITH

The categorisation given below is by George S. Bonn and Linda C. Smith. Initially, sources were categorised by George S. Bonn alone. The following categorisation is for scientific and technical literature. It may be noted that by and large only published sources have been covered.

Primary Sources
• Periodicals
• Festschriften
• Conference Proceedings
• Research Reports
• Research Monographs

Primary Sources
• Preprints
• Patents
• Standards
• Dissertations
• Manufacturers’ Literature

Comments – Periodicals depending on the content may be treated as primary or secondary sources. Hence, they cannot be always placed under primary sources. All other sources included in this category are primary sources except festschriften which at times may contain some informative articles. Manufacturers’ literature is also termed as trade literature. Sources missing are: official publications and most of the unpublished sources.
Secondary Sources
- Handbooks
- Encyclopaedias
- Dictionaries
- Treatises
- Monographs
- Indexes
- Bibliographies
- Reviews
- Indexing Serials
- Critical Tables
- Abstracting Serials
- Machine-readable Bibliographic Databases
- Databanks
- Translations

Comments – Most secondary sources have been covered. Sources like express information service, lists of research in progress, manuals, formularies, almanacs, yearbooks, directories, textbooks, etc. are missing as the last three items are included in tertiary sources. Translations as sources of information have been covered in this list only, which other authors have missed. Moreover, machine-readable bibliographic databases and databanks have been included which others did not, maybe because they did not deem it necessary considering the fact that in the machine-readable form there is no change in the content. It is the medium which is different. The document may be in print form, in microform or in machine-readable form. If the content remains the same their categorisation remains unchanged.

Tertiary Sources
- Guides to the Literature
- Directories (of persons, organisations, products, etc.)
- Textbooks

Comments – Most of the tertiary sources are missing such as library catalogues, bibliography of bibliographies, directory of directories, and guides to reference sources. It may be noted here that ‘textbooks’ are placed in tertiary sources. The placement of directories here does not seem to be very sound. We shall discuss about the placement of the same source in different categories in Section 1.8.

1.5 CATEGORISATION OF SOURCES BY GILJAREVSKIJ

R S Giljarevskij, a Russian information scientist, is little known outside Russia. According to his categorisation, all information sources are either primary or secondary. There is no tertiary category. Moreover, his categorisation covers all literature, not only scientific and technical.

Primary Sources
- Monographs
- Collections of Papers (e.g. Festschrift volumes)
- Conference Proceedings
- Textbooks and Manuals
- Official Publications
- Invention Specifications (e.g. Patents)
- Technical Catalogues
- Information Leaflets
- Scientific and Technical Reports
- Theses
Documentary Sources

- Serials
- Journals and Magazines
- Newspapers
- Standards
- Information Cards
- Preprints
- Manuscripts and Galleys
- Data Files

Comments – The categorisation by Giljarevskij differs a great deal from others as he has covered the entire gamut of literature whereas others have covered only scientific and technical literature. As a result some uncommon sources have appeared in his list which we will describe below:

Monographs are included here as primary sources. Monographs are basically long research articles or a short book on a specific theme. It is to be remembered that only research monographs are primary sources and the rest are secondary sources.

Collection of papers – This particular heading used by Giljarevskij is a better one in the sense that its scope is wide unlike festschriften used by other authors. Sometimes articles are collected on a particular topic, or contributed by a particular person and brought out in the form of a book. If the articles belong to primary sources, the anthology will also be a primary source. Under this heading both collected works and festschriften can be accommodated.

Textbooks and manuals have been considered as primary sources by Giljarevskij, which others have considered as secondary or tertiary sources. This will be discussed further in Section 1.8.

Serials, journals and magazines all figure in the list. Journals and magazines being serials there was no need to mention all the three. It is also a fact that all serials are not primary sources.

Newspapers are excluded from others’ list since they do not pertain to scientific and technical literature. It is included here as this categorisation covers the entire gamut of literature. Newspapers contain primary information and its placement here is well justified.

Technical catalogues are generally manufacturers’ catalogues and form trade literature. Similarly information leaflets supplied along with the products, processes, etc. by manufacturers also form trade literature. They are primary sources. However, information leaflets based on primary literature are secondary sources.

An invitation card is an information card. Even a letter contained in a postcard is an information card. Information cards exist in various fields. Even you may receive a card from a journal editor informing that your article has been accepted for publication is also an example under this category.

Manuscripts and galleys – A manuscript may be a handwritten book or any other document or a typed article or the like that has been sent for publication. The galleys is a printer’s proof. All these are original documents, and hence placed under primary sources.

Data files are computerised files containing data. If the data belongs to primary sources, then the data files will be primary sources.
Secondary Sources
- Reference Literature
- Reviews
- Abstract Journals
- Express Information Bulletins
- Standards Indexes
- Invention Bulletins
- Secondary Publications on Patents
- Library Catalogues
- Bibliographic Files

Comments – All the sources listed are indisputably secondary sources, except library catalogues that belong to tertiary sources as they contain information both about primary and secondary sources. Possibly, library catalogues are placed here as there is no category of tertiary source. Some of the missing items are: treatises, translations, etc.

Self Check Exercise
Note:  i) Write your answer in the space given below.
      ii) Check your answer with the answers given at the end of this Unit.

2) Briefly comment on the categorisation of primary sources by Giljarevskij.

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1.6 CATEGORISATION OF SOURCES BY SUBRAMANYAM

While categorising, Grogan, Boon and Smith, and Giljarevskij considered mostly macro documents (books, journals, etc.). Subramanyam has also included micro documents (journal articles, preprints, etc.). His categorisation, more exhaustive than others is presented below:

Primary Sources
- Laboratory Note Books
- Diaries
- Notes
- Medical Records
- Personal Correspondence
- Videotapes of experiments and surgical operations
- Graphs, charts, and tables usually machine-generated during experiments
- Transcripts and audio or videotapes of lectures and discussions
- Letters to the editor or short communications in primary journals
- Preliminary Communications in “letters” journals
- Preprints and Reprints of Conference Papers
- Conference Proceedings
- Technical Reports
- Theses and Dissertations
- Journal Articles, Preprints, Reprints
- Newsletters
- House Organs
**Documentary Sources**

- Internal Research Reports
- Memoranda
- Company Files
- Patent Specifications
- Computer Programs

- Standards, Specifications, Codes of Practice
- Trade Literature

**Comments** – In Subramanyam’s categorisation the coverage is wide and it includes quite a few micro documents such as medical records, videotapes and audiotapes. However, journals and a few other items seem to be missing. Instead of listing journals as such, he has listed the contents of the journal such as journal articles, preliminary communications in ‘letters’ journals, letters to the editor in primary journals, as well as preprints, reprints, newsletters and house organs which sufficiently take care of journals. Anthologies (including festschriften), research monographs, official publications, information leaflets, personal files, data files, etc. are absent. As this categorisation is based on scientific and technical literature only, newspapers, information cards, etc. are excluded.

**Secondary Sources**

- Bibliographies
- Indexes
- Abstracts
- Current Awareness Services
- Dictionaries
- Directories
- Tables
- Handbooks

- Catalogues
- Yearbooks
- Almanacs
- Reviews
- Monographs
- Textbooks
- Encyclopaedias

**Comments** – The coverage of items is extensive. It may be observed here that instead of abstracting periodicals, the author has listed ‘abstracts’. An abstracting periodical is nothing but a collection of abstracts arranged systematically. Express information service is, of course, missing as it is more or less unknown outside Russia. In addition, lists of research in progress, manuals, formularies, treatises, translations, etc. are also missing.

**Tertiary Sources**

- Bibliography of Bibliographies
- Directory of Directories
- Guides to Literature

**Comments** – Library catalogues have been listed under the secondary sources. ‘Guides to reference sources’ have not been listed separately possibly with the consideration that these guides form part of ‘guides to literature’. There is slight difference between the ‘guides to literature’ and ‘guides to reference sources’. In ‘guides to literature’ one may find the listing of primary sources along with secondary sources. On the other hand ‘guides to reference sources’ are unlikely to cover primary sources.
1.7 CATEGORISATION BY RANGANATHAN

Ranganathan has categorised the documents from two different angles: i) by the volume of thought content; and ii) by recording media. Documents according to first categorisation are termed as macro and micro documents, and by second categorisation as conventional and non-conventional documents.

1.7.1 Macro and Micro Documents

Macro Document

When a work expressing macro thought is embodied into a document all by itself is called a macro document. A book may be considered as a macro document.

Micro Document

A work expressing micro thought, say, a journal article, is usually not embodied into a document all by itself. Several micro documents comprise a macro document when they are printed together in the macro document. Take, for example, the September 2010 issue of the *Annals of Library and Information Studies*. In this particular issue there are 15 different articles. Each of the articles is a micro document.

Comment – This is an extremely broad categorisation based on the volume of thought content. It does not go into the numerous types of documents prevalent in the world. Neither does it takes into account the various forms the content of a document take while passing from primary to secondary to tertiary phases.

1.7.2 Conventional and Non-conventional Documents

Conventional Documents

A conventional document is one in which paper forms the basic material on which recording is done by phonetic symbols forming the script of an articulate natural or artificial language, or non-conventional script such as Braille, or non-phonetic symbols such as drawings, or simply by writing. These documents are used for the communication of thought content. Some examples of conventional documents are journals, serials, books, articles, Braille books, stenographs, books with musical notations or ciphers, maps, atlases and similar documents, and handwritten manuscripts.

Non-conventional Documents

A non-conventional document is one:

i) which is reproduced from a conventional document either on paper (e.g. a photocopy), or on any other non-paper material, (e.g. a microfilm) — sometimes, these documents are highly reduced in size (e.g. a microfiche) requiring a device for reading; and

ii) which records sound on non-paper media (e.g. gramophone record), or sound and picture together on non-paper media (e.g. A/V materials, video recordings, etc.), or simply picture on non-paper media (visual documents).
Comments – Categorisation of documents here is predominantly based on the media of recording – paper and non-paper. It does not take into account the content of the document.

1.8 LACK OF UNANIMITY IN CATEGORISATION

Going through the categorisation by various authors it becomes evident that Ranganathan has categorised documents firstly by the volume of the thought content – macro or micro and secondly by the recording media – paper and non-paper. Moreover, Ranganathan’s categorisation forms part of his Classified Catalogue Code. It may be construed that the categorisation is in the context of cataloguing. Grogan, Bonn and Smith, Giljarevskij, and Subramanyam have categorised documents on the basis of the forms the content of a document takes while passing from the primary to secondary to tertiary stages. It has been noticed that in the categorisation by aforesaid authors, there is no unanimity in the categorisation of certain sources like textbooks, monographs, manuals, yearbooks, bibliographies, and directories. It makes it amply clear that criteria for categorisation are not yet fixed firmly, and naming of the sources in certain cases has not been precise. We shall discuss these items one by one and try to see why they have been placed under different categories.

Textbooks

It has been placed under primary category by Giljarevskij, secondary category by Grogan and Subramanyam, and tertiary category by Bonn and Smith. If we strictly follow the characteristics of a primary source then a textbook cannot be placed under primary source which is supposed to contain something original. If the content of a textbook is analysed, then it will be seen that generally a textbook contains facts which were reported before in primary sources and are already known. As it is based on primary sources, it has to be a secondary source. Of course, there are certain textbooks that contain original ideas too, e.g. Prolegomena to Library Classification by Ranganathan. Such cases may be treated as exceptions rather than rule.

It may be argued that many references in textbooks pertain to secondary sources like textbooks, dictionaries, encyclopaedias, etc. Hence, textbooks should be placed under tertiary sources. For example, in the book Theory of Classification, by Krishan Kumar, Indian Standard Glossary of Classification Terms has been referred to, which is a secondary source. References to textbooks are also quite common. Take for example, Newton’s laws of motion. They were originally recorded in Philosophiae Naturalis Principia Mathematica, popularly known as Principia published in 1687. When textbooks on physics were written after the publication of Principia the authors referred to Principia. Now authors do not refer to Principia as it is not easily accessible, moreover it is in Latin. They simply refer to authentic textbooks published recently for writing the ‘laws of motion’. In innumerable cases matters were drawn initially from the original source for writing a textbook. Often, they are drawn from authentic textbooks rather than the original source. The fact is that the matter contained in the textbooks owe its origin to primary sources with rare exceptions. Hence, it will be wise to place textbooks under secondary sources.
Monographs

Bonn and Smith have considered research monograph as a primary source, and Giljarveskij has considered all monographs as primary sources. On the other hand Subramanyam and Grogan have considered monographs as secondary sources. Now the question arises what is the reality. If a set of scientific monographs is examined, then it is likely to be found that some monographs contain the research results of a particular experiment, survey, etc. Such monographs are undeniably primary sources and it will be apt to call them research monographs. On the other hand if a monograph is produced culling data from primary sources, then this monograph will be a secondary source. *Rice in India* is a monograph belonging to this category. Hence, research monographs belong to primary sources and other monographs to secondary sources.

Yearbooks

Grogan has placed yearbooks under tertiary sources, and Subramanyam under secondary sources. Giljarveskij did not mention yearbooks in his list. However, he has mentioned ‘reference literature’ under secondary sources, and yearbooks get covered under that. Yearbooks mostly draw materials from primary sources like newspapers and other mass communication media and serve as reference sources. Hence, yearbooks logically belong to secondary sources.

Directories and Lists of Research in Progress

Grogan as well as Bonn and Smith have placed directories under tertiary sources and Subramanyam under secondary sources. Giljarveskij’s list is silent about ‘directories’. ‘Lists of research in progress’ figures only in Grogan’s list under tertiary sources. Directories and lists of research in progress are reference sources. From this point of view, they are secondary sources. If we consider their compilation then we find both the items are compiled from the data gathered through questionnaires and not from any primary or secondary sources. Hence, these two sources may be considered as primary sources as well.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

3) Textbooks have been placed by various authors in primary sources, secondary sources and tertiary sources. Where would you like to place it and why?

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4) Monographs are placed under primary sources and sometimes under secondary sources as well. Explain why?

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5) Under which category you will like to place ‘lists of research in progress’. Justify your answer.

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1.9 USEFULNESS OF CATEGORISATION

i) To judge the soundness of a collection, categorisation of documents renders positive help. Take for example the periodical collection of a research library. If the library contains more primary periodicals compared to secondary, then the collection will be considered balanced and more helpful for research. In any scientific library wherever there is dominance of primary documents, it is surely the sign of a good collection.

ii) Using categorisation it is possible to determine to what extent a particular field is research-oriented. Take the current periodicals of a particular field. Categorise them in primary and secondary sources, and then find out the percentage of periodicals in each category. The percentage will indicate to what extent the field is research-oriented. If in a field more than 50% periodicals are primary, then the field is surely research-dominated. Applying the same criteria we can determine to what extent LIS field in India is research-oriented.

1.10 SUMMARY

By combining categorisation of all the authors we cannot arrive at an unanimous decision as to the items that comprise primary, secondary and tertiary sources. Maybe in future, it might be possible to distinctly identify the sources that fall under primary, secondary and tertiary sources. Needless to say, categorisation takes into account documentary sources generally pertaining to pure and applied science. We shall discuss them one by one in detail in units 2 and 3 of this Block.
1.11 ANSWERS TO SELF CHECK EXERCISES

1) Research periodicals, research monographs, research reports, conference proceedings, patents, standards, theses, dissertations, etc. are primary sources of information. Abstracting and indexing periodicals, reviews of progress, popular periodicals, encyclopaedias, dictionaries, handbooks, tables, manuals, formularies, bibliographies, treatises, textbooks, etc. are secondary sources. Bibliography of bibliographies, guides to reference sources, etc. are tertiary sources of information.

2) Giljarevskij’s categorisation covers the literature in its entirety unlike others whose categorisation is based on only scientific and technical literature. Moreover Giljarevskij has categorised the sources only in two groups while other have done it in three groups. There is no dispute about the following sources which are considered primary sources by all — collections of papers (e.g. festschrift volumes), conference proceedings, official publications, newspapers, standards, invention specifications (e.g. patents), technical catalogues, scientific and technical reports, theses, preprints, data files, etc. Documents which are disputed are: monographs, textbooks and manuals, serials, information leaflets, information cards, manuscripts and galleys, etc. Except textbooks and manuals, the remaining sources become primary or secondary depending on the content.

3) The matter in textbooks is usually derived from primary sources, hence it should be placed under secondary sources. Books with original ideas like Prolegomena to Library Classification are sometimes prescribed as textbooks. Such cases may be treated as an exception. As textbooks derive materials from secondary sources like dictionaries, encyclopaedias, etc. some authors tend to consider textbooks as tertiary sources. However, it should be remembered that though textbooks draw materials from secondary sources, the content mostly owes its origin to primary sources that might have been published long before. As such, it is better to consider textbooks as secondary sources.

4) The contents of monographs vary. Some contain only the results of research and are justifiably called ‘research monographs’. These monographs are primary sources. On the other hand, many monographs are written culling information from primary sources. Naturally, these monographs are secondary sources.

5) ‘Lists of research in progress’ includes the name/s of the researcher/s, the title of the research project, the name of the institute where the research is being conducted, duration of the project, and a brief description of the project. It may also include the subject heading and the class number. The information is obtained through questionnaire, and the publication is compiled using raw data. From this consideration, this is a primary source. However, it is mostly used as a reference tool and thereby finds a place among secondary sources. Its placement under tertiary sources is difficult to justify.

1.12 KEYWORDS

Data File : A computer file containing data.
**Express Information Service**: It is a secondary periodical containing detailed summary of the article along with the mathematical calculations and illustrations. It resembles an abstracting periodical but the information given is much more detailed.

**Movable Types**: In this type of printing each character may be an individual letter or a punctuation mark may be cast on a separate piece of clay/wood or metal for printing.

**Personal File**: It is an official file containing information about an employee relating to her/his service.

**Transcript**: A written or printed version of material that was originally appeared in a different medium.

### 1.13 REFERENCES AND FURTHER READING


UNIT 2 PRIMARY SOURCES

Structure

2.0 Objectives
2.1 Introduction
2.2 Primary Sources
  2.2.1 Primary Periodicals
  2.2.2 Reports
  2.2.3 Anthologies of Papers
  2.2.4 Conference Documents
  2.2.5 Monographs
  2.2.6 Official Publications
  2.2.7 Patents
  2.2.8 Standards
  2.2.9 Trade Literature
  2.2.10 Theses and Dissertations
  2.2.11 Project Reports as Partial Fulfilment of Academic Degrees
  2.2.12 Reprints
  2.2.13 Information Leaflets
  2.2.14 Preprints, Manuscripts
  2.2.15 Laboratory Notebooks
  2.2.16 Diaries
  2.2.17 Memoranda
  2.2.18 Internal Research Reports
  2.2.19 Minutes of Meetings
  2.2.20 Official Files
  2.2.21 Correspondence
  2.2.22 Information Cards
  2.2.23 Medical Records
  2.2.24 Audio and Video Tapes
  2.2.25 Computer Programs
  2.2.26 Data Files
2.3 Summary
2.4 Answers to Self Check Exercises
2.5 References and Further Reading

2.0 OBJECTIVES

After going through this Unit, you will be able to:

• define various types of primary sources;
• categorise varieties of primary sources within each type; and
• discuss broadly the content of each type.
2.1 INTRODUCTION

We have already discussed about primary sources in Unit 1: Categorisation of Sources (Section 1.2.7). In any field of knowledge, the primary sources are the foundation stones on which the subject is built up. Within the brief compass of this Unit it not possible to go into details of various categories and sub-categories of primary sources. However, every attempt will be made to make you familiar with all the sources.

2.2 PRIMARY SOURCES

We have also seen the types of documents that belong to primary sources. Many primary sources have sub-categories. We shall discuss in the following pages all the primary sources along with their sub-categories.

2.2.1 Primary Periodicals

Definition – A primary periodical is one that contains, either wholly or mostly, research papers.

Features – The features of primary periodicals are as follows:

i) They are brought out by learned bodies, private or commercial organisations, and sometimes by a government.

ii) The articles contain something original and new interpretations.

iii) Articles published are of high standard which is ensured by refereeing procedure.

iv) Usually the address of the author is provided.

v) The date of receipt of the article is generally indicated.

vi) Instructions to the authors are generally included.

vii) The abstracts of the articles are generally given.

viii) The articles include list of references.

ix) They are always indexed or abstracted in secondary periodicals.

x) They are usually termed as journals, proceedings, transactions, etc.

xi) Many of them do not contain any editorial, notes and news, obituaries, etc.

Examples:
1) *Indian Journal of Chemical Technology*

2) *Pramana – Journal of Physics*

3) *Tetrahedron*

Types

Usually the following types are observed: Primary periodicals proper, Letters journals, Data periodicals, Previews, Synopsis journals, and Electronic journals.
**Primary Periodicals Proper**

The features and examples given above belongs to this type of periodicals.

**Letters Journal**

This type of journal usually includes short communications which are often called ‘letters to the editor’. The features of the journal are as follows:

i) They are brought out by learned bodies and commercial organisations.

ii) They contain brief description of the research work in progress usually in one or two pages.

iii) The articles are generally not edited.

iv) Their periodicity is usually weekly or fortnightly.

v) The articles contain address of the author, the date of receipt and list of references.

vi) Sometimes the articles include abstracts.

vii) They are always indexed or abstracted by secondary periodicals.

viii) Usually the title of the periodical contains the word ‘Letters’.

ix) Instructions for the contributors are also included in the journals.

**Examples:**

1) *Physical Review Letters*

2) *Tetrahedron Letters*

**Data Periodicals**

You will be surprised to know that there are some periodicals which contain only or mostly numerical data and nothing else. Usually they are scientific data and are of permanent value. Data periodicals are found in fields like ionospheric science, climatology, hydrology, etc. Some examples of this type of periodicals are given below:

1) *Water Resources Data, Alaska*, etc. This periodical appears separately for all the states of US with the addition of state name in each case.

2) *Ionospheric Data, Delhi*.

3) *Calcutta Daily Weather Report*

**Previews**

These periodicals contain summaries of forthcoming full-length articles, titles of short communications and preliminary notes. They are intended to avoid duplication of research effort. The address of the author is also generally provided to enable the interested reader to get in direct touch with the author.

**Examples:**

1) *Biochimica et Biophysica Acta, Previews*. It was published during 1961-1967. Afterwards it formed part of *Biochimica et Biophysica Acta*.

2) *Previews of Heat and Mass Transfer*. The journal provides abstracts of recently published papers on the subject from over 100 journals around the world.
Synopsis Journals

Though full-length research papers are published in more or less all research journals, however, the use of full-length research papers is highly limited since only a very few need every detail of the paper. A vast majority is interested in the concluding part, a particular table, a particular figure, etc. As the publication of full-length research papers in journals is labour intensive, time consuming and a costly affair, some suggestions made are as follows:

i) Pirie suggested two versions of journals – complete version, and summary version. The complete version will be for libraries and those who want detailed information. The summary version will be for others.

ii) Bernal suggested the following: “instead of the present intermediate length paper of ten to twenty pages, it would be better to have a short, pointed paper of some two pages in the form of what has been called an informative abstract. This would be supplemented by a longer, more detailed paper, not printed or published, but available in duplicated, microfilm or other method of reproduction, to all those thought to be interested in it or who requested it”.

iii) Phipps suggested three levels of publications – i) full-length report of the paper, ii) two-page summary, and (iii) an abstract for deposition in a central office. Each of these will have the same code number. Scientific journals would publish summaries of most papers, and full-texts of selected papers. Abstracts would be sent to journal subscribers. They can obtain copies of full-length papers from the central office if need be.

There were not many takers of the suggestions, probably because the authors themselves did not delve deep into the economic consequences of such ventures. However, there were a few attempts. In 1968, the American Chemical Society conducted a survey to find out the feasibility of bringing out Journal of Organic Chemistry in two editions – a complete edition for libraries and a condensed version for general circulation. The survey did not go in favour of publishing two editions.

With the financial support of National Science Foundation, the American Chemical Society brought out two editions of the Journal of the American Chemical Society. The summary version provided synopsis of articles prepared by the authors themselves, book reviews and communications to the editor. The archival version meant for libraries contained author’s typewritten manuscripts in reduced size.

The journal Chemie – Ingenieur-Technik printed only synopsis of some of the technical articles, the original manuscript being available on microfiche on request. With the introduction of this procedure the normal publication time of 9 to 12 months got reduced to three months. The subscriber also used to get full-length articles in microfiche.

Electronic Journals

Electronic journals are also known as e-journals. Journals bought out in electronic form are termed as electronic journals. Majority of the important primary periodicals of the world are available in electronic form. Most of these journals are available both in printed and electronic forms. There are some primary journals which are available only in electronic form.
Self Check Exercise

Note: i) Write your answer in the space given below.

   ii) Check your answer with the answers given at the end of this Unit.

1) Describe the salient features of primary periodicals.

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2.2.2 Reports

In a library various types of reports are encountered. They may be categorised as Technical reports, Administrative reports, and Trip reports.

**Technical reports** are possibly the most important of the three categories. These reports usually originate through mission-oriented research projects of governments, industrial organisations or other agencies. Often, the agencies themselves do the experimentation. Sometimes they are assigned to some other bodies who have the necessary infrastructure to carry out the experiment. Reports brought out depicting the various stages of the project are termed as Progress Report, Interim Report, Final Report, etc. In some cases only one Report is brought out. These reports are usually submitted within the stipulated time. They are generally in typed or mimeographed form, not printed or published, produced in limited number, used by the agency that carried out the research work itself or sponsored the research project, and are for restricted circulation. Majority of these reports belong to nuclear, aerospace and defence sciences. Hence, more often than not, they are stamped as ‘Top Secret’ or ‘Confidential’ and termed as ‘Classified’ reports. These reports are not edited by professional editors, nor they are refereed. Still these reports are considered as primary sources of information as they contain results of mission-oriented research.

A research-based technical report includes scope, objective, methodology, research results, application of research results, etc. Based on these reports, scientists, engineers and technologists implement various projects.

As long as these reports are ‘classified’, they can be used only by selected people of the agency which has sponsored or produced the reports. At a particular point in time, many of these reports are ‘declassified’ and made available to the public. Now, the literature contained in these is open and can be used by anybody. Possibly, the largest number of technical reports are produced by the United States. National Technical Information Service (NTIS) of the US is the supplier of copies of all technical reports that are declassified or non-classified.
Administrative reports are usually brought out by ministries, departments, institutions, associations, etc. The most common form of these reports are the Annual Reports. They are brought out every year and contain, among others, the details of the activities performed during the preceding year, plan for the next year, financial statements regarding income and expenditure, etc. Reports of institutions, associations, etc. usually provide a number of other information as well, such as, list of members of the governing body, report on the annual general meeting, council meetings, executive and finance committee meetings, conferences organised, etc. Administrative reports of research institutions provide a good deal of information about the research work done, application of research results, and the research work going to be undertaken next year.

Trip reports - Government officials, company executives, businessmen, scholars, scientists, and many others visit different parts of the world on various missions and purposes. During their visits, they hold talks with their counterparts, sign agreements, finalise business deals, attend conferences, study markets, go around various establishments, sites, trade fairs, and places of their interest, examine machineries and other products, etc. On their return, they usually submit a report to the authorities concerned. These reports are usually type-written or computer-composed, stapled, produced in small number, and circulated only among the concerned employees. Hence, there is no bibliographical control of these reports. However, in many cases they form an important component of the knowledge base especially of companies or enterprises and are classified as grey literature.

Many trip reports are available on the Internet. The site www.eurobirding.com provides links to more than 5,000 birding trip reports around the world. On the Internet, trip reports of various places like New Zealand, Las Vegas, St Martins are also available.

2.2.3 Anthologies of Papers

A festschrift is a collection of writings published in honour of a learned person. Every year many festschrift volumes are brought out in the world. Usually, in a festschrift the biographical sketch of the person, discussion on her/his contributions, personal narratives about the person are included. In addition, a number of articles contributed by her/his professional colleagues, students, friends, and others are also included. Sometimes, the articles are contributed on a specific topic.

In 2003, a festschrift was brought out in honour of Mr. A K Dasgupta. It was titled as National Bibliographical Control: Problems and Perspectives – Essays for A K Dasgupta. In this case, the topic for the festschrift volume was fixed in advance. Accordingly, contributions were asked from the authors. In all, 33 articles devoted to the theme have been included in the volume. Moreover, a bibliography of Dasgupta’s writings, numbering about 200 has been included.

It may be noted that all contributions in a festschrift are not research papers. But, in many cases they may be original contributions. For example, a person may describe a few unknown episodes about the learned person in whose honour the festschrift is being brought out. This piece will not be considered a research work, but surely an original contribution.
There is another kind of anthology of papers known as **collected works**. For example, *The Collected Papers of Albert Einstein* brought out by Princeton University, USA is a publication of this category.

### 2.2.4 Conference Documents

Conference documents are also important sources of information as they often contain nascent ideas. Thousands of conferences are held every year throughout the world. According to the scope, these conferences are categorised as international, national, and provincial. International Conference on Information Management in a Knowledge Society, organised at Mumbai during 21 to 25 February 2005 to commemorate the golden jubilee of IASLIC, was an international conference. Indian Library Association organised 49th All India Library Conference at Bundelkhand University, Jhansi, during 29th December 2003 to 1st January 2004. This was a national conference. Every year Bengal Library Association also organises a conference where mostly librarians from Bengal participate. This is a provincial conference.

Conferences can also be grouped according to subjects. For example, Indian Science Congress held every year at different places in India is devoted to science, All India Library Conference organised by Indian Library Association every year is devoted to library science, etc. Every year a specific subject is chosen for a conference. For example, International Conference on Information Management in a Knowledge Society (February 2005), organised by IASLIC was devoted to information management.

Conferences generate different types of documents. Announcements, call for papers, programmes, etc. appear before the conference and are rightly called **pre-conference documents**. During the conference, in many cases, the volume containing the papers to be presented in the conference is released. For examples, the volume entitled *Information Support for Rural Development* released during 21st National Seminar of IASLIC (Calcutta: 31st December 2004 – 3rd January 2005) included about 60 papers and a dozen extended abstracts. In addition, the copies of inaugural addresses and other papers not included in the volume are sometimes distributed to the participants. Many a times, the organisers of a conference bring out a **souvenir** at the time of the conference.

A souvenir is something that is given to someone as a memento. When a souvenir takes the form of a publication, more often than not it becomes a good source of information. For example, the Organising Committee of 21st National Seminar of IASLIC (2004/05) has brought out a souvenir that included the following articles: (1) IASLIC: a brief note by M N Nagraj, (2) Jadavpur University and its library system by Benode Bihari Das, (3) Libraries and library movement in West Bengal: a bird’s eye view by Prabir Roychowdhury, (4) Jadavpur University Department of Library and Information Science: past and present by K P Majumdar, (5) LIS education and research in West Bengal: an overview by Amitabha Chatterjee, and (6) Vintage Calcutta by Chittaranjan Palit. Apart from the articles, the Souvenir included a small map of Kolkata, Programme of the XXI National Seminar of IASLIC, list of various committees and their members, IASLIC Council (2004 –2005), and list of presidents and general secretaries (since beginning till date). Thus, you can see that the Souvenir harbours many such articles and can act as a good reference source.
Conference proceedings, list of delegates, etc. appear after the conference and they are rightly called *post-conference documents*. Conference proceedings usually include discussions, speeches, minutes and resolutions. In certain cases, conference papers and the proceedings are brought out together at a later date by a publisher in the form of a book or as a special issue of a journal.

It may be noted that papers presented in conferences may not always contain original ideas. Most of them may be just informative articles.

### 2.2.5 Monographs

A monograph presents a detailed study on a single subject, class of subjects, or a person, and is usually accompanied with a bibliography. Some publishers bring out monograph series as well. A monograph portrays an overall picture of the topic and can be used by specialists, students, even a layman. Examples: Roy S. C. *Monograph on the Gur Industry of India* (New Delhi: ICAR, 1951), Tewary D. N. *Monograph on Eucalyptus* (Dehra Dun: Surya Pub, 1992). The sources present respectively an overall picture of gur industry in India and eucalyptus plants.

It may be noted that all the information contained in a monograph may not be primary information. In many cases substantial information is gleaned from primary sources. Of course, there will be some original information too.

### 2.2.6 Official Publications

Government publications are official publications. A government generates both primary and secondary documents. *Defence Science Journal*, brought out by DESIDOC, Delhi is a primary publication. On the other hand, *Indian National Bibliography* brought by Central Reference Library, Kolkata, is a secondary publication. Apart from periodicals, a government brings out at times reference books, e.g. *India – A Reference Annual*, reports of various commissions and committees, patents, standards, etc. Once upon a time, the second part of *Indian National Bibliography* used to list a large number of government publications brought out in India.

### 2.2.7 Patents

The word ‘patent’ means an official right given to a person to make, use or sell a product, process, design, etc. invented by her/him for a fixed number of years. In other words, a patent is a government grant to a patentee conferring on her/him for a stated period of time the exclusive privilege of using the patented invention. It may be noted that the inventor may not always be the patentee. The inventor is one who has invented the item. If s/he is an employee of an organisation then the organisation might be the patentee. It may me clear to you by now that a patentee may be a person or organisation to whom a patent will be granted.

When we talk of patents as source of information, then it means a document that provides the details of an invention which may be an equipment, a machine, a process, a product like a drug or a chemical, or any other object. A patent is considered as the primary source of information and more often than not it is the only source of information on the topic, more detailed than any other source, and forms, in many cases the earliest literature on the topic. In
many patents, the description is enriched with copious diagrams and figures. Patents are issued by the patent office of the country. Usually, a patent having high potential of exploitation, is patented in a number of countries. As a result, the patent gets translated in a number of languages. Hence, anybody interested in the patent in a particular language, say Japanese, might get it. In this way in many cases the need for translating a patent gets eliminated.

The information content of a patent specification is enumerated as below:

i) **Name of the country or official agency:** In British patents, the national emblem is given instead of the name of the country. In the case of some countries like Germany and USSR, both the name and emblem is given. Some countries record only the official name of the agency.

ii) **Number of the protective document:** In the patents of Germany, UK, and many other countries, the patent number is given. In Japanese patents, only the serial number is given.

iii) **Type of document:** Patent specification in mentioned on the document of such countries as UK and Australia. Nothing is mentioned in US patents. In the documents of Soviet Union, Authors Certificate / Patent Specification is mentioned depending on the document.

iv) **Information about the inventor:** Countries like Soviet Union, Japan, UK and India mention the name of the inventor. Some countries do not mention the name.

v) **Classification number:** On the patent specification, generally, the class number is given. The internationally accepted classification scheme for classifying patents is known as *International Patent Classification*. This apart many countries have their own classification schemes. Some countries also provide UDC numbers on patents.

vi) **Textual matter:** It is the statutory requirement of the patent law that the description of an invention in the specification must be sufficiently clear and detailed so that any one skilled in the art can use the patent without consulting the inventor time and again. The Indian patent law in this regard is even more specific. It requires that the complete specification must fully and particularly describe the nature of the invention, its operation and use, and the method whereby it is to be performed and must also disclose the best method of performing. Because of this statutory obligations, the inventor tries to describe the patent sufficiently clearly and in full-length. For example, the Indian patent (No. 83788) on computers with error recovery runs to 83 pages and 111 drawing sheets. In the Indian patent (No. 101146) relating to data handling systems, there are 25 pages and 74 drawing sheets. You may notice that in both the patents there are huge number of drawing sheets.

vii) **List of claims:** Usually this is the last item in a patent specification. Here the inventor enumerates the claims one by one. The claims indicate in how many ways this invention is superior to others.
2.2.8 Standards

A standard is something set up and established by authority as a rule for the measure of quantity, weight, extent, value or quality [Webster]. Here, we are concerned with the documents that provide detailed description of a standard published by a standard-issuing institution of a country like our Bureau of Indian Standards. These documents are also termed as standard specifications. Standards are always categorised as primary sources of information. These documents appear in A4 (210mm x 297mm) or A5 (148mm x 210mm) size and in most cases are pamphlets.

Standards are broadly categorised in two groups:

1) Technical/industrial standards, and
2) Physical and scientific standards.

Technical/industrial standards are further categorised as

1) Dimensional standards: These standards are formulated to secure uniformity, interchangeability, and simplification of the types and sizes of one product. Example: ISO/R169 – 1960. Sizes of photocopies (on paper) readable without optical devices.

2) Performance and quality standards: These standards are meant for generating quality products. A product manufactured according to the standard will do or perform whatever it is expected to do or perform. For example, a pressure cooker manufactured in accordance with a standard will not burst under excessive pressure. The excess pressure will automatically escape through the pressure valve. Example: IS: 3253-1965. Hourser-laid nylon rope for mountaineering purposes.


5) **Definitions**: Definitions are standardised to ensure precise description of a concept, object, etc. *Example: ISO/R 597-1967. Definitions and terminology of cements.*

6) **Glossaries**: Glossaries are meant for securing uniformity in the use of terms so that a term in a subject always convey the same meaning. *Example: IS:2550-1963. Glossary of classification terms.*

7) **Symbols**: Symbols are standardised so that a particular symbol conveys the same meaning or idea everywhere in the world e.g. road symbols, mathematical symbols. For example, + is the symbol of addition throughout the world. *Example: IS:1890 (Part XI) – 1961. Mathematical signs and symbols for use in the physical sciences and technology.*


Physical and scientific standards apply to natural phenomenon which are accurately determined and are not subject to change with the advancement of knowledge (e.g. length, mass, time, temperature, etc.).

### 2.2.9 Trade Literature

When you visit a trade fair, some people standing on the road hand over to you leaflets, printed sheets, etc. which contains the description of a product, commodity, service, etc. When you purchase a bottle of medicine, you may find inside the packet a printed sheet describing the medicine covering all its important aspects such as composition, mode of administration, dosage, side effects, etc. These are basically the trade literature. Trade literature appears in a variety of forms and content.

**Broad characteristics** – The broad characteristics of trade literature are enumerated as below:

i) Provides application-oriented descriptive information.

ii) Primary source of information about products and processes. Much of the literature is not published in any other form.

iii) Loses currency very quickly.

iv) The amount of information varies from a very brief announcement in a sheet to a very elaborate description of the product, process or service. The elaborate description at times takes the form of a pamphlet or a book.

v) The literature is distributed free.

vi) Serves dual function – (a) Provides information on the various attributes of a product, process, material, service, etc.; and (b) stimulates sales of the products, processes, etc.

vii) Appears in a variety of forms such as advertisements, sheets, folders, pamphlets, catalogues, user guides, handbooks, manuals and house journals.

viii) Usually no date is given on the literature.

ix) Most of the literature is of ephemeral value and is not preserved by libraries.
x) At times, the matter is presented with colourful illustrations and diagrams.

xi) There is practically no bibliographical control of this literature.

xii) Acts as current awareness service.

xiii) Not covered by abstracting and indexing services.

Utility – The literature has got various utilities which are listed below:

i) The literature makes people aware about a product, process or service.

ii) Helps in decision making. For example, a person was interested in having contact lenses for her/his eyes. A number of organisations were offering the same. S/he was confused as to which organisation s/he should choose. Finally, s/he gathered literature from all the companies, made a comparative study, and then took the final decision.

iii) The literature provides great help in tracing the gradual development of a particular product, or a range of products, etc. If you go through the trade literature of a particular pen company, you will be astounded to see how the pens of the company has undergone changes over the years size, shape, functionality, variety, etc.

iv) For writing the history of a manufacturing firm, or the history of a product, the trade literature produced by the firm proves to be invaluable source of information.

v) The trade literature supplied by the medical representatives helps practising physicians by keeping them updated about the latest drugs entering the market.

vi) Engineers also use trade literature profusely.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

3) Describe the utility of trade literature.

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2.2.10 Theses and Dissertations

“The two words ‘thesis’ and ‘dissertations’ are used sometimes as synonyms, sometimes separately and sometimes in such a way as to indicate that one term totally embraces the other” (Davinson). A thesis or dissertation is a document (usually unpublished) that contains details of a research conducted under the guidance of an expert. Apart from the hypotheses, objectives, scope, methodology, and results of the study, a thesis contains a detailed literature survey which is useful for the compilation of a bibliography on the subject.
Moreover, sometimes a thesis indicates the areas where further research can be conducted. In some cases, the researcher gives birth to a new methodology, which becomes useful in subsequent research. The thesis is also a primary source of information. As only a few copies of the thesis are produced, it becomes difficult to have an access to the thesis. Nowadays, theses are becoming available in digitised form, hence it can be expected that the problem of accessibility of theses will gradually diminish.

**Features**

i) Doctoral theses are usually considered as original work.

ii) The findings reported in a thesis in most cases appear as articles in learned journals, conference papers, or even as monographs.

iii) For a research degree, a thesis is examined by an expert in the field and the candidate has also to defend it.

iv) A thesis is not required to be printed in India, UK, USA, etc. for the award of the degree. In many European countries, it needs to be printed before the degree is awarded.

v) Theses are usually available on inter-library loan and also as microforms.

vi) The structure of a thesis are more or less the same in the world.

### 2.2.11 Project Reports as Partial Fulfilment of Academic Degrees

For the completion of Master’s degree, in many universities and institutions, there is a mandatory requirement because of which a student has to work on a project approved by the authorities concerned. The duration for the completion of the project varies from three months (e.g. University of Delhi) to one year (e.g. NISCAIR and DRTC). Accordingly, the size of the project report varies from about 50 pages to several hundred pages. The components of project reports are almost similar to theses. In fact, they look like mini-thesis. Only a few copies are produced in type-written form. There is practically no bibliographical control. The work done is generally original. As such these are also primary sources.

The number of papers generated from such project reports are few. The exercise of preparing a project report gives students a little experience as to how literature search is done, research work is conducted, data is analysed, conclusion is drawn and project report is written.

### 2.2.12 Reprints

In many cases, after the publication of an article in a journal, the author is supplied with a few printed copies of the article for her/his own use. These printed copies are called *reprints*. If these reprints pertain to research articles, then they are primary sources.

Researchers distribute these reprints to fellow researchers and other potential users. This way the information gets disseminated quicker than most of the abstracting and indexing services.
Many researchers build up a reprint collection of their own and this collection in general is heavily used because most of the reprints a scholar gets pertain to her/his field.

2.2.13 Information Leaflets

Information leaflets are also carriers of information. There is abundance of information leaflets for parents, kids, young people, patients, etc. Suppose, the dentist has extracted the infected tooth of a patient. After the job is done, the dentist may hand over to the patient an information leaflet which will tell the patient how long the pain will continue, the healing process will take, what should be done if any emergency arises, etc. These leaflets may be in multiple languages and are very useful for a doctor who has to see patients speaking different languages.

To get a better idea about an information leaflet, one can have a look at the Patient Leaflet from the BMJ Group <http://pandemicflu.bmj.com/resources/swine%20flu%20pdf%204pp%20aug%2009.pdf>. The information has been given in four pages under the following headings:

- Swine flu
- What is swine flu?
- What are the symptoms?
- What treatment works?
- Medicines
- Things you can do for yourself.
- Ways to avoid swine flu.
- Should I have the swine flu vaccine?
- What if I am pregnant or breast feeding or looking after young children?
- What will happen to me?

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

4) Describe the salient five components of information leaflet for the Periodicals Section of your library.

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2.2.14 Preprints, Manuscripts

A preprint is a type-written scientific paper, i.e. the manuscript, that is yet to be published in a scientific journal. That means that the paper is yet to be peer-reviewed.

From the initial submission in typewritten form to the publication of a paper, the process often takes weeks, months or even more because manuscripts are to undergo peer review. The basic need to quickly circulate among scientific community the research results has propelled researchers to distribute manuscripts, i.e. preprints, among fellow scientists. This process allows authors to receive early feedback from the scientists working in the same field, which at times becomes helpful in revising the paper before final submission.

Since early 1990s, preprints are being distributed electronically through the Internet leading to the creation of massive preprint databases and institutional repositories of preprints (Preprint).

2.2.15 Laboratory Notebooks

A researcher has to keep a daily record of her/his laboratory activities, experiments, thoughts ideas, etc. This may include the details of the experiment s/he has done such as materials and equipment used in the experiment, duration, results, etc. The date is always mentioned in the diary. The hypothesis s/he has tried to formulate, the various ideas that flashed across her/his mind, the equipment or device s/he has imagined, the interpretation of the results s/he has thought about, etc. are to be recorded meticulously. “The notebook serves as an organisational tool, a memory aid, and can also have a role in protecting any intellectual property that comes from the research”. (Lab notebook). If there is any dispute as to who has first discovered a certain thing, laboratory notebooks play a vital role in solving such a dispute.

Michael Faraday, popularly known as the ‘Father of Electricity’ meticulously maintained his diary recording all his research activities. Faraday’s Diary is a bound and sequentially numbered set of books, containing 16,041 numbered entries dated 25 August 1832 to 6 March 1860. Now this has come out in the form of a book in seven volumes containing 3500 pages and thousands of illustrations by Michael Faraday himself. (Faraday’s Diary) This diary today serves as an inescapable source of information for biographers as well as historians of science.

Self Check Exercise

Note: i) Write your answer in the space given below.
   ii) Check your answer with the answers given at the end of this Unit.

5) Briefly describe Faraday’s Diary.

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2.2.16 Diaries

Writers, scholars, rulers and many others maintain diaries. These diaries provide most authentic biographical material and plenty of other information. Normally these diaries are handwritten and sometimes depending on their importance they are published also. The diaries of Fanny Burney, English novelist, titled *Early Diary 1768–78*, and *Diary and Letters 1778-1840* beautifully depict the background of the period.

2.2.17 Memoranda

A memorandum or memo in short is usually a document that aids our memory by recording events or observations on a topic, which may be used in a business organisation. The plural form is either memoranda or memorandums.

There are various types of memoranda such as memorandum of agreement, memorandum of association, memorandum of understanding (MoU), etc. The format of a memorandum varies from office to office, transaction to transaction. A memo is a record of the terms of a transaction or contract agreed upon by two or more parties. They could be one page long or run into many pages. If the user is a minister or a senior executive, the format might be rigidly defined and limited to one or two pages. If the user is a colleague, the format is usually much more flexible. At its most basic level, a memorandum can also be a handwritten note to one’s supervisor (Memorandum).

**Memorandum of Agreement (MoA)**

It is a written document that binds parties to work cooperatively ‘on an agreed upon project or meet an agreed upon objective’. ‘An MoA is a good tool to use for many heritage projects. It can be used between agencies, the federal or state governments, communities, and even by individuals. An MoA lays out the ground rules of a positive cooperative effort’ (Memorandum of agreement).

**Memorandum of Association**

It is a document that governs the relationship between the company and the outside, and one of the documents required to incorporate a company in the United Kingdom, Ireland and India. It is also used in many of the common law jurisdictions in the Commonwealth countries (Memorandum of association).

For any registered society in India, Memorandum of Association forms the constitution of the society and the documents includes: Name of the society, Registered office, Aims and objectives, Executive committee, Founder members, Rules and regulations.

**Memorandum of Understanding (MoU)**

It is a document that records a bilateral or multilateral agreement between parties. The parties may be government, organisations, institutions, etc. ‘It expresses a convergence of will between the parties, indicating an intended common line of action. It is often used in cases where parties either do not imply a legal commitment or in situations where the parties cannot create a legally enforceable agreement. It is a more formal alternative to a gentlemen's agreement’ (Memorandum of understanding).
2.2.18 Internal Research Reports

Often companies, institutions and organisations conduct research to survey the market, consumer behaviour, sale of a particular product, etc. It is also possible that a country is closely watching the defence activities of a neighbouring country. The results of such research are recorded in a document. This document is for internal use only and hence called internal research report. Usually, it is not made public. Sometimes internal committee reports are published in the form of a book. The book *China’s Banking and Financial Markets: The Internal Research Report of the Chinese Government* by Li Yang and Robert Lawrence Kuhn (Wiley, 2007) is of that type.

2.2.19 Minutes of Meetings

In an office, apart from governing body there is an executive committee, purchase committee, staff selection committee, etc. All these committees hold meetings from time to time. The agenda of the meeting, members present in the meeting, deliberations that took place and the decisions taken in the meeting are all meticulously recorded in a document. This document is called the minutes of the meeting. Usually, this document is kept in a file and used for official purposes from time to time. For example, the minutes of the book selection committee meeting is used for ordering books in a library.

2.2.20 Official Files

In every office one can find a collection of files that have been accumulated over the years. In certain offices the collection is huge. If you classify the files, you will notice that they broadly belong to personnel, capital items like buildings, machineries, books and periodicals, etc., maintenance and repair, stationeries, etc.

These files contain notes, draft or copy of letters, clippings of printed tenders, advertisements, and others. The vital decisions taken by a government, chairman of a company, head of an institution or organisation, a general and many others are also recorded in these files. You will also find in these types of files, the original letters written by persons like Mahatma Gandhi, Abraham Lincoln, Winston Churchill, and all other celebrities in the world. You should remember that these files do not have any other copy in the world. Hence, the information contained in the files is precious. To preserve these files, archives have been built all over the world.

For writing the history of a country or any place, finding the details of the history of a war, or functioning of a government, or a government official, these files prove to be important sources of information.

In the office files one category of files is known as personal files. These files include the details of a person’s joining a government office or any other organisation, various posts s/he has held, salaries drawn, various leaves s/he has taken, the date of her/his retirement, the retirement benefits s/he got, etc. In unearthing the life history of a president, prime minister, governor, minister, or any other government official, a freedom fighter, etc. the files prove to be of invaluable sources of information.
2.2.21 Correspondence

Ever since the system of writing developed man has been writing letters. Of late, with the advent of e-mail, the usual practice of writing letters on materials like paper has greatly diminished. Letters written by *literateurs* like Rabindranath Tagore have been published in several volumes. Apart from literary value, many of the letters have got not only biographical but historical significance. Most daily newspapers have got the letters to the editor column. Many libraries of the world like our National Library, Nehru Memorial Museum and Library, etc. have huge collection of letters.

2.2.22 Information Cards

A card containing information is an information card. A postcard harbouring a letter, an invitation card to attend a marriage or meeting, a report card from the teacher of a child, a menu card of a restaurant, are all information cards. These cards may be handwritten or printed. Many of them are of ephemeral value.

2.2.23 Medical Records

Medical records comprise of prescriptions, pathological reports, X-ray reports, ultrasonographic reports, MRI reports, surgical reports, electroencephalograms, mammograms, colour Doppler test reports, etc. All these carry valuable information using which the doctors diagnose various ailments defects and fracture, presence of foreign bodies inside the body, etc. The prescription is a valuable document for the patient as well. In hospitals many of these reports are preserved for future use as they play a very important role in future treatment, etc.

2.2.24 Audio and Video Tapes

Audio tapes may contain lectures by eminent professors, scientists, authors, politicians, and others. Often, debates in legislative bodies, cross examinations of the criminals, are also audio-taped as they authenticate the statement of a person. Naturalists audiotape the call of birds and various wild animals, in defence various types of firing, bombing, etc. are audiotaped, in medicine, the beats of the heart in its various conditions are audiotaped, in railway transport, the various sounds of a train generated by it while passing through a tunnel, a forest, over a bridge, etc. are also audio-taped. In addition to these, there are various instances when sounds are audiotaped. All these audiotapes are used to teach students undergoing training in the respective areas.

In radio stations all over the world, millions of audiotapes are available. Whenever needed, clips from these tapes are broadcast whereby the listeners can hear the original voice of the persons like Mahatma Gandhi and Indira Gandhi.

Many video tapes nowadays have audio components also. Take for example, a video tape on open heart surgery – it will not only show every detail of the surgery by surgeons but also will be associated with commentary whereby a student will be able to learn the detail of a surgery. In metallurgy as well as in chemical analysis, the colours of flames are videotaped. Seeing the colour of the flame emanating from a blast furnace, metallurgists can estimate the inside temperature of the blast furnace and inside temperature of the reaction. Similarly, the colour of a flame helps a chemist in the identification of a salt.
In a media centre like Doordarshan, you will find thousands and thousands of video tapes. In the library of media centres they greatly outnumber books, and their use is also multifarious. Suppose, a person has become the prime minister of a country, immediately, the media centres in the world will go through all the video tapes where the person figures. Out of these tapes, appropriate clips will be selected and shown during the broadcast.

2.2.25 Computer Programs

A computer program is ‘a series of coded software instructions to control the operation of a computer’ (program). Everyday numerous programs are written either for a new job to be executed by a computer or new version of an old program. These programs are the property of companies who have produced them. Usually it is for their exclusive use. As such there is practically no bibliographical control of these programs.

2.2.26 Data Files

A data file is ‘a set of related records (either written or electronic) kept together’. Examples of data files are: databases, spreadsheets and e-mails. (data files). It is to be noted that all databases are not primary sources. There are databases of secondary and tertiary sources as well. A database devoted to a primary periodical is a primary source.

2.3 SUMMARY

An attempt has been made here to familiarise you with various types of primary sources. It is not the case that all primary sources have been covered exhaustively. Some sources which are generally not covered in textbooks and course materials have been covered here e.g. project reports, information leaflets, information cards, etc.

In this Unit, we have covered primary periodicals embracing primary periodicals proper, letters journal, data periodicals, previews, synopsis journals, and electronic journals. In the case of reports technical reports, administrative reports and trip reports have been dealt with. Two types of anthologies of papers, i.e. festschrift volumes and collected works have been discussed. While writing about conference proceedings, souvenirs have also been included as in many cases souvenirs are also issued along with conference proceedings. Monographs and official publications have been dealt with next. Official publications have also been dealt with under various heads like standards, patents, administrative reports, etc. Generally librarians do not pay much attention to trade literature though in many institutions they are highly useful. Hence, the topic has been dealt with in some detail. Theses, dissertations and project reports submitted as partial fulfillment of a degree have been discussed. Somehow project reports have not gained much importance as a primary source. In addition, laboratory notebooks, diaries, various types of memoranda, internal research reports, minutes of meetings, correspondence, information cards, medical records, audio and video tapes, computer programs and data files have been discussed.

2.4 ANSWERS TO SELF CHECK EXERCISES

1) The features of primary periodicals are as follows:
i) They are brought out by learned bodies, private or commercial organisations, and sometimes by a government.

ii) The articles contain something original and new interpretations.

iii) Articles published are of high standard which is ensured by refereeing procedure.

iv) Usually the address of the author is provided.

v) The date of receipt of the article is generally indicated.

vi) Instructions to the authors are generally given.

vii) The abstracts of the articles are generally included.

viii) The articles include list of references.

ix) They are always indexed or abstracted in secondary periodicals.

x) They are usually termed as journals, proceedings, transactions, etc.

xi) Many of them do not contain any editorial, notes and news, obituaries, etc.

2) The component of a patent specification are:

i) Name of the country or official agency.

ii) Number of the protective document.

iii) Type of document.

iv) Information about the inventor.

v) Classification number.

vi) Textual matter.

vii) List of claims.

3) The utility of trade literature is described below:

i) The literature makes people aware about a product, process or service.

ii) It helps in decision making. For example, when a product is being manufactured by several firms, at that time a comparative study of trade literature helps in taking the final decision.

iii) The literature provides great help in tracing the gradual development of a particular product, or a range of products, etc. If you go through the trade literature of a particular pen company, you will be astounded to see how the pens of the company has undergone changes over the years in size, shape, functionality, variety, etc.

iv) For writing the history of a manufacturing firm, or the history of a product, the trade literature produced by the firm proves to be invaluable source of information.

v) The trade literature supplied by the medical representatives helps practising physicians by keeping them updated about the latest drugs entering the market.

vi) Engineers also use trade literature profusely.
4) The salient information components of the leaflet are as follows:

i) The Periodical Section remains open from 9AM to 5PM on all working days.

ii) Bound volumes of periodicals are on the shelves arranged in alphabetical order.

iii) Current issues of periodicals are on the display racks arranged in alphabetical order.

iv) Periodicals are not issued out.

v) Leave the periodicals after use on the table.

vi) Tearing out the pages of a periodical or damaging it in any other way is a punishable offence.

5) Faraday’s Diary is a bound and sequentially numbered set of books, containing 16,041 numbered entries dated 25 August 1832 to 6 March 1860. Now this has come out in the form of a book in seven volumes containing 3500 pages and thousands of illustrations by Michael Faraday himself. This diary today serves as an inescapable source of information for biographers as well as historians of science.

2.5 REFERENCES AND FURTHER READING


UNIT 3 SECONDARY AND TERTIARY SOURCES

Structure

3.0 Objectives
3.1 Introduction
3.2 Secondary Sources
   3.2.1 Secondary Periodicals
   3.2.2 Bibliographies
   3.2.3 Lists of Research in Progress
   3.2.4 Reference Sources
   3.2.5 Treatises
   3.2.6 Textbooks
   3.2.7 Translations
   3.2.8 Computer Files
   3.2.9 Bibliographic Databases
   3.2.10 Databanks
   3.2.11 CD-ROMs
3.3 Tertiary Sources
   3.3.1 Library Catalogues
   3.3.2 Bibliography of Bibliographies
   3.3.3 Guides to Literature
   3.3.4 Directory of Directories
   3.3.5 Guides to Reference Sources
3.4 Summary
3.5 Answers to Self Check Exercises
3.6 References and Further Reading

3.0 OBJECTIVES

After reading this Unit, you will be able to:

• define a secondary source;
• describe various types of secondary sources;
• categorise varieties of secondary sources within each type;
• describe a tertiary source; and
• categorise various types of tertiary sources.

3.1 INTRODUCTION

We have already introduced to you the characteristics of secondary sources in Block 1, Unit 1, Section 1.2.8 of this course. These characteristics guide you as to what makes a publication a secondary source. When you examine a particular type of secondary source, you may be amazed to see that within a particular type there are a large variety of publications. All of you have seen dictionaries. If you visit the reference section of a library, you may find that there are unilingual e.g. English to English, bilingual, e.g. English to Hindi,
and multilingual, e.g., English to Hindi and Sanskrit dictionaries. You may find some huge dictionaries. In fact, they are unabridged dictionaries. Sometimes they are published in several volumes. There are also abridged dictionaries usually available in single volumes. There are pocket dictionaries as well. You can very easily carry them in your pocket. There are dictionaries which are even smaller than pocket dictionaries. For example, *Computer Dictionary* by Ian Scales and Geof Wheelwright [New Delhi: Galgotia, n.d.] is having the following dimension $2.5'' \times 2'' \times 0.5''$. You will find dictionaries almost on all important subjects. Dictionaries on phrases and fables, quotations, abbreviations, etc. are also available. From this you can have some idea about the different type of dictionaries. You will also find this sort of variety in the case of encyclopaedias, periodicals, yearbooks, and others. Within the brief scope of this Unit, it is not possible to describe all of them in detail. However, you will get glimpses of many of them. When you will actually work in libraries, you will have the opportunity to handle them and learn about them in much more detail.

### 3.2 SECONDARY SOURCES

While going through the structure of this Unit given above you have got an idea about the wide spectrum of publications that comprise of secondary sources. We shall discuss these sources to give you some basic idea about them.

#### 3.2.1 Secondary Periodicals

A secondary periodical may be defined as a periodic publication that disseminates information, contained in primary sources in various forms such as index, abstract, digest, account, etc. In this section, we shall discuss about express information services, abstracting services, indexing services, reviews of progress, popular periodicals, technical periodicals, trade journals, house journals, etc.

**Express information bulletin** – It is a secondary periodical published mostly in Russia and contains detailed summary of the article along with the mathematical formulae, calculations and illustrations. It resembles an abstracting periodical but contains much more detailed information. Usually four issues are published in a month and they are devoted to narrow areas of science and technology such as computer engineering, informatics and radio engineering.

**Abstracting periodicals** – An abstracting periodical is a periodic publication that contains an abstract of the publication in addition to the bibliographical details. The abstract may be informative or indicative. To give you a clear idea about an abstracting periodical a page from *Indian Library Science Abstracts 2000-2005* [Kolkata: IASLIC, 2010] is being reproduced below.

0X(2,0Z,8e) THE BOOK, GENERAL ASPECT


The title of the paper is borrowed from a book (a collection of essays which first came out as a thematic issue of the scholarly, Daedalus, vol 125 no. 4, 1996) which is the subject matter of the present paper, i.e. the future of books and libraries. The viewpoint of each author of the book is presented and then the present author...
Documentary Sources

gives his own considered views about the future of libraries and librarianship in the 21st century.

0007 RISWADKAR (M R). Newer media of communication and the book. In Dr. PSG Kumar festschrift- Library and Information Profession in India. V.1,pt.1: Reflections and redemptions. 2004. 38-41

Discusses the trends in communication media and its effect on reading habits. It also examines the effect of these media on book publishing and book trade. Concludes that there is no sign of decline in the book industry and reading scores over viewing.

0008 SHYAMA RAJARAM. The status of books in the foreseeable future. Lib Her 40(2), 2002,99-105

For over 400 years since the printing of Bible by Gutenberg, printing has been the only mass media of communication. Mentions that radio, television, computer, communication satellite and a number of other electronic communication systems appeared only in the 20th century. Points out that owing to this technological explosion that was experienced in the second half of the 20th century, some prophets of the electronic age pronounced the death of books. Attempts to answer the momentous question - what would be the future of books? Concludes that, books certainly would have an enduring appeal even in the foreseeable future, although their impact in certain areas may get diluted.

0Y KNOWLEDGE/UNIVERSE OF SUBJECTS

0009 DAVARPANAH (M R). The face of knowledge in information system. In Information, communication, library and community development (Festschrift in honour of Prof. C P Vashishth), ed. by B. Ramesh Babu and S Gopalakrishnan. 2004, V.1, 39-49

Explains certain ideas used when thinking and discussing the transformation of data (raw facts) to information and knowledge. This has become important as we are in the midst of an economic transition from an area of competitive advantage based on information to one based on knowledge creation.

From the page you may notice that entries are arranged in alphabetical order within the ultimate class. Each entry has a serial number and the bibliographical details of the article. The bibliographical details of the article comprise of author(s), title of the article, and other details that help to locate the document.

An abstracting service is devoted to a particular subject and covers a large number of periodicals in different languages depending on the subject. Chemical Abstracts (CA), [Colombus, Ohio: Chemical Abstracts Service, American Chemical Society, 1907-.Print.] for example, covers articles from more than 10,000 journals, patents, conference proceedings, technical reports, books, dissertations, reviews, meeting abstracts, electronic journals, and web reprints emanating from about 150 countries in more than 50 languages. Three thousand records are added daily to the database called CAplus. (SciFinder Web). CA provides informative abstracts. The first sentence of the abstract highlights the primary findings and the conclusions reported in the original document. The text that follows gives (i) the purpose as well as the scope of the reported work, (ii) new reactions, compounds, materials, techniques, procedures, apparatus, properties and theories that figured in the work, (iii) new applications of established knowledge, if any (iv) the results of the investigation plus the author’s interpretation and conclusion.

Abstracting periodicals generally bring out author and subject indexes. Some abstracting services bring out many more indexes. The indexes brought out by
Chemical Abstracts are subject index, numerical patent index, patent concordance index, author index, formula index, ring index, chemical substance index, etc.

These type of periodicals are basically used for carrying out literature search required for conducting research, writing a review article, a monograph, etc.

Indexing periodicals — An indexing periodical is a periodic publication that includes the bibliographical details of an article or any other document. It does not provide any abstract. Entries are arranged either under class number or under subject headings. Many of these periodicals also bring out author and subject indexes. It is to be noted that an abstracting periodical is usually devoted to a subject which is not the case with indexing periodicals. They may or may not belong to a particular subject. For example, Readers’ Guide to Periodical Literature [New York: Wilson, 1900-. Print.] covers all subjects. On the other hand Index Medicus [Washington: National Library of Medicine, 1960-. Print] is devoted to medicine only.

There are several types of indexing periodicals. In most of the indexing periodicals entries are arranged according to subjects. The subjects are represented either with subject headings or with class numbers. However, in some indexing periodicals only the content pages are reproduced and they are arranged according to the titles of the periodicals. This type of indexing periodicals are of Current Contents type. Institute of Scientific Information (ISI) started this type of indexing periodicals way back in 1961. Even now, they are being published by Thomson Reuters in seven series from New York. ISI started publishing another type of indexing periodical called citation indexes. Science Citation Index was the first to come out. It appeared in 1963. Subsequently two more major indexes started i.e. Social Science Citation Index [New York: Thomson Reuters, 1972-] and Arts and Humanities Citation Index [New York: Thomson Reuters, 1978-]. In these indexes entries are arranged according to cited authors.

Different types of indexing periodicals are used differently. Index Medicus is generally used for compiling bibliographies on medical topics required for conducting research, writing a paper, a book or a monograph, etc. An active researcher always looks for latest articles on her/his area of research. For this purpose s/he usually scans the content pages of a few periodicals devoted to her/his topic. Current Contents [New York: Thomson Reuters, 1961-] helps a researcher to scan the content pages of the periodicals of her/his choice. Citation indexes are used for depicting the citation scenario of the papers written by scientists, scholars, etc. generation of bibliometric indicators like impact factor, immediacy index, etc. of journals, and compilation of bibliographies using source index.

Reviews of progress — A researcher before undertaking a research work intends to be sure about the work that has already been done in her/his chosen field. For this purpose, first of all, s/he compiles a comprehensive bibliography of research documents that have been published in the past years in various countries of the world, in the chosen field, in diverse languages. After the compilation of the bibliography s/he procures all these documents from different libraries and documentation centres. Some of these documents will be in languages which are not known to her/him. Therefore, s/he will have to get them translated. Once the process of compilation of the bibliography, procurements of the documents, and translation of some of them
is complete, s/he can start reading the documents. After reading them carefully s/he knows what research work has already been done on the field and what remains to be done. The process involved is costly, highly laborious, and time consuming. There was a time when procuring a document from Soviet Union used to take about a year or more and a researcher had to spend about a year or so in just completing the literature search. To obviate the difficulty of the research workers, reviews of progress came into being.

Reviews of progress, or simply called ‘reviews’ are, in fact, articles. They are different from book reviews. A review article is a comprehensive survey of the literature on a narrow field, covering a particular period. The state-of-the-art review informs what all has been done in that field. On the other hand, a critical review provides critical evaluation of new ideas, methods, results and conclusions in the document under review. It is opined that a review article should be long enough to introduce a newcomer to the field and yet short enough to be read for the mere pleasure of exploration’. Every review article is accompanied with a comprehensive bibliography that saves time and labour of a researcher in respect of the compilation of a bibliography.

Review articles are published in journals like *Nature* [London: Macmillan, 1869-.] and *Current Science* [Bangalore: Current Science Association, 1932]. There are many serial publications that publish only review articles. Two such examples are:

*Advances in Applied Microbiology.* Amsterdam: Elsevier, 1959-. Print.

*Annual Review of Immunology.* California: Annual Reviews, 1983-. Print.

**Popular periodicals** – A popular periodical, as the name suggests, is a periodic publication that usually serves common people, students, technicians, teachers, and others. These periodicals contain popular articles written in a lucid style on a particular area of knowledge. Learned or pedantic articles are generally not included. Some of the other features of these periodicals are as follows:

i) They are brought out by governments, societies, commercial publishers and even private individuals.

ii) Usually popular description of scientific discoveries, inventions, facts, latest developments in various fields, etc. are included in them.

iii) Articles are not usually refereed and their standards vary.

iv) The address of the author is not always mentioned.

v) The date of the receipt of the article is usually not given.

vi) In many articles the list of references may be absent.

vii) They are usually not abstracted or indexed.

viii) Apart from popular articles on various subjects, they usually contain editorials, notes and news, book reviews, obituaries, letters to the editors, biographical sketches, etc.

ix) One of the prime objects of a popular scientific periodical is popularisation of science.
Examples of two popular periodicals are:


*Vijnan* [Hindi]. Allahabad: Vijnan Parishad, 1915-. Print.

**Technical periodicals** – A technical periodical is a periodic publication devoted to a technical subject. In many cases, a technical periodical embraces the features of both a primary periodical and a secondary periodical. Some of the salient features are enumerated below. These periodicals

i) are usually brought out by commercial organisations,

ii) are devoted to a particular branch of technology and are meant for technologists, sales and commercial personnel,

iii) cater to the information needs of industry by gleaning information from primary sources and presenting it in a lucid form,

iv) report new technology developed within the industry or outside,

v) contain illustrated papers (sometimes scholarly) on new processes, equipment, products and materials,

vi) include editorials providing background information,

vii) have sections like News Columns, Letters to the Editor, Announcements, Obituaries, Personalia, Book Reviews, Abstracts of Papers/Patents/Standards, New Plants, Processes, Products, Equipment and Materials,

viii) publish numerous advertisements, (many of them colourful) and also index to advertisers,

ix) some are printed on art paper, and

x) a few of them bring out buyers guide, yearbooks, and directories.


**Trade journals** – As the name implies, these journals are meant for persons related to trade and contain matters of trade interest. The technical journals also provide a great deal of trade information creating at times difficulty in drawing a sharp line of distinction between them. However, it can be stated that trade journals are more commercial than technical, and more news-oriented. They provide market news (commodity and share prices), company news (forecasts, dividends, merger), trade announcements, value of currency, etc. In many cases they are available free. The format of these journals varies widely. Some are published in tabloid size.


**House journals** – Often, an industrial house, a scientific organisation, an educational institution or other bodies bring out different categories of periodicals reflecting mainly the various activities of the house. These periodicals are usually called **house journals** and appear in various forms. Take for example *NBT Newsletter* [New Delhi: National Book Trust, 1985-], it includes information about book release, book fairs, training courses on
book publishing and related areas, director’s message, staff news, new books of NBT, etc.

It should be remembered that apart from newsletters, many industrial houses bring out learned periodicals as well.

You might have noticed that magazines have neither been described under primary sources, nor under secondary sources. This is because categorisation of documents in primary, secondary and tertiary sources is mostly applicable to scientific literature. Magazines generally pertains to arts, hence they have not been covered here.

**Self Check Exercise**

**Note:**

i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

1) Briefly describe *Chemical Abstracts*.

2) Write some of the features of a popular periodical.

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**3.2.2 Bibliographies**

A bibliography is a list of documents arranged in systematic order. Each entry provides the bibliographical details of the document.

**Universal bibliography** – A universal bibliography is that ‘which lists all documents of all kinds of materials, produced in all countries, in every language, at any time, and on all themes’ (Krishan Kumar). From 16th century onwards, various attempts have been made towards the compilation of universal bibliographies. No doubt, all attempts resulted in some
Secondary and Tertiary Sources

bibliographies, but none of which was a universal bibliography in the true sense of the term. It has, so far, remained a distant dream there is little possibility that such a bibliography will be compiled in near future.

**National bibliography** – A national bibliography lists the publications produced from a nation. They may appear in the form of a book or a periodical. It does not, however, list all sorts of publications. For example, *Indian National Bibliography* does not cover maps, musical scores, periodicals (except the first issue), keys and guides to textbooks, ephemeral publications, etc.

**Examples:**


**Trade bibliography** – Trade bibliographies are brought out by commercial publishers, booksellers, distributors, printers and others. Normally these bibliographies list books which are meant for sale. Theses, reports, patents, standards, etc. are excluded. Limited bibliographical details are provided in the entries along with the price. The scope of these bibliographies is generally national. Some of them are also international. Usually they cover all subjects and are arranged alphabetically subject-wise. They are mostly used as book selection tools.

**Examples:**


**Selective bibliography** – A selective bibliography does not cover all the documents on the topic. They are selected on the basis of some criteria. These bibliographies may appear in the form of a book, or a periodical.

**Examples:**


**Bibliography of early printed books** – These bibliographies generally include incunabula, books published in 15th or 16th centuries, rare books, etc.

**Example:**

Bibliography of anonymous and pseudonymous works – These bibliographies include books by anonymous authors (i.e. books that do not indicate the names of the authors), and pseudonymous authors (i.e. books that indicate the pen names of the authors and not the real names).

Example:


List of periodicals – The list of periodicals appears in the form of directories, union catalogues, alphabetical lists, etc. The bibliographical details of each entry vary according to the category. Maximum details are given in the entries of the directories.

Examples:


List of theses/dissertations – These publications list theses/dissertations produced by an institution – national and international. The arrangement of entries within the publication vary. It may be alphabetical, chronological, subject-wise, etc. Sometimes the entries are accompanied with abstracts.

Examples of all the types are given below:


Subject bibliography – A subject bibliography lists the documents on a given subject. The subject may be a place, person or any other topic. The arrangement of the entries may be date-wise, author-wise, or classified. It may be in the form of a book or a periodical.

Examples of some of the types are given below:


Author bibliography – An author bibliography is also known as biobibliography or individual bibliography. It lists the works of a single author. It is to be noted that a bibliography of the works on a particular author is a subject bibliography, and by a particular author is author bibliography. Sometimes an author bibliography includes the works by the author as well as on the author, e.g. see the 2nd example given below:

Examples:


Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

3) Write some of the features of trade bibliographies with examples.

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3.2.3 Lists of Research in Progress

In research laboratories, universities, institutes of higher learning, researchers are engaged in research projects. If researchers in the world remain unaware of these projects, it is quite likely that there will be some duplication in research work. To minimise the duplication, a new type of publication has evolved that lists the research projects providing information about the name of the researchers, the name of the institute where the research work is going on, the title of the project, when the work has started, when it is likely to be finished, etc. In addition an informative abstract of the work is given. It is an attempt to have some sort of bibliographical control on the research work in progress.

The categorisation of this type of publication has presented a problem. The information given in the publication is primary since nothing has been published about these projects before. The listing gives the publication the shape of a reference book. Grogan has considered it as tertiary source. It cannot be considered tertiary source since the publication is not based on any secondary publication. Neither it is key to primary or secondary sources. We have placed it under secondary sources as the publications act as reference sources.
Such publications being few in number, are not comprehensively reflected in the literature. Given below are some of the examples:


### 3.2.4 Reference Sources

Reference sources are meant for ready reference. The purpose of these sources is to provide information practically on any topic readily. There are many types of reference sources. Some of them are described below:

**Encyclopaedias** – Encyclopaedias are sources that provide information on any topic in such a way whereby one can get a holistic view of the topic. Articles contained in them are informative and of varying length, ranging from a few lines to one hundred pages or more. That is why encyclopaedias are used not only as reference sources but also for self-education. Broadly, there are two types of encyclopaedias – **general encyclopaedias** and **subject encyclopaedias**. General encyclopaedias are again categorised by volume, subject and user.

There are many single volume encyclopaedias in the world such as *The New Webster’s International Encyclopedia* [Naples, FL: Trident, 1996]. The 1996 edition of the encyclopaedia contains 17,000 entries, around 7,000 cross references, more than 3,800 coloured illustrations, and a map section. It is meant for students and general readers.

Multi-volume encyclopaedias are also numerous. *The New Encyclopaedia Britannica* [15th ed, Chicago: Encyclopaedia Britannica, 1985] is one of the best examples of multi-volume encyclopaedias. It is in 32 volumes and includes more than 4,200 lengthy articles in Macropaedia and 100,000 brief entries in Micropaedia. This is also a general encyclopaedia and includes articles on all areas of knowledge.

On the Internet, you find *Wikipedia*. It is a free general encyclopaedia and by far the biggest of all. As on 24th September 2012, it was having as many as 4,060,383 articles (Wikipedia). This is an electronic encyclopaedia and there is no printed version. It is being updated continuously. As far as the articles are concerned, many a times they are incomplete, lacking references and authentication. However, you must remember that when you are not getting any information on a topic from printed sources, it is quite likely that you will get some information from this encyclopaedia. For consulting this encyclopaedia you do not require any password or money. You can easily consult it using the Internet.
Subject encyclopaedias are also plenty. A subject encyclopaedia is devoted to a particular subject like physics or more than one subject like science and technology. Some of these encyclopaedias are in one volume and some are in two or more volumes. Mcgraw-Hill Encyclopedia of Science and Technology [8th ed. New York: Mcgraw, 1997] is a multi-volume encyclopaedia. It is in 20 volumes and includes about 8,000 articles. The Encyclopedia of Physics [3rd ed. New York: Van Nostrand, 1985] is a single-volume encyclopaedia containing about 300 well-written articles by around 250 experts.

Encyclopaedias have also been brought out for children. Articles in these encyclopaedias are written in simple language, jargons are explained in simple terms, black and white and coloured illustrations are added whenever necessary to make the article comprehensible to the children. Children's Britannica [4th ed. Chicago: Encyclopaedia Britannica, 1988] is a good example of children's encyclopaedia. It is in 20 volumes and contains 4200 articles enriched with about 5,000 photographs and 1,500 diagrams.

Dictionaries – A dictionary, as you know, provides ‘a list of words of a language in alphabetical order and explains what they mean or gives a word for them in a foreign language’. Dictionaries are broadly divided into two categories – general dictionaries and subject dictionaries. General dictionaries include words from all subjects, and subject dictionaries include words from that particular subject to which the dictionary is devoted. General dictionaries, in terms of language can be categorised as follows – monolingual, bilingual and multilingual. In a monolingual dictionary, you get the meaning, definition, explanation, etc. of a word in the same language in which the dictionary is written. For example, in Longman Dictionary in Contemporary English [3rd ed. Essex: Longman, 1995] you get the definition of information in English only. In a bilingual dictionary like Samsad English-Bengali Dictionary [5th ed. Calcutta: Samsad, 1980], you get the meaning of English words in Bengali. When you consult The Collins German Dictionary: German-English/English-German [New York: Harper Collins, 2008] you get the equivalents of German words in English and vice-versa. Sometimes you find a dictionary providing equivalent terms in three or more languages. These type of dictionaries are called multilingual dictionaries. For example, Elsevier’s Dictionary of Library Science, Information and Documentation [2nd ed. Amsterdam: Elsevier, 1976] is in six languages i.e. English/American, French, Spanish, Italian, Dutch and German. Bilingual and multilingual dictionaries are often used by translators. Hence, they are at times called translator’s dictionaries.

Dictionaries are also categorised according to coverage of words. Unabridged or comprehensive dictionaries attempt to cover almost all words, phrases, idioms, etc. of a language. For example, the unabridged edition of Webster’s Third New International Dictionary of the English Language [2nd ed. Springfield: Webster, 1971] has about 450,000 entries. On the other hand, The Concise Oxford Dictionary [8th ed. Oxford: UP, 1990], a desk dictionary, has about 120,000 entries and 190,000 definitions. Pocket dictionaries are even smaller.

Dictionaries devoted to specific subjects are called subject dictionaries. They are mainly used by subject specialists, students, etc. Harrod’s Librarian’s Glossary [10th ed. Hants: Ashgate, 2005] is a dictionary of this type. It has more than 10,000 entries and is used by librarians, documentalists, information scientists, library and information science (LIS) students and...
Documentary Sources

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There are other types of dictionaries which include among others, glossaries, thesaurus, dictionaries of abbreviations, phrases, slangs, usage, synonyms, antonyms and homonyms.

**Handbooks** – To comprehensively define a handbook is an arduous task. In *Harrod’s Librarians’ Glossary* a handbook has been defined as ‘a treatise on a special subject, often nowadays a simple but all-embracing treatment, containing concise information, and being small enough to be held in the hand, but strictly a book written primarily for practitioners and serving for constant … or references’. It is also called a ‘Manual’ (Prytherch).

We have already seen that a treatise is a serious piece of writing and is meant for advanced learners, on the other hand, a handbook is meant for practitioners and includes formulas, definitions, values of various constants, which are often required by practitioners in their day-to-day activities. Hence, a handbook can never be equated with a treatise. The above definition has equated a handbook with a manual also. We shall treat them separately and show that they are different.

It is to be noted that there is no general handbook. A handbook is always devoted to a particular subject or subjects. For getting the feel of a handbook, you should go through its content and find out what it is. Take for example *Machinery’s Handbook* [23rd ed. New York: Industrial Press, 1988]. It contains more than 2,500 pages and includes chapters on mathematics, mechanics, strength of materials, properties, treatment, and testing of materials, dimensioning, gauging and measuring, tools and tool making, machining operations, manufacturing processes, fasteners, threads and threading, gears, splines and cams, bearings and other machine elements, and measuring units. The book provides a good deal of information for practising mechanical engineers, designers, manufacturing engineers, draftsmen, toolmakers and machinists which they require in their day-to-day work.

**Manuals** – A manual is ‘a book that gives instructions about how to use a machine’ (Manual). The definition is quite clear and does not create any confusion with handbooks. However, the definition is narrow as manuals give instructions not only for the use of a machine but for other things as well. For example, *A Manual of Engineering Drawing Practice / Colin Simmons and Denis Maguire*. [London, English UP, 1974] provides useful instructions as to engineering drawing. *Manual of Map Reading, Air Photo Reading and Field Sketching* [London: HMSO, 1956-1962] provides guidance as to how a map and air photo should be read and field sketching should be done.

A manual may be in the form of a leaflet, a pamphlet, or a book. Most of them are monolingual. However, bilingual and multilingual manuals are not uncommon. When you purchase a cell phone, a sophisticated calculator, a multifunctional watch, etc. you are always given a manual, using which you can operate the gadget properly.
Indexes – We have already discussed indexing periodicals. Indexes are another species of reference sources. You all have read newspapers. Each day newspapers contain a huge number of articles, editorials, biographical sketches and obituaries. Suppose, you have read in a newspaper about a particular person sometime ago. Today, if you want to find out that information from that newspaper, it will be a gigantic task. To obviate this problem, some newspapers bring out indexes. For example, Index to the Times of India [Bombay: Times of India, 1973-] is index to the articles, profiles, obituaries, editorials, etc. published in the Mumbai city edition of Times of India. Numerous biographical sketches are published in daily newspapers. To have a bibliographical control of such items, sometimes biographical indexes are brought out by some publishers, whereby a particular biography can be easily located. Biography Indexes: A Cumulative Index to Biographical Material in Books and Magazines [New York: Wilson, 1947-] is a very good example of this type of publication.

Data books and tables – Statistical and meteorological publications contain mostly data in tabular form. Yearbooks and handbooks also present plenty of information in tabular form. International Critical Tables of Numerical Data, Physics, Chemistry and Technology [New York: McGraw, 1926-33], published in eight volumes, includes only numerical data. We all know that once in ten years the Government of India undertakes census operations throughout the country. The last census operation was undertaken in 2011. Thousands and thousands of enumerators were involved in data collection. Once the data is centrally processed, census publications are brought out in hundreds of volumes containing thousands of tables. Every year India Meteorological Department brings out a large number of publications providing meteorological data. Railway time tables like Trains at a Glance [New Delhi: Ministry of Railways, Nov. 2009] also provide information in tabular form of all the passenger trains running in India. Five-Figure Logarithmic and Other Tables/ Frank Castle [London: Macmillan, 1909] provides purely numerical data.

Directories – A directory lists names of persons, institutions or organisations of a particular area. The area may be a locality (e.g. Residents’ directory), a town (e.g. Telephone directory), a country [e.g. Directory of British Associations and Associations in Ireland. Beckenham, Kent: CBD Research Ltd, 1974-], or the world [e.g. The World of Learning. London: Europa, 1947-]. A directory may include very brief information such as the name, address and the telephone number as we normally see in a telephone directory. At times, a directory contains a lot more information. For example, Directory of Scientific Research Institutions in India. [2nd ed. New Delhi: INSDOC, 1989] provides the following information about an institution: name, name of the head, history, address, names of the divisions and divisional heads, field stations, objectives/functions, areas of research, achievements, special facilities (consultancy, extension, training, etc.), library and information services, other activities, and publications.

Some directories are published annually, and others at regular or irregular intervals. Of course, there are directories that did not publish more than once.

Yearbooks – A yearbook, as the name suggests, appears annually, and updates information every year. Yearbooks are of various types and can be categorised as, general and subject-oriented, or as national, regional and international. The Statesman’s Yearbook [London: Macmillan, 1864-], The
Europa World Yearbook [London: Europa, 1959-], Britannica Book of the Year [Chicago: Encyclopaedia Britannica, 1938-], etc. fall under the category of general yearbooks. However, each one has its own distinctive characteristics. For example, Part I of The Statesman’s Yearbook deals with international organisations, and Part II with the countries of the world in alphabetical order. Information given under each country comprises of history, territory and population, social statistics, climate, constitution and government, administration, defence, international relations, economy, energy and natural resources, industry, international trade, communications, social institutions, culture, and diplomatic representations. On the other hand, Britannica Book of the Year 2003 includes Dates of 2003 (Calendar, Disasters), People of 2003 (Nobel Prizes, Biographies, Obituaries), World Affairs, and Events of 2003.

As we have general yearbooks, we also have subject yearbooks. The yearbooks portray the development in the particular subject during the preceding year. Some of the notable subject yearbooks are: The Bowker Annual Library and Book Trade Almanac [New York: Bowker, 1956-], Unesco Statistical Yearbook [Paris: UNESCO, 1964-], and FAO Production Yearbook [Rome: FAO, 1947-].

Regional yearbooks usually cover a particular region. The general yearbooks that we have already talked about are, in fact, international yearbooks. Several yearbooks are brought out covering a particular region. A few examples of such yearbooks are: Central and South-Eastern Europe [10th ed. London: Routledge, 2010], The Far East and Australasia. 2010 [41st ed. London: Europa, 2010], and Western Europe 2010 [12th ed. London: Europa, 2010]. Usually these yearbooks portray the economic and political survey of the region. The country survey includes among others, geography, history, economy, statistical survey and directory that embraces the constitution, government, legislature, political organisations, diplomatic representation, judicial system, religion, press, publishers, radio and television, finance, trade and industry, transport, tourism, atomic energy, defence and education.

Many countries of the world bring out national yearbooks such as India: A Reference Annual [New Delhi: Publications Division, 1953-]. Many of these yearbooks are brought out by the government and hence the information given in them is considered authentic. India: A Reference Annual provides information on land and people, national symbols, the polity, agriculture, art and culture, basic economic data, commerce, communications, defence, education, energy, environment, finance, food and civil supplies, foreign relations, health and family welfare, housing, industry, justice and law, labour, mass communication, planning, rural development, scientific and technological development, transport, water resource, states and union territories, welfare, youth affairs and sports, diary of national events, and general information. Other national yearbooks also provide similar information.

Almanacs – By definition, an almanac is ‘an annual calendar containing important dates and statistical information such as astronomical data’. The various almanacs published in our country, usually called panchang provide data in chronological order of all the days of the year. Under each date the information given includes the date according to Indian calendars such as Sambat, Christian calendar, Muslim calendar, etc. name of the day (e. g. Sunday), time of sunrise and sunset, day of the lunar fortnight (e. g. ekadashi,
Secondary and Tertiary Sources

*purnima*), zodiac sign, auspicious time, inauspicious time, specific time for various religious works like marriage, *mundan*, etc., religious event of the day (e.g. Good Friday, Lakshmi Puja), astronomical event (e.g. lunar eclipse, solar eclipse) if it falls on that day, etc.

International almanacs like *Whitaker’s Almanac* [London: Whitaker, 1868-..], and *World Almanac and Book of Facts* [New York: Newspaper Enterprise Assoc., 1868-..] are more like yearbooks than almanacs. For example, *Whitaker’s Almanac* 2002 provides up-to-date information about government and social structure of the United Kingdom and the rest of the world. In addition, it brings together a wide range of facts, figures and directory information. Only a small portion of the book is devoted to astronomical data like the time of sunrise, sunset, moonrise, moonset, lunar and solar eclipses, etc.

**Maps** – A map is a sheet of paper or similar material on which the earth’s surface, or part of it is shown indicating countries, oceans, seas, mountains, rivers, deserts, roads, etc. You will find a single-sheet map of all major cities of the world. Take for example, *Delhi Tourist Road Map* [Delhi: Delhi Tourist Publications, n.d.] of 50.5cm x 75cm. size depicts the roads of all the areas of Delhi and adjacent states. In the inset it shows, Connaught Place, Chanakyapuri and Delhi Metro. As we have maps of the earth, we also have the maps of the moon, the sky. A sky map shows among others the position of the stars, constellations, zodiac as they are seen at various time of the year.

**Atlases** – An atlas is a book that usually contains maps and an index of places and other geographical entities indicating their locations in particular maps. Generally, by the term atlas, we mean only geographical atlases. However, there are non-geographical atlases as well.


**Non-geographical atlases** also cover a number of areas such as economics, astronomy, medicine, and history.

**Examples:**


**Globes** – A globe is a sphere, the surface of which shows countries, oceans, seas, mountains, rivers, deserts, etc. just like a map. It is mounted on a stand and can be rotated around its axis. The surface of globes is generally plain.
However, there are also globes with raised surfaces indicating the presence of mountains. Nowadays, the globe of the moon is also available. The moon globe brought out by National Aeronautics and Space Administration of the United States is a standard one. **Examples** of some of the globes available with Britannica Store, Chicago are as follows:

i) *10" Illuminated Globe for Kids.*

ii) *Crystal Marquise Blue Land Globe.*

iii) *Official NASA Moon Globe.*

**Gazetteers** – A gazetteer is a dictionary of place names and other geographical entities with descriptive, statistical, economical, geographical and historical information. Sometimes a gazetteer is called a geographical dictionary, e.g. *Webster’s New Geographical Dictionary* [Rev. ed. Springfield: Webster, 1984]. Other geographical dictionaries provide meanings and definitions of geographical terms. Gazetteers can be categorised as international, national, state, and district. **Examples** of various gazetteers are as follows:


**Guidebooks** – Guidebooks are usually meant for tourists and provide various information usually required by them. For a place of tourist’s interest these books provide such information as when to go, how to go, where to stay, what to see, what to eat, where to shop, etc. In addition, information regarding visa, money exchange, weather, etc. is also given. Usually guidebooks cover a region, a country, or a city. *Fodor’s* guides are the famous. It has published guidebooks for a large number of countries of the world and a few major cities. These guidebooks are updated quite frequently. Lonely Planet is also a famous publisher of guidebooks. Some **examples** are given below.


**Biographical sources** – A biography is an account of someone’s life. Biographical sources appear in the form of biographical dictionaries and individual biographies. **Biographical dictionaries** are of three types: Who is Who, Who was Who, and a combination of both. These are all general in nature. There are also biographical dictionaries devoted to various subjects.

**Who is who** provides biographical information about various persons who are living. For example, *International Who’s Who* [London: Europa, 1935-] covers only internationally known living celebrities and includes information
date of birth, nationality, education, profession, career, present position, honours, awards, present address, etc.

**Who was who** as the name suggests includes only those personalities who are dead. A good example of this type of biographical dictionary is *Who was Who* [London: Black, 1929-]. It includes biographical sketches of only those personalities who are dead.

*Webster's Biographical Dictionary* [Springfield: Webster, 1972] falls under the third category. It includes biographical sketches of both living and dead persons.

A number of **subject biographical dictionaries** are also available. *American Men and Women of Science* [22nd ed. New York: Bowker, 2004] is a good example of a subject biographical dictionary. It includes biographical sketches of about 120,000 living scientists belonging to physical, biological and related sciences residing in North America.

Biographical dictionaries can also be categorised according to the area they cover. Thus, they can be categorised as international, regional and national. *International Who's Who, Who was Who, and Webster's Biographical Dictionary* are all international in scope. *American Men and Women of Science* is regional as it covers scientists both from USA and Canada. *Dictionary of National Biography* ed. by S N Sen [Kolkata: Institute of Historical Studies, 1972-74. 4 vols.], *India Who's Who* [New Delhi: INFA, 1969-] are national biographical dictionaries.


### 3.2.5 Treatises


### 3.2.6 Textbooks

A textbook is a book that is ‘used by students as a standard work for a particular branch of study’. Throughout our educational career we have studied textbooks to gain knowledge on various subjects. In student life the textbook act as a major source of information for students. Teachers in schools, colleges, universities also use textbooks to update their knowledge, prepare class notes, clarify doubts, etc. Some textbooks like Gray’s *Anatomy*

### 3.2.7 Translations

A primary source when translated into another language becomes a secondary source. Many Russian primary journals are translated into English. For example, *Soviet Geology* is a cover-to-cover translation of Russian journal *Sovetskaya Geologiya*. Books are also translated from one language to another. For example *Ramayana* by Valmiki was translated into Hindi by Tulsidas as *Ramcharitamanas*. Here Valmiki *Ramayana* is the primary source, and *Ramcharitamanas* is the secondary source. You will be interested to know that *Index Translationum* [Paris: UNESCO, 1932-] published every year is a world bibliography of translations. ‘The database contains cumulative bibliographical information on books translated and published in about one hundred of the UNESCO Member States since 1979 and totals more than 1,800,000 entries in all disciplines: literature, social and human sciences, natural and exact sciences, art, history. It is planned to update the work every four months and provides bibliographical details of all books translated in the world’ (Index Translationum).

### 3.2.8 Computer Files

A computer file is a collection of records or programs stored under a single filename. For computerisation of a library catalogue, we create a record for each and every book in a computer. All these records are stored in a computer under a single name. The collection of these records constitutes a file and the name given to it is called filename. The digitised form of a book, a periodical, a thesis, etc. can be a computer file. Depending on the content, a computer file can be a primary, secondary or a tertiary source.

### 3.2.9 Bibliographic Databases

A database is a collection of cross-referenced files designed to retrieve information from a number of access points. A large number of indexing and abstracting services in the world have created their own databases which can be searched from any part of the world on payment basis to retrieve desired information. For example, *Medline* is the database of the indexing service called *Index Medicus*, *CAPlus* is the database of the secondary service called *Chemical Abstracts*, etc.

### 3.2.10 Databanks

There are a number of vendors that possess a large collection of online databases. The collection is sometimes referred to as databanks. After obtaining a password from the vendor one can search all these databases from a single access point. For example, DIALOG, a service of The Dialog Corporation, has been serving users since 1972. Its collection of over 900 databases handles more than 700,000 searches and delivers over 17 million document page views per month.(Dialog)

### 3.2.11 CD-ROMs

A CD-ROM becomes a source of information only when it contains data. The amount of data that a CD-ROM can contain may be gauged from the fact that Compton’s Reference Collection harbours in a single CD-ROM, 24 volumes
Secondary and Tertiary Sources

of Compton’s Concise Encyclopedia, Compton’s World Atlas, The New York Public Library Desk Reference, The Macmillan Dictionary of Quotations, Webster’s New World Dictionary, Webster’s New World Thesaurus, and five other business reference works. The data accommodated on CD-ROMs may include colourful pictures, sound, animation, and facility for interaction. Many a times, the matter on CD-ROM is in hypertext that facilitates surfing from one item to another with ease.

Self Check Exercise

Note:  
i) Write your answers in the space given below.

iii) Check your answers with the answers given at the end of this Unit.

4) Give a brief description of Wikipedia.

5) What is an almanac? Briefly describe with examples.

3.3 TERTIARY SOURCES

3.3.1 Library Catalogues

Bibliographies have been categorised under secondary sources, and bibliography of bibliographies under tertiary sources. You may note that both the types are bibliographies. Library catalogues are also bibliographies
reflecting the collection of a particular library or a group of libraries i.e. union catalogue. They are being placed here since in a library catalogue you will find documents belonging to primary sources, i.e. a thesis, secondary sources, i.e. a treatise, and tertiary sources, i.e. guides to reference books.

All of you are familiar with library catalogues in card form, printed form and digitised form. Here a few examples are being given of printed form.


### 3.3.2 Bibliography of Bibliographies

A bibliography of bibliographies is a list of bibliographies. They may be classified, or arranged alphabetically subject-wise or otherwise. Most of them are in book form. However, there are some which are issued periodically. In the examples given below, the first one is issued periodically. The other two are in the book form.


### 3.3.3 Guides to Literature

A guide to literature helps a researcher, reader and the like to find the primary, secondary and tertiary sources of literature on a specific subject. These guides are in the form of books, and are available for many fields. It should be noted that these ‘guides to literature’ are totally different from ‘guidebooks for tourists’ which we have already dealt with earlier. Guides to literature are available for fields like social sciences, history, biology, and others. A few examples are given below:


### 3.3.4 Directory of Directories

A ‘directory of directories’ lists the directories available on a particular topic or pertaining to a particular area. For example, *Guide to American and Scientific and Technical Directories* [2nd ed. New York: Todd, 1975] is

### 3.3.5 Guides to Reference Sources

Various types of reference sources have been discussed above. Guides to reference sources list reference books of all types usually subject-wise. Given below are the examples of two most important guides to reference sources.


### 3.4 SUMMARY

This Unit discusses the secondary and tertiary sources of information with the help of appropriate examples. Under secondary sources, secondary periodicals have been described that included express information bulletins, abstracting periodicals, indexing periodicals, reviews of progress, popular periodicals, technical periodicals, trade journals, and house journals. In all cases examples have been provided.

While describing bibliographies, universal bibliography, national bibliography, trade bibliography, selective bibliography, bibliography of early printed books, bibliography of anonymous and pseudonymous works, list of periodicals, list of theses and dissertations, subject bibliography, and author bibliography have been covered.

List of research in progress has been treated separately as it is neither a bibliography nor an abstracting periodical. Bibliography is a list of documents. This type of publication lists research projects not documents.

In this Unit under reference sources we have also covered various types of encyclopaedias, different types of dictionaries, handbooks, manuals, indexes, data books and tables, directories, yearbooks, almanacs, maps, atlases, globes, gazetteers, guidebooks, and different types of biographical sources.

Treatises, textbooks, translations, computer files, bibliographic databases, databanks, and CD-ROMs have also been covered separately.

Under tertiary sources, library catalogues including union catalogues, bibliography of bibliographies, guides to literature, directory of directories and guides to reference sources have been described.

### 3.5 ANSWERS TO SELF CHECK EXERCISES

1) *Chemical Abstracts* (CA), covers articles from more than 10,000 journals, patents, conference proceedings, technical reports, books, dissertations, reviews, meeting abstracts, electronic journals, and web reprints emanating from about 150 countries in more than 50 languages. Three thousand records are added daily to the database called CAplus.
CA provides informative abstracts. The first sentence of the abstract highlights the primary findings and the conclusions reported in the original document. The text that follows gives (i) the purpose as well as the scope of the reported work, (ii) new reactions, compounds, materials, techniques, procedures, apparatus, properties and theories that figured in the work, (iii) new applications of established knowledge, if any (iv) the results of the investigation plus the author’s interpretation and conclusion.

2) A popular periodical, as the name suggests, is a periodic publication that usually serves common people, students, technicians, teachers, and others. These periodicals contain popular articles written in a lucid style on a particular area of knowledge. Learned or pedantic articles are generally not included. Some of the other features of these periodicals are as follows:

i) They are brought out by governments, societies, commercial publishers and even private individuals.

ii) Usually popular description of scientific discoveries, inventions, facts, latest developments in various fields, etc. are included in them.

iii) Articles are not usually refereed and are of varying standards.

iv) The address of the author is not always mentioned.

v) The date of the receipt of the article is usually not given.

vi) In many articles the list of references may be absent.

vii) They are usually not abstracted or indexed.

viii) Apart from popular articles on various subjects, they usually contain editorials, notes and news, book reviews, obituaries, letters to the editors, biographical sketches, etc.

ix) One of the prime objects of a popular scientific periodical is popularisation of science.

3) Trade bibliographies are brought out by commercial publishers, booksellers, distributors, printers and others. Normally these bibliographies list books which are meant for sale. Theses, reports, patents, standards, etc. are excluded. Limited bibliographical details are provided in the entries along with the price. The scope of these bibliographies is generally national. Some of them are also international. Usually they cover all subjects and arranged alphabetically subject-wise. They are mostly used as book selection tools.

Examples:


4) Wikipedia is a free general encyclopaedia and by far the biggest of all. As on 24th September 2012, it was having as many as 4,060,383 articles. It is an electronic encyclopaedia and there is no printed version. It is being updated continuously. As far as the articles are concerned, often most of them are incomplete, without proper references therefore, lacking authentication. However, you must remember that when you are not getting any information on a topic from anywhere, it is quite likely that you will get some information from this encyclopaedia. For consulting this encyclopaedia no password or money is required. One can easily consult it using the Internet.

5) By definition, an almanac is ‘an annual calendar containing important dates and statistical information such as astronomical data’. The various almanacs published in our country, usually called panchang, provide data in chronological order of all the days of the year. Under each date the information given includes the date according to Indian calendars such as Samvat, Christian calendar, Muslim calendar, etc., name of the day (e.g. Sunday), time of sunrise and sunset, day of the lunar fortnight (e.g. ekadashi, purnima), zodiac sign, auspicious time, inauspicious time, specific time for various religious works like marriage and mundan, religious event of the day (e.g. Good Friday, Deepavali), astronomical event (e.g. lunar eclipse, solar eclipse) if it falls on the day, etc.

International almanacs like Whitaker’s and Information Please Almanac are more like yearbooks than almanacs. For example Whitaker’s Almanac 2002 provides up-to-date information about government and social structure of the United Kingdom and the rest of the world. In addition, it brings together a wide range of facts, figures and directory information. Only a small portion of the book is devoted to astronomical data like the time of sunrise, sunset, moonrise, moonset, lunar and solar eclipses, etc.

3.6 REFERENCES AND FURTHER READING


UNIT 4  CRITERIA OF EVALUATION

Structure

4.0  Objectives
4.1  Introduction
4.2  Checklist of Evaluation
  4.2.1  Past Record
  4.2.2  Authority
  4.2.3  Scope
  4.2.4  Treatment
  4.2.5  Arrangement
  4.2.6  Special Features
  4.2.7  Format
  4.2.8  Book Reviews
  4.2.9  Limitations
  4.2.10 Conclusion
4.3  Reference Sources
  4.3.1  Bibliographies, Abstracting and Indexing Periodicals
  4.3.2  Dictionaries
  4.3.3  Encyclopaedias
  4.3.4  Yearbooks and Almanacs
  4.3.5  Directories
  4.3.6  Geographical Sources
  4.3.7  Biographical Sources
4.4  Other Sources
  4.4.1  Textbooks
  4.4.2  Handbooks and Manuals
  4.4.3  Trade Catalogues
  4.4.4  Statistical Information Sources
  4.4.5  Sources of Information on Current Affairs
  4.4.6  Primary Periodicals
  4.4.7  Reviewing Periodicals
4.5  Summary
4.6  Answers to Self Check Exercises
4.7  Keywords
4.8  References and Further Reading

4.0  OBJECTIVES

After reading this Unit, you will be able to:

- explain that evaluation of a book is a systematic intellectual process;
- state that librarian’s evaluation of a book is different from the reviewers evaluation; and
- describe the process involved in evaluating the reference books.
4.1 INTRODUCTION

A library receives various types of documents. Of these documents, some are in printed form, some in electronic form, some in typed or mimeographed form, etc. These documents are received through purchase, exchange and gift. Some libraries which have been declared legal depositories by virtue of an act passed by the government to receive documents from publishers free of cost. University libraries usually receive a copy of the thesis free of cost which is submitted for PhD or such other degree by a student.

The question arises whether all documents being received by the library are to be evaluated. The answer is – No. Suppose, the manuscripts of all books written by a famous author are being donated to a library with the consent of the library authority. In such a case the librarian is to accept all the manuscripts – even if some of them are incomplete or damaged, for the simple reason that they are of national importance. Similarly, a college or university library is to procure the textbooks that have been prescribed for a particular course by the authority. There is little choice for evaluation. While working in a library you will find numerous practical cases where there is no option for evaluation. You are simply to go for the book.

In most cases readers fill in book selection slips for the procurement of books. Some slips are also prepared by the library staff going through book reviews or bibliographies. A list is prepared based on these slips and the same is placed before the selection committee. Order is placed for the books that are selected by the book selection committee. Thereafter, the books are received and processed. Only after the book reaches the library, the librarian gets a chance to see the book. There is practically no chance for evaluation of any of these books. A librarian does not have the choice or the time to evaluate all documents being procured for the library.

Many distributors/vendors/publishers deposit some books every week to various libraries with the expectation that some of the books will be purchased by the libraries. It is really these books which need to be evaluated by the librarian before they are placed in front of the book selection committee.

For evaluating a book you are not to read the whole book like a book reviewer. You are to follow the checklist and gather relevant data. Based on the data gathered you are to give your conclusion.

Now the question arises which documents are to be evaluated by a librarian. Though many types of documents can be evaluated by well-established procedures, however, in BLIS courses, evaluation of reference books is usually taught. In this Unit, we shall try to cover reference books that usually form part of primary and secondary sources and also textbooks and primary periodicals.

The question that may generally crop up in the mind of a student is that why do we undertake evaluation of reference books at all? The information provided in a reference book may be (i) backdated, (ii) inadequate, (iii) biased, and (iv) wrong. The book may be (i) very highly priced, (ii) poorly printed or bound, (iii) written in a difficult language, (iv) without an index, etc. For example, *India 2010 – A Reference Annual* (New Delhi: Publications Division, 2010) – a vital and authentic reference source of information on India is without an index. As a result, to ferret out a piece of information from
this book of about 1300 pages proves to be extremely difficult and time consuming. Often, a reference librarian fails to retrieve the information even though the information is available. However, it is still the most authentic and heavily used source.

### 4.2 CHECKLIST OF EVALUATION

For evaluation of a reference book, the authorities have prepared a checklist which includes past record of the publisher, authority, scope, treatment, arrangement, index, special features, book reviews, limitations, format, and conclusion. Now we shall discuss all these components one by one.

#### 4.2.1 Past Record

Reference books in most cases are very costly publications. For example, the library price of *The New Encyclopaedia Britannica, 2010 edition* is around $1500.00 (Rs. 70,000.00/-) and that *Webster’s Third New International Dictionary* (hardbound) is about Rs. 3500.00/-. Moreover, abstracting and indexing services are periodicals for which one year subscription is to be paid in advance. If an indexing service or abstracting service ceases publication before the expiry of the subscription, the library loses some money. If a reference book does not provide authentic, detailed and up-to-date information, the users’ purpose will not be served. Reference books are heavily used. Hence, paper, printing and binding of the book should be of high quality. There are many publishers like Oxford University Press, Wilson, Europa, and McGraw-Hill who are bringing out well-known reference books for decades or centuries. If the past record of a publisher is found to be good, then it becomes easy to decide about the procurement of the book. On the other hand, if the publisher is new, little known or unknown, then it becomes essential to read the reviews about the book before taking a final decision. It is to be remembered that past record of the publisher is an important element in the selection of a reference book.

#### 4.2.2 Authority

The authoritativeness of a reference book is usually judged on the basis of the qualifications, reputation, and experience of the author, compiler, and the editor responsible for the book, and the reputation, experience, and the past record of the publisher/corporate body. For example, Encyclopaedia Britannica, Inc. is publishing *The Encyclopaedia Britannica* since 1768. The publisher is in existence for about 250 years. During this period it has brought out 15 official editions of the *Britannica* and various versions of *Britannica* such as *Children’s Britannica* and *Encyclopaedia Britannica India*. The 15th edition of the *Britannica* brought out under the title *The New Encyclopaedia Britannica* in 1974 was in 30 volumes. All encyclopaedias brought out by this publisher are considered to be top grade encyclopaedias. Whenever a new encyclopaedia or any other reference book is brought out by this publisher, the librarians all over the world will naturally consider it a standard publication and would like to go for it. For the publication of standard reference books, the well-known publishers employ knowledgeable compilers, experienced editors and reputed authors. For example, some of the articles of the *Britannica* are written by Nobel laureates.
4.2.3 Scope

When we talk of scope, we generally take into account the subject, geographical area, time span, forms of documents, language, target user, etc. We shall clarify these points with an example. Let us take for example, *Indian National Bibliography (INB)* [Kolkata, Central Reference Library, 1958-]. This bibliography covers publications on all subjects, published from India. It includes mainly books published during a particular period in major Indian languages. For example, in *INB* 2010, books published in 2010 will be generally covered. Mostly librarians, publishers, distributors, etc. are the target users of *INB*. From this you find that the scope of *INB* relates to books published from *India in Indian languages* during a *particular period*. It does not cover periodicals other than the first issue, patents, standards, etc. Neither it covers books published from India in tribal languages. A librarian has to examine whether the book adheres to its stated scope. There may be cases where the declared scope may be global, in reality the book may cover a particular country only and provide some sketchy information about other parts of the world.

4.2.4 Treatment

Here the term ‘treatment’ implies thoroughness, completeness, reliability, bias, style, illustrations, etc. Let us take two dictionaries – *The Concise Oxford Dictionary* [10th ed. Oxford: OUP, 1999] and *Webster’s Third New International Dictionary of the English Language* [2nd ed. Springfield, Webster’s, 1971] popularly known *COD* and *Webster’s Third International* respectively. *COD* contains 240,000 words, phrases and definitions, and *Webster’s Third International* contains 450,000 entries. The first edition of *Webster’s* dictionary published in 1934 included 600,000 entries. From the data we find that *Webster’s Third International* is more thorough and complete compared to *COD*. The aforesaid two dictionaries include only words. On the other hand *The Random House Dictionary of the English Language* [Unabridged edition New York, Random House, 1966] includes not only words but also important personages, place names, important biblical and other characters as well as illustrations. In this way the treatment of reference books differs and no two reference books will be the same.

Apart from thoroughness and completeness, reliability of information contained in a reference book is of great importance. In the reference books brought out by well-known publishers generally you will not find any factual error, grammatical error, stylistic error, etc. Data from these books are freely quoted by people without any hesitation. As far as biasness is concerned most reference books have some bias. For example, *Encyclopedia Americana* [New York: Grolier, 1976] is biased towards America and *Encyclopaedia Indica* [New Delhi, Chand, 1975] is biased towards India. The target users of reference books at times differ. Accordingly the style of writing differs. For example, *Children’s Britannica* [4th ed. Chicago: Encyclopedia Britannica, 1988] is written in a completely different style compared to *The New Encyclopaedia Britannica*. In children’s encyclopaedias difficult words are generally avoided. Whenever jargons are used the meaning is given in simple language immediately after the jargons. Moreover, these encyclopaedias contain plenty of colourful illustrations.
4.2.5 Arrangement

Variety of arrangements are noticed in reference books. Alphabetical arrangement is quite common. You should know that there are two types of alphabetical arrangement: letter-by-letter, and word-by-word. Let us take the following terms — back bench, backbone, backdate, backdoor, back focus, backpack, and back pass and arrange them in both the ways. On arranging they will be in the following order:

<table>
<thead>
<tr>
<th>Letter-by-letter arrangement</th>
<th>Word-by-word arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>back bench</td>
<td>back bench</td>
</tr>
<tr>
<td>backbone</td>
<td>back focus</td>
</tr>
<tr>
<td>backdate</td>
<td>back pass</td>
</tr>
<tr>
<td>backdoor</td>
<td>backbone</td>
</tr>
<tr>
<td>back focus</td>
<td>backdate</td>
</tr>
<tr>
<td>backpack</td>
<td>backdoor</td>
</tr>
<tr>
<td>back pass</td>
<td>backpack</td>
</tr>
</tbody>
</table>

In a letter-by-letter arrangement, a term composed of two or more words is considered as one word as if there is no gap in between. On the other hand, in a word-by-word arrangement each word of the term is considered separately.

Arrangement differs depending on the type of reference books. In bibliographies you may find entries are arranged in classified, alphabetically subject-wise, alphabetically author-wise, chronological or in some other order. In most dictionaries, encyclopaedias, subject indexes, author indexes, the arrangement is alphabetical. In most handbooks and manuals, there is no alphabetical arrangement. These books are usually divided into chapters which are arranged in some logical order.

4.2.6 Special Features

Many reference books have some unique features which others do not have. For example, The Random House Dictionary of the English Language includes a directory of colleges and universities of the United States and Canada, and a basic style manual which other English language dictionaries do not provide. Some reference books are updated at regular intervals, others irregularly. There are some which are not updated at all. For example, Newman’s Indian Bradshaw [Kolkata: Newman, 1886-] is updated monthly. Yearbooks and almanacs are updated annually. Some directories are updated annually, but many are updated at irregular intervals. For example, Directory of Scientific Periodicals (New Delhi: INSDOC (now NISCAIR), 1964-) was first brought out in 1964. Thereafter, it is being updated at irregular intervals. Apart from unique features and mode of updation, presence of bibliographies, supplements, appendices, etc. are also considered as special features.

4.2.7 Format

Format takes into account binding, quality of paper, font, page makeup, and illustrations. We shall consider all these points one by one.
**Binding** – There are various types of binding such as paper binding, cloth binding, Rexine binding, half leather binding, full leather binding, etc. Books that are used heavily and for a longer period of time require durable binding, such as half leather binding or full leather binding. On the other hand books that are used less often and for a shorter period of time, for example, a railway time table, usually require less costly binding such as paper binding. Here the librarian has to decide which binding s/he would prefer for which type of books. Suppose a dictionary is available in card-board binding as well as in leather binding. As a dictionary is heavily used for a longer period of time, it is preferable to go for leather binding.

**Quality of paper** – Books are printed on various types of papers such as newsprint, bond paper, book paper, and magazine paper. For short durable publications and cheaper editions, usually newsprint is used. On the other hand, fine quality book papers are used for long lasting books. As reference books are used very heavily and for a long time since the new editions appear at longer intervals, they should be printed on a high quality book paper. A librarian has to keep in mind how long the book will be in heavy use. A yearbook remains in heavy use for a year only. A yearbook of 2010 will remain in heavy use till the yearbook of 2011 comes out. The moment the yearbook of 2011 is in the library the use of 2010 yearbook will immediately come down. Hence, even if the yearbook is printed on low quality paper, it can be procured. The same is not true for an encyclopaedia or a dictionary as the new edition of an encyclopaedia or a dictionary comes out at longer intervals of even 50 years or more. The books printed on good quality paper should always be preferred.

**Font** – Fonts of numerous types and sizes are used for printing. Books printed with such fonts which are soothing to the eye should be preferred. Smaller font size strains the eyes and therefore, a book printed with smaller fonts cannot be read for long. Similarly all types of font are not soothing to the eyes. For example, the font called Courier New of size 9 is quite soothing to the eye but the same size of Times New Roman is not. For this type of font, bigger size is preferable.

**Page makeup** – A page is made up of textual matter and illustrations. To accommodate more matter in a page some publishers print books with minimum inter-line space as well as inter-word space. This also strains the eyes. Only such books as are printed with optimum inter-line and inter-word space should be preferred.

In every printed page there are left margin, right margin, top margin and bottom margin. The margin should be sufficiently wide. If the left margin is too narrow, then some portion of the matter or illustration may not be visible if the pages are sewn for rebinding. During binding, the top, bottom and right margins are also cut off to make the edges totally uniform. If the margins are narrow, some portion of the matter may get cut. Thus, books with wide margins are preferable compared to books with narrow margins.

**Illustrations** – There are various types of illustrations such as frontispiece, plate, photograph, portrait, map, plan, facsimile, table, chart and diagram that are found in books. These illustrations may be in black and white or in colour. In many cases coloured illustrations serve much better purpose than black-and-white illustrations.
4.2.8 Book Reviews

Book reviews are published in newspapers, journals, magazines, etc. There are even book review periodicals which publish only book reviews. Book reviews are written by scholars and many people of eminence. Hence, book reviews must be given due importance while evaluating a book.

4.2.9 Limitations

All reference books have some limitations however comprehensive they may be. Take for example, Webster’s Third International. This dictionary is one of the most comprehensive English language dictionaries currently available. Yet this dictionary does not contain any phrase or idiom. Moreover a dictionary cannot cover all the words that have come into use very recently. Encyclopaedias are also not free from limitations. The comprehensive encyclopaedias that are published in many volumes cannot be updated at short intervals. The 14th edition of the Encyclopaedia Britannica was brought out in 1929, and the 15th edition in 1974. The gap between the two editions is 45 years.

Due to the dynamic nature of knowledge, encyclopaedias become outdated in no time. The accumulation of new knowledge demands the coverage of new subjects in encyclopaedias. The coverage of new subjects demands addition of more volumes. The publisher cannot add any number of volumes to accommodate all new subjects. To maintain a balance it has to compromise by dropping out many articles of the older edition. The article on Toru Dutt which figured in the 14th edition of Britannica does not figure in the 15th edition.

In this way, examples of limitations can be given for all types of reference books. This very particular phenomenon obliges libraries to procure more than one reference book of the same type with the hope that what is missing in one will be found in the other.

4.2.10 Conclusion

The overall judgment on a reference source is to be reflected in the conclusion whereby the authorities concerned will be able to take a decision about its procurement. The conclusion may be written point-wise.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

1) Describe how the authoritativeness of a reference book is judged.

.............................................................................................................
.............................................................................................................
.............................................................................................................
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.............................................................................................................
2) Differentiate between letter-by-letter and word-by-word arrangement with suitable examples.

4.3 REFERENCE SOURCES

Now we shall discuss how reference books are evaluated. Among the reference books, we shall cover bibliographies including abstracting and indexing periodicals, dictionaries, encyclopaedias, yearbooks and almanacs, directories, geographical sources and biographical sources. This Unit also includes the evaluation of textbooks, handbooks and manuals, trade catalogues, statistical information sources, sources for current affairs, primary periodicals and reviewing periodicals.

4.3.1 Bibliographies, Abstracting and Indexing Periodicals

In this Unit, we shall discuss systematic bibliography. A systematic bibliography lists bibliographical details of documents in a particular order. When these bibliographies are brought out periodically they are called indexing periodicals, e.g. *Index Medicus* [Washington, National Library of Medicine, 1960-2004]. Some bibliographies include abstracts along with bibliographical details of documents. They are called abstracting periodicals, e.g. *Indian Science Abstracts* [New Delhi, NISCAIR, 1964-..]. The third type is usually a one-off publication. For example, *International Bibliography of Rice Research* compiled by International Rice Research Institute [New York: Scarecrow Press, 1963] is a one-off bibliography.

**Past record** – For one-off bibliographies, the question of past record does not arise. It applies to indexing and abstracting periodicals which are published periodically, at regular intervals, and generally continue for long. For the purpose of selection, the past record may be examined to see whether there have been frequent changes in the periodicity, or frequent interruptions in the publication, etc.

**Authority** – In this case the publisher and sponsor are to be examined. In the three examples given above, in all the cases, the publishers/sponsors are famous. If need be, any of the above mentioned publications can be purchased/subscribed without any difficulty. The problem will arise if the bibliography is recent or not. Abstracting and indexing periodicals with international scope are usually costly publications. If these periodicals are brought out by a less known publisher or sponsor, adequate care has to taken before finally selecting the periodical for a library.

**Scope** – The scope of bibliographies varies. For example, the scope of *Indian Science Abstracts* is national, and that of *Chemical Abstracts* is international. Many bibliographies cover various types of documents in diverse languages. For example, *Chemical Abstracts* covers journal articles, patent specifications,
Criteria of Evaluation

technical reports, conference proceedings, monographs, reviews, dissertations, etc. in about 50 languages of the world.

Treatment – In an abstracting periodical the abstract may be informative or indicative. Its coverage may be exhaustive or selective. The same is applicable to an indexing periodical.

Arrangement – The arrangement of entries varies from bibliography to bibliography. In Chemical Abstracts [Columbus, Ohio: American Chemical Society, 1907-] entries are arranged under broad headings. Even under the broad headings entries are not arranged alphabetically. On the other hand, in Indian Science Abstracts entries are arranged according to Universal Decimal Classification and alphabetically author-wise under the main class. In Indian National Bibliography, entries are arranged under Dewey Decimal Classification number.

Items of information – An entry in an indexing periodical differs from document to document. For a journal article, an entry usually comprises of name of the author/s, title of the article and other bibliographical details like year, volume number, issue number, page number/s, etc. In indexing periodicals, the language of the article is also mentioned if it is other than English. In the case of a book, apart from the names of author/s and collaborator/s, the title, edition, imprint, collation, etc. are mentioned. For patents and standards, bibliographical details apart, patent and standard numbers are also mentioned. An entry in an abstracting periodical, apart from bibliographical details, also contains an informative or indicative abstract.

Special features – Usually bibliographies provide indexes. Indexes vary from bibliography to bibliography. Author index and subject index are quite common. Apart from these, substance index, place name index, patent index, etc. are also provided.

Format – See the format as discussed under sub-section 4.2.7.

Limitations – For international abstracting and indexing services, achieving exhaustivity in terms of coverage is a difficult task due to various factors. Still, Referativnyi Zhurnal (Moscow: VINITI, 1953-) and Chemical Abstracts have been making mighty attempts to achieve exhaustivity. Most other services are selective in coverage. National indexing and abstracting periodicals definitely make attempts to be exhaustive. For various reasons, in many cases, they cannot achieve that. For example, the goal of Indian National Bibliography is to be exhaustive. It is failing to be so because of the non-cooperation of publishers.

There are other limitations also. Language limitation is quite common. In many bibliographies, documents only in one language are covered. For example, Indian Books in Print [Delhi: Indian Bureau of Bibliographies, 1969-] covers only English books published in India. Some bibliographies may cover only one type of documents, or documents originated from only one place, or documents pertaining to a particular period only. In indexing and abstracting periodicals, the issue of time lag is an important factor. Time lag means the time that elapses between the appearance of a publication and its coverage in a bibliography. For example, if an article published in the February issue of Indian Journal of Pure and Applied Physics is covered in the June issue of Indian Science Abstracts then the time lag will be four
months. In quite a number of indexing and abstracting periodicals published from abroad, the time lag in the case of Indian publications is found to be quite high, sometimes more than one year.

**Conclusion** – Most indexing and abstracting periodicals, originating abroad, are very costly publications. It is very difficult for a single library to subscribe to such a costly periodical. Hence, it is advisable to see whether such publications can be subscribed through a consortium. In that case, the library gets the benefit of the periodical at a lesser cost. Many abstracting and indexing periodicals have turned into databases. For evaluating a database the checkpoints discussed above will be highly useful.

### 4.3.2 Dictionaries

For the evaluation of dictionaries we shall discuss past record of a dictionary, authority, scope, arrangement, word treatment, specific features, revision, format and conclusion.

**Past record** – Some authors have dubbed ‘past record’ as ‘history’. We have chosen ‘past record’ because we feel it is more expressive than ‘history’. Most dictionaries of the world have got a past record. Many dictionaries have started in a modest way and gradually became more voluminous. In some cases, utilising the same base sprang up different dictionaries. Quite contrary to this, *Oxford English Dictionary* abbreviated as *OED* [Oxford: Clarendon Press, 1933. 12 vols. + Suppl.] started in a big way. Originally it appeared as *New English Dictionary on Historical Principles* between 1888 and 1933 in 10 volumes. Supplements were issued thereafter to keep it updated. Using the same base came out *Shorter Oxford English Dictionary* in two volumes in 1971. Now there are a variety of Oxford dictionaries such as *The Concise Oxford Dictionary (COD)*, *Oxford Dictionary and Thesaurus, Oxford Advanced Learner’s Dictionary, The Oxford English Mini Dictionary*, etc. Now ‘Oxford Dictionary’ has become a well-known brand name in the world. Because of the brand name, any new Oxford Dictionary will attract the attention of the user.

**Authority** – The authoritativeness of a dictionary is judged form the history of the publisher and the band of lexicographers and editors the publisher has for the compilation of dictionaries. If the lexicographers and editors are well-known, highly qualified as well as experienced then the selection of a dictionary becomes easy.

**Scope** – The scope of a dictionary is judged by its coverage. A dictionary, apart from common words, includes some scientific and technical terms, terms belonging to other subjects, idioms and phrases, colloquial words, obsolete words, slang, etc. Also, some dictionaries like *Random House* also includes important personal names, place names, etc. The comprehensiveness of a dictionary is evidenced by the number of entries. An unabridged English language dictionary with more than 400,000 entries can be called fairly comprehensive. A desk dictionary with a coverage of around 200,000 words can be considered of satisfactory coverage. The 10th edition of *COD* has covered around 240,000 words leaving out place names, personal names, slang, obsolete words, etc. Every publisher of a dictionary follows some basic principles as to the selection of words and other elements like place names. This principle differs from publisher to publisher. As a result, no two dictionaries are the same.
Criteria of Evaluation

Arrangement – In general, the arrangement of entries in dictionaries is alphabetical, either letter-by-letter or word-by-word. In COD, the arrangement is letter-by-letter.

Word treatment – Here, we take into account, spelling, pronunciation, syllabification, part-of-speech, inflexion, definition, quotation, synonym and antonym, subject, usage label, phrases, derivatives, etymology, gender, etc.

Spelling – In English language, American and British spellings are prevalent. Dictionaries published in UK and Commonwealth countries use British spelling, and those produced from USA use American spelling. It is to be noted that British dictionaries include words with American spellings and vice versa.

In many languages of the world a number of spellings have been simplified. Some dictionaries use only simplified spelling, others use both conservative as well as simplified spelling. Those dictionaries which include both are preferable.

Pronunciation – The pronunciation of certain words in the same language varies from region to region and from country to country. For example, the word ‘schedule’ is pronounced in UK as shedyool, and in US as skejool. The standard dictionaries indicate pronunciation with diacritical marks or phonetic alphabet.

Syllabification – For ensuring correct pronunciation a word is broken into syllables by space/s, hyphen/s or centered periods and stress is indicated by the accent mark or some other marks.

Part of speech – It is indicated by an abbreviation, for example, the alphabets a. n. and v. are used to indicate adjective, noun and verb respectively.

Inflexion – A word usually undergoes change while forming a plural, present participle, past tense or past participle. Irregular inflexions are normally indicated. For example, the plural of ‘genus’ will be indicated as ‘pl. genera’ as the inflexion is irregular.

Definition – The definition given in a dictionary should be accurate and easily understandable. Keeping in view the level of users, lexicographers try to define a word. If a dictionary is for children, the word will be defined with easy words which the children can understand.

Quotations – Quotations are used in a dictionary to make the meaning of a word clear.

Synonyms and antonyms – To express the meaning of a word, many dictionaries use one or more synonyms along with or without the definition. In some dictionaries the synonyms and antonyms are given at the end of the main entry. In Oxford Dictionary and Thesaurus [Oxford: O.U.P., 2001] synonyms are given at the end of the word entry. In Random House both synonyms and antonyms are given at the end of the word entry.

Subject – A particular word may figure in a subject with a particular meaning or in many subjects with different meanings. In a dictionary, usually the name of the subject precedes the definition.
**Usage label** – In the usage label it is indicated whether the word pertains to slang, colloquial or some other usage.

**Phrases and idioms** – Many dictionaries include phrases and idioms which occur under the headwords.

**Derivatives** – The derivatives of *heavy* are *heavily*, *heaviness* and *heavyish*. All these derivatives will generally occur under the headword *heavy* in a dictionary. Usually, derivatives are not defined.

**Etymology** – It provides ‘an account of the origin and the history of the developments in meaning of a word’ For example, the word ‘zero’ has originated from the Arabic word ‘sifr’.

**Gender** – In certain languages like Hindi, the gender of the word is usually mentioned in dictionaries.

**Special features** – These differ from dictionary to dictionary. However, two features are generally found common in dictionaries: guide to the use of the dictionary, and list of abbreviations used in the dictionary. Many dictionaries add a number of other features. For example, *The Random House Dictionary of the English Language* [College edition. Bombay: Allied, 1972] has a number of special features some are listed below:

i) Signs and symbols (in astronomy, biology, etc.),

ii) Directory of colleges and universities (in United States and Canada),

iii) English given names, and

iv) Basic manual of style.

Encyclopaedic dictionaries include quite a number of elements of reference value such as personal names with a bit of biographical element, place names with short description, biblical characters, some characters of world famous classics, illustrations, etc.

**Revision** – Every now and then, new words are springing up. Hence, keeping a printed dictionary updated is a difficult task. Usually new editions of dictionaries are issued after long intervals. The 1st edition of *COD* was published in 1911, and the 10th edition in 1999. On an average, ten years have elapsed before the advent of a new edition. Dictionaries are in great demand. To meet the demand a number of reprints are printed before bringing out a new edition.

**Format** – The points discussed under Section 4.2.7 are also applicable in the case of dictionaries.

**Conclusion** – It is to be remembered that all that has been discussed about a dictionary will not be available in a single dictionary. A dictionary may give definitions of words and not the synonyms. Another may include only the words (single or compound) and not the phrases and idioms. When there are options we can use the checklist and decide which one is to be taken.
4.3.3 Encyclopaedias


**Past record** – It has been already discussed under Dictionaries. The way it is applicable for dictionaries, the same way it is applicable for encyclopaedias. Possibly, it is more applicable in the case of encyclopaedias.

**Authority** – It has already been discussed in Section 4.2.1 which is very much applicable for encyclopaedias. Moreover, in standard encyclopaedias, the name and qualifications of the contributors, editors, editorial board members are given. All the articles in such encyclopaedias are signed. Going through the names of the authors of some articles, and the names and qualifications of the editors, it is possible to decide roughly to what extent the articles in the encyclopaedia will be authoritative.

**Scope** – Apart from noted personalities, a general encyclopaedia covers all important objects produced by nature and created by human beings. Checking the coverage of an encyclopaedia is not easy. Still, for checking the coverage of persons, you take ten Indian names such as Ashoka, Kalidasa, Akbar, CV Raman, Tulsidas, Rabindranath Tagore, Mohandas Karamchand Gandhi, Vinoba Bhave, Raja Rammohan Roy, and S Chandrasekhar. Find out whether all of them have been covered or not. The number of persons covered will give you an idea of the coverage. You can carry out the same exercise with some of the Indian states as well.

**Treatment** – In the treatment you are to see to what extent the information provided is thorough, authentic and complete in terms of facts and figures, whether the article is free from bias, and the user group the article has targeted. Here you can also attempt a test. Compare the biography of a person, say William Shakespeare, in two encyclopaedias. Immediately you will realise how the matter has been treated in both the sources.

**Arrangement** – As in dictionaries, in most encyclopaedias alphabetical arrangement is followed. It may be a letter-by-letter or word-by-word arrangement. *The Webster’s New International Encyclopedia* [Richmond Hill, Ontario: Max, 1996] follows letter-by-letter arrangement, and *Compton’s Concise Encyclopedia* [1996. 25 vols. CD] follows word-by-word arrangement.

**Index** – The index is an indispensable part of an encyclopaedia. Initially, *The New Encyclopaedia Britannica* was without an index as it was hoped that the Micropaedia will serve the purpose. In reality, it did not. Finally, in order to meet the demands of the users an index was provided.
Special features – Each encyclopaedia has some special features. For example, *The New Webster’s International Encyclopedia* has a separate section of maps and an index of place names figuring in the maps, illustrative survey of world history, declaration of independence [of the United States], the Constitution of United States of America, list of the Presidents of the United States, U.S. Supreme court justices, national parks of the United States, chemical elements, electrical resistivity and temperature coefficients of elements, periodic table, and metric measurement conversions.

Format, Limitations, and Conclusion – These points have been discussed under Sections 4.2.7, 4.2.9 and 4.2.10 and are also applicable in the case of encyclopaedias.

4.3.4 Yearbooks and Almanacs

Past record – There are many yearbooks in the world which are coming out for a long time such as *Statesman’s Yearbook* (London: Macmillan 1864-), *Europa Yearbook* (London: Europa, 1959-), *Whitaker’s Almanack* (London: Whitaker, 1869-), and *India: A Reference Annual* (New Delhi: Publications Division, 1953-). All these yearbooks have earned a name in the world and a library without any hesitation will procure them. When a new yearbook appears in the market, then the below mentioned checking elements should be used to evaluate the book.

Scope – The scope of yearbooks varies. They may be international, regional or national in scope. Depending upon the requirements of the users, the librarian is to decide which yearbook is to be obtained for the library.

Treatment – A huge amount of matter is condensed within a yearbook or almanac. As a result, information given in most cases is brief. The amount of information on a country in a yearbook may be much smaller compared to the information given in an encyclopaedia of the size of *The New Encyclopaedia Britannica*. However, the information given in a yearbook is updated every year which cannot be done in an encyclopaedia.

Arrangement – Most yearbooks and almanacs do not follow alphabetical arrangement. The textual matter in the yearbook is divided into various chapters. For example, in *India: A Reference Annual, 2010* there are 32 chapters titled as Land and the People, National Symbols, The Polity, etc. On the other hand, in *Europa Yearbook* there is alphabetical arrangement within each part.

Special features – *India: A Reference Annual* provides information only about India. It does not have practically any special feature. On the other hand *Manorama Yearbook* 2006 [41st ed. Kottayam: Malayala Manorama, 2006] not only provides information about India but also of the world. In addition, it provides information about 100 books, 100 literary characters, 100 eminent persons, a dictionary of 600 terms, 500 places of interest, and other things.

Limitations – All yearbooks will have some limitations. *Manorama Yearbook* is biased towards India. On the other hand *Statesman’s Yearbook* is biased towards UK. Moreover, every year such a huge amount of information is generated which is impossible for a yearbook to cover. As a result they are selective. They include only those items which people require most.
Other checking elements like authority, format, etc. as described in Section 4.2. are applicable in the case of yearbooks and almanacs also.

**4.3.5 Directories**

**Past record** – Some directories are coming out for a long time. For example *Ulrich’s International Periodicals Directory* [New York: Bowker, 1932-], and *World of Learning* [London: Europa, 1947-]. Such directories have earned a name for themselves in the world. Not many directories appear every year. Usually, they appear after short or long intervals. If several editions of a directory had already come out, it gives an indication that the directory is popular. If required, it may be acquired for the library.

**Authority** – Directories are brought out by well-known publishers, government bodies, institutions, associations, etc. The authoritativeness of a directory can be gauged from the corporate body bringing out the directory. For example, *Universities Handbook* is brought out by Association of Indian Universities, New Delhi. One can take it for granted that the information contained in the directory will be authentic.

**Scope** – Most directories are generally devoted to a subject, for example, telephone directories, library directories, periodicals directories, etc. From geographical coverage point of view, they may be international, e.g. *World Guide to Libraries* [New York: Saur, 1989-], national, e.g. *Libraries in the United Kingdom and the Republic of Ireland* [London: Library Association, c2001] and local e.g. *Directory of Libraries and Who’s Who in Library Profession in Delhi* [Delhi: Library Association, 1964].

**Compilation** – A directory is usually compiled on the basis of the replies to questionnaires mailed to the concerned persons or institutions. This method ensures a great degree of authenticity.

**Treatment** – It differs from directory to directory. For example, the information given on a periodical is much more in *Ulrich’s International Periodicals Directory* compared to *Directory of Indian Scientific Periodicals* [4th ed. New Delhi: INSDOC, 1991]. For a periodical, the former provides around 20 items of information, and the latter around 10.

**Arrangement** – The arrangement of directories differ. For example, the entries in *Directory of Indian Scientific Periodicals* is arranged according to UDC class numbers. On the other hand, entries in *Ulrich’s International Periodicals Directory* is arranged under subject headings which are alphabetical in order. Some directories like *Times of India Directory, Yearbook and Who’s Who* [1914-1983] followed alphabetical order only in some portions, e.g. in Who’s Who portion. This publication has ceased but is consulted very often for old information. Entries in a directory may be arranged in chronological or geographical order as well.

**Information content of an entry** – It also differs according to the type of a directory. The information content of a telephone directory is – name of the person/institution/organisation, address and the telephone number. On the other hand, an entry in an institutional directory may contain much more information such as name, address, telephone number, e-mail address, fax number, year of foundation, name of the head of the institution, staff strength, brief history of the institution, objectives, functions, achievements, publications, library and other facilities available.
Indexes – A telephone directory generally is without an index. Many directories in which the entire gamut of entries is not in alphabetical order, usually provide one or more indexes to ensure easy location of information.

Special features – Some directories have some special features. For example, *Ulrich’s International Periodicals Directory* includes information on abstracting and indexing services, money symbols, and list of periodicals that had ceased publication, etc.

Limitations – Generally directories are compiled on the basis of information obtained from the concerned people, institution, organisation, etc. Sometimes, some persons, institutions or organisations do not provide the required information. As a result, either the particular entry is dropped from the directory or an old entry is given with backdated information. A large number of directories are not updated annually, allowing entries to get backdated. Because of many constrains many directories fail to become exhaustive.

Format and conclusion as described under Section 4.2 are also applicable here.

### 4.3.6 Geographical Sources

**Introduction** – Geographical sources usually comprise of geographical dictionaries, geographical encyclopaedias, gazetteers, guidebooks, atlases, maps and globes. At times, a gazetteer has been termed as a geographical dictionary. For example, *Webster’s Geographical Dictionary* [Rev. ed. Springfield, Mass.: Merriam-Webster, 1984] is out and out an international gazetteer. You should know the difference between a geographical dictionary and a gazetteer. In a geographical dictionary you will find the definitions of geographical terms such as island, river, valley, and mountain. Librarians in general do not consult a gazetteer to find the definitions of geographical terms. On the other hand, you will find in a gazetteer the descriptions of specific places, rivers, valleys and mountains. It is to be noted that a great deal of geographical information is found in general encyclopaedias, encyclopaedic dictionaries like *Random House* and the World Wide Web.

**Past record** – Many publishing houses in the world have earned a name as publishers of gazetteers (Columbia University Press), guidebooks (Fodor’s), atlases and maps (Hammond, Rand McNally, etc.), etc. They are publishing standard geographical sources for many decades or centuries. If any of them bring out a new geographical reference book, it will be considered of value. Hence, for geographical sources as well the past record of the publisher is worth examining.

**Authority** – *Columbia Lippincott Gazetteer of the World* has been brought out by the Geographical Research Staff of Columbia University Press in cooperation with the American Geographical Society. Needless to say, the Gazetteer is considered as one of the topmost gazetteers of the world. Even though it has been brought out about half a century ago, still, it is one of the most used reference books in a library. Here lies the importance of the authority which a librarian should always take care of.

**Date** – Throughout the world different types of geographical changes occur around the year. The birth of a new country (e.g. Bangladesh) or a new state (e.g. Jharkhand), the change in the place name (e.g. Calcutta to Kolkata), alteration of boundaries of some places (e.g. Bihar after the formation of
Jharkhand), change in the course of a river (e.g. Kosi), development of a new area (e.g. Greater Noida), etc. are but common geographical phenomena. A backdated geographical source will not be able to include the latest changes. A geographical encyclopaedia published before 2000 AD, will not show Indian states like Uttarakhand or Jharkhand as these states came into existence in 2000 AD. Hence, for geographical sources, date is an important checkpoint.

Scope – The scope of geographical dictionaries and encyclopaedias is universal. However, the scope of gazetteers, guidebooks, atlases and maps usually relate to the areas they cover. For example, the coverage of *Gazetteer of India – Indian Union* [Delhi: Publications Division, 1965-1978. 4 vols.] is restricted to India only. There are also gazetteers that cover only individual districts. For example, *Bihar District Gazetteers - Purnea* [Patna: Secretariat Press, 1963] is devoted to Purnea district only. Similar is the case with guidebooks, atlases and maps. You will find guidebooks covering cities and maps covering villages. It is to be checked whether the book adheres to its stated scope.

Treatment and limitations – International gazetteers are mostly selective compared to *Columbia Lippincott Gazetteer*. Guidebooks, atlases and maps - all are selective. For example, a guidebook covering India as a whole cannot record all hotels at a tourist place. Similarly, in a map or atlas of India you can find only important places. Another important point to be taken care of is that how the publication has marked the disputed areas of the world.

Arrangement – In geographical dictionaries and international gazetteers the arrangement is usually alphabetical. In state and district gazetteers, maps and atlases, the arrangement may not be alphabetical.

Items of information – A geographical dictionary like any other dictionary, provides the definition of geographical terms. An international gazetteer may provide against the place name, the variant name/s of the place, pronunciation, population, geographic and political location, altitude, trade, industry, agriculture, mineral and other natural resources, irrigation works, river lengths, communications, history, cultural institutions and monuments, battles and other facts pertinent to the place. A national gazetteer, state gazetteer, district gazetteer, etc. may describe land and people, history and culture, economic structures and activities, administration and public welfare. A guidebook usually includes such information as when to go, how to go, how to roam about, what to see, where to stay, where to shop, etc. Atlases and maps with colourful drawings show continents, countries, regions, provinces, counties, cities, towns, islands, lakes, mountains, deserts, seas, rivers, canals, dams, capes, etc. Checking the items of information you can find out the strengths or weaknesses of the source.

Special features – In all geographical sources, black and white and colourful maps are usually provided. The more the number of maps, the more useful will be the source. This should be borne in mind while selecting a source.

Format – Maps, atlases and globes are usually produced in colour. Maps in many cases are of big size and meant for hanging on the wall. A map of Delhi brought out by T. T. Maps and Publications Ltd. in 1991 measures 27 inches x 40 inches. Usually these maps are stored in the form of rolls. Oversize maps provided with books are usually folded. Atlases, almost in all cases, are oversized. Special shelves are needed to store them. A globe is a miniaturised
form of the earth. Hence, it is always spherical in shape. In some globes and maps you may find even relief features showing mountains, hills, etc.

**Conclusion** – Geographical sources are of varied types. Even for small libraries, geographical sources like maps, atlases and globes are necessary. It has been observed that in the past many schools were without libraries but they were having a few maps and a globe. This underlines the importance of geographical sources. Whichever library you may work at, some geographical sources will be necessary. Using the checkpoints discussed above, if right sources are selected, they will be highly useful for the users of the library.

### 4.3.7 Biographical Sources

**Introduction** – Biographical sources are also of various types, of which, biographical dictionaries are most important. These dictionaries are published as who’s who, who was who, biographical dictionary, etc. The scope of these dictionaries may be national or international, they may be devoted to particular subjects, particular gender (e.g. women), particular class of persons e.g. presidents, kings and queens, prime ministers, parliamentarians or they may be current or retrospective or both current as well as retrospective. In addition, there are individual biographies written by the person herself/himself or by a biographer.

In the case of selection of biographical sources, the problem of choice arises only when there is more than one source. In many cases there is just a single source. In such a situation, there is no alternative. The library has to procure the source if there is a real need. At present, there is no current who’s who of librarians in India. If such a biographical source is brought out many librarians would like to go for it, since something is better than nothing.

**Past record** – Some publishers in the world such as Wilson, Europa, Adam and Charles Black, Charles Scribner’s, G&C Merriam and Marquis have excelled in bringing out biographical sources. They are bringing out biographical sources since long, some of them at regular intervals. If such a publisher brings out a new biographical source, it is expected that the source will be of good quality.

**Authority** – *Dictionary of National Biography (DNB)* has been brought out by Institute of Historical Studies, Kolkata in four volumes under the editorship of S P Sen during 1972-1974. As *DNB* has been brought out by an institute of national repute, the facts given in the biographies are considered authentic. The reputation of the sponsor, publisher, biographer, etc. needs to be taken great care of while selecting a biographical source.

**Scope** – The scope of a biographical source varies as has been briefly described above in the Introduction.

**Method of selection** – Biographical dictionaries, in general, are selective. The criterion of selection is an important point. Suppose a who’s who of librarians in India is being compiled. The question will arise who should be included in the biography. Suppose in a library, there is the librarian, deputy librarian, assistant librarian, cataloguer, classifier, reference librarian, and others. The compiler of the who’s who will have to take a decision of all these persons who should be covered in the publication. S/he may decide to include only the librarian, or all those who are in the officer’s grade. S/he may not like to cover anybody below the officer’s grade considering economic viability of the
Criteria of Evaluation

Method of compilation – Current who’s who is compiled on the basis of filled in questionnaires received from the biographees. This authenticates the information given in the source as the information is given by the biographee herself/himself. This method also has some drawbacks since many biographees do not return the questionnaire resulting in serious gaps in the source. To reduce this, attempts are made to compile a biographical sketch gleaning data from secondary sources.

Compilation of who was who or retrospective biography is pretty difficult. For such a biography competent professionals/biographers are assigned the job of writing biographies. They write biographies gleaning data from secondary sources, including persons related to the biographee. Method of compilation is also an important criterion for selecting a biographical source.

Treatment – The size of the biographical details of a person varies from a single line to a few pages. In biographical dictionaries, the size of all biographical sketches is uniform. Take for example, *Chambers Biographical Dictionary* [Centenary ed. Edinburgh:. Chambers, 1997]. In this source almost all biographical sketches are of the size of a medium size paragraph. On the other hand, the *Dictionary of Scientific Biography* [New York: Charles Scribners, 1970-1976. 14 vols.] contains biographical essays which runs from a single page to several pages. The point to be checked is whether a biographical sketch or essay has been written with adequate weightage as the biographee deserves.

Arrangement – In many biographical dictionaries, entries are arranged alphabetically according to biographees. There are other biographical sources which are arranged according to subject e.g. *India Who’s Who* [New Delhi: INFA, 1969-], or by dates (date of birth or death). It is to be checked whether the arrangement is in order and more helpful than A-Z arrangement.

Items of information – Usually the following items of information are found in a sketch type entry figuring in a biographical dictionary: name, pronunciation of the name, highest qualification, present position, date of birth, parent’s name, education, services, publications, recreation or hobbies, address, telephone number, e-mail address, etc. In an essay type entry usually more information is found. A few entries may be checked to see if information has been provided on all the items uniformly in all the entries.

Indexes – Biographical sources that are arranged alphabetically do not usually provide any index. If it is arranged otherwise, usually biographee index is provided. At times, geographical index and/or, chronological index are also provided.

Special features – Some biographical dictionaries provide a photograph or a portrait or a sketch of the biographee along with her/his biographical details. Apart from this, some biographical sources provide list of abbreviations, who’s who of the royal family of the country wherefrom the publication originates, necrology, etc. All these add value to the biographical source.

Format – Format as discussed under Section 4.2.7 is also applicable here
Limitations – All biographical sources have some limitations. The coverage of none of these sources can be considered to be comprehensive. One has to select biographees on the basis of some criteria, whereby, many others are left out. There is also bias in selection. An international who’s who produced from UK will obviously try to cover more celebrities from UK. There is no single source wherefrom biographical details of all the celebrities of the world can be obtained. To a certain extent the World Wide Web is fulfilling this need.

Update – There are some biographical sources which are appearing annually, they are being updated regularly. Other biographical sources are updated after long intervals. As a result, information contained in them is often outdated.

Conclusion – It has already been said that no biographical source is comprehensive enough. Hence, by purchasing a single biographical source all the users’ need might not be fulfilled. That is why big libraries procure a large number of biographical sources. For locating a biography, if one source fails, others may be of help. If there is considerable demand for biographical information in a library, it is advisable to go for more than one source.

Self Check Exercise

Note:   i) Write your answers in the space given below.
   ii) Check your answers with the answers given at the end of this Unit.

3) Describes the items of information usually found in an entry of an indexing periodical.

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4) Describe the method of compilation of a current and a retrospective biography.

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4.4 OTHER SOURCES

Under this heading, textbooks, handbooks and manual, trade catalogues, statistical information sources, sources for current affairs, primary periodicals, and reviewing periodicals are being discussed. In this group there are primary as well as secondary sources including reference books. They are being treated separately for the fact that BLIS textbooks and course materials are, by and large, silent about their evaluation. The checklist of evaluation, as described under Section 4.2 of this Unit, in many cases will be applicable for these sources as well.

4.4.1 Textbooks

Textbooks are the backbone of school, college, university and other educational institution libraries. Numerous authors write textbooks and known, little-known and well-known publishers publish them. As such, they are of varying quality.

The first thing that should be checked in a textbook is whether the textbook covers the prescribed syllabus adequately. This apart authors, publishers, the edition, and error-freeness are to be given greater importance. About 50 years ago, many of us studied J C Nesfield’s English Grammar, S. L. Loni’s Trigonometry, Hall and Stevens Geometry, K.P.Basu’s Algebra, Shanti Narayan’s Calculus, etc. Even today, these books are used by school and college students. Gray’s Anatomy is a bible for MBBS students. Who can forget Krishan Kumar’s textbooks that we all studied while doing BLIS or MLIS.

Students know textbooks by the name of the authors. Hence, for procuring a textbook for a library, the first checking element is the author. If the author is famous, the textbook may be procured without any problem. The corporate body is no less important. You all know that National Council of Educational Research and Training (NCERT) brings out a large number of textbooks every year. It has earned a name as a publisher of good textbooks for school education. Any book by NCERT and other similar bodies may be selected for purchase without much scrutiny. If several editions of a textbook have already been published, the textbook is worth procuring.

The problem arises in selecting the first edition of a textbook by a new author and a new publisher. It may contain lot of grammatical and factual errors. A glance through the first few pages may reveal the quality of the book. If you fail to judge the purchase-worthiness of a book, take the help of a good teacher. The judgment of a teacher will be valuable for making a decision. A glance through the reviews may also help.

4.4.2 Handbooks and Manuals

The checklist enumerated under Section 4.2 will be highly useful for evaluating these types of books.

4.4.3 Trade Catalogues

Trade catalogues are distributed free of charge. They contain a lot of information not available elsewhere. Their evaluation is generally not necessary as you are not purchasing them. If you find some information missing in the catalogue, you may suggest to the producer to include them.
4.4.4 Statistical Information Sources

Statistical information sources are generally brought out by international bodies like United Nations, UNESCO, and FAO, government bodies and departments like Central Statistical Office, Great Britain, Central Statistical Organisation, India, Office of the Census Commissioner, India, State Statistical Bureaus of Indian states, etc. The information they provide is authentic and the authority is unquestioned. Hence, procurement of a statistical publication, if required by the library, does not pose any problem. Data contained in the statistical publications generally cannot be updated every now and then. Hence, they may be backdated by a year or at times a decade. You know that our population census is taken once in ten years. It was taken in 2011. Next it will be taken in 2021. Hence till 2021, books will provide our population data based on 2011 census only.

4.4.5 Sources of Information on Current Affairs

Newspapers are the primary sources of information on current affairs. Based on newspapers, various types of secondary sources are being published in the world which has considerable reference value. Some of the types of sources are as follows:


ii) Indexing service based on many newspapers. Example: Canadian Index. Toronto: Micromedia, 1993-.


All such sources can be evaluated using the checking elements given under Section 4.2.

4.4.6 Primary Periodicals

Checking elements discussed under Section 4.2 can be applied in this case also for the purpose of evaluation. However, they can be evaluated much better using bibliometric indicators like impact factor, immediacy index, etc. You will learn about these indicators while doing MLIS.

4.4.7 Reviewing Periodicals

There are two types of reviewing periodicals. Let us call them Type I and Type II. Type I publishes book reviews. These periodicals can be evaluated using checklist given under Section 4.2. Type II publishes trend reports, state-of-the-art reports, progress reports, critical reviews, etc.

To a certain extent these periodicals can also be evaluated using the checklist described under Section 4.2. However, using bibliometric methods they can be evaluated much better. Sometimes expert opinion may be necessary before finally selecting such a periodical for a library.
4.5 SUMMARY

In this Unit, we have dealt mainly with the evaluation of documentary reference sources. For evaluation, authorities have decided certain points which are to be checked while evaluating a book. The points that are generally applicable for all types of reference books, are, past record of the publisher, authority, scope, treatment, arrangement, special features, format, book reviews, limitations and conclusion. The writers of reference books have not considered book reviews as one of the elements of evaluation. This has been included here as book reviews at times help a lot in the evaluation of a book. All these have been discussed generally in the beginning in one section and then under each type of reference sources. Certain points like method of selection, method of compilation, items of information, etc. have been described at relevant places. The types of reference sources covered are: bibliographies including indexing and abstracting periodicals, dictionaries, encyclopaedias, yearbooks and almanacs, directories, geographical sources and biographical sources. In addition, handbooks and manuals, trade catalogues, statistical information sources, sources for current affairs have also been touched upon. Evaluation is usually discussed in books on reference service, where evaluation of reference books are only discussed. It has been thought that librarians of academic libraries are to purchase a large number of textbooks every year. Keeping this in view, evaluation of textbooks has been briefly discussed. Using bibliometric methods, primary periodicals and reviewing periodicals are evaluated. Bibliometric methods are beyond the scope of BLIS curriculum, hence only a brief mention about bibliometric evaluation has been made.

4.6 ANSWERS TO SELF CHECK EXERCISES

1) The authoritativeness of a reference book is usually judged on the basis of the qualifications, reputation, and experience of the author, compiler, and the editor responsible for the book, and the reputation, experience, and the past record of the publisher/corporate body. For example Encyclopaedia Britannica, Inc. is publishing The Encyclopaedia Britannica since 1768. The publisher is in existence for about 250 years. During this period it has brought out 15 official editions of the
Documentary Sources

Britannica and various versions of Britannica such as Children’s Britannica and Encyclopaedia Britannica India. The 15th edition of the Britannica, brought out under the title The New Encyclopaedia Britannica in 1974 was in 30 volumes. All encyclopaedias brought out by this publisher are considered to be top grade encyclopaedias. Whenever a new encyclopaedia or any other reference book is brought out by this publisher, the librarians all over the world will naturally consider it a standard publication and would like to go for it.

2) In a letter-by-letter arrangement, a term composed of two or more words is considered as one word as if there is no gap in between. On the other hand, in a word-by-word arrangement each word of the term is considered separately. The following example clarifies the difference.

<table>
<thead>
<tr>
<th>Letter-by-letter arrangement</th>
<th>Word-by-word arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>airbase</td>
<td>air brake</td>
</tr>
<tr>
<td>airborne</td>
<td>air conditioning</td>
</tr>
<tr>
<td>air brake</td>
<td>air cushion</td>
</tr>
<tr>
<td>air conditioning</td>
<td>airbase</td>
</tr>
<tr>
<td>aircraft</td>
<td>airborne</td>
</tr>
<tr>
<td>aircrew</td>
<td>aircraft</td>
</tr>
<tr>
<td>air cushion</td>
<td>aircrew</td>
</tr>
</tbody>
</table>

3) **Items of information** – An entry in an indexing periodical differs from document to document. For a journal article, an entry usually comprises of author/s, title of the article and other bibliographical details like year, volume number, issue number, page number(s), etc. In English language indexing periodicals, the language of the article is also mentioned if it is other than English. In case of a book, apart from author/s and collaborator/s, the title, edition, imprint, collation, etc. are mentioned. For patents and standards, bibliographical details apart, patent and standard numbers are also mentioned.

4) **Method of compilation** – A current biography (who is who) is compiled on the basis of filled in questionnaires received from the biographees. This authenticates the information given in the source as the information is given by the biographee herself/himself. This method has some drawbacks also since many biographees do not return the questionnaire resulting in serious gaps in the source. To reduce this, attempts are made to compile a biographical sketch gleaning data from secondary sources.

Compilation of retrospective biography (who was who) biography is difficult. For such a biography competent professionals/biographers are assigned the job of writing biographies. They write biographies gleaning data from secondary sources including persons related to the biographee.

5) The first thing that should be checked in a textbook is whether the textbook covers the prescribed syllabus adequately. Apart from this, authors, publishers, the edition, and error-freeness are to be given greater emphasis because students know the textbooks by their authors. If a textbook is brought out by a renowned publisher, or a corporate body like NCERT, it is likely to be a good textbook. The number of editions
of a particular textbook that has been brought out in a particular span of
time is also to be checked. It is a good indicator of the popularity of the
textbook. It is better to take the help of a teacher to check the error-
freedom of a textbook.

4.7 KEYWORDS

Biographee : One about whom a biography is written, the subject of a biography.

Collation : It comprises of pagination, illustration, size and series.

Diacritical Mark : It is a sign placed above or below a letter to indicate a different pronunciation of the letter. For example, ā is pronounced as म. The bar above a is the diacritical mark.

Encyclopaedic Dictionary : A dictionary having some features of an encyclopaedia.

Frontispiece : An illustration that faces the title page of a book.

Headword : A word with which a separate entry is made in a reference work. For example, the phrase by heart will be found under the headword heart in a dictionary. Headwords in dictionaries are normally printed in bold letters.

Imprint : It includes place of publication, publisher and year of publication.

Inter-line Space : Space between two consecutive lines.

Inter-word Space : Space between two consecutive words.

Necrology : A list of persons who died during a particular period.

4.8 REFERENCES AND FURTHER READING


