

INFORMATION SOURCES AND SERVICES

SYLLABUS

Unit 1: Information, Definition, data, Knowledge, Nature and Characteristics of Information,
Barrier to Communication.

Unit 2: Sources of Information – Documentary and Non Documentary Sources,
Types of Information Sources – Primary, Secondary and Tertiary Sources.

Unit 3: Directories, Encyclopedias, Year Books, Handbooks, Almanacs & Atlases.

Unit 4: Types of Information Services: Types of Reference Service, Initiation to Fresh Man.

Unit 5: Library Automation Software – Data.

Course Material Prepared
by
Dr.P.BALASUBRAMANIAN,
DEPUTY LIBRARIAN,
UNIVERSITY LIBRARY,
MANONMANIAM SUNDARANAR UNIVERSITY,
TIRUNELVELI-627 012.

CONTENTS

SL.NO.	CHAPTERS	PAGE
I.	INFORMATION AND COMMUNICATION	:
II.	SOURCES AND TYPES OF INFORMATION	:
III.	DIRECTORIES, ENCYCLOPEDIAS, YEAR BOOKS, HAND BOOKS, ALMANACS	:
IV.	TYPES OF INFORMATION SERVICES	:
V.	LIBRARY AUTOMATION SOFTWARE	:

Unit: 1

Information and Communication

OBJECTIVES

1. To enhance the students' exposure to various information sources and services.
2. To enrich the students skill in handling both traditional and digital information services in the ICT (Information Communication and Technology) world.
3. To enable the students' understanding in handling different types of information and barriers of communication.
4. To develop the present day students comprehension and practical handling of Library automation software.
5. To induce the students' analytical and research attitude towards various information resources.

Unit: 1

Information and Communication:

Introduction:

The chapter gives definition and meaning of information, knowledge and data. It also makes the students understand the difference between them. It gives a detailed analysis of nature, features and characteristics of information. It also points out how information help in communication and what are the barriers of communication.

Information:

The term ‘information’ has been derived from the Latin words – ‘Forma’ and ‘Formation’ which means knowledge. It also denotes fact, data, news and message. It is not easy to define the term ‘information’ precisely. The recorded knowledge gained by man through experience, observation and experiments for faturity is known as information.

Information is the product of the human brain in action. Information is the product of the human brain in action. It maybe abstract or concrete. When an individual begins to think, a variety of images and sensations flash across his mind. This makes some information to accumulate in his mind and his memory retains some pieces of knowledge.

Information Defined:

Information may be defined as data of value to decision making. Information is the data which can be transmitted between individuals, and each individual can make use of it No decision is generally taken when there is uncertainly about the options. Information reduces this uncertainty and helps a person to arrive at a decision. The degree of uncertainty however, varies from person depending on the time and place. Each person, as such, shall require different amount of information to arrive at a decision. Thus information “can be quantified in term of its effect on the state of the decision maker at a particular moment in time”. The amount of information which affects the behaviour of a recipient and makes him to take some decision, however, varies from person to person, from time to time, and from place to place.

Definition:

According to Webster's 'Third International Dictionary it may be defined as

1. Facts or figures ready for communication or use as distinguished from those incorporated formally organized branch of knowledge.
2. The process by which the form of an object is impressed upon the apprehending mind so as to bring about the state of knowing.

1.2 Theories of Information

1. Mathematical Theory – Shannon and Weaver Model
2. Semantic Theory

Mathematical Theory:

Most early work was based on classical research of Shannon and Weaver who gave a formal and quantitative definition of information. They suggest the amount of information in a message is related to what one could say in other words the size of vocabulary available in a key factor. It asserts that the amount of information in a message is related to probability ratio of the message.

Semantic Theory:

The Previous theory has come under criticism. In that model it is assumed that a prior knowledge will reduce the amount of information in a message. An information science student will gain more from an information textbook than schoolboy.

1.3 Data and Information:

The results of observation or Measurement by human brain in action are called data. The indication or record of occurrence of a fact, or an event, or an attribute of something – concrete or conceptual – is also data. Any fact or all facts about something are data. In other words, the representation of a fact or set of facts about an entity, or value or a set of values of the attribute of an entity in a formalized manner suitable for communication interpretation or processing by human and/or mechanical or computer means are data.

Information is quite different from data. Information is organized or processed data which conveys significant or specific meaning about something. In other words, information is the knowledge obtained by processing the data or the meaning derived from data. Whereas data are raw, unevaluated or unprocessed are meaningless, while referring to distinct concepts, the term data and information are used interchangeably, but this is incorrect. It is by handling or manipulating raw data or isolated items of facts and transforming these into meaningful data or facts that information is generated.

Information Defined:

Information may be defined as data of value to decision making. Information is the data which can be transmitted between individuals, and each individual can make use of it. No decision is generally taken when there is uncertainty about the options. Information reduces this uncertainty and helps a person to arrive at a decision. The degree of uncertainty however, varies from person depending on the time and place. Each person, as such, shall require different amount of information to arrive at a decision. Thus information “can be quantified in term of its effect on the state of the decision maker at a particular moment in time”. The amount of information which affects the behaviour of a recipient and makes him to take some decision, however, varies from person to person, from time to time, and from place to place.

The results of observation or measurement by human brain action are called data. The indication or record of occurrence of a fact or an event may be also known as data. The representation of a fact, in a formalized manner, which is suitable for Communication of processing by computer/human is known as data.

1.4 Knowledge:

The term ‘Knowledge’ sounds synonymous with the term ‘fact’ or condition simply it defines the ‘sum of what is known by a person. According to Foskett “Knowledge is what I know”.

According to Klebsters New International Dictionary of English Language knowledge is “familiarity gained by actual experience, practical skill, technical acquaintance. The simplest

definition given by Dr. S. R. Ranganathan is “knowledge is the totality of ideas conserved through human civilization”.

Knowledge can be expanded according to reading habits and so on. Knowledge is the base for information. While knowledge is recorded it is termed as information. So without knowledge there is no possibility of information and communication. So knowledge is an essential ingredient for a nations development.

1.5 Information Explosion:

1. The Structural Approach: In this approach information is viewed as structures of the world or static relations between physical objects which may be Perceived or not:
2. The Knowledge Approach: This approach records Knowledge that is built on the basis of perception of the structure of the world. But the problem with this approach is that the term ‘information’ may erroneously be used for term ‘knowledge’.
3. A Message Approach: The mathematical theory of communication users this approach. It is concerned with the transmission of symbols representing a message.
4. The Meaning Approach: In this approach semantic content of a message is accepted as information.
5. The Effect Approach: This approach says that information occurs only as a specific effect of a process; and
6. The Process Approach: According to this process information occurs in the human mind when a problem and useful data are brought together.

1.6 Nature of Information:

Information has various attributes and characteristics. The inherent characteristics go along with the following seven adjectives, when it is information; human, expandable, comprehensive, substitutable, transportable, diffusive and sharable. As information is an Important valuable resource, it ought to have certain ideal qualities. Some of the important qualities of information are:

- Accessibility
- Comprehensiveness

- Timeliness
- Clarity
- Precision
- Flexibility
- Verifiability
- Free basis
- Quantifiable

Further it has six parameters of information; which are:

1. Quality of information which can be measured by the number of the documents, pages, words, characters, bites, drawings etc.,
2. Content that is the meaning of information.
3. Structure with the organization of information and its logical relationship between statements or elements.
4. Language, symbols, alphabet, codes, and syntax with which the ideas are expressed.
5. Quality which measures the completeness, accuracy, relevance and timeliness of information.
6. Life, the total span of time in which value can be derived from the information.

1.7 Information Types:

Even information can be categorized on the basis of the nature of its use and purposes for which it is used. Shera (1998) has categorized information under six heads.

- Conceptual information – relates to ideas, theories and hypotheses about the relationship which exists on the basis of the variables in the area of problem.
- Empirical information - relates to the data and experience of research which may be drawn from oneself or through communication by others.
- Procedural information – is the data of investigation which are obtained, manipulated, and tested and it is essentially methodological as it is derived from scientific attitudes.

- Stimulatory information – is the type of information which is motivated by oneself or environmentally derived. In Social Science, information is generally categorized under the following heads:
- Statistical information
- Descriptive information
- Analytical or Interpretative information

The population data of a country can be considered statistical information. If someone describes the growth of population that had taken place in different years, that will constitute descriptive information whereas if someone analyses and interprets the above statistical information, it is analytical information or interpretative information.

1.8 Characteristics of Information:

Today information has become the necessity of every one. Everybody needs information for some purpose or the other. Information is defined in most of the dictionaries as knowledge, intelligence, facts or data, which can be used, transferred or communicated. Information is human's most valuable resource, which has played and continues to play a crucial role in building up human civilization and society. Educational and research activities require more and more information. Students need it relating to the prescribed syllabi for pursuing academic studies, more specifically to pass their examinations. In addition, the teachers also need information for imparting education to their students. Elite readers like students, teachers, and researchers, who are engaged in doing research in various subjects especially in the field of Science, need information on a persistent basis and are considered the biggest users of information,. Hence, most of the information systems and services have been developed in academic institutions and universities to satisfy the requirements of the academicians.

It is not surprised to realize that man has always been interested in information in producing, using and presenting it. Information in one form or the other has consistently been a

significant element in the development of human society and it has shaped, over a long period of time into the way in which we think and act. It is likely, of course, to continue to do so with even greater intensity. What is now proclaimed as an information age is, in some sense a term that can be applied to all the stages of human development.

The past two or three decades have added new dimensions and new emphasis in information studies. With the increase in the production and availability of knowledge, the need to understand more and how to use it more effectively has gathered greater momentum.

The user is the key person in any library. All the luxuries of information revolution and problems of information explosion centre on the user and his convenience. Understanding the user is half the battle in providing information services. The success of any library depends considerably on how best the system design is based on a close and accurate understanding of the users. A formal information center or library is yet to pick up these activities in the same spirit. Hence it is necessary to know the information needs, the motives, purpose of seeking information, ways and means of gathering information and the entire user – studies and practices in relation to information.

Information Seeking Behaviour is so much important area in user studies. The motives of users give raise to information needs and their requirements. To quench the thirst for information, users adopt numerous ways to access up-to-date and day-to-day information.

The present era is the era of information and knowledge revolution. Many electronic resources are available in the library. The increase in information available on the web has affected information seeking behaviour. Innumerable types of information, in a large variety of containers and in many different locations, are all available in one place. In the modern society

the types of information and the media which present them have become manifold and multifarious, offering men and women a vast area to select.

Information is the essential element for the progress of higher education. It is collected, organized and preserved for future retrieval by the libraries to provide it to the individuals and the society as a whole. Every library seeks, mainly, to serve the needs of its own community of users. It follows then that any overall evaluation as library ought to be named mainly, on how well it does, in fact, serve their needs. An adequate knowledge about the users and their demands is necessary to make the library and information sources and services more effective. Survey is a means for the systematic study on the characteristics of the existing system and behaviour of post-graduate students using the systems and its services. The key concepts in the user studies are the information needs and the information seeking behaviour of the users. It is necessary that the present study should help us know to what extent the existing library sources, services and facilities have fulfilled their objectives. It also helps find out the extent to which the existing library has organized and disseminated information o suit the needs of the post graduate students.

User satisfaction studies are also part of user studies as these are based on students. The performance of any library can be judged on the basis of extent of satisfaction its providing to its users. Hence, there is need to conduct user satisfaction studies to assess the satisfaction of users with the services and facilities provided by the library. Necessary measures can be taken in case the students are dissatisfied with the library services and facilities by finding out the reasons for their dissatisfaction.

The users may seek information in a number of ways such as reading books, periodicals, consulting abstracting and indexing periodicals, contacting colleagues and friends, seeking

information from guides and senior co-workers gathering information from library and information centre's and attending seminars, and conference.

The studies to find out how a user seeks his information may help the library authorities to organize their acquisition programmes effectively and to introduce appropriate services.

1.9 Communication:

Introduction: One of the most important contributory factors to the supremacy of our specie over others is our ability to communicate at higher level. It enables us to meaningfully relate ourselves with other, exchange our ideal, share, our thoughts and efforts in common endeavor. Important library managers know that, their success depends on communication skills. The librarian is concerned with communicating effectively with her users as well as the staff.

Meaning:

The word communication has derived from the later word communism, meaning 'common', communication seeks to establish "commonness" with his receivers. The American society of training Directors regards. Communication is the interchange of thought or information to bring about mutual understanding.

Definition:

Communication may be defined as any interchange of ideas, information, feelings and emotions among to or more persons in a way that they share a common understanding about it.

Importance:

- Effectiveness of manager depends on his ability to communicate effectively with his superiors subordinate and so on.
- Depends on this ability a manager (or) take decisions.

- To perform the work of individuals the policies, procedure should be communicated property.
- Recruitment is based on communication as a basic function.
- For direction, co-ordination & control communication act on best tool.
- Feed back mechanism can be done by proper communication.
- It is used to improve the performance.

Process

Communication involves at least two persons:

1. A Sender
2. A Receiver

Steps

1. The ideas of the sender must be encoded. This is essentially the cognitive process of formalizing the idea and gives a concrete shape.
2. Encoding results in message. The message may be verbal on non-verbal.
3. The encoded message must be send to the receiver via media. Medium is the carrier of message.
4. When the message reaches the receiver he decodes it i.e. he interprets its meaning purpose and intent.
5. The receiver's response to the message provides feedback to the sender, to modify the message to enhance its effectiveness.

Communication process

Channels:

The design of an organization provides for the channels through which communication flows among its various methods. The formal communication structures tie the various parts of the organization into a framework. These channels act as a linkage among employees and aims at facilitating the performance of co-operative effect in a co-ordinate manner.

The following are the channels in terms of structure.

- Upward channels.
 - Downward channels.
 - Lateral diagonal channels.
 - Networks or Communication Nets.
 - Grapevine.
- i. Upward : This information must be fed upwards to enable management to evaluate the effectiveness. An important aspect of upward communication is that it is condensed and summarized as it passes through various levels in the hierarchy.
 - ii. Downward: The process of delegation and the concept of authority flow require information in the form of orders and directions to flow downwards from superior to subordinates.
 - iii. Lateral Diagonal: This is used to eliminate the difficulties in vertical communication.
 - iv. Communication Networks: It is a structured situation in which people transmit information in a specific pattern. The communication configurations are
 - i. Wheel
 - ii. Circular.

- iii. Free flow.
- v. Grapevine or informal: Through informal communication a person can discover information, which takes few day him to receive through official channels.

Ways: (Media)

- i) Oral
- ii) Written

Oral means this can be formal or informal or planned or deliberate.

Merits:

- a. Provide speedy interchange.
- b. People can ask question and clarify points.
- c. A meeting may give importance to subordinate.
- d. It can promote team spirit.

Demerits:

- a. 1% Word is to be misunderstood.
- b. 1% Not suitable for lengthy communication.
- c. Requires effective skill of speaking.
- d. Inadequate for permanent form.

Written

Advantages:

- a. Less likely to be misunderstood.
- b. It is carefully drafted.
- c. It can be direct to large audience.
- d. It can promote uniformity.

Disadvantages:

- a. Difficult to keep the written material up to date.
- b. Ineffective writers may poorly express it.
- c. Written message may create large quantity of paper.
- d. It can encourage excessive formality and rigidity.

Barriers

Communication seldom succeeds in achieving full understanding between the sender and receiver.

The most important cause of distortion in communication in libraries is that it includes so many kinds of readers and every one looks at the phenomena with his or her own colored glasses. Here, we will discuss the major factors, which act as barriers to effective communication.

1. Every one in the library is too careful to use job-related terms. Due to this consistency people tend to develop individualization. So meaning for words and things become confusing.
2. Lack of sound knowledge to library especially reference librarian will lead to improper guidance to General semantics (semantics is the study of origin and effect of communication habits).
3. Cards (catalogue cards) present in a table cannot give proper information about its usage of words.
4. This abstract and symbolic nature of words causes difficulty in communication.

5. Some words can have more than one meaning based on the environment it is used. In case library in case of classification routines the word classification, is generally, gives the meaning grouping and the system is not understood by the user.
6. Psychological factor can also lead to communication problem.
7. Perceptual Differences:- Difference of opinion so sources cannot be properly gathered.
8. Motivation and Interest: - Creating awareness to the library staff and motivate them to do their work is a difficult task.
9. Filtering:- Filter is the gate that lets in only the desired communication sometime will lead to confusion.
10. Omission:- It involves deletion of certain aspects of message.
11. Information Explosion.
12. Hierarchical Differentiation.

Guidelines for Improving Communication:

- a. Create an environment of trust and confidence.
- b. Clarify ideas before attempting to communicate.
- c. Examine the purpose of communication.
- d. In planning consult others to obtain support and facts.
- e. Consider the contents and overtones of the message.
- f. Be sensitive to the Receiver's Frame of reference
- g. Be a good listener.
- h. Utilize feedback.
- i. Actions must be congruent with communication.

Questions:

1. What are Information, Data and Knowledge?
2. Define reference Sources. Examine the criteria for evaluating Reference Sources.
3. What is the communication process?
4. Define Characteristics of Information.
5. Explain the Nature of Information.

UNIT – 2

SOURCES AND TYPES OF INFORMATION.

This chapter brings out various sources of information like Documentary and Non Documentary sources of information. It also tells about the various types of information sources like primary, secondary tertiary formal and informal sources of information.

2.1 Information Sources:

Information services are usually provided through the information sources, where the required information amount is always available. The nature of information sources in libraries varies according to the infrastructure, collection and development, financial human resources, and policy of its organization. Library automation systems have become firmly established. The internet has virtually limitless sources of information. The World Wide Web has emerged as a viable and legitimate way to publish information. In the present century nearly 21,000 peer reviewed e-journals are published through WWW (World Wide Web). Course text books, Encyclopedia, reference books, scholarly monographs, and reference materials are important sources of information to the users. Apart from books and journals, there are other types of publications, archives, theses, scientific and government reports, local and national newspapers, manuscripts, sheet music, ephemera collections, maps musical and sound recordings, and art works.

2.2 Forms of Information Sources:

The two forms of information sources are

1. Documentary Sources.
2. Non-Documentary Sources.

Documentary Sources: are recorded information which is formal in nature. Invention of paper and printing machine increased documentary sources for the public. The documentary sources are further classified into Primary, Secondary and Tertiary sources.

The information which are transmitted to scientific world other than documentary sources are known as non-documentary sources. They are of two types namely formal and informal, Radio, T.V, conference etc., are examples for Formal non-documentary sources. Oral and Telephone file are examples of informal non-documentary sources.

2.3 Documentary Sources:

Primary Sources: Primary sources are the first published records of original research and developmental activities. Research findings are records and published first in the primary sources. These are the original medium of scientific communication. The following are important primary literature.

Periodicals: It is a publication with a distinctive title, which appears at stated or regular interval.

Reports: A report is an account of work done on a research project.

Conference Literature: Many papers presented in conference usual research report work. Several months before publication in many periodicals. The main function of conference is

- a. Announcement of new knowledge.
- b. Exchange of information .
- c. Education.
- d. Fact finding and reporting.
- e. Policies formulation.

Patents:

It may be defined as a “ Specification concerning the design or manufacture of something which is protected by letters and secured for profit”.

Standard and Specifications;

These are documents, which states how materials and products should be manufactures, defined, measured and tested.

Thesis and Dissertations:

Thesis or Dissertations are an importance category of primary literature. University libraries have the collection of thesis submitted to their universities only.

Trade Literature:

It may be defined as the “catalogue and other advertising or promotional material distributed by business firm usually free of charge”.

Unpublished documents;

Some important information's are transferred between scientist through letters and informal memoranda's. There are very useful.

II. Secondary Sources:

The primary sources by nature are scattered and unorganized. By secondary sources tend to overcome this nature. The scattered primary information is collected. Compiled, consolidated and repackaged in secondary sources. The following are the secondary literature.

Secondary periodicals:

Filtered and condensed primary periodicals are known as secondary periodicals.

Review publication:

It is a periodical publication, which is devoted largely to critical articles and Review of new books:

Abstracts and Indexes:

Abstracts provide summary of text content in original document with Bibliographies details to trace original. Indexes provide only bibliographic data to identify the extent of knowledge in a field.

Reference Books:

Users can search some documents defined a particular item and they don't extended search beyond that item. These are called reference books.

Monographs:

A monograph is a single treatise on a small class of subject. Treatise.

Treatise are the comprehensive sources which aim to cover a complete subject.

Text Books:

These are mainly used for Teaching and Learning.

Tertiary Sources:

The advantages of the above two sources are analyzed and are present in tertiary sources.

The following are the important tertiary sources.

Bibliographies:

These are list of documents.

Guide to literature:

To cases information a number of guide to literature are being published. These are used to identify secondary sources.

Non-Documentary Sources:

The information which are transmitted to scientific world other than documentary sources are known as non-documentary sources. These are of two types

- i) Formal – E.g. Radio, T.V. Conference.
- ii) Informal – E.g. Oral & Telephone File.

SOURCES OF INFORMATION

Documentary Sources			Non-Documentary Sources	
Primary Sources	Secondary Sources	Territory Sources	Formal	Informal
e.g.	e.g.	e.g.	e.g.	e.g.
Periodicals, Reports, Conference Literature Patents, Trade Literature, etc.,	Secondary Periodicals Reviews, Monographs, Abstracts, Indexes., etc.,	Bibliographic, Guide to literature.	Radio, T.V., Conference	Oral, Telephone File.

Questions:

1. Explain Primary data and Secondary data with examples.
2. Describe Reference Books with any two examples.
3. Give brief notes on Information Sources and Services.
4. Write short notes on a) Documentary Sources b) Non-Documentary Sources.
5. Explain the Information Sources.

UNIT – 3

DIRECTORIES, ENCYCLOPEDIAS, YEAR BOOKS

The chapter bring out the significance, meaning and purpose of some important reference books like Directories, Encyclopedias, Year Books, Hand Books, almanacs and atlases.

A user must have knowledge of the sources of data which are kept in the reference shelves of the Library. Some of the important information sources are listed below:

- Dictionaries.
- Encyclopedias.
- Handbooks.
- Tables.
- Formulas.
- Manuals.
- Textbooks.
- Bibliographies.
- Directories.
- Gazetteers.
- News Summaries and Newspaper Indexes.
- Yearbooks.

3.1. Directories:

Directories for the largest category of reference sources. Directories provide information about organizations of different kinds covering learned bodies, scientific societies, professional bodies, trade associations etc., A directory is a list of persons, organizations, professionals, industries or trades. The list is systematically arranged, either in alphabetical or in classified

order. Because the information in directories becomes out-of date fairly rapidly they are published annually or new editions are brought out in every two three years.

Types of Directories:

1. Local Directories: Usually for the large towns and cities only. These normally include:
 - a. A list of private residents, arranged alphabetically by surname.
 - b. An alphabetical list of streets, giving the name of the occupier of each property in each street.
 - c. A classified list of trades-similar to the “Yellow pages” in a telephone directory.
 - d. List of establishments such as places of worship, places of entertainment, etc., e.g. Kelly’s Post office London Directory.

2. Professional Directories:

These are list of qualified practitioners in particular in professional, and include brief biographical details and sometimes information about the profession itself. For example.

- a. Crockford’s Clerical Directory – published every other year.
- b. Law List – annual.
- c. Library Association Year Book – annual, and
- d. Medical Directory – annual.

3. Trade Directories:

- a. General and National – i.e. All trades and industries of a particular country. Arrangement is usually classified or alphabetical; by the type of trade or industry; with an additional alphabetical list of individual firms, etc Kelly’s Directory of Manufactures and merchants; Kompass UK.

- b. Specialist and National – i.e., concerned with one field of industry in a particular country, e.g. British Plastics year Book.

4. Telephone Directories:

Each telephone directory covers the subscribers in a defined geographical area. The main list is alphabetical by name of subscriber, but the “yellow pages” section, which is separately published, contains classified list of subscribers arranged by type of industry or service.

3.3. Encyclopedias:

An Encyclopedia is a book giving information on all branches of knowledge or a specific subject. It is an ideal book, which deals with concepts. An encyclopedia is a store-house of knowledge giving all information of significance. However, it is best used for finding answers to background questions related to general information and self-education. One often turns to encyclopedias for one’s every day information requirements. This is also true of scientist and technologist.

Examples: Encyclopedia Americana, New York

3.4. Encyclopedia Britannica:

The Encyclopedia Britannica was first published in 1768-71 as Encyclopedia Britannica, or, A dictionary of arts and sciences, compiled upon a new plan. The Britannica was an important early English-language general encyclopedia and is still regarded as one of the most important reference books in the English language. It is published today by Encyclopedia Britannica Inc., a privately held company.

From the late 18th century to the early 20th century, the Britannica’s articles were often judged as the foremost authority on a topic, and sometimes included new research or theory

intended for a scholarly audience. During this era, the Britannica gained its reputation and had a unique position in English-speaking culture.

3.5. Hand Books:

A handbook is a compilation of miscellaneous information in a compact and handy form. It contains data, procedure, principles, etc., tables, graphs, Diagrams and illustration are provided, Scientists and technologists use handbook in their fields rather frequently.

Examples:

Hand Book of Chemistry and Physics: A ready reference book of chemistry and physical data, 52nd ed., Cleveland Ohio, Chemical Rubber, 1971.

3.6. Almanacs and Year Books:

ALA defines it as,

i) an annual publication containing a calendar frequently accompanied by astronomical data and other information,

ii). an annual year book of statistics and other information, sometimes in a particular field. “A” publication usually an annual, containing a variety of useful facts of miscellaneous nature, and statistical information. It was originally a projection of the coming year by days, months, holidays etc”.

Year books are the reference books that describe the events relating to a particular year. They are alphabetically organized treatment of the people, process and development of significance during a year. They are issued annually for the purpose of providing current information in narrative, statistically or directory form.

ALA defines, “an annual volume of current information in descriptive and or statistically forms sometimes limited to a specified field”.

A volume often called an annual contains current information in of a variable nature, in brief, and or statistical form which is published by every year. Often year books review the events of a year”, - librarian’s Glossary.

Almanacs and year Books: Some Basic Differences:

The terms “Almanac” and “Year Book” are overlap with each other. They have striking similarities with fewer differences. In practice these two terms are used interchangeably.

A year books is a compendium of current information about previous year. Almanac covers information of the previous year as well as considerable amount of retrospective information. Year books survey the progress in a given year only whereas almanacs present the old information and add the previous year data also.

Since the almanacs present the old as well as new information. They contain the statistical data only sometimes with less description of the numerical data. They survey the last year happening by providing the descriptive articles. Almanacs are the compendium of statistics and facts.

Almanacs usually cover the whole field of knowledge without limiting the coverage. Year books which evolved as general sources. Due to the growth of subject fields, it limits the coverage into specific subjects.

3.7. Maps and Atlases:

We know maps represent certain boundaries of the earth on a flat surface, “A map is a flat pictorial representation usually of the earth’s surface or a section of it.” A Map is a representation of the environment. It is a abstraction and a simplification. It is a miniature of the earth land and world. A map is “a plane representation usually flat of the earth’s surface, or a part of it or the celestial sphere or a part of it”. Webster’s Dictionary.

The use of any map depends upon the understanding of the conventional signs, scale and the method of locating a required sheet in a uniform series.

Atlas is the collection of maps usually bound together in one volume. But Atlas refers to any volume containing not only maps, but also plates, Charts, and tables with or without descriptive text. Librarians Glossary defines atlas as “a volume of maps of maps, with or without descriptive letter pages”.

Atlas provides a wide range of data from a simple description of a geographic area to companion detailed information like area of population, minerals, energy, irrigation, soil, field etc.,

Atlases are the excellent sources of cartographic information. It has a collection of small or larger maps and there is arranged in a systematic order to facilitate easy consultation with an exhaustive index.

Maps and atlases are becoming an essential source not only in his history or geography, but in any branch of knowledge. They are the basic sources and guides to the news items reported in T.V. radio and news papers. They assist to verify names, places, events and so on. They are the basis for metrological information. The rainfall, temperature, vegetation and other related data are recorded and presented effectively in the form of direction, or height, Geographers used to atlases to find the scales which enable to compare the measurements for different region on different plates.

3.8. Travel Guides:

The gazetteers and atlases list the major places whereas the travel guides concentrate a particular country city, a location like a museum monument etc., they provide the basic

information which are useful to the tourist. They focus a specific location alone emphasizing needed to the tourists only.

This atlas shows the earth as the part of the universe. It includes photographs of the earth as seen from space. It contains oceanographic maps, political maps and individual maps and shows the world population tables. This massive work has more than 400 maps with numerous maps inserts. The 100 page index lists around 82,000 places and features.

3.9. Common Types of Reference:

Dictionaries and encyclopedias are some of the most common types of reference works, but there are many kinds. The following is a list of reference books, what they do, and an example for each.

- Dictionaries and Thesauri – give word meanings, spellings, and histories (dictionaries) or synonyms and related words (thesaurus).

Example: Merriam-Webster's Collegiate Dictionary.

- Encyclopedias – contain articles on subjects in various fields, usually including helpful bibliographies. They can be either general or specialized. General example: Encyclopedia Americana.

- Specialized example: Encyclopedia of Drugs and Alcohol.

- Indexes – tell where information can be found in other sources.

Example: Granger's Index to Poetry.

- Yearbooks – (often called annuals) chronicle the events of a certain year usually in a particular field.

Example: The Statesman's Year-Book.

- Handbooks and Manuals – are often “how to” books, containing instructions and miscellaneous items of information on one subject.

Example: American Electricians’ Handbook.

- Almanacs – are collections of facts, charts and statistics.

Example: World Almanac and Book of Facts.

- Biographical Dictionaries – provide short sketches about the lives of important people.

Example: Who’s Who in America Directories – list names and addresses of persons, organizations, businesses.

Example: The College Blue Book.

- Atlases and Gazetteers – are visual representations (atlases) or geographical dictionaries (gazetteers) that provide information about of places.

Example: Columbia – Lippincott Gazetteer of the World.

- Bibliographic - provide lists of materials about a particular subject.

Example: International Terrorism: An Annotated Bibliography and Research Guide.

- Statistical Sources – give data or numbers that have been compiled to quantify and compare the characteristics of people, places or things.

Example: Statistical Abstract of the United States.

Questions:

1. Give Brief notes on Encyclopedia Britannica.
2. Write short notes on any three of the following:
 - a. Year books,
 - b. Hand books,

- c. Almanacs
 - d. Atlases.
 - e. Directories.
3. Define Travel Guide
 4. Explain in details the various types of Directories.
 5. Describe the Reference Books.

UNIT – 4

TYPES OF INFORMATION SERVICES

The chapter makes the students understand different types of reference services, like ready reference services, electronic reference services, and long range reference services. It also brings out how a library as a social institution is useful to both the ignorant and the informed alike. Thus it makes the students to understand how the librarianship is a noble profession of services.

4.1 Types of Reference Service:

The reference desk or information desk of a library is a public service desk where professional librarians provide library users with direction to library materials advise on library services and assist users to find general information from the library's resources. Just as the employees of retail stores know where everything is shelved in their store, librarians are experts in the arrangement of items in their library, and the information in them, as well as how information is organized outside the library. Library users are encouraged not to be shy about asking a reference Librarian for help. Even though some librarians may appear busy working on a project, their primary duty when they are at the desk is to help library users to find what they are looking for. Library users can consult the staff at the reference desk for help in finding information. Using a structured reference interview, the librarian works with the library user to clarify their information need and determine what information sources will fill it. The ultimate help provided may consist of reading material in the form of a book or journal article, instruction in the use of specific searchable information resources such as the library's online catalogue or subscription bibliographic/full text databases, or simply factual information drawn from the library's print or online reference collection. Typically, a reference desk can be consulted either

in person, by telephone, through email or online chat, although a library user may be asked to come to the library in person for help with more involved research questions. A staffed and knowledgeable reference desk is frequently regarded an essential part of a library.

The services that are provided at a reference desk may vary depending on the type of library, its purpose, its resources, and its staff. There are two types of Reference Services.

1. Ready Reference Services (Short Range Reference Service).
2. Long Range Reference services.

4.2. Ready Reference Services (Short range Reference Service):

The information provided to the needy user immediately by the reference librarian is called Ready Reference Resources that are often kept at Ready Reference Service desk. It may include:

- A small collection of reference books (called ready reference) that are most often used, so that the librarians can reach them quickly, especially when they are on the phone, and so that the books will be returned in time for someone else to use later the same day. The library's full reference collection is usually nearby as well.
- Newspaper clipping files and other rare or restricted items that must be returned to the reference desk.
- A file box of index cards with the answers to frequently asked questions, and/or drawers with folders of pamphlets and photocopies of pages that from previous experience, were difficult to find. These enable librarians to find such information quickly without leaving the desk – even faster than they could look it up in a reference book or using the Internet.
- Books and other items that are being held for library users who asked the librarian by phone to set them aside for them to pick up later the same day, or within the next few days.

- Books from the circulating collection that have been set aside for students working on a special assignment, and are temporarily designated to be used only within the library until the project is due.
- Printed lists of items in the library that are not in the catalogue, such as school yearbooks, old telephone directories, college course catalogues and local history sources.

4.1.Services:

Services that are often available as a Library Reference Desk may include:

- A signup sheet for reserving time to use computers that have Internet access, or word processing software.
- If a desired book has been checked out, one can place the book ‘on hold’, which prevents the person who has checked it out from renewing it, and the person who placed the ‘hold’ is notified when the book has been returned. (Some libraries provide this service at the circulation desk.)
- Interlibrary loan of books and other material from other branch libraries in the same library system, or from a cooperating library any where in the world. (Some libraries provide this service at the circulation desk.)
- The opportunity to recommend that the library purchase something for its collection that it doesn’t have, which may be needed or of interest to other library users.

The Librarian who sits at the Reference desk can usually do the following by virtue of their professional training and experience:

- The librarian can look up a brief, factual answer to a specific question.
- The librarian can use the catalogue to find out whether the library owns an item with a particular title or author, or that contains a short story, chapter, song, or poem with a

particular title, or to compile a list of books buy a particular author or on a particular subject.

- The librarian can briefly teach the user how to use the catalogue and how to use its advanced features, or recommend the proper subject words or terms that are used in the catalogue for the topic the user has in mind.
- The librarian can often take the library user directly to the shelves with books on a certain topic without using the catalogue.
- The librarian is familiar with the contents of hundreds of reference books, and can recommend books that might contain the answer to a particular question.
- The librarian can teach the library user to use online databases such as magazine, newspaper, articles, and recommend words and search strategies for the topic the user has in mind.
- The librarian can recommend reliable web sites, give advice on searching the Internet for Information, and evaluate the reliability of the information on web sites.
- If the library doesn't have information on a given topic, or if the library user wants more information, the librarian can refer the library user to another library or to an organization that can be contacted by phone or mail.

Electronic Reference Services:

Library is a growing organism. Here every day information flow is very high and nature of services is also varying due to the type of information that is needed by the reader/researchers. The research scholars and project writers seek the help of the reference librarian till the end of their research work. It is the duty of the Reference librarian to

identify their research area and keep in touch with the scholar and provide information. It is called long range reference service. Nature of services is listed as below:

- Provide information to the research Scholars.
- Help to publish books by the eminent personalities.
- Provide assistance to create master plan of particular area or discipline.
- Help to analysis population studies.
- Help to create bibliographic.
- All information that are used in long term preparation are comes under this service.

4.4 Initiation of Freshman, User education:

Library is a social institution charged with the most enviable function of dispensing knowledge to the ignorant and the informed alike and the librarianship is a noble profession of services. Library collection are growing particularly the large libraries have a big collection comprising books. A person who enrolls himself as a member of the library for the first time, is simply bewildered to see the vastness of the collection of the library. He is lacking behind to find the reading material of his interest. Initiation of a freshman is concerned providing orientation of a new member involves introducing him to the library functions, services, rules and regulations, facilities etc.,

Need:

A new member of a library may term a freshman. He is not familiar with the working and functions of the library. He does not know rules, regulations and services, concerning the library. The procedures and practices, the variety and size of library collection especially in a large library can easily bewilder him. The tools library catalogue, bibliographies, accession lists, reading list etc., The library assists of the users in their use but these have an

element of artificiality about them because they are based on conventions unfamiliar to them. In a small library with a few thousand the use of the documents there might not be any need for any special ignition, but in a large library it becomes necessary. A well established library with big collection is divided into various sections for smooth running of the work. The circulation section of the library is response for the issue and return of books and to enroll new members and keep their record. There is also a public catalogue which is to be consulted for tracing the location of books. But the freshman does not know how to consult the catalogue, locate a particular books and get it issued for his use. The freshmen require some sort of orientation. The librarian has to provide this orientation. A freshman has to be told about the function of various sections of the library and he should be given necessary instructions for using the catalogue. He should also be functions of reference section, so that whenever the need arises he can get necessary help from the staff working in the reference department. The duty of the reference librarian is “to relieve the bewilderment confronting a person coming to the library for the first time”.

In modern, day most of the libraries follow only open access system. The treasure of knowledge is open to the reader. He is allowed to move freely in the stack room area. He can take out any book and read it while sitting in the reading hall or be books and much more so to pull them out from their resting place. He has to be told about open access system in the library and necessary instruction is also to be given to him.

The books are arranged in classified order in the library. The readers are not familiar with the classified order. Hence there is a need to explain such arrangement to them.

4.5 Orientation Programme:

It is the duty of the reference librarian to carry out this programme. Due to the very nature of their job, reference librarians are best fitted persons to undertake it. In small libraries the librarian himself performs this duty. The best approach to orientation is to do it on an individual basis. However, in a large library like a university library may not be possible. In public libraries this programme is carried out at the time of new admission. In academic libraries, the librarians will need the assistance of the teachers in a direct or indirect manner. A reference librarian is responsible for conducting an orientation programme and he should have practical experience about library resource services. The reference librarian should show a very sympathetic attitude towards the readers as it will have a lasting impression on the minds of the readers.

The orientation should start with a short introduction. A brief lecture may be delivered by the reference librarian, explaining services and facilities provided by the library. He should hand over a copy of the library rules and other publications if any, brought out by the library. Certain important rules about the conditions of loan, overdue charges, working hours of the library, holidays etc., should be explained to him.

The next step would be to take him round the library. Various rooms meant for readers, such as reading room, periodical room. The general room arrangement of the books on the shelves and the variety and location of collection should be explained to him. He should be told about the sequence of subjects formation of the different collection and the function of various types of shelf guides provided for the guidance of the readers.

A short introduction should be given by the reference librarian about the classified arrangement of books on the shelves. He should explain to freshmen the need and purpose of

advantages of library classification. It will include the reader to collect the books he interested in. The main subject in the classification schemes in use the library should also explained to familiarize with the helpful order in which the books have been arranged on the shelves in the library.

The next step would be explaining the catalogue code in use, catalogue entries are arrangement. If the reader knows function of the catalogue, author or title, or subject he can consult the catalogue to know about the location of books from the call number. It is not possible to understand the visitor. The initiation into classification system and cataloguing practice may require two or three visits. In order to make use of the resource of the library, he must be able to consult the cataloguing independently. He must know all types of entries in the catalogue the function of the call number, the location of books on the shelves, the use of the guide cards and shelf guide in location of books.

At the last stage members may be given some assignments involving the use of reference collections and the use of library catalogue. They may be asked to locate a particular book and locate information from the reference books.

Audio – visual aids is also very useful for library orientation. The use of audio visual aids is costly. The end product of the orientation should be that reader should become confident that the library staff is competent and willing to help him and he is able to seek, such as complete absence of difference.

4.6 Initiation in public Library:

Public libraries serve the public. The orientation programme is given by the librarian throughout the year. The freshmen will vary in age and background. The orientation process

should take into consideration these two factors. The orientation should be done on individual basis.

4.7. Initiation in School Library:

Initiation programme should be integrated into total educational programme. The right place for initiation in the use of library should be the school library. It can be related to classroom work and laboratory work. Library hour can be utilized for the purpose of orientation. The librarian should know the child psychology and he should give lessons to children regarding library matters. The topic of formal lessons may be formed in three groups.

- i) Library civics and hygiene.
- ii) Library technique.
- iii) Reference book.

Under library civics and Hygiene, they should be explained about the steps to be taken from the care of books, and to avoid mishandling of books and protect them against rain, sun and book worms. Some rules about the loan of books should be taught to them. They should gain knowledge about the physical form of books, as the quality of paper, the binding material and general get up of the books.

The second topic will be on library techniques. The librarian will give an explanation about the various parts of the book. He should know the stock room area where the books kept on shelves and the shelf arrangement through the initiation programme. The classification system and cataloguing practice should also be known to him.

The third topic will include some knowledge about the reference books such as encyclopedias, biography, dictionary, yearbook, directory etc., The teachers can play an

important role. They should bring the students to the library and assist the librarian in making the orientation programme a success.

4.8. Initiation in College Library:

It should be done at the beginning of each academic year. The Co-operation of the teacher will be necessary. The teacher must convey the students that using the library is necessary and meaningful part of education. In the scheme of initiation to college students a number of topic should be discussed. To begin the introduction of library, its function use, facilities of study and library rules and regulation should be covered. Secondly covered with the held title page, preface, content, textual matter, bibliography index etc., Thirdly the librarian has to explain them the various types of reference books and the information which can be obtained from each type of reference book. Lastly the bibliography, its definition purpose functions, and various type of bibliography will be explained so that they can become familiar with it.

4.9. Initiation in University Library:

The clientele in a university library would mainly consist of teachers, research scholars and students. They would have been oriented in groups. The orientation on individual basis would not be generally possible. In the case of teachers and research scholars should be usually possible to given individual attention. Many of teachers and research scholars have already completed orientation programme at school and college level. Hence there is no need for orientation programme for the readers.

4.10. Initiation in Special Library:

In consists of a small group of readers. Generally a library specializes in a particular subject or group of subjects. Due to the very nature, it is possible to provide orientation on

individual basis. The librarian has to provide exact information in document to the members, whereas would be less need for such programme.

The following chart explains what are the areas and facilities provided in the library should be known to fresh man.

FRESHMAN		
BUILDING STRUCTURE	COLLECTION BUILDING	SERVICES
Issue Return Counter	Periodicals and Journals	Reference Service
Reading Room	Maps and Globes	Readers Forum
Stack Rook	Back Volume Section	Library Rules
Catalogue Room	Rare collection Section	Inter Library Loan
Xerox Section	Non Book Collection	Book Exhibition
Toilet and Bath	Reference Books	Library Publication
Periodical Room	Digital Collection	Internet facilities
Audio Visual Room	Thesis Collection.	Catalogue order
Reference Room		Classification
Exhibition Hall		Book Reservation
Librarian., Dy. Librarian Room		OPAC Service
Thesis Section		Extension.
Activities.		

4.11 Conclusion:

A programme of library instruction has been developed in modern libraries in all the countries. The best stage for orientation is at the school stage. This will go long way training in use the library effectively throughout in life. In academic libraries, orientation programme should be integrated closely with the academic teaching programme with co-operation of the librarian and teaching faculty. The teacher and librarian should work together in the development of lecture course so that all the resources of the library can be brought in , to improve the quality of education given to students and the resource library can be used the full. The success of the orientation programme would depend on best planning, knowledge and psychology of the readers and involvement of the reference librarian. A combination of learning activity programme is use along with audio – visual presentation which has proved to be the most effective approach.

Questions:

1. What are the ready Reference Services.
2. Define Electronic Reference services.
3. Initiation to fresh man in the library is compulsory. Support the statement.
4. Explain the Orientation Programme.
5. Write short Notes on: Public Library, School Library, College Library, University Library, and Special Library.

UNIT – V

LIBRARY AUTOMATION SOFTWARE

Information and Communication and Technology (ICT) has its impact on the libraries like other fields. The term ‘Library Automaton’ is used to refer computerization of not only traditional library activities but also other related activities like information organization, information storage, retrieval, and use. The present chapter updates the students of library science with the popular automation software of modern libraries.

5.1 Library Automation:

- Library Automation is use of machines in a Library for various activities.
- Collection: Compact Shelving, Electronic Mapping Conveyor Belt System, Book Lift.
- Security: Close Circuit Camera Device, Electronic Security Gate.
- Users; Photocopier, Internet, Smart Card Library Ticket, Barcode Library Card.
- Library Procedures: Computer Systems, CD Station Systems, LAN.
- Environment: Power Backup, Air Conditioning, Facilities.
- E-Resources; Book Eye Machine for Digitalization, Microfilm Reader and Printer, Online E-References and DBs Access.
- Multimedia Corner: Television, Audio System, Digital Audio and Video System.

5.2 Need for Automation:

The computer was invented because it was needed and it will remain, as it is needed. Its use in the library is the need of the day and its application will certainly increase the use and utility of libraries.

The need for library automation can be explained under following two headings:

1. Productivity
2. Accessibility

1.Productivity:

Automation saves the effort, time and resources involved in the manual operation of libraries. In an automated system the information can be altered and updated without the repletion involved in the manual system.

2.Accessibility:

1. To facilitate wider and deeper access to information.
2. To increase the retrievability of the resources.
3. To achieve a new level of library management.
4. To improve the existing services and to introduce new services.
5. To improve control over collection.
6. To have an efficient control over the entire operation.
7. To avoid the duplication of work.
8. To facilitate sharing of the resources among various libraries.

Some of the factors that forced the libraries to go for automating the activities are:

- Information Explosion.
- Space Saving.
- Time Saving.
- Availability of information in electronic form.
- Cost effectiveness.
- Data manipulation.

- Exploitation of computer readable databases.

Thus, the application of information technology and computers can exploit the computer-based database services and Internet resources.

5.3. Monitoring Library Automation:

- a. Monitoring is a review and evaluation of work Plan regularly to determine the use of standards, guides and policies.
- b. Monitoring is an integral part of every project from start to finish.

5.4. Monitoring Library Automation:

1. Data Input team Work.
2. Coordination of Team Members.
3. Regular Data Backups.
4. Re-Arrangement of Resources on Shelves.
5. Use of Standard Authority (Subject Authority, Country Collection, Curriculum Areas).
6. Hardware and LAN functions.
7. Controlling Capital Fund.
8. Users Interactions at Circulation Desk.
9. Use of OPAC by Users.
10. Providing Information Services to the Users.
11. Use of Electronic Security Devices.
12. Users Feedback on Library Automation Activities.

5.5. Functions of Library Automation:

1. Inputting serial data.
2. Ordering new serials.

3. Renewals of presently subscribed serials.
4. Cancellation of presently subscribed serials, if necessary.
5. Accessioning of individual issues as and when the issues are received.
6. Sending reminders, if necessary.
7. Claiming the issue (such as, request for replacement of a defective copy).
8. Selective follow-up of missing issues.
9. Preparation of various lists like.

5.6.Extension Services in Library:

Other functions of the library automation software include:

1. Storage and retrieval of information, regarding books, periodicals and other materials.
2. Abstracting service.
3. Indexing service.
4. SDI service.
5. Preparation of Union catalogue.
6. Online Public Access Catalogue (OPAC), with search facility by author, title, publisher, subject, keyword, accession number, ISBN/ISSN, etc.,
7. Search browse, edit, review, delete and printing of data from database.
8. Preparation of mailing list.
9. Report generation in different forms, including statistical reports.
10. Keeping track of stock verification.
11. Exporting and importing of data.
12. Bar code generation, etc.,

5.7.Library Automation and Internet:

1. The library automation also functions to incorporate the recent advances in the information technology. Some of the features are as follows:
2. Access to Internet through OPAC.
3. Cataloguing of Internet Website.
4. Cataloguing of electronic documents like word processing file, spread sheets, databases, etc.,
5. Multimedia facility.
6. Online ordering of documents through Internet.
7. Booking of resources for specific time/period.
8. Library map indication the current position of the document in the library.
9. Facility for self-circulation by user.
10. Presence of book wizard showing the picture of the cover, review and relative information about documents.
11. Visual information for graphic information retrieval.

Hence, library Automation has become a necessity in today's environment to Perform the library activities more efficiently, effectively and quickly.

5.8.Types of Software:

On the basis of the purpose of the software they may be classified into 3 broad categories.

They are:

- a. Application Software
- b. Systems Software
- c. Utility Software.

- a. **Application Software:** These are programs employed by the user to perform some specific functions. For example, application software can be program used for inventory control in business or a program used by the library professionals for the library housekeeping activities. (The commercial software's like LIBSYS, Sanjay, Maitrayee, etc.,)
- b. **Systems Software:** Systems software consists of all the programs, languages, and documentation supplied by the manufacturer with the computer. These programs allow the user to communicate with the computer and write or develop his/her own programs. This software makes the machine easier to use and makes very efficient use of the resources of the hardware. System software is programs held permanently on a machine, which will relieve the programmer from some mundane tasks and will improve resource utilization.

Examples: WINDOWS, UNIX, etc.,

- c. **Utility Software:** This may be considered as application software or systems software, which is used quite often in the development of a program. For example, a program for the evaluation of logarithm or square root of a number may be required in developing some applications software. The user depending upon his area writes application software and Utility software.

5.9. Library House Keeping Software:

Library automation software or computer-based information storage and retrieval systems cover two major function areas, namely:

1. Control and management of library resources.
2. Access to documents and information.

These two areas deal with library housekeeping systems and text retrieval systems respectively. Gradually, the distinction between them is vanishing, in latest software packages there is provision for both library house-keeping operations as well as public access for information retrieval.

In addition, there are software packages for re-organizing and presenting information in desired format, producing publications, control and to manipulate statistical and financial data. Library automation software packages can also be grouped in 4 categories.

- Word Processing.
- Library House-keeping, Operations.
- Management Communications and support.
- Text retrieval.

Each of these categories of software may be either in house developed software that is owned and operated by the library, or shared with other libraries through a consortium arrangement through a bibliographic information network.

5.10. Library Automation Steps:

Planning is time consuming, but it is usually cost effective because time spent planning reduces the amount of time required for system implementation. Steps involved are:

Step -1: Describing existing library services and technology.

- Identifying existing services and functions provided by the library.
- Identifying existing technology being used in the library.
- Collecting and organizing basic statistical data.

Step -2: Assessing needs and setting priorities:

- Who should be involved in planning?

- Needs assessment.
- Identifying approaches to satisfy the needs.
- Setting priorities.
- Developing a preliminary budget.

Step – 3: Translating needs and priorities into specifications:

- Designing specifications.
- Preparing and distributing the Request for Proposal (RFP).

Step – 4: Evaluating proposals and selecting a system.

- Making the first cut.
- Seeing system demonstrations.
- Analyzing vendor responses.
- Costs.
- Obtaining responses from vendor's clients.
- Making the final cut.

Step – 5: Putting your system into place.

- Contract negotiations.
- Hardware and software installation.
- Training.

5.11. Automation Costs:

1. Planning and consulting costs.
2. Purchase of the system, hardware, and software.
3. Purchase of network-specific hardware, software and cabling.
4. Internet connection costs.

5. Conversion of manual records into machine-readable form.
 6. Access, and subscriptions where appropriate, to external databases and systems.
- * Ongoing operating costs.
 - * Maintenance of system hardware and software.

5.12 Manual Online Search:

Layout:

1. ONLINE SDI
2. MEDLINE
3. DIALOG
4. ORBIT
5. ESA/IRS
6. EURONET
7. TELENET
8. TYMNET

5.12.1 Online SDI:

On line selective dissemination of information service has been possible owing to random Access searching and random access memory to keep users profiles. The current information in made input under specific areas as required, and the prepared existing files are updated at regular intervals as and when needed to prepare the data files for SDI. In libraries and information.

5.12.2 MEDLINE:

In the mid sixties, the National Library of medicine in the USA produced the printed index medics. The data were kept in the computer readable form and the files were known as medline. These database were generated files of computer readable bibliographic description in

the batch process for access to offline, searching. The database of meddlers is available on online search service and the service is known as Medline, which was wet up in 1973. The software is known as Eithill. The National Library of Medline offers online bibliographic search service. Now with more sophisticated software. Toxline consists of ten separate collections of secondary information in the field of toxicology and an EBM370458 computer at the national library of medicine, Washington, USA, operates environmental pollution. CHEMILNE is an online dictionary file with enables the users TOXLINE to describe chemical substance before beginning search Medline.

5.12.3 :DIALOG

The online system with the search language, DIALOG is a commercially accessible Online database operated by lock need information services at Palo alto in California, USA. It was an IBM 360/65 computer DIALOG is an outstanding successful online system and a principal leader in the online service with wide publicity in Europe it created a tremendous impact on computerized library and information services in Europe, and it has made significant contribution to online service in Europe. DIALOG contains over 16 million bibliographic citations available online, and these are constantly being reviewed and updated. A dialog search is expressed through search words or thesaurus terms with the comments like EXPAND SELECT, COMNINE and TYPE. The command or instruction is made input through an online forming keyboard for processing by the computer. The output is displayed on the screen and then the searcher can proceed with the next command or can modify his search by the interactive method. It has online current awareness and selective dissemination of information services.

5.12.4 ORBIT:

The system development cooperation is also a pioneer need for commercially accessible.

Online services it is located at Santo Monica, California, USA SDC and lock need are the two largest online database organizations in the world SDC prepared a software package for online searching in 1968 known as orbit. It has over fifty databases. It uses and IBM 370/158 Computer. Some of the database available through ORBIT are ACCOUNTANTS, AGRICOLA, BIOSIS, CAS77, CHEMDEX, ENERGYLINE, EROVTROLINE, ERIC, INSPEC, NTIS, TITUS, Etc., ROBIT has over 12 million bibliographic citations online.

5.12.5 ESA/IRS:

The European space agency operates network links with many computer installations in Various European countries. ESA Formerly used the software package known as REON, and the online database was known as ESA/RECON.

The Information Retrieval Service of the European space agency used ESA/RECON. At present, the version of recon has been revised and the software package is now known as QUEST. The ESA/IRS Database system provides access via online process to more that twenty database mainly on nuclear and space science. IRS uses and IBM 360/65 computer located at Transacting near Rome. The operational information retrieval service network of the European network. It is now known as ESA NET. It serves usually the west European countries ESA NET is planning to provide ready and equal access to scientific and technical information for all member countries of the European Economic Community through international telecommunication networks. Thus online data service and information exchange can be possible among all the member countries.

5.12.6 EURONET:

Euronet is a European online information service operation to after access to a large

number of databases and the sharing of resources among the member countries, as well as access to online database to across geographical boundaries to the member countries. The countries are inter connects by the online system for sharing of information and online information retrieval. A system has been devised known as IDANE, which offers online search service using the packet. Switching data transmission networks, with such latest technology, information is transmitted in brackets by switching operation. It is fast, reliable and effective on available lines and it makes automatic correction of transmission errors.

A large number of databases created in the member countries and other online agencies such a MEDLINE, DIALOG, ORBI, CANCERLINE, IMS, ISDS, NASA, etc., is available in EURONET, may best online computer are interconnected in EURONET such as BALISE, INFOLINE, ESA IRS information retrieval service, DIMDI and online host systems of other member countries.

5.12.7 TELENET:

Telenet is an online network operated by bolt beranek and Newman in North American Lack need and the System development cooperation database can be accessed via this network in the European countries through trans Atlantic telecommunication.

5.12.8 TYMNET:

TYMNE is a network operated by time share in. The network having online service is Based in North America, but it has telecommunication access to several modes in Europe. Lock need and SDC database can be accessed also by this online network to European countries.

The online networks, telenet and tymnet were implemented in the early seventies in North America and were accessible to Europe and other countries of the world. They have more than 200 nodes in North America and several nodes in Europe in London, Paris, Rome, Vienna,

Geneva the hague, brevessers, prank fart and other cities as well as in other cities in Asia and South America like Hong Kong, Manila, Singapore, Sanjuan, etc., through these nodes, the searches can dial and have online access to principal databases.

Questions:

1. Explain the various input and output devices of computers.
2. What are the types of Library Automation Steps.?
3. Define the Automation costs.
4. Write short notes on
 - a. MEDLINE
 - b. DIALOG
 - c. EURONET
 - d. TELENET
5. Discuss the function of Library Automation.

References:

1. Ajayi, N.A. and Adetayo, J.O., “Utilization of Library Books to Enhance academic Excellence in Nigeria Tertiary Institution: A Case Study of Hezekiah Oluwasanmi Library, O.A.U., Ile-Ife” Journal of Social Science, Vol.10 No.2, 2005, Pp.119-112.
2. Amritpal Kaur and Sarwan Singh Randhawa, “Use of Electronic Daabases in University Libraries of British Columbia: A study “, SRELS Journal of Informaion Management, Vol.47, No.6, 2010, Pp.641-652.
3. Aravinthan.M., Maheswaran.K., and Balasubramani.R., “Awareness and Utilization of Information Communication Technology among the Members of Faculty of Government

- of Engineering Colleges in Tamilnadu. A Study”, Indian Journal of Information Science and services, Vol.2 No.1, 2008, Pp.46-51.
4. Balasubramanian.P.”Library Automation and Networking, Deep & Deep Publications Pvt., Ltd., New Delhi-110 002, 2011.
 5. Balasubramanian.P.,Baladhandayutham.A., and Mohamed Esmail.S., “Information seeking Behaviour of Users at Directorate of Distance Education Library, Madurai Kamaraj University, Tamil Nadu”, Indian Journal of Information Science and services, Vol.3, No.1, 2009, pp.10-12.
 6. Battin, W.L.Ed., Hand Book of Special Librarianship and Information Work, 4th ed., London, 1975.
 7. Barooah and sarmah N.N., “Evaluation of Information services and facilities Offered by a Technical Library : A Case Study”, Herald of Library Science, Vol.46, No.1-2, 2007, pp.51-58.
 8. Higgens, G.ed., Printed Reference Materials, London, Library Association 1982.
 9. Houghtons, B. Technical Information Sources London, Chie Bengley, 1967.
 10. Katz. W.A. Introduction to Reference Work.

MODEL QUESTION PAPER

PAPER – II INFORMATION SOURCES AND SERVICES

Time: Three Hours

Maximum : 100 Marks

PART A – (5X5 = 25 MARKS)

Answer any Five questions in about 100 words each.

1. What are Information, Data and Knowledge?
2. Explain Primary data and Secondary data with examples.
3. Explain the Information Sources.
4. Write short notes on a) Documentary Sources b) Non-Documentary Sources
5. What are the communication processes?
6. Describe Reference Books with any two examples.
7. What are the ready Reference Services?
8. Define Electronic Reference services.

PART B – (5X15 = 75 MARKS)

Answer any five questions in about 300 words each.

9. Define reference Sources. Examine the criteria for evaluating Reference Sources.
10. Define Characteristics of Information.
11. Give brief notes on Information Sources and Services.
12. Write short notes on any three of the following:
 - a. Year books,
 - b. Hand books,

- c. Alomanacs
 - d. Atlasc.
 - e. Directories.
13. Initiation to fresh man in the library is compulsory. Support the statement
14. Write short Notes on: Public Library, School Library, College Library,
University Library and Special Library.
15. Explain the various input and output devices of computers
16. Discuss the function of Library Automation.