DIGITAL LIBRARIES

(DMLS08)

(MLISC)

ACHARYA NAGARJUNA UNIVERSITY

CENTRE FOR DISTANCE EDUCATION

NAGARJUNA NAGAR,

GUNTUR

ANDHRA PRADESH

CONTENTS

UNIT: 1 :

LESSON – 1 :

LIBRARIES AND ACADEMIC INSTITUTIONS

STRUCTURE

1.1 AIMS AND OBJECTIVES

This present lesson aims to provide a brief historical background of the libraries, attached to Universities and other Academic institutions in India. After going through this lesson, one can understand:

- the concept and meaning of the library,
- the need, purpose and definitions of a library,
- the ancient educational institutions and libraries in India and
- the importance of library in educational institutions.
-

1.2 INTRODUCTION

In the very olden days, the library was regarded as a storehouse of books, and the books were kept for preservation and not for accessing the information freely. And the librarian was treated as a caretaker or custodian of the books, and the general public is not allowed to access the documents from the library. Only, few selected persons will be allowed to use the documents from the library.

In the modern times, the institution of library was considered as a product of socio-economic advancement, and the maturation of the civilization. Generally the libraries not only conserves our culture, but also plays an important role in dissemination of information In the modern times, the library regarded as a non-profitable, service institution. In answer to make the most effective use of the resources and services of libraries: the expected users are converted into potential habitual users. A Library is concerned with the communication and dissemination of knowledge.

1.3 ACADEMIC FREEDOM AND LIBRARIES:

The academic freedom is the freedom of teachers and students to teach study and pursue knowledge and research without unreasonable inference or restrictions from law or public pressure. The freedom of teachers to enquire into any subject; to present their findings to their students, colleagues and researchers. For students, the basic elements include freedom to study subjects that concern them and to form conclusions for themselves and express their opinions. Academic freedom thus defined not in the comfort or convince of teachers and students but the benefits of society are best served, when the educational process leads to the advancement of knowledge. The foundation for academic freedom was laid by the academic libraries, particularly through University libraries, College Libraries, and School Libraries.

1.4 MEANING OF DEFINITION OF LIBRARIES :

1.4.1 MEANING:

Educating the masses is one of the prime responsibilities of any civilized society. That is why the national governments in the world took keen interest in establishing the sufficient number of educational institutions to meet the public demand. Particularly in the ancient period, prominent learning centers were existed, i.e. Nalanda, Taxila, Kqsi, Kuru, Panchala, Videha, Matsaya, Usssnara

and Namisara etc. The modern period started by the end of 16th century. The Woods Educational Commission recommended the establishment of the first three modern universities by the British Government, at Presidency towns, i.e. Madras, Calcutta, and Bombay, during 1857. And the Indian University Act passed in 1904, which empowered the universities to insist on Colleges, to seek affiliation, for 'maintenance of a library and lending of appropriate books, including the text books to the user community. Apart from the above, developments in general education system, steps were also taken to establish technological education. Accordingly the Indian Institute of Science, Bangalore was established during 1889, the Indian School of Mines, Dhanbad in 1926, the Imperial Council for Agricultural Research, Delhi in 1929, and it was re-named as Indian Council of Agricultural Research. India is one of the pioneering nations in the world, to formulate and experiment with formal systems of education. The education system in the country changed, to take up the consistent way with the changes that occurred in the political and cultural environment.

There has been phenomenal expansion of higher education in the country since independence. At the time of independence, India had only 20 Universities and 400 colleges with a total student strength of 1,80,000. Now India has one of the largest infrastructures for higher education consisting of more than 216 Universities, 8,300 colleges with total enrollment of more than 5,000,000 students (this data is up to 1996 only). Now the present growth of education and the number of institutions are far greater than this number. Needless to say, within the available resources, India could achieve only quantitative increase in setting up educational institutions. In order to achieve comprehensive development of education, the Parliament approved a National Policy of Education in May 1986.

The NPE held, that Library is a vital component of education system, and the library is a life-blood of an academic institution. And hence, a library is attached to every University, College, or the School, to meet the user information needs. Library is a web of social relations, and hub of teaching, research, learning, knowledge building and thus educate the masses. The measure of its excellence is the extent to which its resources and services support the objectives of an institution".

1.4.2 DEFINITIONS :

While discussing the concept and need of a library, the detailed definitions of library creates better understanding and gives good clarity about the concept of the library. The word, 'Library has been derived from Latin word "libraria", libraria is the name of the place, where books and other written materials are kept for the utility of the community. Library considered as an organized collection of books and other information materials, covering the whole field of knowledge or any part of it; a library may be a place free **as a** access to information.

New Oxford Dictionary: A Library is a public institution or establishment charged with the care of collection of books and the duty of making them accessible to those who require the use of them.

Dr. S.R. Ranganathan, felt and suggested that the definition of the New oxford Dictionary should be modified as under: "A Library is public institution or establishment charged with the care of collections of books The duty of making them accessible to those who require the use of them and the task of converting every person in its neighborhood into a habitual library – gore and reader of books".

Glossary of Library and Information Science: Library as a "collection of materials organized to provide physical, bibliographic and intellectual laces to a target group, with a staff that is trained to provide services and programmers related to the information needs of the target

1.5 PURPOSE OF LIBRARY:

The aim of education is to dispel error and to discover truth. Education liberates an individual from the bonds of ignorance. The most important function of education is to serve as the most powerful medium of social change and scientific discoveries and to awaken to create awareness and to understand the world properly. The National Policy on Education 1986, has re-iterated the goals of education. It states – education has an acculturating role. It refines sensitivities and perceptions that contribute to the National Cohension, a scientific temper and independence of mind and spirit, thus furthering the goals of socialism, secularism, and democracy.

The purpose of library is to provide reading and other materials for intellectual growth of all the members of the society. Its sims are social and democratic for society – oriented. Its purpose is to develop the social, political, economic and cultural life of the society. The library is concerned with communication of current information and knowledge through its formal land non-formation channels, as well as by the invisible college. The sources, services, and facilities, that are available in the library provides the following:

1. The socio-economic Cultural, sources and its transmission and maturation,
2. It supports, the student, teacher, and the scholarship in different subjects
3. Library stands as a Laboratory and workshop, particularly for the social science subjects,
4. It supports the life-long education, self-education, and for non-formal education system also.
5. It enhances the creative writing, thinking, presentation in the academic line
6. While Reading a book, one can definitely enjoy and travel in the, imaginary, invisible, world, that creates the leisure through reading a book,
7. Everyone knows, library collects books, organize the books, storage, retrieval, and dissemination of information is the basic function and purpose of a library.
8. The library tools, like indexing, abstracting, Classification, Cataloguing, creating of data bases, subject heading, provides good access to the sources, information and variety of documents,
9. The purpose of a library is a store, retrieve, and disseminate the information, to sharpen the basic knowledge. The current information sources, will further improve the thought and knowledge growth. The growth of knowledge and information stands as a factor of production helps in the national development.

1.6 CONCEPT OF LIBRARY :

The concept of library is an interdependent activity of society and the store of knowledge in the form of books, arranged in a systematic order. The role of the library, recognized as a social agency, a non-profitable organization, and a product of social maturation. This is an institution of preserving the information products, for coming generations, in a systematic order to enhance the standards of socio-cultural maturation.

The library is a is socio-economic, cultural and political think tank of social institution and an intellectual thought and inventory of our ensisters, to this present society. The basic aim of the library

is to pass on or provide a responsive, communication, information and knowledge to its users, which will satisfy their information requirements and needs. Nowadays, information is regarded as a valuable commodity and basic ingredient for the development and progress of a nation. And this process of information and communication through libraries is considered as a major human resource, under the factors of production.

In the 21st century the value and importance of information and communication now recognized by the world countries as a national resource and wealth of a country; its organization, storage, retrieval land dissemination is one of the important aspects in the National Information Policy. Thus, the concepts of library are recognized as a responsible for the advancement of national democracy, and to meet the information needs of education, research, teaching and training.

The basic objectives of a library depends on its proper management of its information resources, and the provision of timely information services will help to update user information needs and to achieve user satisfaction. The concept of library ensure; that their user community kept aware of all the new items of information ie. print; non-print; non-book materials; special materials; microforms; audio and video sources; online sources; e-books and e-journals etc. to provide right information to the right user at right time, pin pointedly and exhaustively. The information explosion, pressurizing for searching of new methods and means of information services, sources and facilities to meet the user needs. The modern library is regarded as a service institution, its aims and goals are to enable the users to make the most effective use of the library resources; services and facilities. The library is concerned with the communication and dissemination of knowledge and not treated or considered as mere depositories.

1.7 FUNCTIONS OF A LIBRARY :

The library, society, and the socio-economic cultural transformation is interdependent. According to J.H. Shera, “the library is a product of our cultural maturation. The functions of libraries, take care of the scattered and fragmentary evidences of different forms of information sources are survived through the archival storage places, for the preservation of records, communicate the future generations. The basic function of the libraries are broadly classified as: a) Library as a Social Agency, b) Social Functions of a Library and c) Library as a Disseminator of Information.

7.1 LIBRARY AS A SOCIAL AGENCY:

The Library was considered as valuable product and centre of socio-cultural book of knowledge, and it will store, retrieve and disseminate the human knowledge in the form books, non-book materials, special materials, in the form of electronic resources and online sources of information.

The concept of library is interdependent activity of society and library as a matter of socio-cultural maturation. In this context of library as a social agency, J.H. Shera; while commenting on the role of a library in the society – “the library is a product of cultural maturation”. The libraries are taken its shape, when societies ceased to be nomadic and started becoming urbanized, where the print, non-print; non-book materials in the conventional library system.

Now the libraries changed its format and shape into non-conventional libraries, as digital and electronic and virtual libraries, thus changed its shape towards e-books; e-journals; e-sources and

online sources, followed by networks and consortia culture. Nowadays, the polymedia concept; i.e. The availability of mix of information sources, in the form of print, non-print, non-book and electronic form, became important to the effective operation of organized human culture and extension of human relationship.

Library is a product of conceptual thought of a society; to preserve the cultural changes and it help the survival of traditional functions and its preservation and presentation. The Library helps in creating good awareness among the society; and it is a hub of freedom of thought and expression. The reading habits among the society, improve the imaginative power, enlightens the freedom of expression and thought protects the democracy, transparency, develops humanism. The libraries, information centers, and knowledge resource centers enhance the thought and knowledge of human being, for the betterment of humanistic values, and policies in the world. The libraries are accepted as a knowledge resource centers by the world nations, to build the human values, to preserve the human culture, to create mature ideas and thoughts to have a better life in the world.

7.2 SOCIAL FUNCTIONS OF A LIBRARY:

The social functions of a Library again viewed into four areas, i.e.– i) Support non-formal Education; ii) Reading and Research; iii) Individualism and iv) Changing Dimensions.

i) Support non-formal Education: The liveliness, maintainability and the status of education, i.e. Formal education and non-formal education, is completely depends on the strength of Libraries attached to those institutions. One cannot imagine the formal education system and then on-formal education system without the existence of a Library. In the non-formal education system, i.e. continuing education or distance education system, 'library plays a very important role' and it enables the students to know the themselves, to improve their mental abilities, and realized the self learning. Information education cultivates values of self-help, self confidence, self-reliance, and initiative. The public library system was an appropriate agency to help the people of all lags, by the sources of information available, followed by the services and facilities to the user community. Therefore the library will achieve its fullest support to the society; by translating the user community as regular visitors to the library.

ii) Reading: The most important function of a library is to stimulation of reading and provide appropriate guidance to trace the required books and information; though the services like; important book review sources, current book lists, and new arrivals, specialized bibliographies, display of book jackets, and latest lists of book acquisitions, conduct of book exhibitions, provision of section-wise catalogues, central cataloguing system, conduct of training classes, how to use the specific, and special materials and tools in the library, conduct of user education programmers and user surveys will improve the reading and research activities.

The library staff must take an active role in interpreting and explain the user community with patience, about the availability of reading materials, its location, status of the documents, and other information sources available in the library. Attending all the information quarries, and tries to meet the user satisfaction with appropriate answers. Compiling of Bibliographies, selection of suitable abstracting and Indexing Journals; which are very important to meeting the needs of the researchers in particular. The lending and borrowing of materials, encouraging the user community with the

interlibrary loan facility, and reservation of books will help the user in locating the required information or a book.

ii) Research: The current periodical and journals are the basic current information sources of the researchers, the free access to the current journal titles, through cardex, stripdex, rotadex are the best sources, to help the researchers. The libraries should disseminate information, pin pointedly, exhaustively, land expeditiously, to satisfy the user quarries. The library professionals should try their best to identify the needed and pertinent information sources of research scholars, and acquire them at the earliest to meet the user requirements. The services like current contents, review, abstracts and photocopies services should be improved. Provision of quick reference service, special information services, and the access to Ph.D. and M.Phil., dissertations are very important sources of information of the research scholars.

iii) Individualism: According to J.H. Shera, Libraries, influence the students, scholars and teachers in shaping their confidence and individualism in understanding the subject areas. Every user during his search for information, one must discover himself, the thoughts and opinions of others, understand them, with appreciation and grasp the truth. The freedom of enquiry and expression derives from the library sources and services only. Library is a forum for mutual understanding, mutual cooperation, for mutual tolerance and peaceful understand, gives dynamic growth of knowledge, gives the individualism. Libraries help in elevating self dependent user of leisure with the information sources, services and facilities available in the library. Libraries firmly asserted that this is the only agency devoted solely for the purpose of collecting, processing, storing, for most effective use of the sources, to strengthen the individual desires.

iv) Changing Dimensions: The changing dimension of the library is the only effective repositories of all forms of knowledge, of our socio-economic and cultural heritage in the world. Library is regarded as a social institution of non-profitable nature provides service to the public without any discrimination, with free of cost. Library is a disseminator of logical information and development of knowledge and creativity, among the enlightened society. One can appreciate the dynamic information services of a library, serving the intelligent good with free of cost. The consistent dynamic role of a library strengthen the democracy. The roles of a library extend the freedom thought, freedom of expression, and give creativity among the disciplined minds. The intellectual thought and the moral caliber, conceived through the source of a library. Dr. S.R. Ranganathan, opined, that the libraries produce material happiness, mental joy and spiritual delight. Thus the social institution charged with the perpetual self education, contribute, to the circulation of Ideas, enjoying the leisure, the spread of literary and demands democracy.

7.3 LIBRARY AS A DISSEMINATOR OF INFORMATION:

The information explosion alerted the role of libraries in the dissemination of information by equipping themselves by sharpening the necessary tools and techniques to retrieve and disseminate the information to the individuals The basic function of a library is to store information processing, preserving for dissemination. Over the centuries, man has gathered immense knowledge and information, and the use of effective methods of storage and retrieval of information pin-pointedly, exhaustively and expeditiously.

Derek J.D. Solla Price in his article has started that by 1800 A.D. there were 100 different scientific periodicals. By 1830 there were more than 500, where one cannot read them. By 1850, this number had grown to 1000; by 1900 to about 10,000; and in 1950 it goes up to 100,000. This swelling sea of recorded knowledge rises very serious problems in storage, retrieval and dissemination. The explosion of information creates lost of storage and retrieval problems. These problems will be solved with the help of International Agencies like UNSIST, IFLA, and International Information Systems like, INIS, AGRIS, DEVSIS, INSPEC, MEDLARS, INSDOC, SENDOC, DESIDOC, NISSAT, etc.

1.8 EVOLUTION OF LIBRARY CONCEPT:

The word "Library" is derived from the Latin word "liber", "a book". But there is word "libraire', French, it denotes as a bookshop, or publisher. The meaning of the library expressed, that the availability of collection of books for study, research and reference is derived from the word liber i.e. library. The word library indicates, that the collection of documents systematically organized and housed in a library building.

The libraries preserve the human immense knowledge available in various forms of recorded information stored in an organized way to retrieve and disseminate the preserved knowledge on demand. The word library can be distinguished from the word "Archive". The Archival Librarian basically concentrates on the collections of historic documents and records available in different forms. Rage, retrieval and dissemination of archival data and information was owned by the Archival. The access to Archival data and information may be provided to the certain class of users; i.e. particularly for the Research Scholars, and Government officials, and the general public may not be allowed without any permission.

Dr. S.R. Ranganathan, in his historical perceptions, the word library means, "a place where books are available", land it is observed that he has missed the user, in his meaning. In another sense, the library used to understand as "keeping books in a house". Later, next to the library, the term "book keeper" termed as that 'who guards and watches the books, is known as a librarian'. The Oxford English Dictionary, defined the term library 'as a place where books were kept for; reading, reference and study'. During the 19th century, the word 'library' is popularly denoted as a building or room, or set of rooms, ill-equipped with good collection of books, organized and kept with care, for reading, reference and for the use of public. Thus the libraries begin to be known as public institution and regarded as a non-profit organization. While reading the definition of Dr. S.R. Ranganathan, the term "public Institution", as a 'A library is a public institution', i) where the collection of books, with Care, and ii) making them accessible to those who require them. Thus the definition of a library acquired and adopted the concepts like; books circulation, organization, management of book collections, added to the definition.

The philosophy defined the definition of Dr. S.R. Ranganathan, attributed the following two factors, i.e. l st one is: "care of collection of books". The care towards the book collections are nothing but the measures to be taken to protect from, fire, water, vermin, and from theft and mutilation. Generally in every library, care will be taken to protect the books, especially from the above four factors.

The Second factor from the library definition is that "accessibility to those who require them", Exhibits free access to the documentary sources available in the library. The access to the documents

depends particularly on the processing of the documents. The processing of documents more depends on cataloguing and classification, which provides good scope to the a access to information and access to the required document. The Librarian or the Library professionals should own the responsibility of guiding the user in providing the information. These two basic factors of the definitions and meaning of the library, comprehensively covers the concept of library into library with good collections, organize and handle them with care, followed by the systematic arrangement and thus enlarge the scope of access to information and documents; and educate the user and improve their standards, intelligence, deepening their perceptions through the process of book reading.

1.9 MODERN CONCEPT OF A LIBRARY:

Pierce Butler stated that "the basic elements of librarianship consists in accumulation of knowledge by society and its continuous transmission to the living generations' for far as these processes are performed through the instrumentality of graphic records". Richardson defined library as "an institution where books are acquired for use, land it is the use which is the prime motive of the libraries". But, 'Carl M. White', commented that the modern librarianship is concerned with assuring the continuances and full use of power to organize, the use of the accumulated heritage of all generation of all mankind in all its forms of the written word being only one".

Thus library was defined as a collection of books and other materials i.e. books, periodicals, reference sources, newspapers, manuscripts, cartographic materials, microforms, magnetic tapes, special materials, e-books, e-journals, and e-sources etc. The accumulated knowledge in the variety of forms; attributed into a market place of good academic kind research ideas; it is a treasure of intellectual chest of facts; to help the user community through the variety of forms of information sources. The modern concept of a library confirms that the library is a non-profitable, public institution, to serve the society and to preserve the socio-economic culture maturation, and helps in scientific development of the country and the society. The concept of modern library stands as a social agency, its vital function is the elevation of the society, with a provision of appropriate information at a right time to a right user.

1.10 NEED OF A LIBRARY:

In the Middle Ages, when documents of political and historical information have to be stored in safe places, to protect the information for the future generations. The archives means, storage and conservation, and this have been limited to items of writings, engravings, drawings etc. As and when the printing machine was invented by John Guyton Burg, the growth of literature in print form taken its shapes and has been linked to the development of libraries. The information explosion in the form of multiple increases of the types of documents; i.e. the encyclopedias, multivolume books, reference and text books, periodicals and journals, graphic materials etc. An evolution in mankind has been accompanied by advances in its different forms of knowledge, its storage; retrieval and dissemination of information activities are the basic functions of a library. Thus the word library inherent the idea of reading and reference materials to the user community. In the modern times, the libraries have become social agencies and library is considered as a product of society for its cultural advancement. The library not only conserves our culture, but also plays an important role in storage and retrieval of information. In the 20th century the modern library is considered as a service institution, aims to enable the users to make the most effective use of the resources, services and facilities of the libraries.

Library is expected to connect potential readers into habitual users, and thus improves the reading habits among the users. Generally library is concerned with communication dissemination of the knowledge. The libraries of today considered as a workshops and laboratories, where the users spend hours and hours in gathering the needed information through different types of documentary sources available in the library.

1.11 SUMMATION

The library was considered as a product of socio-economic advancement, and the maturation of the civilization. Generally the library not only conserves our culture, but also plays an important role in dissemination of information in the modern times, the library regarded as a non-profitable, service institution. In answer to make the most effective use of the resources and services of libraries: the expected users are converted into potential habitual users. A Library is concerned with the communication and dissemination of knowledge.

Library is a product of conceptual thought of a society; to preserve the cultural changes and it help the survival of traditional functions and its preservation and presentation. The Library helps in creating good awareness among the society; and it is a hub of freedom of thought and expression. The modern concept of a library confirms that the library is a non-profitable, public institution, to serve the society and to preserve the socio-economic culture maturation, and helps in scientific development of the country and the society. The concept of modern library stands as a social agency, its vital function is the elevation of the society, with a provision of appropriate information at a right time to a right user.

Dr. S.R. Ranganathan, opined, that the libraries produce material happiness, mental joy and spiritual delight. Thus the social institution charged with the perpetual self education, contribute, to the circulation of Ideas, enjoying the leisure, the spread of literary and demands democracy.

1.12 SELF ASSESSMENT QUESTIONS

1. Define Library? Describe the purpose and functions of a Library.
2. Examine the concept of a Library, Discuss & Evaluate the concept of a Library.

1.13 REFERENCES

1. Bimal Kumar Datta(1979): Libraries and Librarianship of Ancient and Medieval India, Delhi : Atma Ram.
2. Jogesh Mishra(1970): History of Libraries and Librarianship in Modern India Since 1850, Delhi: Atma Ram.
3. Majumdar, R.C. and Rayachaudhuri, H.C(1967): An Advanced History of India, New York, Martin Press.

UNIT-1:

LESSON- 2:

ROLE OF LIBRARY IN ACADEMIC INSTITUTIONS

STRUCTURE

1.2.1 AIMS AND OBJECTIVES

The functions of a University Library or the role of Library in academic institutes was more concerned with; a) Teaching; b) Research and ; c) Extension Services, according to Dr. S.R. Ranganathan. But Wilson and Taubur and Arthur and Hanlin, added some importance to this concept. After going through this lesson, the student may be in a position to understand:

1. The role and purpose of Libraries in the academic institutions;
2. The need, purpose and objectives of University Library;
3. The services, and sources to be provided in the Library

1.2.2 INTRODUCTION

The functions of the University library was more concerned with three basic components, viz. Teaching, Research and Extension Services. According to Arthur and T. Hanlin, the functions of the University Library was classified in three basic areas, i.e. Teaching, Research and Extension Services. Further, t Arthur, T and Hanlin said; that i) Conservation of Knowledge is an important function of the University Library; ii) Extension of knowledge (Research) and iii) Transmission of knowledge(Teaching); an important function of the University Library.

But the Wilson and Taubur assigned Six Functions to the University Library: i.e.Communication of knowledge and ideas; followed through:: Reaching; Research; Publications; Extension Services; and Interpretation.

According Dr. S.R. Ranganathan – Teaching and Research Functions are in FIVE stages: Preparatory study; Parallel study; Follow-up study; Library service – use of leisure; Library Service to Teachers and Research Scholars : Documentation Activities.

Role of Libraries in the Universities are described extensively, as per the above statements. Besides that, the important areas like: Orientation to User Community; The need, purpose and impact of Book Exhibitions; Orientation to Faculty; 9 Promotion and Stimulation of Reading; Freedom and Access to Collections; Open Access System; Teaching Techniques; Library Instruction; Adequate Space and Equipment; Extension Services; Library Plan Governance; Duty to Teachers

and Students etc. The extension services; and the special functions of the University Library further enlighten us, about the role and importance of library in Academic Institutions.

The provision of effective library and information services, should support the teaching, learning and the development of research activities. The available sources, services, and facilities should reach the user community. The user must aware of the information sources that are available in the University Library. In this context Wilson and Taube identified two important aspects: 1. User Orientation; and the 1.2. The Stimulation of Students Interest in Reading is the second aspect. These two aspects are further influenced the role of Libraries in the Academic Institutions.

1.2.3 VIEW OF ARTHUR AND T. HANLIN

The role of library in academic institute will be viewed only through the functions, the library discharged in the interest of meeting the user information needs. While the Basic functions of a University Library is to provide facilities to the user community of their University towards the study and research. The functions of the library classified into three areas: Teaching; 1.2. Research and 3. Extension Services.

But Arthur, T and Hanlin said; that i) Conservation of Knowledge is an important function of the University Library; ii) Extension of knowledge (Research) and iii) Transmission of knowledge(Teaching); an important function of the University Library. Hamlin further held that; 1) Extension of knowledge is possible; a) through the library cooperation and the b) through the resource sharing.

1.2.4 VIEWS OF WILSON AND TAUBUR:

But the Wilson and Taubur assigned Six Functions to the University Library:

Communication of knowledge and ideas;

Teaching;

Research;

Publications;

Extension Services; and

Interpretation;

Here this communication of knowledge and ideas enumerated by Wilson and Taubr was identified in practice as a Teaching Function. Further the interpretation, function can be associated with second, third and fourth function. Finally the function of publication is not of significant one as it is conceived the user interest and interaction.

1.2.5 VIEWS OF DR.S.R. RANGANTHAN,

The future of a University Library or the role of Library in academic institutes was more concerned with; a) Teaching; b) Research and ; c) Extension Services. The views of the experts in Library and Information Science; like i.e Dr. S.R. Ranganathan, Wilson and Taubur etc. Analyzed and identify the role of a library in Academic Institutions. But according Dr. S.R. Ranganathan – Teaching and Research Functions are in FIVE stages:

Preparatory study;

Parallel study;

Follow-up study;

Library service – use of leisure;

Library Service to Teachers and Research Scholars : Documentation Activities;

The Preparatory Study: The teaching staff must visit the library regularly, to collect required material information; with latest developments, by looking into the current information, i.e. periodicals; The collected information may organized and presented very attractively in the class room to rouse curiosity among the students about the lecture presentation. The library is a basic source of knowledge and information in preparatory study, as well as to create interest towards education and research among the students, land the teachers are treated continues student by updating himself to present knowledgeable lectures.

According to Ranganathan, the; i) Preparatory Study; ii) Parallel study; and iii) Follow up study was concerned with the class room work and correlated with the laboratory training experimentation and learning. The better use of the leisure time of the students within the university and college; the libraries used to provide the interesting reading materials of their choice, in the form of News papers; text books; reference books; fiction, adventures story books etc. Thus the user community was made into the fold of library cantered education, by improving the reading habits of the students; which enhance their standards in their studies.

In the second stage '**Parallel Study'**: Dr. S. R. Rangnathan felt, that the student must be provided with the relevant necessary reading materials in the library in the form of text books, reference books; periodicals/journals, Encyclopaedias' and dictionaries etc. To help the students to get further clarifications through these materials available in the library; and develop the confidence on the subject learning.

The Follow-up Study: is nothing but the provision of materials may be available in duplicates in the text book section; Reference section and get the in loan section also. The Reference books and periodicals must be available to the students as per the norms; code and conduct of the university library to help in their follow-up study. The basic point in follow-up study is to keep interest of the students' curiosity with warm up attention; by the library sources and services to develop their curiosity and spirit of reading and research, further enrich their interests; towards the fourth and fifth stages.

The fourth stage is '**Use of leisure time'** – Library Service: the library should provide the materials to create pleasure, recreation and entertainment among the students in that brief leisure time, to have a cover on the user to attract towards the reading for please and entertainment, followed by providing; current and day-to-day information through the News Paper Section and by providing the magazines etc. To create the environment of Reading for Recreation.

The fifth Stage is '**Library services and Documentation**: This fifth stage is consisting of two broad areas; ie i) Library Services, sources and facilities and ii) Documentation Activities. The library services in university library viewed jin two levels again; a) for the General User (UG/PG) students; and the second is; a) the Academic Staff/teachers and Research Scholars etc. These services are

linked with sources and facilities in the library, like books, periodicals, and reference books etc. The racks; furniture; reading facilities etc., the services, sources and facilities are very important components, in the University Library, to meet the user satisfaction. The standards and principles are strictly implemented in the collection in a university library, certainly satisfy the user requirements. The reading facilities; the natural air and light, followed by the other facilities in the library will certainly satisfy the user to make good use of the library.

1.2.6 TYPES OF DOCUMENTATION SERVICES

Documentation: The term documentation is used for quite some time, but during 1905, Paul Otlet is said to be used this term in his lecture at the International Economic Conference to denote to "the specific activity of gathering, processing, storing, retrieving and circulating documents".

1.2.6.1 Active and Passive Documentation

Documentation refers to two sets of activities, one set of activities is for the analysis of literature which is called "Active Documentation". The activities for the conduct of search and location of information and the final provision of the information or document, is called as a "Passive Documentation".

The role of Library in the university is a combination of "Active and Passive Documentation", is the major activity of providing documents and information to the user community, according to their information needs The documentation activity is one of the important function to exhibit the role of library in the university/academic Institute.

1.2.6.2 Areas of Active and Passive Documentation

Activities of Documentation	**Passive Documentation**
Abstracting Services	Literature search and preparation of reading lists
Indexing Services	Location of Documents
Reviews, digests, state-of-the art publications	Location of translations
Translations	Providing Translation Services
Current Awareness Service	Preparation of copies of documents – Reprographic Services
S.D.I. Services	Union Catalogues

1.2.6.3. Types of Documentary Sources

Sources of Information: A document in any form can be a source of information in the library. According to "Devis Grogan" the documentary sources are basically classified into three main divisions:

1. Primary Sources: Periodicals, Research Reports; Conference Proceedings, Patents; Standards, Trade Literature and theses.

2. Secondary Sources: Indexing and Abstracting Services, Reviews of Progress, Reference Books (Encyclopaedias', Dictionaries; Hand Books; Tables, Formulas etc., Treatises; Monographs; and text books etc.).

3. Tertiary Sources: Year Books, Directories, Bibliographies (list of Books, location lists of periodicals, lists of indexing and abstracting services), Guide Book, Guides to the Literature, lists of Research in Progress, Guides to Libraries and Sources of Information, Guide to organisations etc.

1.2.7 ORGANISATION OF SOURCES IN THE LIBRARY

Information Services and Products: Information Services in the University Library considered into two broad categories; i.e. 1. Anticipatory Documentation Services; that is rendered in anticipation of some need; and 1.2. Responsive Documentation Services; Here the services are rendered in response to specific requirement. Both the services are simultaneously implemented in the library to get the user satisfaction.

Duties of Library Staff: The library staff or the library professionals have had a bounden duty and responsibility towards the teacher, and students, through the conceived five functions or stages of academic activity in the library: i.e. 1. Preparatory study; ii) Parallel study; iii) Follow-up study; iv) Library services- use of leisure; and v) Library services and Documentation. The provision of Information and processing of current information and its availability to the user community depends on the documentation activity is of the library.

1.2.8 UNIVERSITY LIBRARY – TEACHING AND RESEARCH FUNCTIONS

In University Library: Wilson and- Tauber:

Expressed that the Role of Library in academic institutions particularly in discharging the activities like information services to the teaching and research Scholars are based on two Assumptions:

1. The teaching and learning process by observing various methods of teaching, through lecture method, interactive; the discussion groups, field trips, use of laboratory and to meet all the information needs, using the library is an ultimate to redress their doubts and to get clarifications.

2. The library cannot be treated as just a reading place, instated reference centres for the study, teacher and researchers. The libraries are treated as laboratories for the social science students; and for the science and engineering students, library used both as a laboratory and Library. The provision of affective library and information services, should support the teaching, learning and the development of research activities. The available sources, services and facilities should reach the user. The user community must aware jof the information sources, that are available the university library. In the context, Wilson and Taubur identified two important aspects; a) User Orientation Programmes and 2) Stimulation of Students Interest in reading these two aspects further influence role of library in the academic institutions.

1.2.9 ROLE OF LIBRARIES IN THE UNIVERSITIES

The provision of effective library and information services, should support the teaching, learning and the development of research activities. The available sources, services, and facilities should reach the user community. The user must aware of the information sources that are available in the University Library. In this context Wilson and Taube identified two important aspects: 1. User Orientation; and the 1.2. The Stimulation of Students Interest in Reading is the second aspect. These two aspects are further influenced the role of Libraries in the Academic Institutions.

1.2.9.1 Orientation:

The basic purpose of the 'orientation' according to Dr. S.R. Ranganathan, the initiation or make the student feel at home like environment, and to acquaint himself, how to trace the materials through the catalogue, and how to find-out the same in the shelves, and how to get it for issue. The fresher can given the homely introduction to about the library sources, services and facilities available in the library. The introduction about the library sources and services, and the lecture followed by a library tour, so that the fresher was taken to the stacks, card catalogue cabinet, circulation desk, the reprographic facilities etc. A brief lecture on the Primary sources, secondary sources and tertiary sources of information etc., may influence the user, how to use the library. How to use the card catalogue, sources like guides to periodical indexes, encyclopaedias, dictionaries, atlases, gazetteers, directories, yearbooks, and other reference works, bibliographies and manuscripts. The guide books should prepared in simple language, particular attention be paid in the production of its cover, arrangement, illustrations, diagrams, land typography. The use of posters and signs are helpful in orienting the student in regard to the facilities available.

A student guide or handbook or a leaflet must be provided with all the details about the library activities, functions, procedures and practices to be observed should be provided in the library guide book or in hand book etc. The display of book jackets, the new arrivals all sorts of materials, lists should be displaced in the places, where the student interests are aroused.

1.2.9.2 The Exhibitions:

The conduct of exhibitions about the rare books that are available in the library, along with the latest arrivals to the library, to stimulate reading habits among the students, and to promote interests in a specific field, encourage hobbies, and emphasize the work of students organisation, or the research work of a teacher.

1.2.9.3 Orientation to Faculty-members:

It is understood, every teacher is able to teach his subject, but some ltimes fall short of few current developments and omission of current literature, through the proliferation of new and current literature. The current awareness about the new book collection, current periodical articles, conference proceedings, and theses etc. will contribute to the faculty member. The second important factor involved the library organisation and management of the library sources and services, under the different library sections involved in administering the library towards the teaching and research, promotion of stimulation of reading habits among the students.

1.2.9.4 Promotion and stimulation of Reading:

The University Library will provide all forms of materials, i.e. documents, non-book materials, special materials, microforms, A.V. materials, audio and video recordings, ;motion pictures, manuscripts, cartographic materials, computer files, and serial publications etc. The active role of the library made the user to make use of all the materials, which are necessary for the university education.

The teacher is a prime motivator for student learning through the library, by the regular visits by the teacher, may it be a model to the student and scholar. And the librarian or the library professional is a unique contributor to enhance the motivation towards the reading by providing the necessary materials to the user community. Teachers provide learning environment in the class room and the librarian is help the student to read and learn through providing all the necessary information sources, services, land facilities in the library. Thus the role of library link the University or in an Educational Institute is very important of higher education.

1.2.9.5 Freedom and Access to Collections:

The freedom of access to collections to the user will certainly improve the reading Habits among the students. It is also very important, that the professionals must pay good interest in helping the user community in tracing the documents and in the library routines, like issue and return of books. The library professionals must see that the rack book order must be strictly maintained to get a book from library racks; they should prevent misfiling, and the misplacement of books by any user. The quality of the library access depends on the availability of a required book, the user must be in a position to pick it up from the Itself. Thus the library materials must the freely accessible, and assist the user in locating the materials and in use of information to meet the academic, research and teaching activities.

1.2.9.6 Open Access System:

Free walking amidst book racks, on and off browsing the interested titles, which gives utmost satisfaction and pleasure of interactive knowledge about the relevant books of our interest. The Open Access System promotes reading habit among the students in particular, researchers in general. It is a wonderful opportunity to the regular visitor, to keep track of his choice collections, without disturbing anybody.

1.2.9.7 Teaching Techniques:

The true aim and purpose of teaching techniques should be to equip the student to face the intellectual challenges, through the education, research and training. One must be trained to keep himself in finding by himself the necessary information and knowledge indeed to satisfy his curiosity and intellectual attainments. The teacher should inspire and fires the imagination by a few lectures and make the students help themselves the books in the library. The teacher should invite the stimulate curiosity, arouse critical faculties and encourage among the students the innate desire to learn. The teacher should invite the librarian in the class-room to expose the students to the use of reference books and bibliographical aids pertinent to their studies and research. The teachers in particular and library professional in general encourage the students to use the library as ‘workshop’ for learning, in preparing their assignments, seminars, reports and articles.

1.2.9.8 Library Instruction

Wilson and Tauber, felt, that the Library instruction in very important to guide the students, how to use the library, how to get the information in the library etc. Separate library instruction required to the undergraduate students, about the 'services to the undergraduates', 'instruction courses for graduates' and special instruction for 'special for service at professional levels' i.e. (library services in agriculture, medicine, engineering, law and business etc.).

1.2.9.9 Adequate Space and Equipment:

The designing and planning of a modern university library building must be carefully conceived to absorb the existing sections, efficiency in saving the space, and making arrangements to facilitate the user and the professionals. The organisation and management of the available space made into rack space, reading space, and provide adequate space for the binding, and News paper Section etc. Further, Sufficient space must be provided for the installation of the equipment, and required space for the administrative office, is a good sign for the library building. Adequate space for acquisition and processing of materials; for reference sections, reading halls for graduate/post graduate reading rooms, seminar hall, cubicles for faculty studies; space Xeroxing and reprography etc. The Library building plan should accommodate, all the section, rack space, reading space, and space for special sections, manuscripts etc.

1.2.9.10 Library and University Administration:

The major function of the University Library is to support the administrative policies of the university, which is an integral part. The librarian and the professional library staff must perform the library functions properly; and the library staff must understand the institution's policies and maintain intimate contact with the administration. The Chief Librarian of a University is also treated as an officer of the University, and he will share his experiences with administration, in formulating the code and conduct of the administration. In some universities the Librarian was also considered as a member of the top management body i.e. syndicate.

1.2.9.11 Library Plan Governance:

The University Library acquires good collections, processing and disseminating the documents, non-book materials, special materials, manuscripts and journals are an important items of teaching, research and extension services of the University. The Library and the professionals sharing their services with the faculty by rendering the services like reference; documentation and information services, the university library participates in all the academic activities of the university.

The character of the University library depends on its good governance, and managed the activities of the library towards the fulfilment of the objectives and mission of the University.

1.2.9.12 Duty to Teachers and Students:

The Library Staff should provide all the materials required by the teachers and students, as per their of class work and other academic activities, like; seminars, class discussions, assignments, evaluation wojrk, research reviews, and notes preparation which are connected to the study course. The library staff should keep themselves in close touch with the progress of work in their class-room. The professional staff must be cooperative in all the five stages; i.e. Preparatory stage; parallel study; and follow-up study to help the Teachers and Students.

Regarding the duty towards the researchers, the professional staff must be well prepared with the research in progress in the university, as well as in other universities and with relevant sources to guide the scholars. The updated catalogues of current periodicals, current contents of periodicals and lists of current articles on different subjects should be made available to the researchers. Latest arrivals of Abstracting and Indexing Journals are very important to guide the Research scholars, followed by the online, and web sources etc.

1.2.10 EXTENSION SERVICES

The University Library is the heart of Academic; research; teaching and training. Thus the library is a means of realisation, of the users aims and objectives, as well as a great conservatory of Learning. The amounts spent on library, years together can be treated as a capital investment, which guaranteeing returns for centuries to come in form of developments in education, research, teaching and training of the public. Quality education is impossible, without a quality library and the quality of faculty developments on the quality of a library.

The research and development activities on agriculture, technology and industry are made available to the society, to have solutions for the socio-economic problems. The University library, along with the activities of the university, crosses its campus walls through correspondence courses, agricultural fairs for farmers, sale of publications, cooperative bibliographies, reference and referral services, reprographic services, radio and TV programmes, community recreation, dramatics, music, art, visual education, child welfare adult education programmes and research contributes to the furtherance of education, knowledge and development in the society in general.

1.2.11 SPECIAL FUNCTIONS OF UNIVERSITY LIBRARY

A. 1. Extending cooperation among the other university libraries in preparing the union catalogues and in developing the online bibliographic services.

2. Compiling the faculty research publications; subject or branch-wise to provide the information for the preparation of review of literature.

3. Preserving the book reviews;

4. Preservation of university ephemera; materials,

5. Exhibiting materials for publicity and for public information;

6. Maintaining a clipping and pamphlet file;

7. News paper clipping service; maintaining of back files;

8. User education and training about the library materials and facilities by conducting classes, providing hand-books or guide books with prepared bibliographies.

B. Organisation of Information Services and Products:

1. Current awareness through: Display of Current arrivals(Books, reference books etc.); Current contents; Alert Services, Announcement of research in progress, Selective dissemination of information, Information for the coming conferences; seminars etc. Newspaper clipping services,

2. Condensation Services; Abstracting and Indexing Services, Extracts; Technical Digests for various groups:: i. Digests for Management; ii. Digests for Technical Divisions; iii. Digests for operators.

3. Item Location Indexes Bibliographies; Catalogues;

4. Condensation and Repackaging : Analysis – Critical compilations, Hand Books etc.

Reference Information: Direct User Interaction with Library System – Every day: Reader guidance; Ready Reference;Retrospective document search service; and Referral service.

5. Evaluation and emphasis: Analysis and Catching-up:State of the art report; and Trend Reports.

6. Back-up Services: Demand for Documents and need for dissemination = Reprographic Services (Supplying copies of documents); Translation services (location and actual translation); Publishing help, like preparation of charts, slides, printing etc.

7. Maintenance Services: Library System Maintenance and Improvement = Training of information workers; Preparation and maintenance of systems tools like classification schemes, thesauri, union catalogues, etc. Advisory services in documentation and information work.

C. Adequate Space and Equipment:

The designing and planning of a modern university library building must be carefully conceived to absorb the existing sections, efficiency in saving the space, and making arrangements to facilitate the user and the professionals. The organisation and management of the available space made into rack space, reading space, and provide adequate space for the binding, and News paper Section etc. Further, Sufficient space must be provided for the installation of the equipment, and required space for the administrative office, is a good sign for the library building. Adequate space for acquisition and processing of materials; for reference sections, reading halls for graduate/post graduate reading rooms, seminar hall, cubicles for faculty studies; space Xeroxing and reprography etc. The Library building plan should accommodate, all the section, rack space, reading space, and space for special sections, manuscripts etc.

1.2.12 SUMMATION

The role of library in academic institute will be viewed only through the functions, the library discharged in the interest of meeting the user information needs. While the Basic functions of a University Library is to provide facilities to the user community of their University towards the study and research. The functions of the library classified into three areas: Teaching; 1.2. Research and 3. Extension Services. According to Arthur, T and Hanlin said; that i) Conservation of Knowledge is an important function of the University Library; ii) Extension of knowledge (Research) and iii) Transmission of knowledge(Teaching); an important function of the University Library. Hamlin further held that; 1) Extension of knowledge is possible; a) through the library cooperation and the b) through the resource sharing.

The University library, along with the activities of the university, crosses its campus walls through correspondence courses, agricultural fairs for farmers, sale of publications, cooperative bibliographies, reference and referral services, reprographic services, radio and TV programmes, community recreation, dramatics, music, art, visual education, child welfare adult education

programmes and research contributes to the furtherance of education, knowledge and development in the society in general.

1.2.13 SELF ASSESSMENT QUESTIONS

1. Describe the views about University Library by Winlson, Taubur, Hanlin, Arthus and Dr. S.R. Ranganathan.

2. Examine the Functions, Duties and Role of Library in Academic Institution, Discuss-

1.2.14 REFERENCES

1. Mangla, P.B (1981): University Libraries: Their Development and Future in Indian Librarianshiip: Perspectives and Prospects, ed. Ravindra N. Sharma, New Delhi: Kalyani Publishers.

2. Namita Kaula, ((1910-1977): Indian Academic Library Movement : A Chronology, Herald of Library Science, 16.

3. Viswanathan, C.G((1957): A Hundred Years of Indian University Libraries, 1857-1956: A Historical land Critical Survey, lThe Library Association Record, 59.

UNIT -1

LESSON 3:

TYPES OF ACADEMIC LIBRARIES

STRUCTURE

1.3.1 AIMS AND OBJECTIVES

Education is universally recognised as one of the basic requirement for human development, and it is widely accepted in both developing and the developed countries. Institutions of higher learning play an active role in the socio-economic and cultural transformation. research and imparting formal education to students; is known as an Academic Library. The School Library, College Library, University

Libraries are considered as Academic Libraries, will support the mission of the parent institution. After going through this lesson, one can understand:

Role of Academic Libraries,
School Library and Information activities,
Functions of a University Library.

1.3.2 INTRODUCTION

Academic Library is library attached to an academic institution which is engaged in teaching, research and imparting formal education to students; is known as an Academic Library. The School Library, College Library, University Libraries are considered as Academic Libraries, will support the mission of the parent institution, as well as the teaching, research and training activities of the institution. Generally the library collections in the college or university, consists of Text books, Reference books, periodicals and variety of subject collections, related to the various courses offered by the institution.

1.3.3 ROLE OF ACADEMIC LIBRARIES

The University is a place exclusively for the academicians to dissemination of learning as a basic objective to human understanding and inspire about the universe in general, to himself, body, mind and spirit. The University, College and School is a dwelling mine of ideas and idealism, which provides prudent thinking, develops conduct and integrity among the students. The University education is a product of creative thinking, training, research and learning, which made him to search for reason to verify the truth. Thus the academic institutions cultivate and generate intellectual excellence, personal discipline, and right kind of leadership qualities, transform the society with trained, competent men and women, who strive hard to provide equality and social justice, among the society.

Education is universally recognised as one of the basic requirement for human development, and it is widely accepted in both developing and the developed countries. Institutions of higher learning, play an active role in the socio-economic, and cultural transformation. Higher education can be enlarged for the economic and industrial development of the country. Education aims to National Development by dissemination of knowledge, skills and attitudes, by providing opportunities to reflect upon the social, political and economic issues.

1.3.4 SCHOOL LIBRARIES

Government of India appointed Education Commission (1964-66) under the chairmanship of D.S. Kothari, on the basis of the report of the Education Commission, ten plus two educational system has been introduced. In India, we may recognize the following kinds of schools:

1. Higher Secondary/10+2 School; Middle School; and Primary School,
2. We may recognize the following kinds of school authorities:
   a) State Governments through Department of Education,
   b) Local Bodies (such as panchayats, municipal bodies, corporations etc.),
   c) Government of India (Central Schools),

d) Private Bodies or Individuals, and
e) Others (Public Sector undertakings, etc)

Education is a state subject; a large number of schools are run by state governments through their departments of education. A few schools are run by the Government of India. However, a large number are run by private bodies or individuals.

1.3.4.1 AIMS AND OBJECTIVES OF SCHOOL LIBRARIES

The library is a part and parcel of a school set-up. It exists to serve the objectives of its parent organisation. A school library can play a very important role in helping the educational system to achieve its goals. The important organ of a school system is school library and school laboratory.

The children should be guided by the librarian to get them introduced to the pleasure and importance of books and other learning aids at an early age. The teachers/librarians should mould the students to develop reading habits by making use of the libraries. Provision of library period at the primary and secondary levels, adequate provision of reading another types of materials to get academic and recreational activities, thus promote reading habits of both students and teachers. And take initiative developing and introducing user education programme in the library.

A School Library does exist to serve the objectives of the parent organisation. The objectives of a good educational system are to equip individuals to play their role in the society effectively. The library attempts to advance the objectives of the school. The aim of a good school library is to become a force for educational excellence. In order to achieve the objectives, a modern school library should be considered a resources centre, for serving as a library, by providing open access to its users. It should be made a centre of informal education. Above all it should be the hub of activities in a school

1.3.4.2 HUB OF ACTIVITIES

A school library should be made the hub of activities going on in a school. A student can use it for education, information, recreation, inspiration etc. A student can use it for preparatory work (pre-class work), parallel reading and follow-up work. He can get information about extra-mural activities such as even, festivals, etc. A student interested in preparing a scientific model or writing an essay for a competition, or wishing to improve his athletic performance can take the help of the library.

1.3.5 SCHOOL LIBRARY COLLECTIONS

The basic aim of school library is to inculcate students the intellectual, moral, spiritual, cultural, and social values. Adequate collections of instructional materials are essential for the development of effective School Library Services. Small collections of reference and text books, mostly unclassified, and catalogued. The books arranged either according to accession number of size-wise in closed sequence. The collections of books in state school libraries range between 1000-3000 in number. The requirements of students and teachers must be taken care of adequately by adopting the following:

1. The school library acquire, text books and related curriculum enrichment materials (like: books on methods of instruction, formulation of curriculum, books on child psychology etc.)
2. Books for Education, Information and Recreation,
3. Reference books, ,Newspapers, Weeklies, and other Magazines;
4. Audio-visual materials including newer media;
5. Nature and size of the collection will depend upon the philosophy of education of the school,There should be class room libraries up to 5th class. Teacher-in-charge of a class should look after it. Each teacher may be provided about 100 books to serve a class of 30 to 40 students. It should be possible to rotate a collection among different section of a class. Collection in the main library should be divided into the following three groups:
   a) Up to 5th Class; b) From 6th to 8th Class; and c) Ninth Onwards.
   The reference collections and periodicals should be provided separate shelving and study areas.

1.3.6 SCHOOL LIBRARY & INFORMATION SERVICES

The school library should provide the following services:

a) Display of materials and information;
b) Organisation of story hour, book talks, book debates, essay competition, quiz etc.
c) Circulation of materials;
d) Reservation of materials;
e) Bibliographic instruction;
f) Library orientation of a freshman;
g) Bibliographic instruction;
h) Assistance in the use of catalogue;
i) Assistance in the search and location of materials;
j) Assistance in the use of reference books etc.;
k) Provision of information on request;
l) L) Maintenance of vertical files containing pamphlets, prospectuses, reports, press clippings etc;
m) Preparation of reading lists; and
n) Inter-library loan.

Display of materials and information can be done to attract the students and teachers. We may adopt the following devices to achieve the same;

i) Organisation of book exhibitions,
ii) Display of jackets of new books;
iii) Display of newspaper clippings,
iv) Display of lists of new books received, and
v) Putting up a wall magazine

For small children, story hour can be organized. Story telling can be done by the librarian or teacher. If done well, it can help to attract the children towards the world of books and book reading habit.

1.3.7 COLLEGE LIBRARIES

College Education: Offers a four-year course after Secondary (School), Examination and a three-year course after Higher Secondary Examination, both leading to Bachelor's Degree in India. Few colleges impart post-graduate education leading to a Master's Degree. In India, there is a system of instituting affiliated colleges, besides the university college. During the sixth Plan period, the UGC formulated a policy for development of undergraduate and post-graduate education in the colleges, with a view to improving the standard and quality of higher education. This improvement, in fact, largely depended upon the adequacy of College Library.

Types of Colleges: A college is regarded as an institutional of higher learning which usually offers a three-year or four-year course after school, leading to a bachelor's degree. Some of larger colleges also offer courses leading to Master's Degree. Usually research takes place at Universities. We may categorize colleges into the following Two types: General and Special –

1. General: Arts College and Science College, but
2. Special means, a college my specialize in a subject such as Agriculture, Animal Husbandry, Engineering, Law, Medical Sciences etc.

1.3.7.1 AIMS AND OBJECTIVES OF COLLEGE LIBRARY:

The College Library aims at the realisation of the objectives and programmes of the college. It strives to transform itself into a working force for generating curiosity and eagerness among the readers and thus help them make use of the available reading material. The objective of the college library is to supplement the instructions imparted in the class. It aims to serve not only the undergraduate teaching but to function as an independent teaching agency, encouraging and promoting the use of books i8n ways beyond those suggested or required by the class room.

1.3.7.2 FUNCTIONS OF COLLEGE LIBRARY:

The basic function of a College Library is to assist and support the study and teaching in the College. It helps to meet the reading needs and requirements of the students as well as the teachers of the college in pursuit of their knowledge. Occasionally, research is also conducted in the college, mostly by teachers. The college library provides the needed reading materials and documents for research as well. The difference in the functioning of a college and a university library however, is that while the former lays emphasis on the acquisition and dissemination of knowledge at the undergraduate and post-graduate levels, the latter also caters, besides the overall needs, the information needs of research work and helps students and scholars in their academic and research activities are as follows:

a) It provides books and allied reading materials relevant to the courses offered in the college;

b) It makes available the books and documents required by faculty members in preparation of their instructional courses;

c) Provides supplementary books and reading materials to help, their studies and teaching at the college;

d) The comprehensive selection of authoritative books and documents needed by the faculty members to pursue their research programmes;

e) It promotes the proper use of the reading materials available in the stock; and

f) Trains the students in making use of the library properly and derive full advantage out of it, integrating the library with the educational courses,

g) It provides text and standard reference books to the students, necessary for preparation of their examinations;

h) To help and assist the faculty members of the college in preparation of their instructional courses and in keeping them abreast of the current knowledge and concepts in different areas of study; and

i) To assist the teaching staff in the pursuit of higher studies and research and support them with relevant; literature and information on the subject.

1.3.7.3 COLLEGE LIBRARIES & INFORMATION SERVICES

The following services may be provided in the College Libraries:

1. Lending Services;
2. Bibliographic Instruction,
3. Readers' advisory services and Library orientation
4. Inter-Library loan,
5. Compilation of bibliographies; Indexing and abstracting services; List of additions;
6. Reservation of documents;
7. Reprographic services;

1.3.8 UNIVERSITY LIBRARIES

The Universities with a large faculty, tremendous enrolment and huge resources is in a position to make significant contributions in the areas of social sciences, the humanities, sciences, and

technology. Universities have become complex organisations. In a developing country like India, it is expected that universities produce people committed to the development of nation and its service.

However, significant changes have taken place in the outlook of university administrators, research scholars, teachers and students. Now the role of a university library considered as an active force in teaching and research. It is being considered as an integral part of the university, and recognized as an important component of a University set-up.

1.3.8.1 ACADEMIC ACTIVITIES IN UNIVERSITY LIBRARY

1. Teaching, Research, publications, and conservation of knowledge and ideas, extension services, followed by interpretation,
2. Teaching is done at different levels extending to post-graduate and professional levels. In some of the universities, undergraduate teaching is the responsibility of colleges,
3. The greater emphasis on research function distinguishes a university from a college,
4. Through the publication programme, a university aims to disseminate the results of investigations,
5. The teachers and researchers in universities make a constant effort to interpret the results of their investigation to society in different ways,
6. A university library is a part of a university set-up. Therefore, it exists to serve the objectives of its parent organisation. In other words, a university library should aim at the advancement of the functions of its university. It should reflect the character of the university,
7. Through the assistance of faculty and research scholars, the university library participates in the interpretative function of the university,

1.3.8.2 FUNCTIONS OF UNIVERSITY LIBRARY:

1. The basic characteristic of a university library is its complete identification with its institution. The measure of its excellence is the extent to which its resources and services support the institution's academic pursuits.
2. The discharging of its objectives and functions, i.e. acquiring books, reference books, organising and disseminating macro and micro though to the users,
3. University Library plays an important role by providing reading materials and other graphic records to help the university to engage itself earnestly and vigorously in its pursuits of intellectual attainments, which is through assemble, preserve, transmit and illuminate knowledge,

4. The teaching, research and extension services are the three major aims of a modern university library,
5. Wilson and Tauber assign SIX function to the University:
   i. Conservation of knowledge,
   ii. Teaching,
   iii. Research,
   iv. Publication,
   v. Extension and Service, and
   vi. Interpretation.
6. The library has to feed the academic community in five stages:
   1. Stage-1: Preparatory study;
   2. Stage-2: Parallel study;
   3. Stage-3: Follow-up-study;
   4. Stage-4: Leisure Study; and
   5. Stage-5: Documentation;
   6. User education and orientation to undergraduates, post-graduates and to Faculty also,
   7. Faculty – Library relationship, Reading lists, Open Access System, Browsing Rooms, Reference Services, etc.

1.3.8.3 UNIVERSITY LIBRARY SERVICES

The nature and efficiency of services provided vary from library to library. The intensive services made available by some of the special libraries/documentation centres cannot be provided by university libraries. The use of computers in the university libraries helps in providing variety of services over a wide range of areas, which were not possible previously. The following services are generally provided in the university libraries:

a) Lending services;
b) Library orientation and bibliographic instruction,
c) Literature search, Assistance in the location of documents,
d) Library Catalogues and understanding of reference books etc.,
e) Readers' advisory service; Selective Dissemination of Information (SDI),
f) Compilation of bibliographies, preparation of indexing and abstracting services,

g) Current contents and current list of additions of books,
h) Reservation of documents and Inter-library loan service,
i) Holding of library exhibitions including display of new additions to the library,
j) Maintenance of News paper clippings,
k) Maintenance of vertical files containing pamphlets like prospectuses, reports etc.,
l) Reprographic Services and Translation Services;
m) The Digital Library – a separate section, with high-speed broad internet connectivity, with more than 30 computer systems, with necessary furniture, seating arrangement and printing facilities etc.

1.3.9 SUMMATION

Library occupies an important place in the framework of the academic system. Without active support of a library, the whole academic functioning will come to a grinding halt. The primary function of a library is to fulfil the "mission" of the academic institution to which it belongs and the basic aim of the library is to upheld the aims and objectives of its parent organisation. The character and efficiency of a university may be gauged by treatment of its central organ – the library.

While, we are coming to the types of academic libraries, i.e. School Library; College Library and University Library, because the purpose, form, the type of collection, and programmes of leach library are determined by the specific needs of its users. But the activities which are common to all libraries have to do in the following areas: 1. administering the library; 2. Building the collections; 1.3. making the items available for use; and 4. serving the users.

The sources, services and facilities in the School library is entirely different from the College Library. The information activities, the sources and services, may resemble with the university library, but provided up to a limited extent.

The sources, services, and facilities are differ from one type of library to the other, but the University Library is entirely different from the other two libraries, particularly in providing the information activities as well as in the areas like: finance, manpower requirements, furniture, equipment, online sources, and digital information activities, are incomparable. The polymedia concept of academic library approach is mostly depends on the e-sources, e-journals, and e-books, followed by the e-consortia, and networked sources.

1.3.10 SELF ASSESSMENT QUESTIONS

1. Define Academic Library, Distinguish the activities and functions of Academic Libraries.
2. Discuss the importance of Types of Academic Libraries, in the Academic World.

1.3.11 REFERENCES

1. Das Gupta, S(1960): Library Development in India: Some Structural Aspects, Library Herald, 1.3.
2. Kumar, PGS(1977): Indian Library Chronology : New Delhi, Metropolitan Book Co.,
3. World Survey of Education(1966): IV Higher Education, UNESCO, Paris.

UNIT-1:

LESSON- 4:

GROWTH AND DEVELOPMENT OF COLLEGE AND UNIVERSITY LIBRARIES

STRUCTURE

1.4.1 AIMS AND OBJECTIVES

In this lesson an attempt has been made to enumerate the developments in Higher Education in the British India. And the establishment of Colleges and Universities, along with the developments of Academic Libraries, impact of Dr. S. R. Ranganathan, and the efforts of UGC in developing the libraries in the academic institutions. After going through this letter, one can understand:

1. Higher Education and development of Libraries,
2. Development of Libraries in British India,
3. UGC and Development of Libraries in India Universities.

1.4.2 INTRODUCTION

In the early Twentieth Century, the Govt of British India, appointed an Education Commission in 1917 to look into the affairs of the Calcutta University. The Commission Recommendations on Libraries, were so practical, and were applied many other Academic Institutions in India. Thus the academic institutions in India paid attention towards, teaching and research activities, which in turn helped the growth and development of libraries in universities and colleges.

After the establishment of University Grants Commission (UGC) in 1953; good attention was paid on the development of the Academic Library System in India. During 1957; a survey was conducted to evaluate the state of the Academic Library System in India; it was revealed that most of the academic libraries are ill equipped; within adequate facilities; documentary resources; Information Services and the academic libraries are in very bad shape. The UGC appointed a Library Committee during 1957; Dr. S.R. Ranganathan as a Chairman of the Committee. The Library Committee, recommended for the necessary facilities, sources and services to meet the needs of the user community, i.e., students, faculty and research scholars etc.

Later, the Kothari Commission of 1964-66, conducted a survey of the Higher Education System of the country and the latest commission of the Academic Libraries. It is very interesting to note that “No Librarian” was included in the commission as a member of the Commission, to assess the Higher Education and the Academic Libraries in the country

Teaching, learning and research have been a tradition of Indian universities since ancient times. Dr. S. Radhakrishnan, former president of India and a great philosopher; said “In the olden days teachers of India were themselves libraries, and they were held in the highest esteem”. The

teachers were also opined as “Mobile Libraries” and “Memory libraries” Perhaps, that is the reason why, that there were no Academic Libraries existed during the Indus Valley and Aryan Civilization.

1.4.3 HIGHER EDUCATION AND ACADEMIC LIBRARIES

It has been recognized, that the academic libraries are generally accepted as a part and parcel of academic institutions. Founded in the city of Gomdhana,during 414 A.D.The historic background of Taxila was had an excellent library attached to this great educational institute. In that the historic Taxila 414 A.D was the academic libraries are generally because the pat and faculty was the first university in the world. This library had collections and included works on Hinduism, Political Science, Literature, Medicine and Philosophy etc. It was known as intellectual capital of Indian Higher Education. And the Buddhist monastic institutions at Nalanda, Vallabhi, Vikramasila and Donta Puri became important centers of higher learning. In all these institutions, there were well established library system, for the benefit of their students and faculty.

The Nalanda University, which was located about 55 miles south east of Patna in Bihar, occupied a unique place and played a dynamic role in Indian Ancient Education, and this university was at its peak of reputation and International Glory in the nineth century A.D. had a wonderful collections of most valuable manuscripts and strength over ten thousands students who are from China, Tibet, Korea etc. The Nalanda university library was know as Dharmaganga (printing most) and had three buildings, know as Ratnasagara (Sea of Gems.), Ratnanidhi (Ocean of Gems), Ratnayakara (collection of Gems) was a nine story building and specialized in rare sacred works. Nalanda university library was the biggest in Asia at that time. Thus one can say that there were a few good academic institutions of higher learning and academic libraries with rich collections.

The academic institution and libraries attached to these institution, are found in the writings of famous Chinese travellers, Fa-Hien, Hiuen-Tsang and I-Tsing who visited India in 399 A.D., 629 A.D., and 672 A.D. respectively. In the words of Hiuen-Tsang “the libraries were a richly furnished, not only with orthodox literature but also with Vedic and other non-Buddhist works and with treatises on the arts and sciences taught in India.

The passengers of higher education and the development of academic libraries are completely affected during the medieval period of Indian history witnessed number of wars and invasions. The Muslim’s invasion during 1175 A.D. has not even spared the educational institutions of higher learning, the destruction of the Buddhist Vihars and their famous libraries. Most of the later Muslim rules in India are “Book” lovers and established their own libraries, but access to the reading materials are limited to a few privileged people and scholars. But during the 14th centuary, the Bhamoni Kings established good number of colleges with libraries in their Kingdoms. This review shows, that the higher education and academic libraries did not flourished during the Medieval Period, but well developed during the ancient period in India.

1.4.4 DEVELOPMENT OF LIBRARIES IN THE BRITISH PERIOD 1800-1947

During the British Period (1800-1947) the seeds of development of higher education in general and the academic libraries in particular taken place in India. During the year 1800, the colleges were

established without libraries, and no efforts were made to create libraries in the colleges, until 1850s. On the recommendations of the Woods Education Commission, three universities were established in the presidency cities of Bombay, Calcutta and Madras, on the lines of London universities. Thus the academic libraries were established its initiatives after the establishment of these universities. Then it was realized, that libraries were inseparable part of colleges or universities, and an integral part of the Modern Indian Higher Education System. But the progress of Academic Libraries was very slow due to lack of administrative interest, initiative and non-availability of separate budgets. During 1882, the Hunter Commissions Recommendation, came into force to establish Academic Libraries. The Raliegh Commission, under the Chairmanship of Sir Thomas Raliegh, reviewed the Indian Higher Education System, and made recommendations for the establishment of academic libraries, in the universities and colleges. In the early Twentieth Century, the Govt of British India, appointed an Education Commission in 1917 to look into the affairs of the Calcutta University. The Commission Recommendations on Libraries, were so practical, and were applied many other Academic Institutions in India. Thus the academic institutions in India paid attention towards, teaching and research activities, which in turn helped the growth and development of libraries in universities and colleges.

1.4.5 STATUS OF ACADEMIC LIBRARIES IN INDEPENDENT INDIA

Even after independence, the academic libraries attached to the university and colleges, exhibited very poor performance, and the libraries are in unrecognized component of the university or college. During 1948, the University Education Commission under the Chairmanship of Dr. S. Radhakrishna, find out the very poor state of the academic libraries; and immediately suggested better facilities; separate budget allocations recorded for important information sources; services and facility must be improved in all the academic libraries, to meet the user needs. After the establishment of University Grants Commission (UGC) in 1953; good attention was paid on the development of the Academic Library System in India. During 1957; a survey was conducted to evaluate the state of the Academic Library System in India; it was revealed that most of the academic libraries are ill equipped; with in adequate facilities; documentary resources; Information Services and the academic libraries are in very bad shape. The UGC appointed a Library Committee during 1957; Dr. S.R. Ranganathan as a Chairman of the Committee. The Library Committee, recommended for the necessary facilities, sources and services to meet the needs of the user community, i.e., students, faculty and research scholars etc.

Later, the Kothari Commission of 1964-66, conducted a survey of the Higher Education System of the country and the latest commission of the Academic Libraries. It is very interesting to note that “No Librarian” was included in the commission as a member of the Commission, to assess the Higher Education and the Academic Libraries in the country. But the Kothari Commission, identified the importance of a library in Higher Education, and established that the present state of the libraries attached to the universities are poor stage and not satisfactory. Thus the growth of Higher Education, since independence, certainly helped the development of Academic Libraries, on par with the Academic Institutions. To recognize the importance of the library as on important component of Higher Education, and the man behind this recommendations of the UGC and Committees, was Dr. S.R. Ranghanathan, who guided the National Govt. towards the library conscious.

1.4.6 DR. S.R. RANGANATHAN CONSTITUTION

Dr. S. R. Ranganathan's dedication, determination and his hard work towards the development of the library system in India, made more library conscious. The direction of his efforts more towards the academic libraries, and benefit the Indian Higher Education. It may be realized that the pre-independence period the academic libraries had no real significance in the academic institutions. The real ground for the Development of academic libraries was achieved by the significant efforts of Dr. S.R. Rangathan.

1.4.7 DEVELOPMENT OF HIGHER EDUCATION AND ACADEMIC LIBRARIES 1800-1924

The Indian Higher Education System in India and the development of Academic Library System was very slow during the medieval period. The development of Academic Libraries in India was linked with the progress of academic institution of the country. The East India Company in general adopted a policy; of non-intervention into Indian Educational Affairs; thus they did not pay any attention to the development of academic libraries. But the early British period then the academic libraries did not achieve any significant developments. But Warren Hastings, the Govt. of the British East India Company, during 1772 to 1785, established a Mahanndan College, to teach Arabic and Persian, Lord Cornwallis, during 1792 supporting the establishment of the Sanskrit College at Bara with Govt. expense.

1.4.7.1 The Fort William College, Calcutta

The historical evidences of a college library, with required staff was identified during the tenure of Wallesley during 1798 to 1805). The Marquis of Wallesley, the Governor General of India (1798 to 1805). The Fort William College was established in Calcutta on August 18, 1800. Wellesley thought of having a library as a part of this new College. Reverend David Brown, Principle of the college, was helped in establishing a library, and it was opened to the general public also, besides the college students and teachers. This library had good collections in Hindustani, Persian and Arabic languages with valuable Eastern Manuscripts collections; during 1799, Tippu Sultan of Mysore was died in the battle of Srirangapatnam, the library collections of Tippu Sultans' library was added to College of Fort William, during 1800. In 1805, the library staff consisting of one native library in-charge of Tippu Sultans library, and one English librarian in charge of the European Library.

The adverse decisions of the William Bentick, Governor General of India, dissolved the college council during 1831; and discouraged college and library environment. Then the majority of the valuable books were transferred to the Asiatic Society library in Calcutta between 1935-39. The remaining collections; including the European collections transferred to the Calcutta Public library, during 1936 to the important library, 1902 and the National library of India, since 1947.

1.4.7.2 The Charter Act of 1813

Lord Minto, Governor General of India (1807-13), ever in 1811 realised importance of education, decided to establish colleges and library as a part of a college, for the benefit of people. He first recognized that the equal rank and equal pay for librarians as par with professors.

The British Government renewed the East India Company's Charter in India; it gave a very clear revolution, that the Charter Act of 1813; the East India Company had complete responsibility of educating Indians. The British Parliament donated Rs.1,00,000 rupees should be spent on education annually. Though this Charter Act of 1813; few colleges were established; i.e., C.M.S. College in Kottayam, Hindu (presidency) College in Calcutta in 1816, and Raven Shaw College in Cuttack in 1816. All these colleges are having college libraries.

1.4.7.3 Serompore College

The Danish settlements in Serompore established a Serompore College by Danes in 1818. It offered courses in Arts, Sciences of the West, juris prudence, and Theology, to promote learning among Indians. The excellence/ performance and success of college was completely depends on the library attached to this college. The king of Denmark 1827 was so pleased and bestowed upon the college "An Academic Status Equivalent to the Danish Universities" with prior to confer degrees during Historically speaking, Serompore College is considered to be the first Modern University in India. Now Serompore is affiliated to the university of Burdwan for awarding degrees.

1.4.8 ENGLISH LITERATURE AND SCIENCE EDUCATION:

Development of Colleges

During 1935, the British India Govt took a historic decision to promote English literature and Science Education in India. Huge budgets are allocated to spent on English Education only. The great men like Thomas Macouly, Law Member of the Governor Generals' Council, the Indian Liberal Leader, Raja Ram Mohan Roy, were responsible for this historic decision. Thus the English language was adopted as a medium of instruction in British India.

The number of Colleges in India grew fast and by 1839, about forty colleges, attached with libraries were established under the British territory in India. The Madras Presidency College was established during 1840; and a Medical College at Bombay in 1945. Through this programme in college Education was instrumental in establishing the Universities in India.

1.4.9 DEVELOPMENT OF UNIVERSITIES

Dr. Monat, Secretary of the Council of Education, first proposed in 1845, that a University be established in Bengal. Sir John Colville introduced the bill to establish universities in India during 1857. The Governor General of India, Lord Dalhousie, accepted to establish three Universities based on the London University Model, in the presidency towns of Calcutta, Madras and Bombay.

The Calcutta University was established in January 1857 the Registrar of the University was empowered to be the custodian of the library of the University. Thus a new era of higher education and Academic Libraries are Started in India. A beautiful Calcutta University building was constructed during 1872, with a cost of Rs. 4,34,697 rupees. The University Library was housed in this building.

The oldest and first Modern University Library was established in British India. The library budget during the year 1872, was only Rs.6,000/- and the University Sanctioned Additional Grant of Rs.3,500/- during 1873-74 financial year. A Separate Committee was appointed to prepare a list of important books to be purchased for the library. The periodical collections to the library were introduced during 1871.4. Thus the collection development of the library consisting of English works of Reference, Indian Antiquities, Arabic, French, German, Latin and Sanskrit classes. A printed catalogue of Books was brought out in 1876. The average expenditure during 1870's on books, periodicals and reference books etc. was about Rs.12,000/- per year.

1.4.10 DEVELOPMENT OF HIGHER EDUCATION & LIBRARIES IN INDIA:

The Universities and Colleges are working as centers of higher learning and promote education, teaching, research and training to the community. The implementation of the National Policy on Education (1986) and Programme of Action (POA) has necessitated initiative in several new programmes to meet the needs of the education, research and training. The constitutional responsibility for coordination, determination and maintenance of standards in higher education, the Central Government and the University Grants Commission have been taking several measures for improving the standards of teaching and research in the Universities and Colleges. The Higher education will play an important role in promoting values of secularism, national integration and scientific temper to create the federal climate among the people of the country, through the spread of higher education. At the same time, the library and information centers are recognized as very important components of the educational institutions. The Education Committees and Commissions appointed by the Central and State Governments; realized that the "Library Centered Education" is very important in the Colleges and Universities.

1.4.11 ROLE OF LIBRARIES IN ACADEMIC INSTITUTIONS:

The freedom, prosperity and development of society and individuals are basic aims of the library. Library is a centre of knowledge, develops human values and cultural maturation with its vast stocks of knowledge in the form of documents.

The user community, i.e. student, scholar and teacher etc., and their constructive interaction with the library, generate knowledge and enlighten the user understanding, thus create new ideas of future development. Information is a vital resource and valuable input of sustainable, societal development and the libraries will play an important role in the academic institutions in providing the user information needs. There were traces few libraries existed in the educational institutions during the pre-independence period.

Number of Commissions and Committees were appointed by the Government of India, to look into the status of Education and Library system, during the post independent period. And these commissions and committee reports stressed the importance and need of Academic libraries as centers of education and research. The efforts and the initiatives of the government, paved the way for the establishment of quite a good number of libraries, which are attached to various educational institutions. The pivotal role played by the libraries in academic institutions, scientific, industrial, social and economic development of the country was came to be recognized in the middle of this

century. After independence, the industrial development, and the development of literacy rate stressed the need of the development of libraries particularly among the educational institutions, universities, colleges and schools. No one can understand the fact that the academic libraries have been serving just as a formality, to support the institutional education system at Universities, and Colleges.

Academic libraries must be treated and recognised as a Central facility of a University and College, and these libraries will meet all the information needs of the user community of that particular institute or university. The Library will meet the scientific and research needs as laboratory to the Scientist, while in the social research, the library helps as a library and laboratory. And for both scientists, engineers and of the social scientists, the academic library serves as a laboratory. Thus academic library play an important role as a heart and fulcrum of the university, college and school library. The library may be treated as a sensitive instrument of teaching, research and training and helps in the personality development of the user community.

1.4.11.1 U.G.C. AND DEVELOPMENT OF LIBRARIES:

The U.G.C. since its inception, playing a dynamic role for improving the library system in India through its various programmes contributed the Library development in Colleges and Universities. Particularly, lin the Eighth Five Year Plan period, (1990-1995) the UGC made an attempt to transformed the Libraries into Information Centres, through the adoption of IT and ICT facilities in the library and information activities in almost all College and Universities Libraries. The UGC has extended its 100% financial assistance during the Eighth Plan Period, for the i) Library Staff, ii) Equipment and Reprography; iii) Books and Journals and Library Building, whereas for i) Machinery and Equipment, 75% of financial Assistance was extended and thus strengthen the College and University Libraries.

The UGC has constituted a number of Committees, viz. Ranganathan Committee (1965); Mehrotra Committee (1986); Padmanabhan Committee (1986) and Girja Kumar Committee (1981) to find out the status of the University and College Library Services, Sources and Facilities in the country and also to invited suggestions on various issues for strengthen the existing libraries into modern information canters.

The increasing costs of infrastructure facilities, books, journals and non-book materials, special materials, e-books, e-journals, the online sources, and the provision of digital sources, the UGC is unable to provide the balanced budgets to the College and University Libraries. To overcome this problem, the 'Resource Sharing Plans viz. of INFLIBNET, INTONET have been conceived and implemented. In spite of all these efforts, the UGC is now following the objective based policy to provide funds to University College Libraries. The UGCs financial allocation efforts have been categorised into the following three areas:

1) Infrastructure Development;
2) Collection Development;
3) Professional quality improvement;

1. **The Infrastructure Development**: is consisting basically: Library Building; Reprography; and Computer facilities, through the brand high-speed internet facility, the establishment of digital library facilities, followed by the implementation of automation, with the SOUL software. Further, the UGC, will extend the e-journals, e-books, e-sources,

through the INFLIBNET and INFONET facilities, to the University and College Libraries. Thus the University and College Library system attaining the speed of 20th century, in providing the necessary information services, services and facilities to meet the user needs and demands.

2. **Collection Development:** adopting the printing technologies, advancement of reprographic facilities and information technology in the information service activities in the libraries. The use of IT and ICT, help in sharing the resources of group of libraries. In this direction, very UGC made efforts in Seventh Five Year Plan, under the programme of "Media Education Programmes": and prepared non-book materials through AVRCs and EMRCs. As a result, about 2000 audio video cassettes are available. Few Databases are created, and thus Library Networks, followed by the CD-ROM products are accessible. The UGC providing grants for the purchase of books and journals in every scheme of grants of five year plans and plan periods. And the Book Banks, Book Writing, Publication Grants are also available through UGC under unassigned grants.

3. **Professional Quality Improvement**: Under this programme, the UGC provide guidelines for the constitution of Library Advisory Committee to assist the Librarians, both in running the libraries, and managing the libraries, as effective information resource centres. The Pay Scales of the Librarians and the Library Professionals, Norms for Staffing Patterns are reviewed by the UGC, and appoint Cadre Review Committee to improve the present service conditions of the library staff. UGC took all initiative to improve and establish 'National Information Centres and proposed Five Regional Library Centres are planned to be set up at Calcutta, Bombay, Bangalore, Banaras, with a National Centre at Delhi. This programme was reviewed in the Sixth Plan and the UGC National Information Centres at Bangalore, the SNDT Women's University, Bombay and M.S. University, Baroda were set up. To overcome the financial and library budget problems, the UGC suggested and encouraging the Resource Sharing, Networking among the academic institutions and through Consortia the colleges like Engineering and Medical College Libraries, and now sharing their financial resources, information sources, and e-journals and e-sources. The UGC is also looking into the 'Library and Information Science Education' has been given priority through the integrated development of library facilities in the Universities and College Libraries. The Professional skills and knowledge, the latest practices and procedures have been adopted to improve the library facilities.

.

1.4.11.2 DEVELOPMENT OF HIGHER EDUCATION & LIBRARIES IN INDIA:

The Universities and Colleges are working as centers of higher learning and promote education, teaching, research and training to the community. The implementation of the National Policy on Education (1986) and Programme of Action (POA) has necessitated initiative in several new programmes to meet the needs of the education, research and training. The constitutional responsibility for coordination, determination and maintenance of standards in higher education, the Central Government and the University Grants Commission have been taking several measures for improving the standards of teaching and research in the Universities and Colleges. The Higher education will play an important role in promoting values of secularism, national integration and scientific temper to create the federal climate among the people of the country, through the spread of higher education.

At the same time, the library and information centers are recognized as very important components of the educational institutions. The Education Committees and Commissions appointed by the Central and State Governments; realized that the "Library Centered Education" is very important in the Colleges and Universities.

1.4.11.3 ROLE OF LIBRARIES IN ACADEMIC INSTITUTIONS:

The freedom, prosperity and development of society and individuals are basic aims of the library. Library is a centre of knowledge, develops human values and cultural maturation with its vast stocks of knowledge in the form of documents.

The user community, i.e. student, scholar and teacher etc., and their constructive interaction with the library, generate knowledge and enlighten the user understanding, thus create new ideas of future development. Information is a vital resource and valuable input of sustainable, societal development and the libraries will play an important role in the academic institutions in providing the user information needs. There were traces few libraries existed in the educational institutions during the pre-independence period.

Number of Commissions and Committees were appointed by the Government of India, to look into the status of Education and Library system, during the post independent period. And these commissions and committee reports stressed the importance and need of Academic libraries as centers of education and research. The efforts and the initiatives of the government, paved the way for the establishment of quite a good number of libraries, which are attached to various educational institutions. The pivotal role played by the libraries in academic institutions, scientific, industrial, social and economic development of the country was came to be recognized in the middle of this century. After independence, the industrial development, and the development of literacy rate stressed the need of the development of libraries particularly among the educational institutions, universities, colleges and schools. No one can understand the fact that the academic libraries have been serving just as a formality, to support the institutional education system at Universities, and Colleges.

Academic libraries must be treated and recognised as a Central facility of a University and College, and these libraries will meet all the information needs of the user community of that particular institute or university. The Library will meet the scientific and research needs as laboratory to the Scientist, while in the social research, the library helps as a library and laboratory. And for both scientists, engineers and of the social scientists, the academic library serves as a laboratory. Thus academic library play an important role as a heart and fulcrum of the university, college and school library. The library may be treated as a sensitive instrument of teaching, research and training and helps in the personality development of the user community.

1.4.11.4 U.G.C. AND DEVELOPMENT OF LIBRARIES:

1. **Library Development in Colleges and Universities:** The U.G.C. since its inception, playing a dynamic role for improving the library system in India through its various programmes contributed the Library development in Colleges and Universities. Particularly, lin the Eighth Five Year Plan period, (1990-1995) the UGC made an attempt to transformed the Libraries into Information Centres, through the adoption of IT and

ICT facilities in the library and information activities in almost all College and Universities Libraries. The UGC has extended its 100% financial assistance during the Eighth Plan Period, for the i) Library Staff, ii) Equipment and Reprography; iii) Books and Journals and Library Building, whereas for i) Machinery and Equipment, 75% of financial Assistance was extended and thus strengthen the College and University Libraries.

2. **The UGC has constituted a number of Committees**, viz. Ranganathan Committee (1965); Mehrotra Committee (1986); Padmanabhan Committee (1986) and Girja Kumar Committee (1981) to find out the status of the University and College Library Services, Sources and Facilities in the country and also to invited suggestions on various issues for strengthen the existing libraries into modern information canters.

3. **The increasing costs of infrastructure facilities**, books, journals and non-book materials, special materials, e-books, e-journals, the online sources, and the provision of digital sources, the UGC is unable to provide the balanced budgets to the College and University Libraries. To overcome this problem, the 'Resource Sharing Plans viz. of INFLIBNET, INTONET have been conceived and implemented. In spite of all these efforts, the UGC is now following the objective based policy to provide funds to University College Libraries. The UGCs financial allocation efforts have been categorized into the following three areas:

4. **The Infrastructure Development**: is consisting basically: Library Building; Reprography; and Computer facilities, through the brand high-speed internet facility, the establishment of digital library facilities, followed by the implementation of automation, with the SOUL software. Further, the UGC, will extend the e-journals, e-books, e-sources, through the INFLIBNET and INFONET facilities, to the University and College Libraries. Thus the University and College Library system attaining the speed of 20th century, in providing the necessary information services, services and facilities to meet the user needs and demands.

5. **Collection Development:** adopting the printing technologies, advancement of reprographic facilities and information technology in the information service activities in the libraries. The use of IT and ICT, help in sharing the resources of group of libraries. In this direction, very UGC made efforts in Seventh Five Year Plan, under the programme of "Media Education Programmes": and prepared non-book materials through AVRCs and EMRCs. As a result, about 2000 audio video cassettes are available. Few Databases are created, and thus Library Networks, followed by the CD-ROM products are accessible. The UGC providing grants for the purchase of books and journals in every scheme of grants of five year plans and plan periods. And the Book Banks, Book Writing, Publication Grants are also available through UGC under unassigned grants.

6. **Professional Quality Improvement**: Under this programme, the UGC provide guidelines for the constitution of Library Advisory Committee to assist the Librarians, both in running the libraries, and managing the libraries, as effective information resource centres. The Pay Scales of the Librarians and the Library Professionals, Norms for Staffing Patterns are reviewed by the UGC, and appoint Cadre Review Committee to improve the present service conditions of the library staff. UGC took all initiative to improve

and establish 'National Information Centers and proposed Five Regional Library Centres are planned to be set up at Calcutta, Bombay, Bangalore, Banaras, with a National Centre at Delhi. This programme was reviewed in the Sixth Plan and the UGC National Information Centres at Bangalore, the SNDT Women's University, Bombay and M.S. University, Baroda were set up. To overcome the financial and library budget problems, the UGC suggested and encouraging the Resource Sharing, Networking among the academic institutions and through Consortia the colleges like Engineering and Medical College Libraries, and now sharing their financial resources, information sources, and e-journals and e-sources. The UGC is also looking into the 'Library and Information Science Education' has been given priority through the integrated development of library facilities in the Universities and College Libraries. The Professional skills and knowledge, the latest practices and procedures have been adopted to improve the library facilities.

.

1.4.12 LIBRARY COMMITTEES AND COMMISSIONS IN INDIA:

The University Grants Commission (UGC) has appointed a Library Committee, under the leadership of Dr. C.D. Deshmukh, as a Chairman, during 1957 and in another Library Committee, which constituted in 1959, Dr. S.R. Ranganathan, as a Chairman of the Committee. On the recommendation of Library Committee of 1959, UGC appointed a Review Committee on Library Science was appointed in 1961. The Review Committee recommended the standards of teaching, the conduct of examinations land research in Library and Information Science Schools. The Institutions and Universities have had to prepare the curriculum for various levels of Library Education. The Committee has suggested guidelines for conducting examinations and lay down minimum standards for education and research programs to be implemented throughout the country. This Committee was also recommended that the teachers of Library Science, should be treated at par with the teachers other department in all academic and administrative matter of the University. Finally, the UGC has accepted the recommendations of the Review Committee; and the Report of "Review Committee", on Library Science entitled "Library Science in Indian Universities", laws published by the UGC in 1965. According to the recommendations of the various Committees and Commissions, the UGC has various measures to improve the library Sources, Services and Facilities of the College and University Libraries, thus the developments in the Libraries at College and University level are initiated by the UGC.

The Kothari Commission's report on "Education and Development (1964-66)" further emphasized importance and need of the developments of University land College Libraries etc. This commission also stressed that the libraries in University and Colleges are an integral part of the University and College administration and development. The UGC appointed Mehortra Committee (1983), under the Chairmanship of Prof. R.C. Mehrotra, Rajasthan University, Jaipur for the revision of pay scales of Teachers, Librarians and Directors also. The Mehortra Committee recognized the importance of the Library, Librarians and Library Profession and reviewed the pay scales on par with teachers in various levels. The Government of India accepted the recommendations of Mehortra Committee and implemented revised UGC pay scales of 1986 to the Librarians also.

1.4.13 NETWORK SYSTEM FOR SPECIAL LIBRARIES:

Committee on National Network System for University Libraries (1988) was initiated by the "Planning Commission", and set up a working group on Modernization of Library Services and

Informatics, under the Seventh Five Year Plan Period (1985-90), under the Chairmanship of Dr. N. Seshagiri. The working group suggested for developing a Computer Network linking all Special Libraries in India by 2000.

1.4.14 NATIONAL NETWORK SYSTEM:

The then UGC Chairman, Prof. Yashpal, during 1988, constituted a 'Working Group' to prepare a report on "Information and Library Network" (INFLIBNET). The Information centers, and from Computer and Communication fields. The working group covered, various aspects of output and services of INFLIBNET organization, standardization for information handling, application of software, hardware, networking, technical manpower training, implementation of Library Automation in College and University levels and the cost implications. Thus the INFLIBNET was shaped and introduced in the University and College Library.

1.4.15 CURRICULUM DEVELOPMENT COMMITTEE ON LIS (1990-9300):

Further the UGC initiated the Curriculum Development Committee (CDC) during 1990 on library and Information Science (LIS) was constituted to modernize the curriculum of LIS courses. The CDC gave a historical overview of the development of LIS Education, suggested guidelines to LIS Schools, regarding admission policy, criteria for admission test, student strength, medium of instruction, use of teaching aids etc.

During 1997, the UGC constituted the CDC on Library and Information Science with Prof. C.R. Karisiddappa as its convener. The Committee conducted a survey of LIS education in India, by circulating questionnaires to all the Department of LIS. The subject panels examined the various previous reports since, 1959, i.e. UGC Library Committee Report on University & College Libraries, submitted by Dr. S.R. Ranganathan (1959), UGC Report of the Review Committee, 1981; UGC Report of Curriculum Development Committee in LIS (1992); under the Chairmanship of Prof. P.M. Kaula, ; UNESCO Curriculum for Information Science, 1998; etc. These reports strengthen the LIS Curriculum Development and strengthened the LIS education, which led to the development of University and Colleges, in India.

1.4.16 SUMMATION

In the early Twentieth Century, the Govt of British India, appointed an Education Commission in 1917 to look into the affairs of the Calcutta University. The Muslim's invasion during 1175 A.D. has not even spared the educational institutions of higher learning, the destruction of the Buddhist Vihars and their famous libraries. But during the 14th centuary, the Bhamoni Kings established good number of colleges with libraries in their Kingdoms. This review shows, that the higher education and academic libraries did not flourished during the Medieval Period, but well developed during the ancient period in India. During the British Period (1800-1947) the seeds of development of higher education in general and the academic libraries in particular taken place in India. Twentieth Century, the Government of British India, appointed an Education Commission in 1917 to look into the affairs of the Calcutta University. The Commission Recommendations on Libraries, were so practical, and were applied many other Academic Institutions in India. Thus the academic institutions in India paid attention

towards, teaching and research activities, which in turn helped the growth and development of libraries in universities and colleges.

The University Grants Commission (UGC) has appointed a Library Committee, under the leadership of Dr. C.D. Deshmukh, as a Chairman, during 1957 and in another Library Committee, which constituted in 1959, Dr. S.R. Ranganathan, as a Chairman of the Committee. On the recommendation of Library Committee of 1959, UGC appointed a Review Committee on Library Science was appointed in 1961. The Kothari Commission's report on "Education and Development (1964-66)" further emphasized importance and need of the developments of University land College Libraries etc. The Mehortra Committee recognized the importance of the Library, Librarians and Library Profession and reviewed the pay scales on par with teachers in various levels. The Government of India accepted the recommendations of Mehortra Committee and implemented revised UGC pay scales of 1986 to the Librarians also.

Committee on National Network System for University Libraries (1988) was initiated by the "Planning Commission", and set up a working group on Modernization of Library Services and Informatics, under the Seventh Five Year Plan Period (1985-90), under the Chairmanship of Dr. N. Seshagiri. The working group suggested for developing a Computer Network linking all Special Libraries in India by 2000. The then UGC Chairman, Prof. Yashpal, during 1988, constituted a 'Working Group' to prepare a report on "Information and Library Network" (INFLIBNET).

The Information centers, and from Computer and Communication fields. Further the UGC initiated the Curriculum Development Committee (CDC) during 1990 on library and Information Science (LIS) was constituted to modernize the curriculum of LIS courses. UGC Report of Curriculum Development Committee in LIS (1992); under the Chairmanship of Prof. P.M. Kaula, ; UNESCO Curriculum for Information Science, 1998; etc. These reports strengthen the LIS Curriculum Development and strengthened the LIS education, which led to the development of University and Colleges, in India.

1.4.17 SELF ASSESSMENT QUESTIONS

1.Evaluate the developments of Libraries in the British period, 1800-1947.

2.Discuss the development of Higher Education land Libraries in India.

3.Examine the importance of UGC in the Development of Higher Education and Libraries in Academic Institutions.

1.4.18 REFERENCES

1. Indian Education Commission, 1964 Report, Ministry of Education, Government of India, New Delhi, 1966.

2. Viswanathan, C.G(1972): University Libraries in India, 1857-1970: Principles and Policies, New Delhi.

3. Mani Subrahmanya ((1967): History and Development of University Libraries in India.

UNIT 2:

Lesson: 1

RESOURCES SHARING

STRUCTURE

2.1.1 AIMS AND OBJECTIVES

In this lesson, the author made an attempt to note all the required developments, in the Resource Sharing. The Resource sharing denotes a mode of library operation whereby all or part of the library functions are shared in common among several libraries. The basic functions may be classified as: i) acquisitions, ii) processing, iii) storage and iv) delivery of services**.** After gpomg through this lesson, the students can understand:

1. What is Resource Sharing, and its origin and developments,
2. Criteria for Resource Sharing, and Goals of Resource Sharing,

3. Impact of Resource Sharing on Networking, Consortia, & Internet,

2.1.2 INTRODUCTION

In the sense of Resource Sharing, providing access and permitting other than the local clientele; and right to utilize the bibliographic tools (e.g. the catalog). Resource sharing requires access to circulation information to avoid disappointment and to accelerate the process of locating the required material at another library. And next basic step entails transfer of the desired physical material to the point of need. Resource sharing therefore involves establishing positive procedures for delivering materials, land for ensuring their return in a timely manner. If the resource sharing is to be deemed successful, all procedures must occur with sufficient speed so that the client has the desired material in hand well before the need has evaporated. There are other aspects of sharing to be considered including agreements for implementing cooperation and Resource sharing.

2.1.3 RESOURCE SHARING AND COOPERATIVE COLLECTION DEVELOPMENT

A working definition of cooperative collection development is “the sharing of responsibilities among two or more libraries for the process of acquiring materials, developing collections, and managing the growth and maintenance of collections in a user-beneficial and cost-beneficial way.” The umbrella term used into the mid-1980s was Resource Sharing and applied to:

a) Cooperatively cataloging ,
b) Shared storage facilities,
c) Shared preservation activities,
d) Interlibrary loan (ILL), and
e) Coordinated or cooperative collection development.

Today, resource sharing usually means the sharing of resources or materials through ILL. Through ILL, the reciprocal lending and borrowing of materials between libraries, has a long history. One of the earliest references dates from 200 B.C., when the library in Alexandria is known to have lent materials to Pergamum. Library cooperation is not a new idea. In 1886, Melvil Dewey listed one of the major needs of the modern library movement as “ a practical means of bringing the enormous benefits of cooperation, in to full play in the interests of Michael Gorman, that “Cooperation is as essential to a library as is water to a fish or air to mammal.”

2.1.4 AGREEMENTS IN RESOURCE SHARING

The following are the basic requites to achieve Resource Sharing: there are several basic agreements among libraries that must be developed if a resource-sharing system is to be achieved.

1) First, The agreement to share currently owned materials (that is, to permit access to the holdings among partners), with protocols, limitations, and priorities carefully spelled out. Funding should be based on an obligation for long-term support to permit the benefits to develop; the financial agreement should permit individual libraries to withdraw, to avoid disturbance of the system.

2) Second, There should be agreement on acquisitions polities, both to ensure consistent development of holdings and to avoid redundancy.

3) Third, There should be agreement on bibliographic control, Best is standardization, so that users of each cooperating library have a consistent means of accessing the catalogs of others. The second best is the, provision of adequate training for users and access to the local reference staff, to provide aid in locating materials. Other necessary agreements include definition of loan periods, and renewals, procedures for earlier return of materials, payment for lost materials, and other "housekeeping" or book keeping etc.

2.1.5 CRITERIA FOR RESOURCE SHARING:

The basic requisites considered for Resource Sharing partners can now be derived once a given library has decided to go for Resource Sharing are:

1. Collections useful to several institutions,

2. Bibliographic apparatus (now available, or a willingness to develop them) which will be:

   a) Accessible and addressable by several clienteles,

   b) Able to instigate delivery efficiently;

      In the "ideal" case, one may wish to use as the basic criteria for joining forces:

      i) "Equal" distribution of unique resources,

      ii) Willingness to engage in "enforceable" agreements,

The most important criterion, is a library staff and a clientele willing to adapt to change. The ideal resource-sharing system requires that convenient access to bibliographic tools and materials be provided to patrons. Even in the ideal system, the librarian and the user will be obliged to unlearn old procedures and to learn new ones. This will require an understanding of the societal forces that make it necessary to be served in new ways, as libraries move into resource-sharing environments. Since these new environments will not, and cannot, be accomplished in a single dramatic happening, the librarians and the clientele will need to be willing to have changes occur over a period of time.

2.1.6 GOALS OF RESOURCE SHARING

The Resource sharing denotes a mode of library operation whereby all or part of the library functions are shared in common among several libraries. The basic functions may be classified as: i) acquisitions, ii) processing, iii) storage and iv) delivery of services**.** The dominant aspects of resource sharing to date have been in the areas of processing delivery of service. There have also been significant activities in the areas of centralized storage and acquisitions. In addition, several commercial organizations offer bibliographic access, via. National computer time-sharing systems to the journal land document literature of many disciplines.

1) The first goal of Resource sharing is to maximize the availability of materials and services at the minimal expense. The emphasis is on access rather than possession, the

fundamental premise is that no library can possess substantially all of the world's literature or any exhaustive part of it. The inability to possess the exponentially expanding mass of printed material being produced and the increasing cost of acquiring it. An adequate concept of expenses include; personnel, space, processing, and maintenance costs etc. Even the budgets sanctions are increased annually have significantly less buying power than the previous years, due to the escalation of book prices.

2) **The effectiveness of Resource sharing depends on the availability of appropriate communications, technology, and delivery systems**. The computer has been an extremely effective device for processing and locating materials quickly and conveniently regardless of distance. The delivery systems to date have relied mostly on mail service or private delivery systems.

3) **The cost-effectiveness of resource sharing** is diminished at present, because it has to run in parallel with systems working toward self-sufficiency. As more integrated systems of resource sharing develop, more benefits will be realized from redistributed responsibilities and resources.

4) **The formal cooperative efforts of the 1950s and 1960s known as Resource sharing, and the technology available, responded to the needs of the Libraries**. Government agencies, professional organizations, and individual institutions began to set standards and organize information networks. The computers proved to be a useful instrument for creating the indexes and catalogs so critical to providing access to growling amounts of literature in all fields. In the 1970s these institutions began to think that entirely new systems of information storage and retrieval, in which all library functions would be shared and not merely individual operations. The Resource-sharing, networking, which includes all possible library functions, are now in existence, and so many cooperative resource sharing activities and networks has become possible, under different dimensions, such as:

1. Functions performed:
    a. Acquisitions,
    b. Processing,
    c. Storage,
    d. Reference,
    e. Delivery,
2. Type of library (e.g. public, school, college, special),
3. Subject matter (e.g., medicine, chemistry, social sciences),
4. Type of material (e.g., bibliographic data bases, journals, books),
5. Form of material (e.g., print, non-print),

6. Nature of cooperative arrangement (formal vs. informal),
7. Means of Financing,
8. Degree of automation,
9. Tax status (profit vs. nonprofit),

The other dimension of interest is "distribution of: a) Resources and b) Usage. Five Resource Distribution types can be identified:

a) Resources:

1. Equally distributed networks – all participants hold equal (but different) quantities of materials, to be utilized only by participants.
2. Star networks – one participant holds substantially all the resources, to be utilized by other participants.
3. Star networks with overlapping collections – several participants hold substantially equal quantities, with highly overlapping resources, to be utilized by themselves as well as by others.
4. Hierarchical networks – unsatisfied needs are passed along to the next greater resource center.
5. Mixed networks – combinations of the four network types listed above.

b) Usage: Usage distribution may be categorized along a continuum of low to high. The level of usage depends upon a number of factors, including:

1. Nature of the collection,
2. Bibliographic access,
3. Convenience of use (e.g., delivery time, ability to retain copy of material),
4. Fee Structure.

2.1.7 RESOURCE SHARING & NETWORKS IN WESTERN COUNTRIES:

The W.G. Kings Committee report on MARC project, at Library of Congress is one of the earliest steps towards the library automation, and by the efforts of IFLA, the birth of ISBD, came into light by 1970. The OCLC was founded in 1967, and introduced an online shared cataloging system for libraries in 1967. The Inter Library Loan Services was introduced in 1979. The US Department of Education offers networking grants, supports inter library loan projects, automation and retro-conversion projects, resource sharing schemes, etc. And Providing regular federal grants annually to the public and academic libraries, thus the Resource sharing and networks in USA got good initiative and developed. In UK, the best example is Birmingham Library Co-operative maintenance

Project (BLCMP) in Birmingham, which has 13 million bibliographic records of books, serials, music etc. in its database and its catalogues are get a hit rate of above 90% with more than 60 libraries comprising public libraries, college libraries, university libraries, national land special libraries. In the developed countries Resource sharing networking was established. The Australian Interlibrary Resource Sharing (ILRS) Directory is primary source for finding a contact for interlibrary loan and document delivery services within Australia and for discovering information about interlibrary loan charges and policies. There is also a Directory of Australian National Union Catalogue (NUC), it also lists organizations such as Art Galleries, Overseas Libraries etc.

The established Resource Sharing Networks in the West, observed the levels of networks, as: Local, Regional, National and International. Generally there may be Three Levels of National Resource Sharing Networks exist: viz.

1. **Local:** Information is stored in the local libraries in the form of Union Catalogues about the local libraries in the form of Union Catalogue of local collections available in the libraries;

2. **Regional:** Information is stored in regional libraries and services are provided on broad subject area basis;

3. **National:** National Union Catalogues are prepared on national level, and necessary **are provided to user on the available national resources. These systems also give** wide scope for exploiting resources and facilities available to the participating libraries. There are about four recognized existing models, their aims and activities are listed in detail in the table. The Four Existing Models are:

2.7.1 MODELS OF RESOURCE SHARING PROGRAMS

i) Centralized Collection Development and Services at National/Regional Level: This model aims at providing the cooperation between libraries, which are scattered geographically, within a region or the country. The Resources, which the model intends to share, are acquired and stored centrally. The participating libraries will share the expenditure incurred in this process. An apex administrative may be created to look into the balanced management and organization of the resource sharing through networks.

ii) Centralized Subject Collection Development and Services:

In this model, development of specific subject and related information services may be on shared basis. The geographic distribution of libraries and cooperation is clustered as City, Region, or the Country may be a Country. The total collections acquired are centrally stored at one place or premises. The government agencies, and the private organizations or institutions may be accepted as a members in this concept. The National Science Library at INSDOC, New Delhi (India), has developed a complementary collections of journals in Science and Technology, is also cited as an example. But, some times, the participating libraries and its consumers and not its partners.

iii) Centralized Collection Development at Organizational Level:

In this model, the shared collection is acquired centrally at la single site by a specified authority or an apex body. The participating libraries will share the expenditure in building the collections, as per their requirements of the participating libraries, and assure all the required information services. The greater organizations will take care of the subordinate units, under its control, like Defense Research Documentation Organization (DRDO), Department of Electronics (DoE), Indian Space Research Organizations (ISRO) and Centre for Scientific and Industrial Research (CSIR).,

iv) Coordinated Collection Development at Institutional Level:

Here in this model, group of participating libraries will initiate to co-ordinate in their material acquisitions, and library activities. Their objective is to eliminate duplication in its acquisitions. In this model, the process of the decentralized administration, and the priority of sharing of services proportionately, depends on their financial support and demands from the different units, on priority basis. Some of the services in this program are fee based and confined to City, Region, or Country. Most of the Resource Sharing programs through networks such as Delhi Library Network (DELNET), Bombay Library Networking (BONET), Madras Library Network (MALIBNET) and Information Library Networking (INFLIBNET).

2.1.8 FORMS OF RESOURCE SHARING

The Resource-sharing, which includes all possible library functions, are now in existence, and many cooperative resource sharing activities has become possible, under different forms, such as: 2.1. Acquisition; 2. Processing; 3. Catalogue Card Services; 4. Cataloguing in Publication (CIP); 5. Cooperative Storage; 6. Inter-Library-Loan(ILL); 7. Resource Sharing and Networking.

Acqusition: In Academic Libraries, the process of acquisition involves, a chain activities, of selection process starts from the Heads of the Departments, with active participation by the students, scholars and teachers in selection of the documents, and it may be further scrutinised by the library advisory committee, in general. All the above said activities, are completely eliminated in the cooperative acquisition. Thus, the participating libraries will save their time, money, manpower, ear a good amount of discounts from the sellers, at the same time strengthen the collections in the library.

Processing: Centralised collection development certainly reduce the burden of classification, and cataloguing services. Due to the availability of latest technologies, and advanced libraries softwares, are having inbuilt programmes of MARC-21, and other convertability facilities will help the libraries, particularly in cooperative collection and resource sharing. Thus the participating libraries can provide the online OPAC facility to access the materials for the participating libraries. It will also help in the retro-conversition of the existing data, which enhances the standard and quality in the library functioning.

Printed Catalogue Card Services: The printed Catalogue Card Service of the Library of Congress is, one of the best exaples of the “inception of the resource sharing in the world of library and information

science". After the Library of Congress, the British National Bibliography is also extended its efforts in developing the resource sharing concept in the libraries, later followed by the VINIT of Russia are also examples of shared cataloguing. The Union Catalogues are one of the form, out of the Resource Sharing. Even now, the card catalogue plays an important role in centralised acquisitions, by providing the union catalogues in the Central Libraries, which encourages the cooperative efforts.

Cataloguing- in -Publication (CIP): The Library of Congress initiated number of experiments on CIP concept, during 1971; Dr. S.R. Ranganathan, also profounded the Prenatal Cataloguing, which is on the basis of the CIP, which it support the cooperation and resource sharing in the libraries, through these experiments. Now about 2,500 publishers are following and participating in the CIP programmes, before the books are released. Out of the total experiments in the cooperation and resource sharing; the CIP and Prenatal Cataloguing plays very important role in the resource sharing and cooperation in the library field.

Cooperative Storage: It is observed, that there good number of books, which are identified as less used books; on the library shelves, which create a lot space problem for the new acquisitions. Such collections, lwhich are not lin active use may be stored on cooperative basis at a central dormitory. The **Coordinated Weeding and Retention,** these agreements seek to reduce the costs of maintaining collections by distributing responsibilities and sharing costs. Efforts to achieve space economies through cooperative storage facilities have the longest history. The New England Depository Library, founded in 1942, is the oldest cooperative storage facility in the United States. The CRL has a depository storage function as one of its major reasons for existence. In addition to housing cooperative purchases, member libraries place less used materials from their own collections in the central storage building.

Inter Library Loan (ILL): The umbrella term used into the mid 1980's was Resource Sharing and applied to: 1) cooperative cataloguing, 2) shared storage facilities, 3) shared preservation activities, 4) interlibrary loan (ILL), and 5) coordinated or cooperative collection development. Today, resource sharing usually means the sharing of resources or materials through ILL. ILL, the reciprocal lending and borrowing of materials between libraries, has a long history. One of the earliest references dates from 200 B.C., when the library in Alexandria is known to have lent materials to Pergamum. The Library of Congress issued its first policy governing ILL in 1907, and the American Library Association published its first ILL code in 1916. Ill is the most pervasive form of library cooperation and links most libraries across the United States and Canada and internationally as well. Association of Research Libraries (ARL) statistics for the year 2001/2002 show la 106 percent increase in borrowing by its member libraries between 1991 and 2002. Cooperative collection development is now understood to mean much more than resource sharing. There are certain pre-requisites for the successful implementation of this ILL program, i.e. 1) An agreed inter-library loan code; 2) Union Catalogues for location of documents; 3) An accepted agreement towards delivery system; 4) Agreements to look into the transaction costs among the libraries; and 5) Cooperative delivery services; with certain acceptable identity card-cum assurance card to delivery the items.

2.1.9 SPECIAL LIBRARIES & RESOURCE SHARING

1. **Centralized Subjectwise Collection Development :**

   The services in these libraries are mostly concentrated on subjectwise information retrieval**.**
   Resources: Subject related specific collections are generally acquired in these libraries.

The acquisition of documents are Centralized and Subjectwise Collection Development Model. **Funding:** Funding depends on the incomes accrew from marketing of information , from government agencies, and private agencies.

The National Science Library and INSDOC, New Delhi, following this programmes.

2. **Centralized Collection Development at Organizational Level:**

Resources: Libraries medium and larger organisation, are used collaborate, for the resource sharing. The shared collections are acquired centrally at a singe sight**. Funding:** The parent organisation will provide sufficient funds for the organisation and management of the library. The participating libraries may also contribute reasonable amounts, towards the central funds of the library. The conducting and participating libraries are CSIR, IDRDO, DOE, and ISRO.

3. **Coordinated Collection Development at Institutional Level:**

Resources: The basic activity of the document collection depends on; to protect the user needs of the depending units or organisations. The acquisition of documents are so made, which eliminates the duplicates first, and look forwards to meet all the user needs of the participating and cooperating libraries. The geographical area may be varied, from city to region, and some times, within the country. **Funding:** The member or participating libraries will decide themselves, with the suggestions of the Central library, thus they will proportionately contribute their financial support. According to the variations of the budget amounts, the contributing libraries will pay accordingly. The services the participating libraries will get on the proportionate subscriptions to the Central Organisation. The conducting and participating libraries are: DELNET, BONET and MALIBNET.

2.1.10 RESOURCE SHARING AND NETWORKING IN INDIA

In the developed countries resource sharing networking was started long back, and the growth of networks in the United states can be traced back from the mid of 1960. USA is the birthplace of library networking and by now libraries in each state is networked to local, regional and national network.

The growth of library networks in India can be traced to the initiaves made by NISSAT in establishing CALIBNET in 1986, DELNET in 1988 and other networks subsequently established. DELNET has emerged as the first operational library network in India and was initially sponsored by the National Information System for Science and Technology (NISSAT), it is currently being promoted with the support of the National Informatics Centre (NIC) More than one hundred and sixty six libraries have joined as a members under DELNET as an institutional members. DELNET has been actively engaged with the comp9lation of various Union Catalogues of the resources available in member-libraries. It has already created the Union Catalogue of Books both in CCF and MARC format, Union List of Current Periodicals, Union Catalogue of Periodicals, CD-ROM Database, Database of Indian Specialists includes eminent scientists, educationists and writers from all over the country, database of periodical articles, Union List of Video Recordings, Urdu Manuscripts', database, Database of Theses and dissertations, DEVINSA Database, sample databases of language

publications using GIST technology and several other databases. University Grants Commission (UGC) established INFLIBNET in 1988. DELNET has emerged as the first operational library network in India with the support of the National Informatics Centre. DELNET launch DELSIS, a powerful library networking software is an integrated moldular system which supports DELNET online databases The of progress the INFLIBNET has been followed by the establishment of INFONET, facility of e-journals, e-books, e-sources, databases etc. are provided to the member libraries, as well to the subscribing libraries, as a part of the resource sharing networking in India.

There has not been much progress made by BONET and CALIBNET as library networks. They have prepared no union catalogues. MALIBNET has also not prepared union catalogues, which is a must for resource sharing. INSDOC supported the formation of MALIBNET in Chennai in 1993. BALNET in Bangalore was registered as a society in 1997.

2.1.11 RESOURCE SHARING AND INTERNET

Over the last two decades the libraries have witnessed impact of Information Technology, has been affecting the structure of the information services and sources to a great extent. The changing needs of the users, increasing rates of subscription to periodicals, shrinking library budgets, can best overcome upon certain level by the following means: a) Use of computer and communication networks for resource sharing; b) Use of national and international databases through communications networks; and c) Introduction to full text CD-ROM database systems. Types of Resource sharing networks have been observed a local, regional, national and international level. Generally, it was observed that three levels of national resource sharing networks exist: a) Local: Information is stored in the local libraries in the form of Union Catalogue for Local Collection available in local libraries; b) Regional: Information is stored in regional libraries and services are provided on broad subject area basis; c) National: National Union Catalogue is prepared on national basis and services are provided to users based on national resources. Using the Internet for resource sharing provides libraries a cost-effective way to share their resources. Most libraries, big or small, have access to the Internet. Using a service online web PAC allows libraries to easily access the collections of the libraries within the Network.

2.1.12 CONSORTIA AND RESOURCE SHARING

The terms **Networks and Consortia** are often used interchangeably. The Guide to Cooperative Collection Development provides the following definitions: A Consortium is “a community of two or more libraries that have formally agreed to coordinate, cooperate in, or consolidate certain functions. Consortia may be formed on geographic, function, type, format, or subject basis”. A network is “the linking of libraries through shared bibliographic utilities or other formal arrangements”. The Cooperating libraries may have a centralized or decentralized administrative structure. Source of funds often determines the kind of administrative structure. The common feature of both consortia and networks is the use of formal agreements that provide operating principles and usually, define the goals of the organization.

The number of library consortia has grown rapidly since the mid 1960s. A major impetus behind this growth was the spread of library automation and the resulting development of shared bibliographic databases. Ninety-six academic library consortia were established just between 1966 and 1970. The American Library Directory, 2002-2003 listed more than 480 networks, consortia and

other cooperative library organization in the United States and Canada. Many libraries belong to more than one network and consortium. For example, the University of Minnesota/Twin Cities Libraries belong to the RLG, OCLC, and CIC, the CRL, and the regional MINITEX Library Information Network.

2.1.13 SUMMATION

In the sense of Resource Sharing, providing access and permitting other than the local clientele; and right to utilize the bibliographic tools (e.g. the catalog). Resource sharing therefore involves establishing positive procedures for delivering materials, land for ensuring their return in a timely manner. If the resource sharing is to be deemed successful, all procedures must occur with sufficient speed so that the client has the desired material in hand well before the need has evaporated. There are other aspects of sharing to be considered including agreements for implementing cooperation and Resource sharing.

One of the earliest references dates from 200 B.C., when the library in Alexandria is known to have lent materials to Pergamum. Library cooperation is not a new idea. In 1886, Melvil Dewey listed one of the major needs of the modern library movement as " a practical means of bringing the enormous benefits of cooperation, in to full play in the interests of Michael Gorman, that "Cooperation is as essential to a library as is water to a fish or air to mammal. "In the "ideal" case, one may wish to use as the basic criteria for joining forces: 2.1. "Equal" distribution of unique resources, 2. Willingness to engage in "enforceable" agreements, The most important criterion, is a library staff and a clientele willing to adapt the change.

The Resource-sharing, which includes all possible library functions, are now in existence, and many cooperative resource sharing activities has become possible, under different forms, such as: 2.1. Acquisition; 2. Processing; 3. Catalogue Card Services; 4. Cataloguing in Publication (CIP); 5. Cooperative Storage; 6. Inter-Library-Loan(ILL); 7. Resource Sharing and Networking. In the developed countries resource sharing networking was started long back, and the growth of networks in the United states can be traced back from the mid of 1960.

The growth of library networks in India can be traced to the initiatives made by NISSAT in establishing CALIBNET in 1986, DELNET in 1988 and other networks subsequently established. DELNET has emerged as the first operational library network in India and was initially sponsored by the National Information System for Science and Technology (NISSAT), it is currently being promoted with the support of the National Informatics Centre (NIC) More than one hundred and sixty six libraries have joined as a members under DELNET as an institutional members. Using the Internet for resource sharing provides libraries a cost-effective way to share their resources.

Most libraries, big or small, have access to the Internet. Using a service online web PAC allows libraries to easily access the collections of the libraries within the Network. A Consortium is "a community of two or more libraries that have formally agreed to coordinate, cooperate in, or consolidate certain functions. Consortia may be formed on geographic, function, type, format, or subject basis". A network is "the linking of libraries through shared bibliographic utilities or other formal arrangements". The American Library Directory, 2002-2003 listed more than 480 networks, consortia and other cooperative library organization in the United States and Canada. Many libraries belong to more than one network and consortium. For example, the University of Minnesota/Twin Cities Libraries belong to the RLG, OCLC, and CIC, the CRL, and the regional MINITEX Library Information Network.

2.1.14 SELF ASSESSMENT QUESTIONS

1. Describe the developments of Resource Sharing in the context of present library system.
2. Define Resource Sharing, how the Networks, Consortia, and Internet helps in developing the Resource Sharing.

2.1.15 REFERENCES

1. Kent Allen: Resource sharing in Li9braries ; Encyclopedia of library and Information Science, edited.v.25. pp.286-308.
2. Rajagopalan, T.S. and Rajan, TN(1978): An overview of problems and prospects of resource sharing among libraries in India. ILA Bulletin, 14. Jan.Dec. p.1-16.
3. Srikhar, M.S(1995): Resource sharing: Need for bridging gap between idealistic theoretical slogans and practioners. Library Science, 32. Sept.p.99-109.

UNIT 2:
LESSON 2:

NETWORKS & CONSORTIA

STRUCTRUE

2.2.1 AIMS AND OBJECTIVES

In this lesson, the Library Networks and Library Consortiums are separately, very comprehensively dealt in two parts, to reduce the length of the lesson. Here, Part-a; deals with the networks, and part-b deals with the library consortiums. After going through this lesson, one can understand, the importance of networks and consortiums, in the following areas:

- Distinguish the Library Networks, and find out the structure and configuration of library networks,
- Examine the importance of Metropolitan Area Networks,
- Find out the structure of e-Journal Consortium
- To find the importance of UGC-Inflibnet & Infonet.

2.2.2 INTRODUCTION

Here in this lesson, the principles of resource sharing and **networks have an important role to play**. Number of terms have been used to able the organizational arrangements for achieving a variety of resource sharing objectives, such as consortium, network and cooperation. An information network may mean a combination of computer and telecommunications devices to the computer scientist of a functioning combination of procedures, agreements, and systems for document or information exchange to library scientists. In a modern day context however, the functional purposes of information exchange are becoming more and more specialized and information networks are becoming more complex as they utilize computer and communication networks to achieve their goals. But finally library networks lies in the opportunity they provide for economical centralized services. The importance of the centralized processing is the potential provided by library networks for the sharing of resources among the libraries.

A **Consortium** is an association of two or more individuals, companies, organizations or governments (or any combination of these entities) with the objectives of participating in common activity or pooling their resources for achievement a common goal. A group up of two or more individuals, companies or governments that work together towards achieving a chosen objective. Each entity with in the consortium is only responsible to the group in respect of the obligation that is set out in the consortium. Consortiums are often used within the nonprofit sector, especially with educational Institutions. There are three types of consortia as per the available data and practices, viz. (1) consortium for single Title; (2) consortia for group of titles or one-stop shop; (3) consortia for single publisher.

The emergence of the Internet, particularly the World Wide Web, as a new medium of information storage and delivery in the 21st century took lot of changes, particularly in the name of consortiums. The phenomenon of consortia or group of libraries buying e-information together has become very important in the last few years. The importance of UGC-Inflibnet, UGC-Infonet, followed by the other consortiums is comprehensively discussed about their functions and services

2.2.3 A) LIBRARY NETWORKS

Science and Technology are concerned with the creation and application of knowledge through research and development. The growth of knowledge is again dependent on information and an information-based society. Information is an intangible commodity recognized today as a valuable national resource. Nations must depend on all such available resources, both their own and that of other nations, in-order to improve their scientific, technological educational and social environments. It may be true, through the principles of resource sharing and networks, and the computer networks, as well as communication networks play an important role, to enable the librarians to have an online information access.

2.2.3.1 DISTINGUISHING NETWORKS:

The rapidly evolving technologies of: i. Computer Networks; ii. Communication Networks, and iii) Information Networks, appears to be considerable overlap in the use of the tem "Networks". An information network, mean a combination of computer and telecommunications devices to the computer scientist or a functioning combination of procedures, agreements, and systems for document or information exchange to library scientist. A computer network may mean a networks of computers linked by sophisticated communication channels as in the case of ARPANET or simply a computer linked to several low-speed terminals, via voice-grade lines. A communication network can be a subcomponent of a computer network or it can be the transitional telephone or telegraph system with no computational aspects whatsoever. In the case of computer and communication systems, the Federal Communications Commission (FCC) has made such distinction between networks that provide primarily communication services (the FCC does regulate) and networks that provide primarily computation services (wherein the FCC does not regulate).

i. Computer networks: The name 'computer network', definition shows a 'computer network' to be an interconnection of assemblies of computer systems, terminals and communication facilities(Neumann, 1974).

   There are three types of Computerised Networks, i.e.

   a. Local Area Network (LAN), wherein the computers are connected within a specified or limited geographical area, may be University Library, or an Information Centre of an Industry.

   b. Metropolitan Area Network (MAN), the geographical area covered in this MAN is wider than the LAN, we can say a district or a town or city, through the use of telecommunication lines and department of telecommunications laid the necessary cables to meet the purpose of MAN in the specified geographical area.

   c. Wide Area Network (WAN), provides the computer connectivity, using the necessary standards, devices across the selected specified geographical areas, connecting the libraries, and information centres, within the city or in the country. The basic support is through the telecommunication technologies, satellite communications, followed by the computer technologies to facilitate the functioning of WAN.

ii. Communication Networks: A communication network consists of the transmission lines, concentrators, switching mechanisms, and non-data-processing functional components as viewed by the Federal Communication Commission(1973) This separation of data processing functions from communication functions is compatible with current regulatory policy and provides a useful way of describing such new offerings as DATRAN and Microwave Communication Inc. (in the case of specialized telecommunication common carriers) and TELENET Inc. And Packet Communications Inc. (in the case of value added networks using ARPA-developed packet switching technology). It also provides a means for viewing traditional voice networks and the evolving cable networks which can be linked with computers for processing purposes.

iii. Information Networks: An information network, in its broadest sense, can be any situation in which more than two participants are engaged in a common pattern of information exchange through communications for some functional purpose (Becker and Olseon, 1968).

Two principal types of information networks appear to be evolving:

1. Banding together of various types of information resources (e.g. libraries, information systems, referral centers) into some type of communication cooperative.

2. A network of computerized information resources, sometimes interconnected to allow computer-to-computer interfaces. Human interface is generally through remote online conversational terminals. The second type of network appears to be the major one of current developments, which used to share databases or human thought. The OCLC (Ohio College Library Center), located in Columbia. It is an excellent example of library-oriented information network, that utilizes a communications network to link its users to a central computer facility and common database (Kilgour et al., 1972)

2.2.3.2 NETWORK STRUCTURE:

The structure of a network can be studied in terms of elements, configurations and levels of computers.

Elements: The elements of a library network consists of: 1) participating libraries and information centres known as the nodes or processing centres, 2) The communication link or the paths of communication among these nodes for exchange of information, known as ARCS and 3) the interface mechanism for the transfer or exchange of data. The participating libraries can be of homogeneous in nature, i.e.: a. Public Libraries; b. University and College libraries; c. Research and Technical Libraries, d. The libraries attached to Research Organisations/Institutions, R & D, Govt. Organisations, Business houses etc.

Configuration: The structure of a computer network may be classified in several ways: Star Network; Distributed Network; Ring Network, and Hierarchical Network.

'The Star structure is centralized activities and the services provided by this network are controlled by the central node. Among the participant libraries, one can be consider4ed as the central node, and ll communications are controlled by the central node.

The Distributed Network is completely a decentralized network. And every node in this configuration has the option of communicating with every other node in the network. Thus the library resources and services are used on the basis of equal sharing.

The Ring Network is almost resembles Distributed Network. Here, there is no central processing node, no rank order, and each node participates in the network on equal share basis, but there are some restrictions in the processing order of the requests.

The Hierarchical Network exists among the library members in which the rank or status of a particular member is considered more than the other members. The libraries which are of the higher level are generally less in number, and hence, the lower level libraries, shoulder more responsibility and have better access to information resources.

2.2.4 LIBRARY AND INFORMATION NETWORKS IN INDIA

The Library and Information Networks in India can be conveniently divided into three groups, such as: i. General data networks; ii . Metropolitan Area Library Networks; and iii. Countrywide Library Networks.

The Research Organizations, Universities, Institutions, Commercial land Government Departments have made considerable effort to network their computer services, data bases and other resources for cooperating each other across the country. These general data networks in India have really provided boost to other library networks in the country, the important data networks are:

i. NICNET (Planning Commission)
ii. INDONET (CMC Ltd.)
iii. ERNET (Department of Electronics)
iv. SIRNET (Council of Scientific and Industrial Research)
v. I-NET (Department of Telecommunications)

NICNET is a satellite based computer communication network of the National Informatic Centre (NIC), under Planning Commission. NIC Net is a widely connected network in India and has its node in every district headquarter in all the states and uni9n territories with the central node or hub at Delhi.

INDONET is a commercial distributed jcompute4r network of CMC Ltd., Hyderabad established in early, 1980, and became one of the4 widely distributed data network in the country in the field of business and commerce. Its services are available in more than 13 major cities across the country. With the help of an international gateway commissioned at Mumbai in cooperation with VSNL, it facilitates access to international computer networks in the areas of trade, business and industry, even for stock exchange and scientific, and technical databases. The services offered by th4e INDONET can be used effectively by the library and information community but the cost of the services are rather higher when compared to alternative services available in the country.

ERNET " Educational and Research Network was initiated in 1986 by the Department of Electronics (DOE) with the funding support from the Government of India and United Nations Development Program (UNDP) involving 8 premier institutions as participating agencies, are listed here:

- National Centre for Software Technology (NCST), Mumbai
- Indian Institute of Science (IISc), Bangalore
- Indian Institute of Technology: IIT-Delhi; IIT-Bombay; IIT-Kanpur; IIT-Khargapur and IIT-Madras
- Department of Electronics (DOE), New Delhi.

In order to implement the overall objectives, and to provide state-of-the art communication infrastructure and services to academic and research institutions, government organizations, NGOs, private sector,

R & D organizations and various other non-commercial organizations, to carry out research & development activities, training and consultancy, content development works and services. The various services that are provided by ERNET include: E-mail; File Transfer; Remote log-in; Database Access; and Internet and World Wide Web. ERNET also supports library networks like DELNET, BONET and INFLIBNET.

I-NET is a network of Department of Telecommunications (DOT). It is different from NICNET or ERNET in the sense that it does not provide the E-mail service. Like other DOT facilities, exchange of data can be made through PSTN or STD. Initially the project set up exchanges in eight major cities viz. Mumbai, Delhi, Kolkata, Chennai, Bangalore, Hyderabad, Pune and Ahmedabad etc. Since I-Net is connected to INFLIBNET and ERNET, an I-Net account for a library shall enable it to access the INFLIBNET services and databases, as well as to ERNET services with very low connection charge. Through I-NET one can access Internet via. The Gateway Internet Access Services (GIAS) of VSNL.

SIRNET Scientific and Industrial Research Network, a network in collaboration between INSDOC (now, NISCAIR) and CSIR, aims to interconnect all the CSIR laboratories and R & D Institutions of India. The main objective of SIRNET is to connect the vast S & T information resources available in CSIR laboratories and other research organizations and inculcate the habit of resource sharing among them. It also aims to establish the link between the national and international resources so that information messages can be exchanged globally at a reduced cost. There are few network management centres at Delhi, Bangalore, Kolkata and Chennai. The SIRNET provide the following services: e-mail services; file transfer; document transfer; access to indigenous databases of INSDOC 9now, NISCAIR); and access to international gateways and internet 9via ERNET). Since NICET and ERNET are the most popular and widely used networks in the country, they proved to be better alternatives to SIRNET to the research workers engaged in the laboratories, institutions and other organizations in the country.

2.2.4.1 METROPOLITAN AREA LIBRARY NETWORKS

In India, the library networking efforts using computer communication technologies started during the late 1980's and by the end of 1990's several metropolitan area networks have already been established. The motivation and support provided by the National Information System for Science and Technology (NISSAT); Department of Scientific Industrial Research (DSIR), National Informatic Centre (NIC), and the University Grants Commission (UGC) towards the development of networks in the country are noteworthy. The following are the important metropolitan area library networks in India:

- Developing Library Network (DELNET), 1988
- Calcutta Library Network (CALIBNET), 1993
- Madras Library Network (MALIBNET), 1993
- Bombay Library Network 9BONET), 1992
- Pune Library Network (PUNENET), 1992
- Ahemedabad Library Network (ADINET), 1995
- Mysore Library Network (MYLIBNET), 1994

LIBRARY AND INFORMATION NETWORKS IN WEST COUNTRIES

During the post decade the pace in creation of library networks and interinstitutional arrangements has been accelerating, however especially in the West. In the USA, Regional Library systems and consortia have become widespread and include groupings to both geographic region and subject specialty. Evidence of the pace of progress in recent years is suggested by the fact that more than 90% of the currently existing academic library consortia have been established since 1960 and over 75% since 1965. The successful development of library networking in USA is due to in large measure to the following factors:

- The long tradition of cooperation in American librarianship
- Use of automation to handle library routines starting from 1960's
- Developments in Information land Information Technology in 1960's and 1970's and
- The introduction in 1968 of MARC 9Machine Readable Catalogue) format by the Library of Congress, Washington DC for exchange of cataloguing data.

The OCLC (Ohio College Library Center) operates bibliographic centre for a family of libraries. Since 1967, it has been making catalog cards and performing other, related services for those libraries by processing MARC tapes and cataloging entries contributed by members. OCLC is a non-profit computer library service and research membership organization. It operates an international computer network, that libraries use to acquire and catalogue library materials, to order custom printed catalogue cards, to create MARC records. OCLC si[[prts resource sharing among more than 6,700 member libraries in all 50 US States and several European countries, Saudi Arabia and Australia.

Cataloguing and holdings data submitted by member libraries, LC MARC records. National Library of Canada, NAL, NLM, UK MARC records CONSER (Conversion of Serials) records.

- Research Libraries Information Network (RLIN), 1978
- Research Libraries Group Inc.(RLG)
- Western Library Network (WLN), 1972
- EDUCOM (The InterUniversity Communications Council)
- NELINET (New England Library Information Network)
- PANLINET (Pennsylvania Area Library Network)
- SOLINET (Southeastern Library Network)
- SUNY (State University of New York)
- NELINET (New England Library and Information Network)
- CLASS (Cooperative Library Agency for Systems and Services, California)
- ILLINET (Illinois Network)
- JANET (Joint Academic Network)
- JDAG (Joint Development Advisory Group)
- AARNet (Australia's Research and Education Network)

2.2.5 B – LIBRARY CONSORTIA

The explosion of information, the inadequate and insufficient library collections urged the libraries to adopt new philosophies and technologies for collection development and to reduce the costs of the information sources. Access to Library Consortium is an Association of a group of libraries to achieve the mutually agreed common objectives. It is felt that the concept of E-journals consortia can work well; the libraries without requiring additional fees to access the e-journals.

2.2.5.1 FACTORS INFLUENCE CONSORTIA FORMATION:

Various factors to be taken into account for an effective functioning of a successful consortium, like resources identification on the basis of usage and usability, long run planning of the technology infrastrures, access to back runs of periodicals will have to clearly spelt, copyright and licensing, archival issues, price issue should be economically favorable designing an launching a library consortium should be long term sustenance and robust models towards achieving the above goals.

2.2.5.2 E-CONSORTIA DEFINITION AND MEANING

1. A consortium is an association of two or more individuals, companies, organizations or governments (or any combination of these entities) with the objectives of participating in common activity or pooling their resources for achievement a common goal.

2. A consortium could be described as a group of organization who come together to fulfill combined objectives that usefully requires co-operation and the sharing of resources, and need to have a cleat mutual goal in order to ensure their success. The aim should be to deliver “more than the sum of the individual part”. A Library consortium formation can be local, regional, state national and inter institutional level.

3. The emergence of the extensible markup language HTML, have heavily influence the development of the ISO approved and freely available. The technologies and standards have no intellectual property restrictions. It provides a system for the storage, retrieval and playback of real time. The organizations involved in this effort, felt that the creation of an open consortium focused exclusively and to provide the structure, necessary to stabilize, standardize the nature of technology for the entire community. The consortium maiantians an extensive of documents and links related to resources including plugging and browsers form many long term members and open source developers.

4. A group up of two or more individuals, companies or governments that work together towards achieving a chosen objective. Each entity with in the consortium is only responsible to the group in respect of the obligation that is set out in the consortium. Consortiums are often used within the nonprofit sector, especially with educational, institutions. They often pool resources, such as libraries and professional and share them among the members Libraries.

2.2.5.3 TYPES OF E-CONSORTIA

There are three types of consortia as per the available data are as follows:

(1) consortium for single Title; (2) consortia for group of titles or one-stop shop; (3) consortia for single publisher are as follows:

1. **Consortium for single** Title: Even if your subscribe for a single print journal and you are allowed to access the E-journals from different physical locations for the same subscribed titles: e.g.

a) Indian institution of Astrophysics has one main office at Bangalore and five branch offices in different parts of Karnataka and Tamilnaidu, and the E-journals can be accessed from different physical locations by a single subscription of a print journal.

b) All IITs subscribe to printed version of Chemical Abstracts and have access to Chemical Abstracts through online, by paying an additional cost for different locations.

2. Consortia for group of titles or one-stop shop:

1. J- Gate by Informatics Indian Pvt., Ltd.
2.2. Bio-one by American Institute of Biological Science
3. OCLC a US based consortium of libraries
4. EBSCOs Databases by EBSCO information science Group

3. Consortia for single publisher:

a) Elsevier science provides access to their E-journals through Science Direct only with more than 1200 journals along with access to database 'core navigation, covering 10 databases, and also through BIO, MET, NET covering around 150 journals along with access to MEDLINE.

b) **Member Libraries**: Higher quality content, faster delivery, low cost, increased electronic access, staff can get more free time which they can utilize for other library tasks, and comprehensive collection is possible; it helps in avoidance of duplication of core journals

2.2.5.4 TYPES OF CONSORTIA INITIAVES IN INDIA

The history of the internet in India actually started with the Videsh Sanchar Nigham Limited (VSNL) launching services in the country. In the four to six months, there were around ten thousand of internet users from different Engineering Colleges, start using the INDEST; CSIR; DAE; and IIM Consortiums. It is observed, through the membership of consortium, the types of initiatives are identified:

I) OPEN CONSORTIA:

This type of consortia is very flexible and it is the wish of members of consortia can join and leave any time they please. INDEST Consortium is an example to this.

II) CLOSED GROUP CONSORTIA:

It is within defined group. This kind of consortia emerges either by affiliation and collaboration among them like CISR, DAE and IIM Consortium. And the formation and operation of the consortia guidelines and its administration are fairly simple and easy.

III) CENTRALLY FUNDED MODEL:

In this model, consortium will solely depended on the parent body. A few examples are INFONET by UGC, ICMR and CSIR by DSIR.

IV) SHARED –BUDGET MODEL:

"In this model the participating libraries take the lead and form the consortium IIM and FORSA are examples of this model"

V) PUBLISHER INITIATIVES:

The emerald full-text Library published by the Emerald Publishing Group (formerly MCB University Press) is recent example. Here the consortium members will get deep discount price to the participation.

VI) NATIONAL CONSORTIUM:

The end of this model is, national level licensing of products, and the INDEST-AICTE, UGC Infonet are the example of this consortium.

2.2.5.5 TYPES ELECTRONIC JOURNAL CONSORTIA IN INDIA

In India library network and cooperation started with the institute of NISSAT and the forming of CALIBNET has taken the initiative for a change in developing adequate infrastructure in academic library, to be a part of the networked environment. Some of the examples are given below:

I) Indian National Digital Library in Engineering Science & Technology (INDEST)

The Indian national digital library in engineering scienc and technology was set up by Ministry of Human Resource Development (MHRD) Government of India, in collaboration with the All India Council for Technical Education (AICTE)

The ministries of human resource development subscribe by the consortium for 38 c ore number institutions, including Indian Institute of Science (IISC). Indian Institute of Technologies(IITs), National Institute of Technologies (NITS) and Indian Institute of Management (IIMs) at present. There are 66 Government Engineering College or Technical institutions under this category. These institutions or being given access to a number of electronic resource including IEL online library plus, ACM digital library and J-GATE for engineering and technology http:// paniit.iitd.ac.in/indest/ http:// intranet.iimk.ac.in/libportal/ oomconsortium.hmt

II) Council of Scientific and Industrial Research (CSIR): http:// www.crisil.com

One of the worth mentioning initiative is the Council of Scientific and Industrial Research consortium. It has 40 laboratories across the country. The majority of the CSIR library resources are by pooling, sharing and providing electronic access. The NISCAIR (National Institute for Science Communication and Information Resources) which was formed by merging with INSDOC and NISCOM identified as the coordinator of the CSIR consortium and monitoring through committee was constituted with NISCAIR was the focal point. Further NISCAIR set up a task force team comprising of some nodal officers form some of the major laboratories. The consortium coordinator, NISCAIR has already initiated efforts

to provide access to 4,500 journals of Well-know publishers come under consortium members in the near future. Csir News, 2005.

III) Forum for Resource Sharing in Astronomy and Astrophysics (FORSA)

Perhaps FORSA may be the first consortium formed in Indian context, which launched in 1981 at present FORSA has 11 members, are as follows:

1. Aryabatta Research institute for observation Science
2. Bose institute, Kolkata
3. Harish Chandra research institute
4. Indian institute of Astrophysics , Bangalore
5. Inter University centre for Astronomy and Astrophysics, Pune
6. National centre for radio Astrophysics (TIFR), Puni
7. Centre for advanced studies in Astronomy, Osmania University
8. Physical research laboratory Ahmadabad
9. Rama research institute Bangalore
10. Saba, institute of nuclear physics Kolkata and
11. Tata Institute of Fundamental Research Mumbai

2.2.6 E-JOURNALS CONSORTIUMS:

According to the available related literature, the e-journals consortiums are classified into Nine different areas:

1. IEL Electronic Library
2. Science Directory
3. Springer Link from Springer Verlag
4. ASTP Applied Science & Technology
5. ACM Digital Library
6. ASCE The American Society of Civil Engineering
7. ASME The American Society of Mechanical Engineering
8. Compendex Bibliographic Database of Engineering Research
9. INDEST J-Gate (JCCC) for all IITs & IISc. MYTOC

2.2.6.1 FULL-TEXT BIBLIOGRAPHIC DATABASES:

i) IELONLINE URL:http://web.inflibnet.ac.in/econsortia/faq.htm.

The IEE/IEE Electronic library (IEL) provides the IEE/IEE Electronic Library (IEL) covers almost one third of the world's current electronic engineering and computer science literature, providing unparalleled access to publications from the institute of Electrical Institution of Electrical Engineers (IEE). The resource covers more than 7,80,000 documents from over 12,000 publishers, including 120 journals, transactions, magazines, conference proceedings, IEE Standards. More than 2,500 new pages are added per month. It provides access to more than two million full-page PDF images, including all original charts, graphs, diagrams, photographs, and illustrative

material and academic press (Ideal), one of the world's largest providers of scientific, technical and medical (STm) literature.

ii) Elsevier Science Direct (http://www.sciencedirect.com)

The Science Direct offers a rich electronic environment for research journals, bibliographic database and reference works. The database offers more than 1700 science, technical land peer-reviewed journals, over two million full-text scientific journal articles, an expanding suite of bibliographic databases and linking to another one million full-text articles via Cross ruff to the publishers' to other platforms.

iii) The Springer's Link is the online e-books and e-journals service from Springer verlag, one of the world's leading scientific publishers. Key subject areas include; Mathematics, Computer Science, Physics, Astronomy, Geosciences, Chemistry, Engineering and Medicine. The resources include over 400 current journals of the highest quality, as well as more than 20 books series. Currency over 3, 40,000 full-text articles are available in Springer Link. (iii) http:// www. Itproquest.com/

IV) Applied Science and Technology Plus

(ASTP): http:// WWW.itproquest.com/pgdauto the applied Science and Technology plus (ASTP) is a CD-ROM database (with access to the Web). The database provides indices and full abstract to more than 556 key science and engineering titles, plus full-image of 160 titles. All titles are indexed from 1994 onward; the database is updated monthly. The resource is offered on Web with CD Rom backup. While IITs and IIS cave online access to ASTP, the NITs, RECs, SLIET, ISM and NERIST get web- based access as well as backup on CDROM .

V) ACM Digital Library: http// portal acm.org./portal cfm.

The ACM Digital Library incorporates digital versions of work published by ACM since its inception. The major components of the resources is an enhance version of the ACM Digital Library hosts over 1, 03,000 full-text articles form ACM journals, magazines, and conferences proceedings and half million bibliographic Records with about 2,50,000 links to full bibliographic information and 70,000 further Links to full text resources. Accessible to IITs & IISc, NITs & RECs, IIMs, NITTIE and IITM join

VI) The American Society of Civil engineering (ASCE): http. // www pubs asce.org/journals/ irms.html

The American Society of Civil Engineering (ASCE) is recognized globally for their significant contribution and dedication to the advancement of science and education in the civil engineering profession. ASCE publishers 30 journals, periodicals and transactions that cover a comprehensive range go the civil engineering profession. ASCE journals are highly cited and are most relevant to the civil engineers for exchanging technical and professional knowledge. Information published in the journal ASCE but of the civil engineering profession as a whole.

VII) American Society Mechanical Engineers: (ASME) http. // www/asme.org/pubs/journals

The American society Mechanical Engineers is a nonprofit educational and technical organization serving a worldwide community of mechanical engineers. The ASME conducts one of the world largest publishing operations. The Society holds more than 30 technical conferences and 200 professional development courses each year. The ASME promotes and enhances the technical competency and professional well-being through quality programs and activates in mechanical engineering, better enable its practitioners to contribute to the well-being of human kind through its publication that include more than 20 journals and transactions Archival Access: on CRROM (on termination of subscription period) simultaneous Access: Un-limited.

2.2.6.2 BIBLIOGRAPHIC DATABASE

VIII) COMPENDEX: http:// www.engineering village 2 org/

The Compendex is the most comprehensive bibliographic database for engineering research available today, containing almost seven million references and abstract taken from over 5, 000 engineering journals, conferences and technical reports. The broad subject areas of engineering and applied science are comprehensively represented. Coverage includes unclear technology, bioengineering, transportation, chemical and process engineering, light and optical technology, agricultural engineering and food technology, computers and data processing, applied physics, electronics and communications, control. Civil, mechanical, materials, petroleum, aerospace and automotive engineering as well as narrower subtopics within all these and other major engineering fields. Approximately 2, 50,000 new records are added to the database annually from over 175 disciplines and major specialties within engineering. Compendia is updated weekly to ensure access to critical developments in the field

IX) **J- Gate Custom Content for Consortium (JCCC)**

The J-Gate Custom Content for Consortium (JCCC) is virtual library of journal literature creates as customized e-Journals access gateway database solution for the INDEST consortium. It acts as one-point access to 4,000+ subscribed currently by all the IITs and IISc and available online. The service offers the following and benefits to users. JCCC http:// Jccc-indest. Informindia.co.on/

Database Searching: JCCC @ INDEST acts a comprehensive database of journal articles published in the journals subscribed by all IITs and IISc (about 4,000). The articles are indexed with subject keywords and are searchable by- Author, Title words, abstract words subject keywords institutional name or city which the author belongs to.

MYTOC: users can select journals of their choice and create own alert profiles.JCCC@INDEST sends e-mail notice to the users, every week and as and when their favorite's journals are published, to facilitate browsing TOC of the latest issue.

FULL-TEXT ONLINE: J-Gate provides link to full-text for online journals of the publishers for which the INDEST consortium has obtained on line rights for accessing or the individual library has separately obtained online access rights for journals.

RESOURCE SHARING: this is the unique benefit of JCCC@INDEST. When user finds articles of his interest, he can get it online rights of access to the corresponding journal. This facility offers the following benefits:

J-Gate: http:// J-gate informandia.co.in/

The J-Gate is an internet gateway and portal set up nearly two-years ago by Informatics (India) Ltd. It offers affordable access to global electronic journal literature. It provides seamless access to journal article through database interface of 10,000+ e-Journals. Currently J-Gate offers the following types of product/ services.

a) The emergence of the Internet, particularly the World Wide Web, as a new medium of information storage and delivery in the 21st century. The phenomenon of consortia or group of libraries buying e-information together has become very important in the last few years.

2.2.7 UGC-INFONET AND UGC-INFLIB-NET

UGC-INFONET: This consortium was set up by UGC in the year 2003, with the basic objective is to promote the use of electronic database and full-text access to journals by the academic community in the country for their research activates. The faculty, research scholars and students of Universities covered under UGC are the primary objective. However this scheme was also extended to Degree College Libraries in different parts of the country. The scheme is likely to be open to other institutions such as ICAR and other Institutions after signing with selection of journal based on ranking through bibliographical counting nor entirely suitable for libraries of R& D organizations, a use-based selection process which seems to be more systematic and cost effective for such organizations has been reported.

UGC/INFLIBNET: UGC will bear the entire expenses for UGC funded Universities for providing E-Journals access, under this scheme. Under this consortium, access to gateway portal is made available to the University covered under UGC grants. This gateway portal provides access to more than 10,000 journals in the areas of pure science, social Sciences, and humanities with content and abstracting for major collection. This gateway portal also provides customized solutions to access full text for the resources subscribed under UGC/INFONET to serve as 'one stop shopping'. Selection of journals based on ranking through bibliographical counting and use-based selection process which seems to be more systematic and condition. Http:// web. Inflibnet.ac.in/ econosortia/faq.htm.

2.2.8 SUMMATION

An information network, mean a combination of computer and telecommunications devices to the computer scientist or a functioning combination of procedures, agreements, and systems for document or information exchange to library scientist. A computer network may mean a networks of computers linked by sophisticated communication channels as in the case of ARPANET or simply a computer linked to several low-speed terminals, via voice-grade lines.

In India, the library networking efforts using computer communication technologies started during the late 1980's and by the end of 1990's several metropolitan area networks have already been established. The motivation and support provided by the National Information System for Science and Technology (NISSAT); Department of Scientific Industrial Research (DSIR), National Informatic

Centre (NIC), and the University Grants Commission (UGC) towards the development of networks in the country are noteworthy.

A consortium could be described as a group of organization who come together to fulfill combined objectives that usefully requires co-operation and the sharing of resources, and need to have a cleat mutual goal in order to ensure their success. The aim should be to deliver “more than the sum of the individual part”. A Library consortium formation can be local, regional, state national and inter institutional level.

The emergence of the Internet, and the World Wide Web, as a new medium of in the 21st century. The phenomenon of consortia or group of libraries buying e-information together has become very important in the last few years. UGC-INFLIBNET & INFONET, plays an important role through a consortium was set up by UGC in the year 2003, with the basic objective is to promote the use of electronic database and full-text access to journals by the academic community in the country for their research activates.

2.2.9 SELF ASSESSMENT QUESTIONS

1. Describe the importance of library networks, how it helps the development of information base for R & D.

2. Examine the definition and meaning of Consortium, impact of consortium services in the Engineering and Medical Colleges – Discuss.

3. What is resource sharing, examine the importance of networks and consortiums in the library cooperation.

2.2.10 REFERENCES

1. Mahapatra, M & Ramesh, DB(2004): Information Technology Applications in Libraries: A Textbook for Beginners.Editorial work. Bhubaneswar, Orissa, Reproprint (P) ltd.,

2. Bhaskara Rao, P(1998): Information Networks & Resource Sharing, New Delhi, Reliance Publishing House.

UNIT-2:
LESSON-3

UGC-INFLLIBNET

STRUCTURE

2.3.1 AIMS AND OBJECTIVES

The UGC has introduced INFLIBNET programme to connect all the Indian Universities through the Automation. The UGC has initiated INFONET programme to extend the e-sources and e-consortia to all the selected university libraries. The Network was switched to BSNL backbone with effect from 1st April 2010 and then onwards the UGC INFONET was renamed as UGC INFONET 2.0. After going through this lesson one can understand:

1. What is UGC INFONET digital library consortium
2. The services and sources provided by the UGC INFONET
3. How to get the connectivity of UGC INFONET to the University libraries

2.3.2 INTRODUCTION

Information and Library Network (INFLIBNET) Centre is an Autonomous Inter-University Centre (IUC) of University Grants Commission (UGC) involved in creating infrastructure for sharing of library and information resources and services among Academic and Research Institutions. INFLIBNET works collaboratively with Indian university libraries to shape the future of the academic libraries in the evolving information environment. This is a major programme of the University Grants Commission, initiated in 1991. The programme directed towards modernization of libraries and information centers. To establish a mechanism of information transfer and access, to support scholarship, learning and academic pursuits. Establishing of a nation network of libraries and information centers in Universities, institutions of higher learning and R & D institutions in India. A co-operative endeavor in resource development, sharing and its utilization at national level. In May, 1996 INFLIBNET became independent autonomous Inter University Centre under UGC. INFLIBNET is set out to be a major player in promoting scholarly communication among academicians and researchers in India.

2.3.3 OBJECTIVES OF INFLIBNET

The primary objectives of INFLIBNET as envisaged in Memorandum of Association are:

- To promote and establish communication facilities to improve capability in information transfer and access, that provide support to scholarship, learning, research and academic pursuit through cooperation and involvement of agencies concerned.

- To establish INFLIBNET: Information and Library Network a computer communication network for linking libraries and information centres in universities, deemed to be universities, colleges, UGC information centres, institutions of national importance and R & D institutions, etc. avoiding duplication of efforts.

    i. to promote and implement computerization of operations and services in the libraries and information centres of the country, following a uniform standard;

    ii. to evolve standards and uniform guidelines in techniques, methods, procedures, computer hardware and software, services and promote their adoption in actual practice by all libraries, in order to facilitate pooling, sharing and exchange of information towards optimal use of resources and facilities:

    iii. to evolve a national network interconnecting various libraries and information centres in the country and to improve capability in information handling and service;

    iv. to provide reliable access to document collection of libraries by creating on-line union catalogue of serials, theses/ dissertations, books, monographs and non-book materials (manuscripts, audio-visuals, computer data, multimedia, etc.) in various libraries in India:

v. to provide access to bibliographic information sources with citations, abstracts, etc. through indigenously created databases of the Sectoral Information Centres of NISSAT, UGC Information Centres, City Networks and such others and by establishing gateways for on-line accessing of national and international databases held by national and international information networks and centres respectively;

vi. to develop new methods and techniques for archival of valuable information available as manuscripts and information documents in difference Indian languages, in the form of digital images using high density storage media;

vii. to optimize information resource utilization through shared cataloguing, inter-library loan service, catalogue production, collection development and thus avoiding duplication in acquisition to the extent possible;

viii. to enable the users dispersed all over the country, irrespective of location and distance, to have access to information regarding serials, theses/dissertation, books, monographic and non-book materials by locating the sources wherefrom available and to obtain it through the facilities of INFLIBNET and union catalogue of documents;

ix. to create databases of projects, institutions, specialists, etc. for providing on-line information service;

x. to encourage co-operation among libraries, documentation centres and information centres in the country, so that the resources can be poled for the benefit of helping the weaker resource centres by stronger ones; and

xi. to train and develop human resources in the field of computerized library operations and networking to establish, manage and sustain INFLIBNET.

- To facilitate academic communication amongst scientist, engineers, social scientists, academics, faculties, researchers and students through electronic mail, file transfer, computer/ audio/video conferencing, etc

- To undertake system design and studies in the field of communications, computer networking, information handling and data management;

- To establish appropriate control and monitoring system for the communication network and organize maintenance;

- To collaborate with institutions, libraries, information centres and other organizations in India and abroad in the field relevant to the objectives of the Centre;

- To promote R&D and develop necessary facilities and create technical positions for realizing the objectives of the Centre;

- To generate revenue by providing consultancies and information services; and

- To do all other such things as may be necessary, incidental or conducive to the attainment of all or any of the above objectives.

2.3.4 MISSION AND VISION

- Leveraging on the latest technology, create a virtual network of people and resources in academic institutions with an aim to provide effective and efficient access to knowledge through perseverance, innovation and collaboration.

- Provide seamless, reliable and ubiquitous access to scholarly, peer-reviewed electronic resources to the academic community in all educational institutions with a focus on services and tools, processes and practices that support its effective use and increase value of this information.

- Build and strengthen ICT infrastructure in educational institutions with value-added services.

- Develop tools, techniques and procedures for secure and convenient access management enabling users to access information in electronic format from any where, anytime.

- Develop resource selection guides and online tutorials for effective delivery and usage of e-resources.

- Facilitate creation of open access digital repositories in every educational institutions for hosting educational and research contents created by these institutions.

2.3.4.1 Goals

- Achieve complete automation of libraries in educational institutions
- Create union catalogues of documents available in libraries in online and real-time environment.
- Provide seamless and ubiquitous access to scholarly, peer-reviewed electronic resources to the universities.
- Promote digitization of legacy documents and creation of content in e-format (including electronic theses and dissertations, electronic version of research articles, working papers, technical reports, concept papers, technical reports, annual reports, statistical data, etc.) in universities.
- Promote setting-up of open access digital repositories in universities for hosting content created in the process mentioned above.
- Develop expertise in
    - Digital content creation;
    - Process of digitization; and
    - Managing digital depositories.

- Impart training in applications on various aspects of new technology to achieve goals mentioned above.

2.3.5 FUNCTIONS OF INFLIBNET

In order to fulfill the broad objectives, INFLIBNET will do the following:

- Promote and implement computerization of operations and services in the libraries and information centres of the country, following a uniform standard.

- Evolve standards and uniform guidelines in techniques, methods, procedures, computer hardware and software, services and promote their adoption in actual practice by all libraries, in order to facilitate pooling, sharing and exchange of information towards optimal use of resources and facilities.

- Evolve a national network interconnecting various libraries and information centres in the country and to improve capability in information handling and service.

- Provide reliable access to document collection of libraries by creating on-line union catalogue of serials, theses/dissertations, books, monographs and non-book materials (manuscripts, audio-visuals, computer data, multimedia, etc.) in various libraries in India.

- Provide access to bibliographic information sources with citations, abstracts etc. through indigenously created databases of the Sectoral Information Centers of NISSAT, UGC Information Centres, City Networks and such others and by establishing gateways for on-line accessing of national and international databases held by national and international information networks and center respectively.

- Develop new methods and techniques for archival of valuable information available as manuscripts and information documents in different Indian Languages, in the form of digital images using high density storage media.

- Optimize information resource utilization through shared cataloguing, inter-library loan service, catalogue production, collection development and thus avoiding duplication in acquisition to the extent possible.

- Enable the users dispersed all over the country, irrespective of location and distance, to have access to information regarding serials, theses/dissertations, books, monographs and non-book materials by locating the sources wherefrom available and to obtain it through the facilities of INFLIBNET and union catalogue of documents.

- Create databases of projects, institutions, specialists, etc. for providing on-line information service.

- Encourage co-operation among libraries, documentation centres and information centres in the country, so that the resources can be pooled for the benefit of helping the weaker resource centres by stronger ones.

- Train and develop human resources in the field of computerized library operations and networking to establish, manage and sustain INFLIBNET.

- Facilitate academic communication amongst scientists, engineers, social scientists, academics, faculties, researchers and students through electronic mail, file transfer, computer/ audio/video conferencing, etc.

- Undertake system design and studies in the field of communications, computer networking, information handling and data management.

- Establish appropriate control and monitoring system for the communication network and organize maintenance.

- Collaborate with institutions, libraries, information centres and other organisations in India and abroad in the field relevant to the objectives of the Centre.

- Create and promote R&D and other facilities and technical positions for realizing the objectives of the Centre.

- Generate revenue by providing consultancies and information services.

- Do all other such things as may be necessary, incidental or conducive to the attainment of all or any of the above objectives. Hear this article

2.3.6 ACCESS TO ONLINE DATABASES & INFORMATION SERVICES

Books database The books database is the major source of bibliographic descriptions for use in research and collections development. The union catalogue of books currently contains 8.2 million bibliographic records from 108 universities and the number is growing constantly. The records contain holdings of books catalogued till 2004 by university libraries funded under library automation and networking programme in 9th five year plan. INFLIBNET has merged these records and has around 3.5 million unique records from 82 universities and the remaining is being processed.

The database provides bibliographic information contributed by the universities about each book with the library name. Database covers monographs, reference books, conference proceedings, and textbooks etc., which are normally classified by the universities under their book collection. It allows you to search by author, titles, publisher, place, subject etc. It can be accessed by users free of cost from our site.

Serials database This union database of serial covers the bibliographic information of current serials and serial holdings of the university libraries.

It is an important information tool for locating journals of interest in any university library in India. It has approximately over 54,000 journal titles contributed by 200 institutions. It covers bibliographic information of current serials as well as holdings information of participating libraries. Users can access the serials held by the libraries of universities and other institutions. The participating libraries continually contribute their holding data of serials into the database. It is regularly being updated and can be accessed from INFLIBNET Web site.

These database The theses database provides access to over 214000 records of doctoral dissertations submitted in 240 Indian universities. The database contains information pertaining to name of the researcher, title of the thesis, name of the guide, university name and year of award. The records are regularly being updated from different sources.

Experts Database Database provides the academic and research profile of the senior level faculty members working in Indian Universities, Colleges and other R&D organizations. It contains searchable record of the profiles of faculty and staff from one of the nation's leading R & D and other scientific institutions besides faculty from universities. It provides comprehensive information about 37000 experts, their background, skills, and accomplishments. The profiles also include contact information, positions held, publications, patents, project handled, awards and honours. Experts can register their profile through online mode from our site. The database can be searched by name of experts, areas of expertise, awards and honour, institution and publications.

Research Projects The Research Project Database contains details of the completed and ongoing funded projects, carried out by faculty members at universities in India. Currently it contains information on more than 10,000 research projects funded by agencies such as UGC, ICAR (Indian Council of Agriculture Research), ICMR (Indian Council of Medical Research), and DST (Department of Science and Technology). It can be searched under name of project investigator, title of project, funding agency etc.

Secondary Serials and CD-ROM:

- Contains details of secondary (Abstracts/Indexing) serials and bibliographical database in CD-ROMs subscribed by more than 110 universities in the country.
- This will facilitate promotion of information services and avoid overlap in subscription to costly database.
- All databases are4 updated on regular basis. These can be accessed online through INFLIBNET website at URL http://www.inflibnet.ac.in

CD-ROM Databases:

- More than 15 CD-Rom bibliographical databases in the areas of Social Sciences and Humanities subscribed by the centre.
- Using this, Country- wide information services is introduced to academic community free of cost.

- This service has been well received and there are number of requests are coming in every day seeking this service.
- In the coming years it is proposed to acquire some more database in other areas and strengthen this service.

COPSAT:

- The contents of Periodicals in Science and Technology Service
- Introduced in collaboration with NCSI Bangalore
- Provides the current awareness services to the academic community in the country
- Services provided with a nominal fee and covers more than 4000 highly referred journals of international repute
- Currently there are more than 50 subscriptions to this service
- Propose to extend this services to the Social Science and Humanities also.

INTERNET based Services:

- Recently started providing this information service based on the sources available free of charge to the academic community.
- All the databases at the centre mounted on different servers. They can be accessed using web browsers at INFLIBNET Website
- User-friendly search engines developed to access and get relative data
- Databases can also be searched in offline mode using e-mail
- Special software SEWAK developed for this purpose.

DOCUMENT DELIVERY SERVICE:

Great need to provide full text of serial articles from the collections of our university libraries. To meet this requirement INFLIBNET launched this service in July, 2000. The following Six University Libraries have been identified to serve as Document Delivery Centres:

- Benaras Hindu University
- Indian Institute of Science
- Jawaharlal Nehru University
- Punjab University
- Tata Institute of Social Science
- University of Hyderabad

NETWORKING FACILITIES:

Currently Libraries using following networks:

- ERNET
- VSNL(GIAS)
- INET
- NICNET

2.3.7 UGC-INFONET DIGITAL LIBRARY CONSORTIUM

The UGC-Infonet Digital Library Consortium was formally launched in December, 2003 by Honourable Dr. A P J Abdul Kalam, the President of India soon after providing the Internet connectivity to the universities in the year 2003 under the UGC-Infonet programme. The Consortium proved to be a recipe to university libraries which have been discontinuing subscription of scholarly journals because of "Serials Crisis". The term "serials crisis" refers to exponential and continuing increase in subscription cost of scholarly journals. The crisis is a result of rise in cost of journals much faster than the rate of inflation, increase in number of journals and the paucity of funds available to the libraries

The Consortium provides current as well as archival access to more than 5000 core and peer-reviewed journals and nine bibliographic databases from 23 publishers and aggregators in different disciplines. The programme has been implemented in phased manner. In the first phase that began in 2004, access to e-resources was provided to 50 universities who had Internet connectivity under the UGC-Infonet Connectivity programme of the UGC. In the second phase, 50 more universities were added to the programme in the year 2005. It has now extended to 155 out of 171 that come under the purview of UGC, have been provided differential access to subscribed e-resources. These e-resources covers almost all subject disciplines including arts, humanities, social sciences, physical sciences, chemical Sciences, life sciences, computer sciences, mathematics and statistics, etc in three different phases. The programme is wholly funded by the UGC and executed by the INFLIBNET (Information and Library Network) Centre, Ahmedabad.

The benefit of subscription to e-resources would also be extended to the colleges, to begin with the College for Potential with Excellence (CPE). The Consortium also has to launched its "**Associate Membership Programme**" wherein private universities and other research organizations would be welcomed to join the Consortium for selected e-resources.

2.3.7.1 Document Delivery through JCCC

INLIBNET has initiated interlibrary loans and document delivery services from the comprehensive collection of subscribed journals under JCCC@UGC- INFONET. ILL is also known as Inter-Library Lending.INFLIBNET has designated 22 libraries to fulfill ILL request from the users, affiliated to 149 universities covered under UGC. The ILL libraries together subscribe for 2000 plus journals that is not available through consortia. Universities can request for articles from the journal holdings of those libraries wherever they find useful articles in JCCC search, that are not available in that library.

2.3.7.2 Services: Bibliographic Union Databases

Creation of databases is one of the major activities of INFLIBNET. This activity has been initiated since inception of the programme. Currently there are eight databases under development.These are grouped under following two categories.

1. **Bibliographic Databases**

- Serials Holdings
- Current Serials
- Secondary Serials Catalogue

- Theses
- Books

2. Non-bibliographic Databases

- Research Projects
- Database in Science and Technology (EDST)
- Online Profile of Academic Community of Indian Universities

The bibliographic databases represent the holdings of university libraries, for which the data is contributed by participating libraries. These databases provide an access to large pool of information available besides, serving as tool for resource sharing. Non bibliographic databases are created to promote the communication among the scholars.

2.3.7.3 INFLIBNET Services to Academic and Research Community:

- Library Automation
- Software Development
- Human Resource Development
- Development of Union Databases
- Development of Bibliographic Standards
- Development of University Information System
- Provision of Bibliographic Information Services
- Provision of first Search Services from OCLC
- Retrospective Conversion of Library Catalogues
- Document Delivery Service
- Networking Facilities

2.3.8 SUMMATION

Information and Library Network (INFLIBNET) Centre is an Autonomous Inter-University Centre of University Grants Commission. The UGC, evolved with INFLIBVNET for creating infrastructure for sharing of library and information resources and services among academic and research institutions. In May, 1996 Inflibnet became independent Autonomous Inter University Centre under UGC.

The UGC-Infonet programme is wholly funded by the UGC and executed by the Inflibnet centre, Ahmedabad. The Inflibnet has initiated interlibrary loans and document delivery services from the comprehensive collections of lsubscribed journals under JCCC@UGC-Infonet. Inflibnet has designated 22 libraries to fulfill ILL request from the users, affiliated to 149 universities covered under UGC. The ILL libraries together subscribe for 2000 plus journals that is not available through consortia. Creation of databases is one of the major activities of Inflibnet. The Inflbnet, as an IUC of the UGC, acts as a coordinating agency for monitoring the Infonet and provided required Internet bandwidth to the Universities.

There is a great demand to provide full text of serial articles from the collections of our University Libraries. To meet the demands of the user community, INFLIBNET launched the Document Delivery Service, through Six selected University Librqaries: 1. Benaras Hindu University;2. Indian Institute of

Science, 3. Jawaharlal Nehru University; 4. Punjab University; 5. Tata Institute of Social Science, 6. University of Hyderabad.

2.3.9 GLOSSARY

INFLIBNET	Information and Library Network
NISSAT	National Information System for Science & Technology
UGC	university Grants Commission
ISP	Internet Service Provider
ERNET	Education and Research Net work

2.3.10 SELF ASSESSMENT QUESTIONS

1. Development of University Libraries in India, through UGC-Inflibnet – Discuss.

2. Describe the importance of Inflibnet in the light of e-resjources management in the university libraries.

2.3.11 REFERENCES

1. www.inflibnet.ac.in, and through other Inflibnet internet sources. The present data is through internet sources of Inflibnet.

2. UGC-Infonet Digital Consortium., and www.inflibnet.ac.in/infonet/basnlorder.pdf. etc.

UNIT-2:

LESSON-4

UGC-INFONET

STRUCTURE

2.4.1 AIMS AND OBJECTIVES

The UGC has introduced INFLIBNET programme to connect all the Indian Universities through the Automation. The UGC has initiated INFONET programme to extent the e-sources and e-consortia to all the selected university libraries. The Network was switched to BSNL backbone with effect from 1st April 2010 and then onwards the UGC INFONET was renamed as UGC INFONET 2.0. After going through this lesson one can understand:

1. What is UGC INFONET digital library consortium
2. The services and sources provided by the UGC INFONET
3. How to get the connectivity of UGC INFONET to the University libraries

2.4.2 INTRODUCTION

UGC-Infonet was an ambitious programme of interlink all the Universities in the country with state-of-art technology. The Network was switched to BSNL backbone w.e.f 1st April 2010 and then onward the UGC INFONET was renamed as **UGC Infonet 2.0**.

On the scheme, 10 Mbps(1:1) Leased line was being established in 182 universities by using Fiber to provide Internet Services. INFLIBNET was responsible for executing and monitoring the entire project. Since the UGC-INFONET mainly provides Internet bandwidth, a pre-requisite for delivery of scholarly content subscribed through the UGC-INFONET Digital Library Consortium, National Knowledge Network is rolled out to meet the heavy demand of Internet bandwidth in universities.INFLIBNET Centre has proposed the modified format for UGC Infonet scheme to provide financial support to universities for augmenting IT Infrastructure which include Video conferencing facility as well.

2.4.3 NEED AND PURPOSE OF INFONET

Technology is a driving force in the contemporary education system. Proper and reliable communication is a pre-requisite to effective and efficient use of electronic resources available free in the web space or for a fee. Digital communication and networking technologies are key drivers of economic growth and social well-being in the 21st century. Academic institutions are required to upgrade their communication and network infrastructure to tap the maximum benefits from web-based electronic information resources that are proliferate the web space. Indian education system is one of the largest and oldest education systems in the world consisting of more than 431 universities and 20,677 affiliated colleges. The universities and colleges put together accounts for 116.12 lakhs students enrolled in these institutions and 2.4.05 lakhs teachers.

Global competition in education system is forcing the academic institutions to change their curricula frequently and introduce new disciplines, which, in turn, impose greater demand on educational institutions to have good communication and network infrastructure so that researchers, scholars and students can access the most up-to-date information especially in emerging disciplines. It is important for a large country like India to build proper communication and network infrastructure so as to connect all academic institutions with each other as well as with global academic community and enable the academic community to access, disseminate and share scholarly information in electronic format.

2.4.4 INFONET AND ROLE OF UGC

University Grants Commission (UGC),took the responsibility to coordinate and maintain high standards in university education, has launched an ambitious programme to bring about a qualitative change in the academic infrastructure, especially for higher education. Under this initiative, the UGC facilitates modernization of university campuses with state-of-the-art campus wide networks and has set up its own nationwide communication network named UGC-INFONET with INFLIBNET as its executing and coordinating agency. The scheme was inaugurated by the then Hon'ble Prime Minister of India, Shri Atal Bihari Vajpayee with the commencement of UGC's Golden Jubilee celebrations on 25th December, 2002.

Services of a national Internet Service Provider (ISP) provide Internet connectivity as well as for resources conceptualization, planning, establishing and maintaining network and communication infrastructure for all universities covered less than 12 B Act of the UGC. The ERNET India is the Internet Service Provider for the UGC-INFONET since inception of the scheme in 2002. The UGC had signed an MoU with the ERNET India in April 2002 for providing Internet connectivity to the beneficiary universities.

The INFLIBNET, as an IUC of the UGC, acts as a coordinating agency for monitoring the network and Internet bandwidth provided to the universities under the scheme and liaisons between ISP and universities. The UGC-INFONET is based on open IP platform, deploying state-of-the-art technologies like IP multicast, TCP spoofing and other Internet tools that provide interactive education on PC or TV, enabling on-line response to queries. Open systems architecture ensures support for current and future applications. With expansion of the programme to additional universities and increase in demand for additional Internet bandwidth, the UGC has been advised to engage services of an ISP that has better communication infrastructure than that of ERNET. The process of selection of an alternate ISP is in progress current. University Grants Commission (UGC), with its responsibility to coordinate and maintenance of standards of University education, has launched an ambitious programme to bring about a qualitative change in the academic infrastructure, especially for higher education. Under this initiative, the UGC facilitates modernization of university campuses with state-of-the-art campus wide networks and has set up its own nationwide communication network named UGC-Infonet with INFLIBNET as its executing and coordinating agency . The scheme was inaugurated by the then Hon'ble Prime Minister of India, Shri Atal Bihari Vajpayee with the commencement of UGC's Golden Jubilee celebrations on 25th December, 2002.

For the proper implementation of the project, services of a national ISP(Internet Service Provider) or others that has national presence to provide Internet connectivity for all the UGC affiliated universities as well as resources conceptualize, plan, establish and maintain network and communication infrastructure for Indian Universities under the purview of UGC. The UGC had signed a MoU with the ERNET which is valid till Mar 31st 2010.

As per the instruction of UGC and direction of CVC, an ISP is chosen through open tender for providing connectivity under the scheme and named it as UGC Infonet 2.0 INFLIBNET placed an order as per the technical requirement recommended by Central Connectivity Monitoring Committee (CCMC) for connecting 181 universities. UGC Infonet 2.0 is the upgraded network infrastructure to connect Universities with 10 Mbps(1:1) Internet Bandwidth as part of the scheme. The network service is provided by BSNL at national level and the Gujarat BSNL Circle is the implementing agency.

2.4.5. INFONET 2.0: AIMS AND OBJECTIVES

Communication and networking technology is evolving at a rapid pace to meet the ever growing requirement of providing information in any form, at any time, anywhere. Device- independent networks are set-up to enable flexibility of access, and also meet the requirements arising out of convergence of technologies. Regular technological inputs are necessary to upgrade the network infrastructure and to ensure delivery of upcoming applications and content to the education and research community in the country. The UGC and INFLIBNET have joined hands with ISPs to meet these challenges. The UGC-INFONET provides Internet bandwidth, a pre-requisite for delivery of scholarly content subscribed

through the UGC-INFONET Digital Library Consortium. Salient features of UGC-INFONET Connectivity Programme are as follows:

a) Serves as a vehicle for distance learning and facilitates spread of quality education all over the country;
b) Facilitates delivery of education material including electronic journals and bibliographic databases to the remotest areas of the nation;
c) Serves as a resource for researchers and scholars for tapping the most up-to-date information;
d) Act as a medium for collaboration among teachers and students, not only within the country but also all over the world;
e) Facilitates Intranet infrastructure for beneficiary university; and
f) Serve as a channel for globalization of education and facilitates the universities in marketing their courses and project their R & D activities. In order to meet the objectives, the scope of the work assigned to the ISP as per the MoU is as follows:
g) Designing network infrastructure for the UGC-INFONET Connectivity Programme;
h) Providing space to the universities / UGC for hosting their web sites;
i) Installing equipment and establishing Internet connectivity at the universities;
j) Training of personnel from universities to manage and maintain their networks and connectivity over ISP's backbone in collaboration with INFLIBNET; and
k) Providing mailing and other services to the universities and the UGC offices.

2.4.6 SCHEME OF UGC INFONET 2.0

Universities covered under 12B Act of the UGC that are already benefiting from the scheme need not apply. Their connectivity and Internet bandwidth is renewed annually by the INFLIBNET Centre through funding from the UGC automatically. However, they are requested to report the status of their connectivity and issues, If any, to the INFLIBNET Centre on regular intervals. Universities are also requested to produce bandwidth utilization certificate on quarterly basis. **New universities** covered under the 12B Act of the UGC, desirous of joining the UGC-INFONET Connectivity Programme, may apply in prescribed Application Form with formal covering note addressed to the Director, INFLIBNET with a copy of the letter from the UGC regarding its 12B status. On receipt of application, 4 copies of MoU are sent to the University for its Signature. These MoUs are also need to be signed by ISP, UGC and INFLIBNET. Once the MoU is signed, the approval of the **Central Connectivity Monitoring Committee (CCMC)** is obtained for inclusion of new universities under the scheme. Purchase orders are placed to the ISP by the INFLIBNET Centre after ascertaining the availability of funds. While the UGC pays for 90% of the capital cost (one-time), remaining 10% (one-time) is required to be paid by the beneficiary university in advance. However, recurring cost on Internet bandwidth is paid by UGC through INFLIBNET Centre to the ISP. In case of up gradation of bandwidth, charges on supply of equipment are born by the concerned university(ies).

2.4.7 ORGANIZATION AND MANAGEMENT OF UGC INFONET 2.0

1. UGC Infonet 2.0 and BSNL- ISP:

UGC-Infonet 2.0 is the upgraded network infrastructure to connect Universities by an ISP with 10 Mbps(1:1) Internet Bandwidth as part of the scheme called UGC Infonet which was implemented

in 2004. The network service is provided by BSNL at national level and the Gujarat BSNL Circle is the Implementing agency.

2. Access to UGC Infonet 2.0:

INFLIBNET has already placed order for 200 universities/IUCs with BSNL for the Internet Leased Line bandwidth through which access to e-resources will be provided on 1st April 2010. Copy of the work order of BSNL to all Chief General Managers, all Telecoms Circle is given in site www.inflibnet.ac.in/infonet/bsnlorder.pdf. Universities need not place any order with BSNL. Trial access will start from 15th Mar 2010 and paid access will start from 1st April 2010.

3. Role of University

University has to coordinate with BSNL local exchange for getting the connection. BSNL has already written to Chief General Mangers (CGMs) of all circle for the implementation. In case local exchange person is not aware, kindly give copy of the above order to BSNL local person (SDE). University need to provide proper space and power/AC etc to the equipment installed by BSNL.

4. The network connectivity:

INFLIBNET has informed BSNL to install the connectivity to the same place where ERNET has provided connectivity (ie) Library/Computer Center etc.) If the change in place is required, please take decision at appropriate level(VC/Registrar etc) and communicate to INFLIBNET and BSNL.

5. Charges for UGC Infonet 2.0:

University need not pay anything for the connectivity. It is funded by UGC and payment is being done by the INFLIBNET Center.

6. Equipment to be Required by the University:

All equipment are provided by BSNL as pat of the deal. Network equipment will be depending on the technical feasibility of the connection at the university. Normally for 10 Mbps(1:1) Internet leased line, the bandwidth has to be provided on OFC and equipment like STM1/ STM4/ STM16 will be used. For copper connection, Router and Modems are used. Please get in touch with BSNL local exchange.

7. Maintenance of Infonet 2.0:

The old network equipments such as VSAT antenna, router, Modem etc. which are used in Infonet and these equipment are belonging to University and university may take any decision to use it for any purpose they intends to. But INFLIBNET Center will not support for any maintenance.

8. New BSNL IP Address :

In the new network, BSNL will allocate 32 IPs to each university. For this purpose university need to send details in the prescribed format (form3) to BSNL local exchange. Form can be

downloaded from www.inflibnet.ac.in/infonet/form3.pdf. Network diagram also to be attached and a sample network diagram is attached with form3. University need to modify it and fill relevant details. Universities should use new IPs to all their servers and services.

9. ERNET Connectivity:

Since ISP is changed to BSNL, ERNET will not be part of the scheme. University may retain it in consultation with ERNET, if required. All financial commitment in this regard should be borne by respective university.

10. National Knowledge Network (NKN):

Our university is considered under NKN or NME-ICT project of MHRDNKN connected universities are excluded from the list, provided university send the static IP addresses of NKN connectivity. Once NKN is established and fully operational, all universities will be migrated to NKN network. Since UGC Infonet connectivity is given with current ISP till 31st Mar 2010, all universities will be initially connected with new ISP (ie BSNL). If University is getting connected with these project, university should send the status and IPs so that connectivity from BSNL will be discontinued(One month notice required).

11. Controlling agency for UGC Infonet 2.0?

The scheme is operated and executed by the INFLIBNET Center under the guidance of CCMC constituted by the UGC. CCMC decides detailed architecture and type of connectivity options and bandwidth for each university in consultation with universities. The Committee also approves one-time cost and tariff for annual subscription and terms of payment for various types of connectivity. (Details are given in operation link).

12. Connectivity related queries:

For connectivity related queries, please contact your local exchange as per the escalation matrix provided by BSNL. In case of any difficulty, you may contact following officers from INFLIBNET/ UGC and BSNL.

13. The current hardware

The Infonet 2.0 carries L3/L2 switch directly. No additional hardware is required. Almost all universities are using a proxy for sharing Internet.

14. ERNET & Independent ISP :

Many Universities now have their websites registered under ernet..indomain.
Domain name is a different issue. ERNET has given it as a part of the earlier deal. Clients have to approach ERNET to keep it intact. ERNET may charge for it since it is Ernet.in. Since beginning INFLIBNET Center is separately paying for our domain name www.inflibnet.ac.in It is further suggested to register a generic domain name independent of any ISP like www.xxxx.edu or .ac.in or .org .

2.4.8 UGC-INFONET DIGITAL LIBRARY CONSORTIUM

The UGC-Infonet Digital Library Consortium was formally launched in December, 2003 by Honorable Dr. A P J Abdul Kalam, the President of India, soon after providing the Internet connectivity to the universities in the year 2003 under the UGC-Infonet programme. The Consortium proved to be a recipe to university libraries which have been discontinuing subscription of scholarly journals because of "Serials Crisis". The term "serials crisis" refers to exponential and continuing increase in subscription cost of scholarly journals. The crisis is a result of rise in cost of journals much faster than the rate of inflation, increase in number of journals and the paucity of funds available to the libraries.

The UGC-Infonet : E-Journal consortium, provides current as well as archival access to more than 5000 core and peer-reviewed journals and nine bibliographic databases from 23 publishers and aggregators in different disciplines. The cons9rtium provides current as well as archival access to core and peer-reviewed journals in different disciplines. The programme has been implemented in phased manner. In the first phase that began in 2004, access to e-resources was provided to 50 universities who had Internet connectivity under the UGC-Infonet Connectivity programme of the UGC. In the second phase, 50 more universities were added to the programme in the year 2002.4. It has now extended to 155 out of 171 that come under the purview of UGC, have been provided differential access to subscribed e-resources. These e-resources covers almost all subject disciplines including arts, humanities, social sciences, physical sciences, chemical Sciences, life sciences, computer sciences, mathematics and statistics, etc in three different phases. The programme is wholly funded by the UGC and executed by the INFLIBNET (Information and Library Network) Centre, Ahmadabad.

The benefit of subscription to e-resources would also be extended to the colleges, to begin with the College for Potential with Excellence (CPE). The Consortium also has to launched its "**Associate Membership Programme**" wherein private universities and other research organizations would be welcomed to join the Consortium for selected e-resources.

2.4.8.1 DOCUMENT DELIVERY THROUGH JCCC

INLIBNET has initiated interlibrary loans and document delivery services from the comprehensive collection of subscribed journals under JCCC@UGC- INFONET. ILL is also known as Inter-Library Lending. INFLIBNET has designated 22 libraries to fulfill ILL request from the users, affiliated to 149 universities covered under UGC. The ILL libraries together subscribe for 2000 plus journals that is not available through consortia. Universities can request for articles from the journal holdings of those libraries wherever they find useful articles in JCCC search, that are not available in that library.

2.4.8.2 SERVICES: BIBLIOGRAPHIC UNION DATABASES

Creation of databases is one of the major activities of INFLIBNET. This activity has been initiated since inception of the programme. Currently there are eight databases under development. These are grouped under following two categories.

1. Bibliographic Databases

- Serials Holdings
- Current Serials
- Secondary Serials Catalogue
- Theses
- Books

2. Non-bibliographic Databases

- Research Projects
- Database in Science and Technology (EDST)
- Online Profile of Academic Community of Indian Universities

The bibliographic databases represent the holdings of university libraries, for which the data is contributed by participating libraries. These databases provide an access to large pool of information available besides, serving as tool for resource sharing. Non bibliographic databases are created to promote the communication among the scholars.

2.4.8.3 JOURNALS : FULL TEXT DATABASES:

American Chemical Society	http://www.pubs.acs.org/
American Institute of Physics	http://www.aip.org/
American Physical Society	http://www.aps.org/
Annual Reviews	http://arjournals.annualreviews.org
Cambridge University Press	http://journals.cambridge.org/
Elsevier Science	http://www.sciencedirect.com/
Emerald	http://www.emeraldinsight.com
Encyclopedia Britannica	http://search.ed.com/
Institute of Physics	http://www.iop.org/EJ
J-STOR	http://www.jstor.org/
Nature	http://www.nature.com/
Portland Press	http://www.portlandpress.com/pp/default.htm
Project Muse	http://muse.jhu.edu/journals
Royal Society of Chemistry	http://www.rsc.org/
Science Online	http://www.scienceonline.org/
Springer & Kluwar Journals	http://www.springerlink.com/
Blackwell	http://www.blackwell-synergy.com/
Taylor and Francis	http://journalsonline.tandf.co.uk

WEB PORTALS

Ingenta – Gateway Portal	http://www.ingenta.com/
J-Gate Gateway Portal	http://www.j-gate.informindia.co.in/

Bibliographical Databases

Royal Society of Chemistry (6 Databases) http://www.rsc.org/
Laboratory Hazards Bulletin http://www.rsc.org/is/database/ihbhome.htm
Methods in Organic Synthesis http://www.rsc.org/is/database/moshome.htm
Natural Product jUpdate http://www.rsc.org/is/database/chihome.htm
Chemical Hazards in Industry http://www.rsc.org/is/database/chihomehtm
Analytical Abstracts http://www.rsc.org/is/database/aahome.htm
Catalysts & Catalysed Reactionshttp://www.rsc.org/is.org/is/database/ccrpub.htm
Chemical Abstracts Service http://stnweb.cas.org/
Biological Abstracts http://web2.4.silverplatter.com/webspirs/
Start.ws?customer=c180470 MathSciNet Database
http://web2.4.silverplatter.com/webspirs/
Start.ws?customer=c180470

2.4.9 SUMMATION

Information and Library Network (INFLIBNET) Centre, is an autonomous Inter-University Centre (IUC) of University Grants Commission (UGC) involved in creating infrastructure for sharing of library and information resources and services among Academic and Research Libraries/Institutions. UGC-Infonet was an ambitious programme of UGC to interlink all lthe University Libraries in the country with state-of-art technology, in the first phase. This UGC-Infonet was functioning with the support of BSNL as a backbone w.e.f. lst April 2010 and re-named the UGC-Infonet as UGC-Infonet 2.0. INFLIBNET was responsible for executing and monitoring the entire project. Since the UGC-Infonet mainly provides Internet bandwidth, a pre-requisite for delivery of scholarly content subscribed through the UGC-Infonet Digital Library Consortium, and the National Knowledge Network (NKN) is came forward to meet the heavy demand of Internet bandwidth in Universities. Under this initiative, the UGC facilitates modernization of University campuses with state-of-the-art “campus wide area networks” and set up its own nationwide communication network, named UGC-Infonet with INFLIBNET as its executing and coordinating agency.

A national Internet Service Provider (ISP), provide Internet connectivity as well as for resources conceptualization, planning, establishing and maintaining network and communication infrastructure for all universities covered under 12B Act of the UGC. The ERNET India in April 2002 for providing Internet connectivity to the beneficiary universities. The INFLIBNET, as an IUC of the UGC, acts as a coordinating agency for monitoring the network and Internet bandwidth provided to the universities under the scheme and liaisons between ISP and Universities. The UGC Infonet is based on open IIP platform, deploying state-of-the-art technologies like IP multicast, TCP spoofing and other Internet tools that provide interactive education on PC or TV, enabling on-line response to queries. Open systems architecture ensures support for current and future applications.

2.4.10 GLOSSARY

UGC	university Grants Commission
INLIBNET	Information and Library Net work
INFONET	Information Net work
IUC	Inter University Centre
NIl	National Information Infrastructure

ISP	Internet Service Provider
NKN	National Knowledge Network
ERNET	Education and Research Net work
TCP	Telecommunication Provider
CCMS	Central Connectivity Monitoring Committee
Mbps	Mega Bytes per second
CGms	Chief General Managers

2.4.11 SELF ASSESSMENT QUESTIONS

1. What is UGC-Infonet, discuss the need, purpose and functions of Infonet, through University Library System.

2. Describe the aims, objectives, and services of UGC-Infonet in providing the scholarly information through e-sources.

2.4.12 REFERENCES

1. www.inflibnet.ac.in, and through other Inflibnet internet sources. The present data is through internet sources of Inflibnet.

2. UGC-Infonet Digital Consortium., and www.inflibnet.ac.in/infonet/basnlorder.pdf. etc.

UNIT –3 :

LESSON-1

ACADEMIC LIBRARY MANAGEMENT
Organizational Charts

STRUCTURE

3.1.1 AIMS AND OBJECTIVES

This unit discusses with academic library management of libraries how to organize the academic libraries

—— Organizational charts
— Centralization and decentralization administrations
—— Collection development principles policies
—— Preservation of documents, techniques

3.1.2 ORGANIZATIONS-INTRODUCTION

An organization is a collectively effort to purse specific purposes by means of a formal structure. An endless variety of organizational forms can be creating by combing different purpose with different structures. This limit less variety makes possible the pursuit of a vast range of human objectives through the mechanism of the organization. Modern civilization is inconceivable without the invention of the organization.

The organizations are interdependent-functionary they are formed just business organization, political, health infrastructural and other organization must operative effectively economic growth and social justice are to be achieved in developing societies. We need to understand the multi-dimensional complexity of sizeable organization. Organizations tend to develop ideologies related to the exercise of authority traditional, custom- sanctioned exercise of authority is one of such ideology and the other is authority stressing from legal provisions of contracts. Socrates, Greek philosophers,

provided a handy way of defining things; find out the class to which it belongs and they identify the characteristics that distinguish it from other things, and also belong to that class. Thus one could say that organizations are collectively the family, the community etc., in respect of several characters. Organizations are created by people keeping in mind the pursuit of some specific purpose. A firm is set up to earn profits; a hospital is set up to treat patients; a government agency is set up to provide some public services, libraries are also some also a as a given they fruitful a very wide range of human needs and perform many functions.

3.1.3 NATURE OF ORGANIZATIONS

The organization is a human tool of extraordinary versatility; different combinations of goals and structures can produce nearly timeless supply of organizational forms, each of which being reasonably appropriated for its particular task. Any particular organization is also potentiality capable of being modified for new task by tagging on to it or deleting from its aspects of structure or by modifying existing elements of structures.

3.1.4 ORGANIZATIONS DEFINITIONS

Max Weber and Chester I.Barnard Weber highlights the following three distinguished characteristics of an organization: 3.1.it s is a social relationship which is cither closed or limits the admission of outsiders by rules; so far as its order is enforced by the action of specific individuals, whose regular function is :

3.1. a chief or head and usually also of administrative staff.
2. it is as “associative “rather than “communal”
3. it is engaged in carrying out continuous purposive and activities of specified kind

Veering round and Weber C.I. Bernard views organization as the “cooperative system”. But the parts of a company with Weber by stressing that organization is a type of cooperation among men that is “conscious, deliberate, and purposeful”. Organization is therefore, defined as a “system of consciously coordinated activities or forces of two or more persons”

.

The term organization denoted at least three different meanings: (1) the act of designing the administrative structure; (2) both designing and building the administrative structure; (it means planning the scheme of structure and appointing suitable personnel to it); (3) the resulting structure itself

Luther Gullick defines organization “determine what activates are necessary to any purpose and arranging them in groups which may be assigned to individuals”; John.D. Mooney to write organization is the form of every human association for the attainment of a common purpose. L.D. White writes that “organization is the arrangement of personnel for facilitating the accomplishment of some agreed purpose, through allocation of functions and responsibilities.” According to J.M. Piffiner and Presthus “organization consists, of the relationship of individual to individual and of group which are so related is to bring an orderly division of labour.” John.M.Gaus defined it as “ the relating of efforts and capacities of individual and groups engaged upon a common task in such way as to secure the derived objective with the least friction and the most satisfaction for whom the task is

done and those engaged in the enterprise." By the tem library organization we mean a system by which department and units of the library are controlled and coordinated resulting in an administrative structure which includes relative fixed boundaries, a normative order, authority , ranks, participation, communication system, and an incentive system which enabled various types of participants to work together in pursuit of common goals. Since the organization is manned by, and meant for human beings, the human factor becomes of pivotal importance to it.

"Technically the concept of organization has two meanings. The 1) Refers to an organization as a structure or a network of specified relationships among given individuals. This is a static concept of organization. The 2) is the concept of organization as a process, or as an executive function in which the dynamic or organization change and growth are central. Both the meanings are important for the study of organization.

The concept of organization process makes possible the discernment of the various kinds of executive behavior that produce growth and change in the structure. Considered as a process, then organization includes (1) breaking down the work necessary to achieve the objective into individual jobs and (2) providing means of coordinating the efforts of the job holders. When two or more persons work together towards a common goal, the relationship and interaction among them give rise to problems such as who were decides the issues, who does what type of work, and what action should be taken when certain functions exist. Hence, person working together effectively, and doing the maximum what he can do best, and the persons achieving the total possible results are basic in the concept of organizing.

In brief organizations are systems or relating resources that will enable accomplishment of specified needs or goals. They are social and ideological devices made of people and physical factors, with the aid of technological implementation, these people execute functions, or tasks lead to the accomplishment of rationally determined objectives.

The tem organization is word used in different ways, we can speak of organization as the activity that is an important function of management, in the words of moony and reiley defines "organization is the form of every human association for the attainment of a common purpose"

In simply organization are people working together for a common goal. The organization as process; the process of identifying and grouping the work to be performed, defining and delegating responsibility and authority and establishing relationships for the purpose of enabling people to work most effectively together in accomplishing objectives

One result of this process will be an organization structure which provides members a place to be and to work for organizational goals

Rightly Litterer says "that organizations are innerving elements between ants and their satisfactions and must be established before the wants are satisfied.

3.1.5 ORGANIZATIONAL CHARTS

UNIVERSITY LIBRARY
I
I
VICE-CHANCELLOR
I
ACADEMIC COUNCIL
I
LIBRARY ADVISORY COMMITTEE
I
LIBRARIAN
I

DEPUTY LIBRARIAN

I

I	I	I	I	I
Acquisition section	Technical Section	Periodical Section	Reference & Lending Section	Evening Shift
Assit.Librarian	Assit.Librarian	Assit.Librarian	Assit.Librarian	Assit.Librarian
I	I	I	I	I
Library. Asstt	Library.Asstt.	Library.Asstt.	Library.Asstt.	Library.Asstt.
I	I	I	I	I
Junior Lib.Asstt.	Junior Lib.Asstt.	Junior Lib.Asstt.	Junior Lib.Asstt.	Junior Lib.Asstt.
I	I	I	I	I
Clerk	Clerk	Clerk	Janitor	Janitor
I	I	I	I	I
Peon	Peon	Peon	Peon	

LIBRARY AUTHORITY

I

DEPUTY LIBRARIAN ADVISORY

I

DEPUTY LIBRARIAN ADMINISTRATIVE

I

_____

_____-_____ I

I I

I

Asstt.Lib Asstt.Lib

Asstt.Lib Asst.Lib

I I I

I

_____ _____

_____ _____

_____

I I I I I I I

I I I I Jun.Lib.Asst Jun.Lib Asst. Jun.Lib.Asst.

Jun.Lib.Asst Jun.Lib Asst. Jun.Lib.Asst. Jun.Lib. Asstt Jun.Lib Asst. Jun.Lib.Asst. Jun.Lib. Jun.Lib

Asst. Jun.Lib.Asst

SPECIMEN OF FUNCTIONAL ORGANIZATION OF A UNIVERSITY LIBRARY

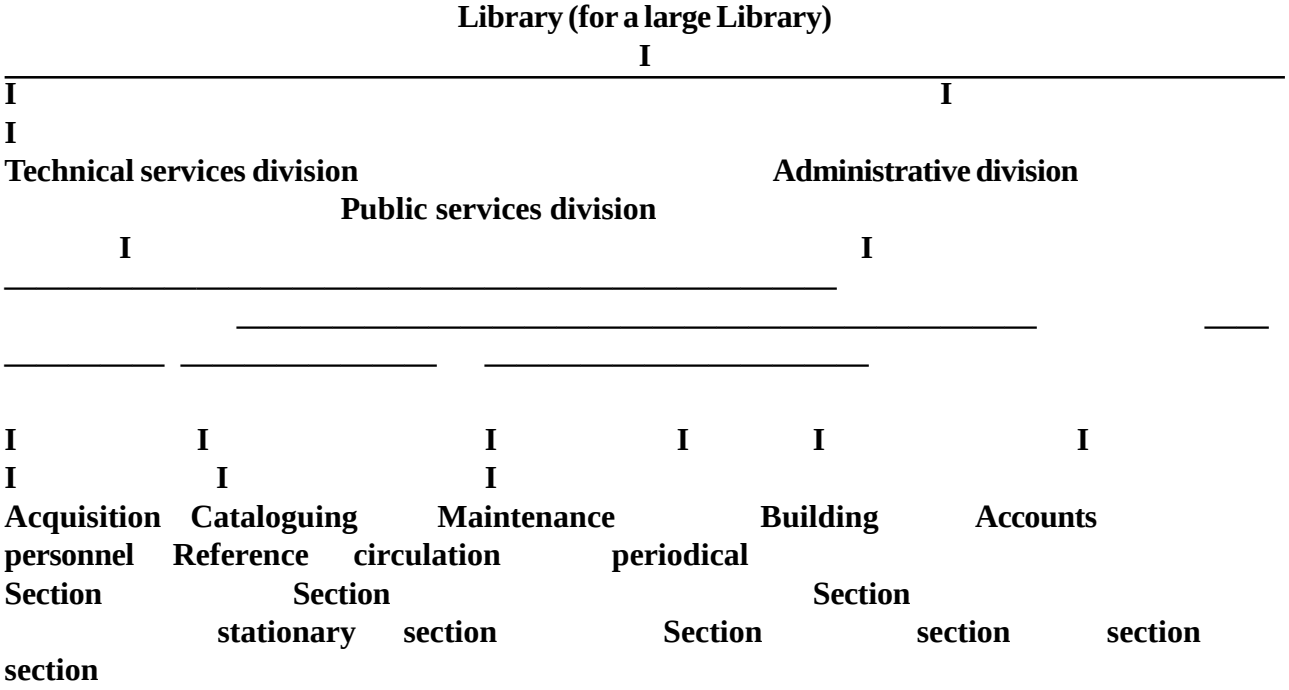
Syndicate/ Executive Council
I
Vice Chancellor
I
Library committee
I
Librarian
I

Asst.Librarian	Asst.Librarian	Asst.Librarian	Asst.Librarian	Asst. Librarian	Asst. Librarian
Acquisition	Classification	Cataloguing	Reference Section	Circulation	Evening Shift

Syndicate/ Executive Council
I
Vice Chancellor
I
Library committee
I
Librarian

Deputy Librarian Service Deptt.	Deputy Librarian Technical Department	Administrative Officer Esbt.& Accounts Branch

Ref.Deptt.	Lending Deptt.	Technical Deptt.	Spl.Collection	Acq.Deptt.	Tech Deptt.
Asst.Lib. Asst.Lib	Asst.Lib Asst.Lib	Asst.Lib Assit.Lib.	Asst.Lib	Documentation Asst.Lib.	Docu.Rep. Asst.Lib.



Functional arrangement usually provides for the following sections or departments acquisition, classification and cataloguing reference services, circulation and maintenance sections. In addition to that there may be periodical section, accounts section, administration section, departmental Libraries special reading room and collections. In functional approach work to autonomously then this is not desirable. It is essential to combine these into large units on the basis of related activities. For this purpose we may have technical services division and public services division. Technical services division would include acquisition, selection, cataloguing section (cataloguing and classification) maintenance section, etc.

Public service division: This services division would cover reference service, circulation service periodicals, etc.

Advantages:
(1) users are better served because there is staff better qualified to meet their requirements
(2) Acquire various types of materials on a subject (books, reference books, periodicals, reports, etc., are found together irrespective of the form of material. This is found convenient by most of the users.
(3) A technical person doing cataloguing and classification is also able to get an opportunity to work at the reference desk. Thereby he gets familiar with requirement of users and the way users and the way users approach the catalogue

Disadvantages:

(1) there is need for more staff required to serve at greater number of service points for longer hours

(2) There is a need to multiply library catalogues

(3) Certain bibliographical tools have to be duplicated

(4) There is a tendency on the part of staff to confine their interests to narrow subjects which is not desirable

Chart -2 for Medium Libraries

Library

I I I

I

Documentation section Reference section Technical section

Administrative section

Documentation section: this is a very important

ORGANISATIONAL STRUCTURE OF ANDHRA PRADESH PUBLIC LIBRARY SYSTEM

GOVERNMENT OF ANDHRA PARADESH

I

Andhra Pradesh granthalaya pradesh

I

Department of public libraries

I

I I

I

Government libraries City Granthalaya Samthas

Aided Libraries

I I

I

State central Library city central Library &district central library's
Managed by
I I
State regional Libraries Branch Libraries (Mandal Libraries) Voluntary organization
I I
I
Mobile Library Mobile Library
Corporation
I
I
Village Libraries
Municipalities
I
I
Book depot centers
Panchayats &
I
Cooperatives societies

ORGANIZATIONAL CHART OF A UNIVERSITY LIBRARY

Library Committee
I
University Librarian
I
Deputy Librarian

Acquisition section books gift exchange purchase Technical sectionClassification cataloguing physical processing Administration (Maintenance of Building stationery accounts personnel Periodical & documentation section Reference Library Assistant Circulation (Inter library loan Maintenance of stack text book
Assistant librarian Assistant Librarian—— ——- ——-
——-
Library assistant Library assistant Assistant registrar Library assistants cataloguer Library assistant Cataloguer -III Cataloguer-III Care taker accountant Clerk typist Xerox assistant Cataloguer –III

Special collectionTheses depository Govt .documents , Gift collections Department and constituent College Libraries Assistant LibrariansCollege Librarians
ManuscriptsAudio- Visual Binding
Library Assistant Library Assistant Library Assistant
Cataloguers Cataloguers -III

Cataloguers-III Binder

UNIT-3 :

LESSON 2:

CENTRALIZATION AND DECENTRALIZATION

STRUCTURE

3.2.9 Summation

3.2.10 Self Assessment Questions

3.2.11 References

3.2.1 AIMS AND OBJECTIVES

In this lesson an attempt has been made and discuss comprehensively on centralization and Decentralization. After going through this lesson one can understand:

To know about the importance of centralization and decentralization

Species of decentralization and types

To know the advantages and disadvantages of the centralization decentralization

Need for centralization and decentralization

3.2.2 INTRODUCTION TO CENTRALIZATION AND DECENTRALIZATION:

Centralization offers the advantages of greater efficiency, economy, and availability of the full resources of a system to any and every component of users. The advantages of decentralization are quicker direct, and personalized services. Internally generated and proprietary information sometimes an area of concern in centralized systems. However it is feasible to protect the integrity of proprietary information in a centralized system by coding it so that it is retrievable only by the organization to which it belongs or is entitled to receive it. Safeguarded access allows a participant to have the advantages of a centralized system without loss of security of proprietary information.

There are degrees of centralization and decentralization. An information analysis center is a highly centralized system while at the same time it may be part of a decentralized trellised bent work of centers

Activities of any organization are carried out aimed at centre ends called objectives. Objectives are the results which the organization has expected to achieve; thus these are related to future. The “objectives” are sometimes considered as the end point of a management programmer, describes it general or specific terms. However, in practice the terms like objectives. Goals, Aims and Purposes are often used interchangeably. One should try to understand the term in the context on which it might be employed.

3.2.2.1. UNIVERSITY LIBRARIES:

Whether a university library should be centralized or not continue to be a controversial topic. This issue has four aspects, Viz. 1) physical location 2) administrative control, 3) processing and 4) service. On one extreme, we have a highly dispersed library system and a completely centralized library system having no branches belongs to the other extreme.

3.2.3 NEED FOR CENTRALIZATION

1. Processing should be centralized because it will be economical, standard can be improved and uniformity in practices can be achieved. In case, there is a uniformity in cataloguing and classification practices, a user would have no problem in using any collection in the system.
2. Requires less number of personnel
3. Requires less equipment
4. Easier to maintain complete central records for periodical and central catalogues
5. Duplication of costly tools required for the purpose of selection reference service, cataloguing and classification, etc., can be avoided duplication of books would take place under decentralization.
6. Possible to have a uniform lending policy and borrowing privileges. A decentralization set up leads to different lending policy and borrowing privileges. The latter also have different opening hours, which is inconvenient to users of the system.

3.2.4. NEED FOR DECENTRALIZATION

1. Decentralization leads to placing of books in locations convenient to those who are likely to make the great use.

2. By dividing the collection into units based on subjects, it becomes possible to bring all forms of materials on a subject together. This can be good base for providing services on subject basis. It also becomes possible to employ persons with necessary background and experience to provide better services.

Teachers favor complete decentralization they would like to have everything within their easy approach. But librarians are generally opposed to complete decentralization. If resources are limited, then it would be advisable to avoid the luxury of decentralization as far as possible should have a working collection consisting of two to three thousand volumes containing materials of immediate use. The central library may be organized into sciences, social sciences and the humanities. In addition, there may be audio-visual section, special section rare collections etc. The organizational system varies from complete centralization (with regard to central control) to partial centralization. Partial centralization means that central library (or main Library) and many of the departmental libraries are under the control of chief Librarian, but certain processionals of school libraries, departmental libraries, and special collections have autonomous position. From the point of control; it is desirable that all libraries in a university set up should belong to a university library system. That is the chief librarian should have a complete control over all the belonging to the university.

3.2.4.1. PUBLIC LIBRARIES

A Public library system would generally consist of a central library branches, deposit stations and mobile service points. It is essential that acquisitions, cataloguing and classification of documents should be centralized but services should be decentralized. Normally the chief librarian of a public library system would have complete control on the libraries in the system.

3.2.5. CENTRALIZED ADVANTAGES:

Briefly states, the advantages of a more centralized subject divisional approach are:

1) Closer administrative control,
2) Expansion of available resources by a pooling of the material of overlapping subject fields and
3) Better utilization of the professional staff.

3.2.5.1. DISADVANTAGES:

A possibly serious disadvantages could be the loss of the type of faculty involvement that would take place in the departmental; library. Loss of the proximity of the materials might disturb some faculty but the recent trend to provide adequate library areas in their inter disciplinary subject should be alleviated.
We may conclude that:

1. Consolidation of small units into larger and larger divisions will continue to take place. This constitutes partial decentralization or partial centralization, depending on one's point of view

2. There are no easy answers to the questions of how much and what kind of decentralization should take place. There are many factors which must be considered: governmental structure of the university, financial ability, size of the library, number of professional personnel, etc.

3. The type of library service planned for the future will have library's proposed use of technology advances.

3.2.6. DECENTRALIZATION IN ACADEMIC LIBRARIES:

The growth of information by compound rather simple progression is reflected in the upward spiral of publication and an accelerated growth of library collections. Keyes D.Metaclaf suggests three major possibilities: transfer from an overcrowded unit of the library to another unit: storage; and rejection of material –weeding for gift, exchange, sale or outright discard. All of the traditional arguments on both sides have been presented however; the problem of decentralization is interesting and becomes more complex with the growth of what has come to be called the multi- University. "As long as there are universities with large libraries the question of centralization or decentralization will be a live topic for discussion.

Robet R.Walsh dives the forms of decentralization into "two Species". (A) **The first type: division based kinds of forms and materials** i.e. separate libraries are for rare books, map collections, Documents and so on. Decentralized by form of materials rare books manuscripts, government documents, map collections, etc, has been practiced for many years.

3.2.6.1. ADVANTAGES: 1) The above practice is merely illustrative of the early tendency to decentralize library holdings by form of material.

1.The prime advantages of housing such materials in separate quarter's lies in the specialized service afforded scholars who use these collections.

2. Service is more personalized and tailored to individual needs.

3. Another advantage is that collections consisting of rare books and manuscripts material that are housed separately will attract more donors.

3.2.6.2 DISADVANTAGES:

There are three obvious disadvantages:

1. Operational problems

2. A necessary duplication of some references and a large amount of bibliographical material

3. Possible user frustration over access to the collection. However, due to the very nature of these materials, libraries will continue to create specials areas of their preservation and service.

3.2.6.3. THE SECOND TYPE: USER-AND SUBJECT ORIENTED PATTERN:

The graduate and professional Scholl libraries, such as law and medicine, will continue to be separated from the main library and enjoy variations of administrative autonomy depending on the local situation. The trend appears to be in the direction of establishing libraries in more of the professional schools such as engineering, education.etc. is user and subject –oriented pattern" includes graduate and professional School libraries, libraries collections, and separate undergraduate libraries.

The graduate professional schools libraries, such as law and medicine, will continue to be separated from the main library and enjoy variations of administrative autonomy depending on the local situation. They tend appears to be in the direction of establishing libraries in more of the professional schools such as engineering, medical education, etc.

3.2.7. DEPARTMENTAL LIBRARIES

As universities grew and more departments were added, the proliferation of departmental libraries went on. the academic libraries are traditionally divided into subject specializations, general services and public services by which the academic libraries may be shaped into branch libraries and departmental libraries. In the context decentralization the university library administration may concentrate on departmental libraries, which are more helpful to the staff and students.

3.2.7.1. ADVANTAGES OF THE DEPARTMENTAL LIBRARIES:

Dichotomy seems to be prevalent in academic library structure. Vertically and by function, academic libraries have traditionally been divided into technical and public services. Horizontally and by organization, they are composed of main Brach and departmental libraries

3.2.7.2 ACCESSIBILITY: The first and foremost argument which has been put forward in favor of a departmental library is the convenience of accessibility. Books are acquired and processed for the ultimate means of having them available to the readers. Libraries and books will be of benefit to nobody if they remain unused. To encourage usage of books, easy accessibility is a great incentive. Departmental libraries save time directly, and money indirectly would concede that the geographical spread of the campus makes it justifiable.

3.2.7.3. EASE OF USE: A small collection consisting of books and periodicals in the same subject field is easier to use than a gigantic library. This is the major reason for the establishment of undergraduate libraries where undergraduates will not be daunted by a massive and complex collection. In a departmental library, however, a custom-built classification scheme is frequently devised and used and this scheme would almost certainly be oriented to the way the researchers and students use their special collection.

3.2.7.4. SPECIAL SERVICES: A departmental library is like a special library in which readers benefit from special services. In a departmental library, librarians frequently have a fair amount of relevant subject knowledge. Being familiar with the collection, special librarians are in a better position to select and acquire materials. They are more responsive to the research and instructional needs of the faculty and students, and are therefore able to develop the collection most satisfactorily. Moreover, they are well acquainted with the publishers and book-sellers in their particular subject field, which very often helps in speeding up the acquisition of materials. Being familiar with the clientele and their individual research areas, the special librarians are well-placed to provide a more effective and personalized service. Including CAS and SDI services can be provided for the faculty and students in that particular discipline

3.2.7.5. RELIEF FOR THE MAIN LIBRARY: There are instances where the physical facilities of the main library are strained to such an extent that siphoning off part of its collection and some of its services to a branch becomes necessary. In these circumstances, separating the materials relating to a certain subject, which should ideally be a distinct entity from the main collection, and putting it elsewhere appears to be a sensible thing to do.

At one point, before the early twenties, owing to the inadequacy of university library buildings in the United States, the tendency was to divert books away from crowded central libraries. Then, following the construction of larger American university library buildings, books could be moved back to the main library. An example quoted by Walsh is that of the construction of the Widener Library at Harvard which permitted a number of collections, including the Business School Library, to be brought together.[16] However, as years go by, the main library becomes crowded again and the forces toward decentralization begin to work.

There are other advantages in having departmental libraries, apart from the above-mentioned One is that there is more active participation in, and involvement with, the operation of departmental libraries on the part of faculty members, because they feel that the libraries are their own. The departmental libraries can more easily attract donations, either money or books, because donors tend to donate to what they are most interested.

3.2.8. DISADVANTAGES OF DEPARTMENTAL LIBRARIES:

3.2.8.1. COST: Cost is undoubtedly the greatest disadvantage. As far back as 1901, William Bishop stated that the one unanswerable argument against departmental libraries was the great cost of purchasing duplicates and of maintaining many libraries instead of one. The budget for libraries is usually tight, and if a substantial part of it has to be diverted to building up a departmental library, then the main library which caters to the majority of the university community will suffer. Duplication of materials is bound to take place. Essential bibliographical and reference tools have to be provided in both the main and departmental libraries. Moreover, teaching has gradually become more and more cross-disciplinary and it is impossible to withdraw books from the main library without depriving members of some departments of their use. Therefore, duplicates have to be purchased. The budget for libraries is usually tight, and if a substantial part of it has to be diverted to building up a departmental library, then the main library which caters to the majority of the university community will suffer.

Duplication of materials is bound to take place. Essential bibliographical and reference tools have to be provided in both the main and departmental libraries. Moreover, teaching has gradually become more and more cross-disciplinary and it is impossible to withdraw books from the main library without depriving members of some departments of their use. Therefore, duplicates have to be purchased. Providing staff to work in the departmental libraries represents a considerable drain on the main library's budget. If acquisition and processing of materials is done separately in the departmental libraries which maintain separate catalogues this means a duplication of effort adding to the costs of the libraries.

In the face increase in book prices, staff salaries, and in many cases a shrinking budget in recent years, the question of cost should be seriously considered before one sets up departmental libraries.

3.2.8.2 HANDICAP TO UNIVERSITY-WIDE RESEARCH: As remarked previously, interdisciplinary studies and research have emerged in recent years to such an extent that there is scarcely any discipline which has no relation to other disciplines.

Therefore, if books and periodicals of a certain discipline are diverted to a departmental library which might be located one or two miles from the central campus, users from other disciplines will be greatly inconvenienced. The only solution to this problem is to purchase duplicates, but the question of cost often prohibits this practice.

They might think that the departmental library is their own and disallow or discourage other people from using it.

3.2.8.3. ADMINISTRATIVE DIFFICULTIES: Problems of coordination, cooperation, and communication among the main and the many scattered departmental libraries very often arise. It may be difficult for the main library to transmit instructions on, say, revised cataloguing practice, or new circulation procedures to its branches promptly, because of the geographic distance. Further, due to the parochial attitude on the part of departmental libraries, they may sometimes refuse to accept or implement these instructions, thus creating non-uniformity of service in university libraries. Students should ideally be exposed to a comprehensive collection and should be told that reliance upon the departmental library will not make them successful researchers or scholars in their later

lives. They should also be taught the various techniques of using the main collection in the university library. Security is another problem for the departmental library. Probably due to the shortage of staff resulting in less strict supervision, the percentage of missing books in departmental libraries tends to be high.

The foregoing has shown that departmental libraries have both advantages and disadvantages. The focus of the debate is between accessibility on the one hand and economy and efficiency on the other. Indeed, centralization or decentralization is "one of the most persistent and difficult organizational issues for academic libraries

3.2.9 SUMMATION

There are a variety of patterns of organization but none of them is able to meet all the situations satisfactory. In the choice of a pattern, library objectives, building plan and structure and financial support are important factors. In India the preference is for functional arrangement for central library of a system. In addition, university libraries have departmental libraries based on subjects.

The question of centralization versus decentralization continues to be discussed hotly. Experience shows that acquisition (book selection being decentralized) catalogue and classification should be centralized and service should be decentralized. In addition, all libraries in a university set-up should form part of the university library system. Departmental libraries may be set in each department having working collections ranging from two to three thousand volumes.

3.2.10 SELF ASSESSMENT QUESTIONS

1. Write an easy on centralization and decentralization

2. Disuses the advantages and disadvantages in centralization and decentralization in Library administration.

3.2.11 REFERENCES

1. Michael Bruno,J. Decentralization in academic Libraries
2. Krishna Kumar, Library management, 1980
3. Mital, R.L. Library Management and Administration

UNIT – 3

LESSON - 3:

COLLECTION DEVELOPMENT AND EVALUATION

STRUCTURE

3.3.10 Problems in Collection Development

3.3.11 Summation

3.3.12 Self Assessment Questions

3.3.13 References

3.3.1 AIMS AND OBJECTIVES

The collection development policy should take into account the aims and objectives of the organization. Its general and specific programmes, the community it serves, the purpose of the library, existing collection, and its future needs, every library adopt for collection development policies, principles to acquire rich resources to the library and user based collection development in the libraries.

3.3.2 COLLECTION DEVELOPMENT

According to 5th Law of library Science, the library is a growing organism expressed, that the library must be grow with collections collection size and the growth of the library is based on of the variety of documents .The library both print, non-print, Non-Book materials, special materials microforms, A/V materials video records and computer files e-books and e-Journals etc., collection building involves with a number of activities by which a library acquires materials of all types by implementing the selection policy and the plans for documents acquisition. The selection policies and procurement porgrammes form the content of the collection development process. The collection development is a dynamic and continum activity of the every library. In this process the user contract, Library Staff and the subject experts are the main components for selection of documents for the library. In an academic library the users may be students, teachers, researchers and administrators etc.,, or extension service. Among the students there may be undergraduates, post- graduates and Research Scholars. Since the academic library has to support the teaching, teaching, research and extension programmes of its parent organization, its collections and services are; to cater to the meet the curricular, co-curricular and extra-curricular needs of its clientele. Academic libraries are extensively used by the students, scholars and teachers, involving heavy use of text-books; reference books and extensive use of background materials also the balanced development and management of the library collections is very important aspect in academic library, practically to satisfy the user needs. The collection development involves selection tools for books; like bibliographies; catalogues; book sellers catalogue and National Bibliographies & Subject Bibliographies etc.,

3.3.3 INTRODUCTION TO COLLECTION DEVELOPMENT

Collection development, one of the basic functions of libraries, is closely related with information retrieval activities. Good collection forms the backbone of any library to provide good information services and answer to various types of queries. The nature of collection depends on the type of library as each one has a distinct approach towards collection development programme. With the change of time, things are changing fast in libraries too. Earlier, housing a large collection and investing a large amount used to be a matter of great pride for a library for being capable of meeting most of its users' requirements with its own resources. But today, in an electronically accessible environment, physical location of information is becoming less and less important. They

very concept of ownership has been left behind. The emphasis has now shifted from building strong local collection to accessing electronic materials available anywhere in the world. Today, “economic forces and technological advances have combined together to create a new environment, where access to collective and scholarly resources that no library could ever afford, supersedes the historic quest for the great comprehensive collection.

3.3.4 SELECTION TOOLS FOR BOOKS

Different types of selection tools used for the documents selection. A very large number of documents are produced every- day, all over the world. They provide necessary information about the documents. Their content, bibliographic characteristics and their physical formats. They also indicated about their price, and where they can be obtained from. For the selection of documents and the development of collection the tools are indispensable. Any good library will acquire as many possible to ensure better selection of the documents. No single selection tool is capable of performing all the functions of buying guide.

3.3.4.1 TYPES OF SELECTION TOOLS:

According to Drury “A necessary part of selection process is the choosing titles from many valuable aids” viz., (i) publishers catalogues and (ii) Booksellers catalogue are the two important sources of information for the current and forthcoming publication. So also are the reviews of current publication appearing either in the exclusive book-reviewing periodicals, or in newspapers or in general magazines or in subject periodicals. In the document selection process the reviewing media still remains the first choice among the sectors. Bibliographical tools such as National Bibliographies, trade Bibliographies and Subject Bibliographies are indispensible aids. These selection tools help us in selecting the best documents from among the millions that have been published, for any group of readers and for documents of any period. Then there are selection tools for the special type of materials. They are selection tools for periodicals selection tools for government publications, selection tools for dissertations and theses. Besides this, there are selection tools for the publications of the international bodies, for Microforms, etc. these tools collectively inform us about the total literary output. Out of this wealth, the selection of documents can be made according to our needs and resources.

3.3.5 DOCUMENT SELECTION PROCEDURE:

Document selection has three parameters (1) the demand (2) the supply (3) the finance. The demand reflects the interest of the readers in a particular area or areas of the universe of knowledge. It consists of both expressed and un expressed needs of actual as well as potential users of the library. The supply means the availability of the sources of information or documents in the market or with the publishers for procurement. Even if the demand exits, and documents are available, there can be no acquisition; unless the library has funds. Finance is thus another important element which regulate the document.

3.3.5.1. ASCERTAINING DEMAND:

Briefly the following can be helpful in ascertaining the demand

1. Statistics of documents used inside the library;

2. Statistics of documents issued to the users for the use outside the library, showing the subject –distribution;
3. Recommendation of users for documents to be procured;
4. Suggestions of the library staff towards collection development;
5. Requisition from teaching or research departments,
6. Reading list in the prospectuses of the courses of studies,
7. Profiles of researchers and research projects;
8. Findings of the users surveys regarding users' needs and;
9. Various happenings in the use community and the events likely to occur in near future

The success of selection procedure depends on the ascertaining of demand of the users as accurately as possible and fulfilling them as best as possible in accordance with the document selection policy of the library.

3.3.5.2. ASCERTAINING SUPPLY:

Various bibliographical tools giving information about the availability of current and retrospective documents from India and aboard have already been discussed in a considerable detail. Various categories of documents selection aids which inform about the availability or supply or supply of documents are:

1. Book lists and trade catalogue of book sellers and publishers,
2. Book trade periodicals, like the Indian book industry,
3. Book reviews in newspapers periodicals and reviewing journals,
4. List of text-books and other readings, prescribed s by various courses conducted by the parent body,
5. National Bibliographies Like INB & BNB,
6. Book exhibition catalogues,
7. Published catalogues of important libraries, learned societies governments, etc;
8. Retrospective trade lists and bibliographies like the Indian Books in print or BEPI;
9. Catalogues of rare book dealers and of second hand book sellers and,
10. Accession lists of important libraries or organization,

3.3.6 STEPS IN COLLECTION DEVELOPMENT

1. Information needs of the users
2. Type and Nature of the library
3. Acquisition programmes to build- up a collection development
4. Impact of Resources sharing
5. Stock verification wedding out porgrammes will help effectiveness of collection development
6. Collection evaluation.

Collection building involves a number of activities by which, a library acquires materials of all types by implementing the selection policy and the plans for document acquisition. The selection policies and the procurement programmes form the contents of the collection development process. Collection development is a dynamic and continuous activity. It involves the users, the library staff and the subject experts as a selection team. It is an un end in itself but a means to develop a need

based up-to-date and balanced collection development to meet the documents and information needs of the users. Various steps involved in collection development are:

1. Analysis of the information needs of the users
2. Formulation and implementation of selection policy to suit the objectives of the library;
3. Acquisition programmes to build-up a balanced collection;
4. Resource sharing and its impact on collection development;
5. Weeding out programmes to ensure effectiveness of collection; and
6. Collection evaluation.

3.3.6.1 USERS AND NEED BASED COLLECTION

The collection development is an efficiency audit of a library which closely linked with its use. The use is enhanced by the appropriate organization of the collection, accessibility,its circulation of the documents, and the maintenance of the collection. With the development of quantitative techniques and the identification of various parameters of usage of document, the collection development process is tending towards objectivity. Rangnathan's first law of library science "books ate for use", is however provides basic guide has for this purpose.

3.3.6.2 COLLECTION DEVELOPMENT POLICY

Every academic library developing a need- based balanced and to up-to-date collection policy guideline as at necessary. And to it will minimize the possibility of personal preference or bias and a quality collection is ensured. A Collection development is a continuous and never ending activity, a well thought out long term policy is needed to accomplish the task of collection development systematically.

3.3.7 COLLECTION DEVELOPMENT PRINCIPLES

Collection development is based on library committee selection; every library must be section of documents based on some principles of book selection. The selection of reading material is both an art and Selection of documents are reading materials in both art and science every library must be selection of documents based on some principles recognized by the library thinkers basis on the principles the selection of documents these are:

1. Dury's principles
2. Dewey's principles
3.3. Mc Colvens demand theory:
4. Five law's of Ranganathan law's
5. Haines principles
6.Grorge s.boon's questions

3.3.7.1 DURUY'S PRINCIPLE:

The Duruy's in 1930 enunciate "To provide right book to the right reader at the right time". In this opinion the reader in the centre point to selection of documents based on this principles the

selection of documents based on readers requirement, know the readers need to meet the reader's needs and demand.

3.3.7.2 DEWEY'S PRINCIPLE:

Melvil Dewey believe that "The best reading for the largest Number at the least cost". According to this principle based on the financial and large number of number of readers within the financial resources the library give a information/ documents large number of the user must be satisfy. Our selection of documents should be within the limitation of sources, more number of the readers must be satisfied.

3.3.7.3 MC COLVENS DEMAND THEORY:

In 1925 he enunciated "Demand and supply theory" this is more closely book selection is related to demand the greater is the resultant the possible service. The term supply is given availability of the reading material. Demand is need of the users. This theory advocates the selection of only those documents which are demand by the users for their information needs.

3.3.7.4 FIVE LAW'S OF RANGANTHAN:

According to Ranganthan five laws are help in the selection of documents. First law, Second Law and Third Law helps in book selection. First Laws emphasis users Second Law stress to Books Third law recommended to reader's point of view. The first two laws are kept in mind, selection of document and collection development will be on the right time.

The other principles are Haines, be positive not negative policy Gorge Boon's most suitable for the users should be selected.

3.3.7.5 HAINES' PRINCIPLE

Haines designed two principles document selection; he developed balanced and unbiased principles

I) Each library should be built up according to a definite plan on a board general foundation. Its development must be flexible, but constant attention must be paid to te maintaining of just proportions as a whole, so that certain classes will not be over emphasized and other neglected. The needs of the library exist and should be met, as well as the need of the reader.

II) The second principle the selection of documents be positive not negative.

3.3.7.6 GRORGE S.BOON'S QUESTIONS :

Boon suggests the following questions which should be answered before arriving at a decision to select a document:

i. What books or periodicals are being published
ii. Of all these which ones are in fact obtainable
iii. Of all those that are obtainable which one are really worthwhile
iv. Among those that are worthwhile, which ones are most suitable for the kind of library or the kind of reader under, considerations
v. Among the most suitable ones, which are definitely best for the needs of the particular library or the particular reader involved
vi. Then of the best obtainable for the library, which can that library actually afford to buy?

The published document which is still available and is worthwhile for the library is the most suitable for the user should be selected. Even this selected document can only be procured and made available to the user if the library can afford to buy it. The selection as such is also regulated by the resources available.

3.3.8 ESSENCE OF PRINCIPLES:

The essence of various documents selection principles is that the document and information needs of as many users as is possible be fulfilled with the best reading within the resources available. Documents are for use. Every user should have his document. Efforts should also be made to select and promote the use of those documents which are not in demand presently, but are likely to be in demand in future because of their inherent value. The selection of such documents would make the collection rich as also useful for the coming generations.

McColvin's demand theory is not considered a sound basis for document selection and it is believed that the library can never expect to have a well-balanced collection if the demand theory is strictly followed. Because its only basis is the need expressed and demand made by the user. Along with demand, other factors are also to be considered. The great works of literature , the books of permanent value and lasting influence, the classics,etc., are also to be selected whether the demand exists or not. Otherwise instead of developing a worthwhile collection of the best reading, a worthless collection may result. Some flexibility is thus needed in selecting what is the against what is demanded. As far as the means permit; all reasonable demands should be met but no document of lasting value should be left out. Efforts should also be made to serve and satisfy as many users as possible within the resources available.

3.3.9 EVALUATION OF COLLECTION DEVELOPMENT

There are a number of different approaches to the evolution of collection development are possible. First it seems appropriate to mention the evaluation techniques mentioned below

A collection may be evaluated against some outside standard using as the standard.
(A) One or more individuals or (B) some type of lists documents
(B) Evaluation against a standard list

A less subjective external standard is the list of documents prepared by some authoritative organizations several types of list of books or periodicals recommendation for libraries of recommended titles have been prepared for this purpose.

9.1 Ranked lists: A particularly useful kind of list is one that is ranked to reflect some order of priority or importance. Ranking can be done on the basis of the items asked for by the users of libraries or items most cited by writers in the field.

9.2 Creating one's own list: of course standard list will not exist for all forms of collection evaluation. It is always possible, however, to create one's own list. Such a list can be complied by taking a representative sample of books are articles recently written on a particular subject and using the sources cited in these works as a test set to assess the adequacy of a document collection in this subject field.

9.3 Use studies: A study of the use actually made of a document collection can also be undertaken. Many studies of this kind have been carried out in the different libraries on book collections of academic libraries. The major purpose of such studies is the identification of those proportion of the collection that are most used and those that are least used, so that the most used portions may be stored in the most accessible locations and the less used portions are retired to less accessible and less expensive storage areas. There are basically two possible approaches to the conduct of a use study of this type: 1) use of collection sample and 2) use of circulation sample.

3.3.10 PROBLEMS OF COLLECTION DEVELOPMENT:

C.A.Gardner states the following problems usually encountered in developing a qualitative collection. These are:

1. Increasing volumes of books and journals that come out from the ever-growing number of publishers
2. Relentless rise in prices of books and journals year after year that outstrip the rather fixed library budget.
3. Fluctuations in the exchange rates of foreign currencies
4. Widening and changing scope of activities of the user groups
5. The restrictions on imports, especially of non-book materials
6. Unfair trade practices that are followed by some of the book sellers, distributors and publishers agents"

3.3.11 SUMMATION

The application of the selection principles is not an easy task. The nature of the library the standard and taste of the users, the availability of documents in the subject or language or form desired by the users, the resources, the existing collection, the extent of resource sharing practiced, the organization of book trade, etc, have their own role to play in document selection. The functions of the library should determine the character of the book collection. The document should be selected for values of interests, information and enlightenment of all the people community. The application of selection principles should result into a need-based, balanced and up-to-date collection which is useful not only for the present but also for the posterity. The selection documents of all types for building –up and effective library collection, some established principles of documents selection are to be followed. Those enunciated by druruy, Dewey,McColvin provide due guidance and are quite helpful and also Ranganthan's Five Laws of Library Science provide good guidance towards document selection.

3.3.12 SELF ASSESSMENT QUESTIONS

1. Define collection development what are the policies adopted by the librarian
2. Discusses the principles of library collection development
3. Write an essay on book selection

3.3.13 REFERENCES:

1. Prasher, R.G. Developing Library Collection Medallion Press 1975
2. Ranganthan, S.R. Library Book Selection.2nd .ed. Bombay, Asia 1966.

UNIT 3:

LESSON 4:

PRESERVATION OF LIBRARY MATERIALS

STRUCTURE

3.4.1 AIMS & OBJECTIVES

In this lesson the author made an attempt to classify the enemies of books into five basic factors which are comprehensively discussed in this lesson. After going through this lesson one can understand:

- Discuss the enemies of the books
- Factors of deterioration
- Environmental factors
- Biological factors, Chemical, human, Disasters and prevention measures

3.4.2 PRESERVATION –DEFINITION

Books are the life-blood of great researchers, philosophers, sages, scientists and literatures. Books like human begins have got a body and a soul. Its body is represented by the material of which the book is made of paper; ink and binding are the physical constituent of a book. The soul of a book consists of the actual thought content to be found in the written pages of the book. The soul can be freed from the mortal bondage only if their message is conveyed to every living being. Thus a Librarian has a two-fold obligation towards books. He is entrusted with the task of preserving the books as well as publicizing them.

Library acquired the required materials for their users and another important entity is preservation of the document is an important activity to prevent, or retard deterioration; which 'means maintaining the documents in usable condition; where each item in the collection must be protected from five enemies.

3.4.3 ENEMIES OF BOOKS

Environmental factors like light, heat, humidity and moisture, dust and dirt, water

1. Biological factors:- Microorganisms insects and rodents
2. Chemical factors
3. Human factors and
4. Disasters

3.4.4 ENVIRONMENTAL FACTORS

3.4.4.1 LIGHT:

Every library must have proper lighting and ventilation to readers need appropriate level of light for working found both in sunlight and in artificial florescent light, contribute to the breakdown of the cellulose structure in the paper. Direct sun light raises in the air temperature, especially if it passes through glass and all conventional artificial lighting system generated some heat which radiates form the light sources. Whether natrual or artificial light the paper gets detorioed when it is exposed to light. The ultraviolet radiation of light is mainly responsible for photochemical degradation of paper; when the paper is exposed to sun light). Fading of ink and dye of the colored paper and yellowing of white paper also takes place due to the formation of oxycellulose. Artificial light like fluorescent tube light also radiates a high percentage of Ultraviolet rays which cause deterioration by yellowing the paper. However the amount of dames by light depends upon the following factors

1) **Intensity of light-** as the intensity of light increases the rate of deterioration of the paper also increases.

2) **Duration of exposure-** the duration of exposure of paper to light is directly proportional to its deterioration.

3) **Distance from the source of light-** more the distance, less the damage.

3.4.4.2 HEAT:

The source of heat is high atmospheric temperature; measured in terms of temperature either in Centigrade scale or Fahrenheit scale. High heat with low humidity causes dehydration of cellulose fibers and the paper becomes brittle.High temperature with high humidity creates the condition for the growth of moulds. If electric bulbs are used for lighting purpose, they increase room temperature and generate more heat. The extreme variation in temperature (say 50c in winter and 450c in summer) affects the physical condition of the library materials.

3.4.4.3 HUMIDITY AND MOISTURE:

Humidity is defined as the percentage of the quality of water in the air relation to the maximum quantity, can hold as its present temperature. The probably 30% of and 60% is need for preservation of documents. Moisture is the root cause of various types of physical, chemical and biological deterioration of library materials. It weakens the adhesive and makes the book binding loose. It also weakens the sizing elements of paper and causes spreading of ink. Moisture also promotes the growth of fungus, which cause damage to paper and book binding materials.

3.4.4.4 DUST AND DIRT

Fine dust and dry particles of any matter present in the air are known as dust. Dust, which is highly dangerous for the library and archival collection, composed of soil, tar, metallic substances, fungus spores and moistur etc., generally dust is air borne and settles down on any surface of the object. Dust is hydroscopic in nature and when it mixed with high humidity, it is transformed into dirt and if this dirt. Dust and dirt are sources of both physical and chemical degradation of the library collection. Since dust and dirt are solid particles of varying size and hardness they exert abrasion on the surface of the books.

3.4.4.5 WATER

Water, which is harmful for the library collection may come from Sources like natural calamities, human negligence, from leaking roofs, defective plumbing and through open windows at the time of raining. Excessive water brings about biological attack on paper, which is usually manifested as the growth of fungus or mildew. The effects of water are stained paper, rotted leather, and smeared ink; weaken adhesive, sustained fungi etc. Water also does injury to the steel furniture due to rusting.

3.4.4.6 BIOLOGICAL FACTORS

Almost all book components, be it paper, leather, textiles or straw board used for binding are prone to attacks by these biological agents. The problem of bio-deterioration is The deterioration caused by biological agents such as micro-organisms, insects and rodents is generally known as bio-deterioration. A matter of considerable significance of tropical hot and humid climate like India. The climatic condition accelerates the growth and multiplication of living organisms. There is perhaps no library, which has not suffered the ravages of these agents of bio-deterioration. These biological agents can be subdivided into:-

(i) Micro-organisms- Fungus or moulds, bacteria etc.
(ii) Insects
(iii) Rodents

3.4.6.1 MICRO- ORGANISMS

A. Fungus: Fungus it is another destroys the paper and leather and leaves white scars on the books this is growing 25^c and 38^c temperature, it is thin whitish coating consisting of fungi of many kinds. The fungal spores are present in the earth, water and air and remain in a doormat state for long periods. Fungus is a large heterogeneous group of plant organisms. Generally fungi grow in a relative humidity range of 63-100% and temperature range of 15-350c. In libraries fungal growth is known as mould or mildew and they appear as brown/black vegetative growth on paper, leather and textiles.

B. Bacteria: Besides fungus, bacteria also decompose cellulose in paper and binding textiles.

3.4.6.2 Insects

There are thousands of insects, only certain insects badly damage the Archive-library materials. They are silverfish, cockroaches, booklice, bookworms and termites.

A. Silverfish : Silverfish do not have wings and are silvery or pearl gray in colour and about 8 to 10 mm. in length. They eat the surface of the paper and also eat gum from postage stamps, envelopes etc. They grow holes in paper, prints, photographs, catalogue cards and cardboard boxes. The dark spaces on the library racks, catalogue cabinets, and drawers are the places for their egg laying.

B. Cockroaches : They are frequently found in libraries, archives and museums and are very active during the night. They live in corners which are damp, cleavages in walls and floors, behind and beneath almirhas, shelves and in wooden cupboards. Cockroaches are common all over the world which are brown or blackish brown in colour. They eat paper leaves, bookbinding, fabrics and other organic materials. They excrete a dark brown liquid, which leave stains on the paper and become difficult to remove.

C. Book worms or Book beetles: Bookworms damage the shape & Script of books and manuscripts. As the name itself suggests they feed on paper and damage the paper extensively. In libraries the bookworms lay their eggs on the edges of the books and on the surface of the bookbinding. They make tunnels in the pages and boards of the books.

D. Book lice: They are gray or white in colour. They injure the bindings of books by eating paste and glue and also eat the fungus formed in between the edges of inner cover of the books. Dark dusty

areas filled with unused books, dampness and warmth are essential requirements for the growth of booklice.

E. Termites or White Ants: Wet or damp conditions are most suitable places for termites. They eat wood and paper and can attack any type of material containing cellulose. In the tropical climate they damage the library materials due to termites are much. If once they start destroying the books they can do irreparable damage in no time. They are of two categories like earth dwelling termites and wood dwelling termites. Earth dwelling termites live in the soil and in the libraries their presence can be noticed by their mud tunnels on the walls, book cases and furniture. Wood dwelling termites live above the ground and enter the building through cracks and openings.

3.4.6.3 Rodents

Mice and rats are mainly found in libraries and they find their way into buildings through dry drains and openings in doors and windows. In libraries they eat and destroy materials made up of paper, cloth, leather, glue, etc. These animals are very swift to move and hide in dark corners. Rodents include mice, rats, squirrels and many other species.

3.4.7 CHEMICAL FACTORS

In the manufacturing of paper fibers contents and some chemical compounds like alum, rosin etc. is used; which cause acidic effect and chemical deterioration of the paper. Because of the absorption of the chemicals and the moisture by the paper, the library materials get affected. The notable dangerous substances for the library materials are sulphur dioxides, oxides of nitrogen and ozone. The most familiar effect in libraries is the brown and brittle edges of books caused by sulphur dioxide. The nitric acid has strong acidic effects and attacks the dyes in ink, cloth, paper and leather. It makes the colours of fabric book covers fade and the book binding materials such as leather, gelatin, glue and paste are also susceptible to deterioration in humid atmosphere.

3.4.8 HUMAN FACTORS:

The serious cause of deterioration often due to the casual attitude of the library staff as well as the users of the library; towards books as physical objects. Librarians in charge of the documentary heritage are directly responsible for the overall conservation and preservation of their collections. But they are not always aware how to handle, store and use collections carefully to minimize damage and help preservation. The standard of care and handling of books by their custodians and users is often pretty low. Improper storage, faulty repairment, rough handling, deliberate abuse, folding the fore-edges of pages as a mark of reading, marking by ball pen, mutilation, vandalism are all examples of deterioration of books by human beings.

3.4.9 DISASTERS:

In libraries, archives and museums may have fed the threat of fire as the collections are mostly organic in nature. Once fire erupts, it is difficult to save those materials which got fire. Items not directly engulfed in flames can be charred by heat and smoke. Heat emitted from fire causes bindings to shrink and warp and plastic base materials to melt. Water used for fighting fire can cause enormous damage. Besides fire, floods, high winds, cyclones, earth quakes are also agents of deterioration for the library collections. Water used in fire accidents will lead documents to absorb

water, swell, warp and become extremely vulnerable to physical damage. Effects of disasters on library collections are too obvious to comprehend.

3.4.10 PRESERVATION TECHNIQUES:

Preservation of documents in a library is high challenging job to ever librarian the librarian must protect the library documents from above said enemies natural disaster biological infestation to certain method, construction of building in appropriate soil land and suitable places this is highly technical to save the documents in library growing organism and also apply fumigation (use of chemicals) to avoid the damage to the library documents. 1. Carbon dioxide 2. Formaldehyde 3. Carbon disulphide 3.4. Thymol etc.

3.4.10.1 PRESERVATION OF NON-BOOK MATERIALS

The preservation of non- book materials and the curable methods applied to these objects are very complicated because of the diverse nature of the materials. These materials are different and the problem of preservation is bewildering.

The recent development of micro cards and of microfilming materials and techniques is well known nowadays. It's saves binding costs, shelf space, and there is repairing express. Microfilms, like books, need to be given proper care and attention. Films even those on cellulose acetate can suffer real damage while in use and storage. Dust, heat and humidity are harmful to film as well as to paper. Dust and dirt in contact with the film can very easily scratch it. Like books microfilms with excessive humidity attract the growth of mould or mildew over the films and there is also the chance of rusting of the spools on which the films are wound. Too much dryness or heat can cause the films to become brittle and to curl or to make cracks at the edges. Acids by contact or from the air can harm microfilms. The ideal and the most up-to-date measures is that of air-conditioning.

3.4.10.2 PRESERVATION AND CLEANING OF MANUSCRIPTS:

The manuscripts are not preserved in air-conditioned rooms. Most of them are put in close wooden almirahs. Some of the manuscripts can be put in the open shelves bundled in cloth with numbers on it. The process of cleaning and oiling of manuscripts is as follows:

The manuscripts are cleaned with a nylon brush. Then a piece of clean and soft cloth is used for removing the dust. Finally pure lemongrass oil is applied with a soft painting brush. In the process of this work, the broken leaves are joined together carefully with a transparent cellophane tape, there is a possibility of oil injuring the gumming effect. So the cleaner with his experience he has to take care in putting the cellophane paper properly. It is likely have a great effect on the body and causes a kind of sleeplessness. To avoid this, gloves should be used. In a year the authorities should provide at least one pair of gloves to the librarian.

3.4.11 PRESERVATION OF ARCHIVES:

Record Management and Archives play a great role in special libraries like industrial libraries are areas like research development. Achieves are considered essential or the preservation of ancient culture and posterity. For example businesses Archive contain the records that have been created in

the course of business and have been retained for reference by those who created them. They have to be preserved for future use in the business Achieves. The Archivist act as official memory, and containing the collective experience, and historical value that can often be used as sources of information. We should keep all records, no matter how trivial, which are more than 100 years of age, and sometime they are valuable for their confidential information. Research into the period of industrial revaluation of 150 years ago is handicapped because very new business records have survived.

The life of records can be divided into three parts: (1) Current Records (2) Semi- Current files (3) Inactive Records. The current records are stored in the office in the files cabinets.

The archivist should be involved in all three stages. He then set up disposal instructions for new classes of records.

We cannot keep all records nor is it necessary to do so. Only about eight percent (8%) of the records created currently will be worth preserving forever. If a company is small it will not have any archives. If the company is large than it should be able to set up its own archives. Records management and the preservation of archives is, then, no longer the odd job of the office manager; it becomes, instead full time work of an archivist who, by his training knows what is important and should be preserved; and can identify the ephemeral and see to its disposal.

The other methods adopted are: (a) Books are not arranged on the shelves too tightly, or too loosely. The one damages the binding by the force necessary for interesting other books. (b) placing of books on the shelves supported with book end on each shelf;(c) proper circulation of air with the fans for checking the growth of fungus which germinates well in stagnate air; (d) taking care in opening new or newly bound books. If such books are too abruptly opened the glue on the spine or even on the stitches will be strained and permanent weakness will result; (e) smoking is prohibited in the stack room area as fire may be caused by butt of lighted cigarettes. Tobacco fumes are also known to be injurious to books because ammonia is always present in them.

3.4.12 CONSERVATION OF LIBRARY MATERIALS:

3.4.12.1 PERIODICALS AND SERIALS

The periodicals should be properly got bound. The volumes should not be too big or heavy otherwise there remains always a danger that the paper may not give way because the paper used for the periodicals is generally not of high quality. “Sometimes are printed on paper too poor or fragile for regular binding. If these materials are to be retained permanently, they may have to be Japanees-tissued or otherwise protected and bound; or they may be placed in cloth portfolios and marked to match other parts of the sets if these have been bound.”

3.4.12.2 NEWSPAPERS

The paper used for printing newspaper is made of wood pulp and is, therefore, Liable to disintegrate easily. But the value of the newspapers is immense. The cost of procuring, binding and

rebinding newspaper is enormous. Therefore the binding should be of high quality. “of all the source materials bearing upon the life of a community, the local newspaper is probably the most comprehensive earliest to secure, and the most evanescent. Collected today, tomorrow it is scarce, later, perhaps, rare or unique. The scope of information contained in a well-run sheet is astounding, and against its own editorial will it reflects the conditions, events, and forces of its time. Bulky, yellowing, unmanageable by usually library methods, files are more easily ignored than stored, and because the value is likely to be cumulative, a steady, long-term policy regarding them is required”

Alternative, special editions of newspapers on rag-paper and microfilm should be purchased for preservation purposes. Their use is much longer than that of an ordinary newsprint paper.

3.4.12.3 PAMPHLETS

Pamphlets are preserved in many ways in various libraries .these methods include the binding of individual pamphlets, binding of many pamphlets of one subject into one volume or to keep theme vertical files.

3.4.12.4 PAPER CLIPPINGS

It is found in many libraries especially research libraries, that important news, mainly of local interest or bearing on a particular subject are clipped form the selected newspapers. These are mounted on type paper and are kept in vertical files in a classic order.

3.4.12.5 MAPS

Public, academic and special libraries contain a good collection of maps. Due to in their abnormal sixes and the difficulty encountered in their consultation, special stands are prepared for mounted maps. These mounted maps are preserved in steel maps cabinets. These are manufactured by many reputed firms.

3.4.12.6 MUSIC

Music scores should be preserved in such a way that these can be used without any hindrance. It can be ensured by sewing these along the signatures. Music scores may be kept in folders and boxes also.

3.4.12.7 FILMS AND MICRO-FILMS

These materials are inflammable. The Librarian should take a special care for their preservation. The storage should be free from dust. The temperature and a relative humidity of 70F and 50% should be ensured respectively.

3.4.12.8 MANUSCRIPTS

Manuscripts are rare and valuable. These must be preserved properly. “Mingone in a section in the repair and preservation of records devoted to the reinforcement of paper has listed several methods. These include ‘framing’ or ‘inlaying’ a sheet of paper into another sheet (if one side is

blank); glazing (mounting in a farmer or between two sheets of glass); resizing in order to allow the paper to regain the special strength; lacquering ; or covering with a transparent, flexible material."

3.4.12.9 LEATHER BINDINGS

Leather binding deteriorate due to heat and dryness. Weighty books last for shorter periods. Application of mineral oils is used for leather bindings. Well-tanned leather should be used for binding. But Sulphuricacid is very harmful for it. Only air-conditioning can preserve it adequately.

3.4.13 IMPORTANCE OF PRESERVATION AND CONSERVATION

The processes of preservation, conservation and restoration are applied to safeguard the library materials from further decay and deterioration. Preservation is the process in which all actions are taken to check the deterioration where as conservation includes proper diagnosis of the decayed material, timely curative treatment and appropriate prevention from further decay, throught the (i) preservation and ii) curative measures.

3.4.13.1 PREVENTIVE MEASURES

Which includes all forms of indirect actions aimed at Increasing the life expectancy of undamaged or damaged elements of cultural property. It comprises all the methods of good house-keeping, caretaking, dusting, periodical supervision and prevention of any possibility of damage by physical, chemical, biological and other factors.

3.4.13.2 CURATIVE MEASURES

Consists of all forms of direct actions aimed at increasing the life expectancy of undamaged or damaged elements of cultural property. It includes repairing, mending, fumigation, deacidification, lamination, and other jobs which are required considering the physical condition of the individual document.

3.4.14 PREVENTIVE MEASURES FOR ENVIRONMENTAL FACTORS

Control of environmental factors partially begins from selection of site, the planning and the construction of the library building and also the soil on which it will be constructed because these elements have greater impact over the environmental control inside the library building. It is very important to choose the best architectural design for the library having cross ventilation facilities for free air circulation within the building. If there is a need to use wooden materials, the wood selected should be well seasoned and must be treated chemically to avoid insects. Growth of plants near the building must be avoided, as the roots will damage the building foundation. It is always better to construct the building away from traffic to avoid dust and dirt. Provision of adequate number of electric fans and few exhaust fans will facilitate air circulation inside the library As high humidity and high temperature are more hazardous for library materials it is advisable to maintain ideal room temperature (200-250c) and relative humidity of (RH45- 55%) for preservation of documents. Air conditioning of the stack area round the clock is an ideal example of maintaining optimum temperature & humidity for the storage of documents. But it is practically not possible for all the libraries to afford for air conditioning for 24 hours.

High humidity could also be minimized by the use of de-hydrating agents like silica Gel. The requisite quantities of silica gel may be spread in dishes and kept in different places in the room. After the use for 3-4 hours the silica gel may get saturated and may need replacement with fresh gels, while the saturated gel can be reactivated for further Use after heating it in open pans. During the summer months when the temperature is high the windows should be kept closed. If the windows are to be kept open wet curtain should be used. High speed air circulators also be used for free air circulation. Floors can be cleaned by wet dusters. As accumulation of dust and dirt accelerate the physical damage of books, a cleaning schedule should be made considering the sequence of operations following daily and weekly routines.

3.4.15 PREVENTIVE MEASURES FOR BIOLOGICAL FACTORS:

Since stagnant air, dark and dingy places in a library facilitate the growth of biological pests, Provision of cross windows, ventilators, exhaust fans ensures good circulation of air but at times it is necessary to circulate the air inside the room with electric fans. Attending to cracks, crevices and loose joints in floors and walls eliminate the possibility of insect hiding in these places. Periodic use of insecticidal powder of solution like lindane at the dark corner walls, beneath the racks and almirahs is a good precautionary measure to prevent insects. It is safe to use paradichloro-benzene as it acts both as an insect repellent and insecticide. A simple practice is to keep naphthalene bricks on the shelves as it repels the insects from coming to the book racks. Dry neem leaves, neem seed powder and camphor tablets tied in muslin bags should be kept inside the racks for keeping the pests away. The foundation of all the new library buildings should be given anti-insect treatment.

3.4.16 PREVENTIVE MEASURES FOR CHEMICAL FACTORS:

One of the best ways of controlling atmospheric pollutants is filtering of the air
By using air-conditoners are air conditioning systems operating for 24 hours throughout the year. Without this facility simple measures like wrapping the books and manuscripts in cloth or placing them in book containers reduces the effects of pollution to a great extent. The books kept inside cupboards are better protected than those which are kept outside. Documents kept inside folders are safer than those which are kept in the open. Proper care should be taken to save books and documents from dust. It is preferable to use vacuum cleaner and fine brushes for dusting of shelves and books. No chemical formulations should be directly applied on to the book covers, since these may have an adverse effect on the books as well as the health of users of the books and staff of the library. Besides, acid free paper, board and good quality materials should be used for repair and restoration of documents.

3.4.17 PREVENTIVE MEASURES FOR HUMAN FACTORS

The library staff and the users should follow certain practices to increase the longevity of the library resources are as follows:

1. Rare and important books and manuscripts should keep in specially prepared containers.
2. Trolleys should be used For carrying a large number of books trolleys should be used. Utmost care should be taken while transporting rare, valuable and delicate books.

3. Care should be taken while photocopying the books; to avoid the stress and damage on the material and bindings and also the spine.
4. Books should not be shelved too tightly or too loosely. Use bookends stands to support books when shelves are not full. Books should not
5. Pages should never be folded otherwise creases will be formed and they may be torn at the folds.
6. Avoid licking of fingers as an aid to turn pages. Underlining must be avoided.
7. Books should not be left open on the reading table, face downwards.
8. Leaning on an open book should be avoided since this can damage the Spine and binding.
9. When a book is displayed open, never use metal clips or pins to hold book Pages open.

3.4.18 SUMMATION

The concept of preservation is now gradually becoming a central issue in modern librarianship and preventive conservation, plays a key role in preserving the documentary heritage for Posterity. Therefore in every library at least preventive conservation should be practiced to keep the documents in healthy, good and usable condition.

3.4.19 SELF ASSESSMENT QUESTIONS

1. Describe the preventive measures for preservation of Library Materials
2. Discuss the factors of deterioration in the library for various materials

3.4.20 REFERENCES

1. Mittal,R.L. Library administration: Theory and practice 1978
2. IFLA Principles for the care and handling of Library materials international preservation Issues one
3. Kumar, P.S.G. Profiles of American Libraries Delhi 1989

UNIT 4:

LESSON – 1:

CURRENT AWARENESS SERVICES

STRUCTURE

4.1.1 AIMS AND OBJECTIVES

This lesson comprehensively document with CAS, meaning, definition and various forms of services that come under the unbearable CAS was discussed toughly after going through this lesson, one can understand the importance of CAS particularly in the academic libraries are as follows:

- The characteristics, definition meaning of the CAS
- The CAS activities in various forms which are in particular
- The traditional activities of CAS are also presented in this lesson.

4.1.2 INTRODUCTION

The nascent information is now being generated at such a tremendous speed and its communication to the specialists without the loss of time has become a serious problem. The gap in time from the generation of information to its reach to the user is in fact increasing. To solve this problem and to reduce the time gap, a new service has been emerged. And this service; through which newly generated information is brought to the notice of the users in the shortest possible time is known as Current Awareness Services. The fourth law brings-in a new factor in library management, i.e., time. Saving the time of the reader is essential because a large number of them daily come to the library. Saving the time of the reader also results in the time of the library staff. Thus 'Save the time of the s is regarded as a corollary to the third law 'Save the time the reader'.

4.1.3 CAS MEANING AND DEFINITION

Guha says, "Current Awareness Service" is a device of the information system through which the users of information can be informed promptly as soon as possible immediately after publication, but before absorption into the comprehensive secondary sources. In the context of a library, the time limit should be after the receipt of the publications but well before the receipt of the secondary publications containing them." Strauss, et al defined "Current Awareness Service, as the establishment of a system for reviewing publications immediately upon receipt, selecting information pertinent to the program, of the organisation, and recording individual items to be brought to the attention of those persons to whose work they are related. It involves a combination of processes including the selection of pertinent information, from periodicals, books, pamphlets, patents, reports, in fact, anything of serious content that is received." CAS has also been defined as a "Science Information System continually calling the scientist's attention to the newly developed material on topics, falling into their long term, field of interest, which remains unchanged until further notice".

2 Dr. S. R. Ranganathan defines CAS as "listing the documents appearing During the period covered, and without being selected to suit the requirements of a particular reader or of a specific topic. It endeavours to keep the clientele informed promptly of all the nascent thought created in their fields of work and related fields."' This definition also comprehends all aspects of CAS.

4.1.4. CHARACTERISTICS OF CAS

The CAS System will. This notification is not in response to a particular enquiry, but a continuous service to keep the users abreast of information that has been recently reported in subject areas known to be of interest.

CHARACTERISTICS

1. A Current Awareness Service is the dissemination of information service, which is intended to keep a user abreast with the latest information or development in his field of interest. It is an announcement service to satisfy the current approach to information.
2. This service is not in response to a particular enquiry, but a continuous process of keeping the users abreast of the latest information. It only gives a panoramic view of current developments in their field of work as also in the related fields.
3. The coverage of a CAS is always broader than the subject area of the user. This affords him an opportunity to know about other related subject areas in addition to his own. The knowledge about the latest development in the related fields may influence own field of work or his own line of work.
4. Speed or timeliness is the soul of CAS. Its aim to notify the information to the users as quickly as possible.
5. A CAS supplements the information which and user receives from his own informal channels. This formal service makes up, what he misses from the informal channels.
6. A CAS is usually easy to use and as such no search strategy is needed for its consultation.
7. A CAS is for temporary use. Its contents are absorbed by indexing and abstracting journals after some time.

4.1.5 FORMS OF CAS ACTIVITIES

CAS keep a user abreast with the latest information in his field is to provide him documents including journals, reports, conference proceedings, standards, patents, etc. immediately on their receipt, for quick examination. In view of the tremendous growth of literature, this method is now no longer feasible. A scientist will need a life-time to find out and read all the relevant literature, on his subject. And he may not have time to apply it. The Time and energy of the user may be conserved, and is being done through various dissemination services, including CAS which is provided these days in various forms and formats, are discussed as follows.

4.1.5.1 JOURNAL CIRCULATION

Routeing of Periodicals, this form actually sends the original documents, allows user to scan it, and provides him photocopying back-up service, to give him a permanent copy. If necessary. Journal-circulation services are the most basic form of dissemination practiced in a library.

Journal-circulation can be of two types: (1) Circulation routings; and (2) Radial routing. Ranganathan gives the working of circular routing and the problems involved in it in the circular routing are a circular slip is stuck on the wrapper of the issue of a periodical. And the list of succession names of the individuals and departments, which should send them for their use. The library has to chase the periodical and make it move on, as per time-table. The person sitting over the periodical frets and fumes, even at a gentle reminder. Perhaps, he has misplaced the periodical. In the meantime, the next to him on the circulation list bitterly complains against the inefficiency of the library. According to Rowley and Turmer if the national is on circuited as soon as it arrives in the library; then the most current information may be delayed to general user co community. And the journal circulation will

always remain an important for of dissemination; it involves high staff contents, low currency and low satisfactory.

To solve the routing problems of each periodical should be so arranged that a user gets a priority for a periodical according to the degree of its relevance to him.

4.1.5.2 LIST OF PERIODICALS RECEIVED

This service consists of the compilation of an alphabetical list of periodicals arranged, title-wise in its circulation. Its periodicals only can be daily, weekly, monthly or fortnightly. As the title of a periodical remains a necessity. The periodicals Received in that week, brought out the Periodical Alphabet List (PAL), Ludhiana is an alphabetical list; of received in the library during the preceding week. Each reference consists of the title of the periodical, volume number, issue number, and the date. This list is sent to all departments of the university to inform them of the new arrivals in current periodicals

4.1.5.3 CURRENT CONTENTS SERVICE

It provides each user the contents pages of all the journals in which he has an interest. It consists of the reproduction of title-pages of the current periodicals as soon they are received at the library, arranging them systematically, stitching them together into a small volume and circulating them among the users periodically. It can also be issued in parts, each covering a specific subject area, the contents pages can be reproduced by any method of facsimile reproduction, if photocopying machine is available, or can be copied by a typewriter in a recomposed form. Further copies can be had either with the help of an offset machine or a stencil duplicating machine. From the photocopy of the contents page, either an offset master plate can be had or an electronic stencil can be cut for further duplication.

Enumerating its advantages, Rowley and Turner state as follows:" There is relatively little input effort on the part of the library. No indexing is needed, and there should be no need for any typing or reformatting of the information. The contents page is merely photocopied." But Ranganathan is critical about this service." "This is the least helpful form of documentation list.

The Current Contents of the Institute for Scientific Information, Philadelphia, the Chemical Titles of the Chemical Abstracts Service. The Current Chemical Papers of the Chemical Society, the Current "Contents of the Soviet scientific periodicals of INSDOC are some of the popular current contents documentation services at international level.

4.1.6 CURRENT AWARENESS LIST (CAL): INTERNATIONAL AND LOCAL S

'Current Awareness List (CAL) is an important form of CAS. Usually;' this list is of two types: (I) that published by International bodies or Professional organizations or others who are not directly in touch with the and (2) that brought out by those who are in touch with, clientele and by knowing the requirements and interests of the latter. The former is known as international, whereas, the latter type is called local. In the international CALs, are meant for general and unidentified audiences, the coverage is a broad subject, represented by the current periodical literature and the arrangement of

references are also presented in a very simple type. In order to sustain the interest of their users, these lists cover most of the core periodicals in the subject. As regards the local current awareness services, since the requirements and Interests of an users of the organizatio[n] in which they are working is also know for the selection of the items to be include in the service them is more appropriate and accurate..The local current awareness lists are, therefore more ‘ effective tools than their international counterparts; keep specialists updated with the latest development in their field of work.

4.1.6.1 FACTORS INFLUENCING (CAL)

The following factors, however, should be taken into account user before starting a Local Current Awareness list.

1. The need for an institution-based local CAL, in addition to the already existing information channels available to the users, and if it will be supplemented with the information gaps in the existing services.
2. A new service is started to faster the rate of advance not in the field, is a better justification. If the rate of advance not is comparatively slow, the user will suffer as if he comes to know about the existence of a document after sometime, or a few months after its publication.
3. In case, the degree of competition at the research level is higher the demand for the local current awareness list in the subject increases.
4. The provision of a local CAL for a small group of users may not be feasible on account of the cost involved. Bigger research team, as better justification will be initiated for a CAL and spend money on it.
5. CAL is always for a group working in the same field, or in closely related fields. In addition to the size of the group, homogeneity of its research projects with regards to scientific Disciplines is also a factor favouring a Local Current Awareness Service.
6. If the level of technical knowledge required in the information service is low as compared to the level required to execute the research, and there is a need to start a local current awareness service.

4.1.7 CAS FORMATS

CAS is a periodical list of current articles and other published micro-documents, including research reports, patents, standards, etc., on a broad subject-field, arranged in some convenient order for easy and quick scanning. The current literature will be selected, keeping the objectives and requirements of the users in view. The access to information in though the author, title, imprint and collation, or the name of the host document and the exact place of occurrence within it.

4.1.7.1 ARRANGEMENT OF BROAD SUBJECT HEADINGS

The references in CAL are first arranged under the broad subject’s headings and then under each subject heading with an alphabetical arrangement by their authors.

Grouping of documents under broad subject Readings is easy and does not take much time, as also can be done from titles only.

4.1.7.2 DEPARTMENT WISE ARRANGEMENT

The references of CAL are grouped under the names of the Departments/Divisions/Projects of the organisation. This arrangement is said to be an effective method of presentation in a CAL. The most relevant items attract the attention of their user immediately. The compilation of the list is also in accordance with the interests and requirements of organization, and only selected items are included in the list. Because of the rigorous selection policy, a much broader base can be had to select the items from far inclusion in the list.

4.1.7.3 CLASSIFIED ARRANGEMENT

The references in the list are arranged according to some established scheme of classification, such as, DC CC, UDC, etc. This is the most logical arrangement but for a CAL it has its limitations. Speed is the soul of a CAS, but classification of each and every reference is a time-consuming affair. Secondly, CAL is usually compiled from the content-page, bat classification would-; necessitate the perusal of the text of the article in quite a few cases. Thirdly, classified CAL would require an alphabetical index also. This means additional work and consequently more time in bringing out the CAL.

4.1.7.4 ARRANGEMENT BY COMBINATION OF METHODS

Only two or more methods discussed above may be combined to arrange the contents of a CAI, so as to compile it quickly and to retain easy consultancy Besides the above given modes of arrangement, then alphabetical arrangement by author or title is also sometimes allowed, particularly when the number of references is small.

4.1.8 LIBRARY BULLETINS

Library bulletin is another satisfactory media for the dissemination of information. Usually, it is a weekly or monthly CAS containing references, sometimes along their abstracts, and all items of interest, ranged in some form of subject display. The type of items most, commonly given in the library bulletin area

1. Articles from current periodicals with or without abstracts;
2. Patents with or without abstracts;
3. Titles of newly acquired books;
4. Pamphlets;
5. Reports from an organisation or government department;
6. News items;
7. Forthcoming meetings;
8. Staff publications.

Special care should be taken to ensure better presentation of the contents because this will promote the use of the bulletin. Annotations or Abstracts, when given, should be as concise as possible. Care should be taken, so that the bulletin does not become too voluminous.

4.1.9 RESEARCH IN PROGRESS

A new Current Awareness Service which has emerged recently is the announcement of Research-in-Progress. The purpose of this service is to inform the user about the research projects or People who may work on a problem or in an area in which the user is either presently, working; or intends to work. This information may help him in many ways, including in the modification of his project. The user can also contact the researchers or their organization for such information and clarification as he may be requiring g He can also know the findings of the *research as* soon as the project is completed.

Unesco has brought out the guidelines on the conduct of a national inventory of current research and development projects. These guidelines may be helpful in compiling the information· The service should provide the following information i.e., Title of the projects the names of the research workers, organisation sponsoring research project, whether the research is basic or applied developmental, date of commencement, proposed date for compel of project, academic degree, if any, for which the project is undertake keywords and descriptive word and phrases representing submit of project. The following additional information is also desirable i.e., abstract of the project, source and amount of financial support; cite list, and budget breakdown.

4.1.9.1 NOTIFICATION OF FORTHCOMING MEETINGS

Information about forth coming meetings and content of Conference papers are an important form of primary documents· This can be procured by the interested persons if they have information about the conference, this service of a particular importance to a research worker. He may contribute a paper and communicate to his peers something he has generated. Some of the active research workers in his field and discuss with them his own research problems. He may also update his knowledge from the deliberations of the conference and contribute himself by participating in them;

1. Forthcoming International Scientific and Technical Conferences, issued quarterly by ASLIB.
2. World Meetings brought **out** quarterly by Macmillan, New York.
3. Scientific Meetings, issued quarterly by the Scientific Meetings, California,
4. Directory of Forthcoming Conferences/Symposia/Meetings Workshops on Science and Technology in India brought out quarterly by the Department of Science and Technology, Government t of India.

DAILY -INTELLIGENCE SERVICE

Daily-intelligence bulletins are dissemination services for items with a very high currency. These are meant for newspaper and weekly news item dissemination. Such CAS is meant for social scientists. The goal science and technology is to *bring* about better socio-economic conditions. The scientists and technologists need this type of CAS to themselves abreast with urgent needs of the society.

4.1.10 NEWSPAPER CLIPPING SERVICE

The newspaper Clipping Services are supported, in digesting for the social sciences, science and ‘technology also, because all the scientists are concerned with the socio-economic development.

This service is particularly useful for those experts, who are responsible for planning and management science. They should know what the image of science on the spot and what society expects out of them.

4.1.11 SUMMATION

The CAS is a concept of delivery of current information to the user community by reducing to the time gap between generation of information and to the search of the end user. The CAS service is basically; keep the user abreast with the latest information on developments in his field of subject interest. This CAS service provides a Panasonic view of current developments in the users intended field, also in the related field. The importance of CAS is speed in reaching the user, timely, and it is easy to user and no search strategy is needed.

The formats of CAS is available though, journal circulation, listing of periodicals, current content services and latest of current articles (CAL). The latest of current activities are also in general called as current awareness list (CAL). The CAL also having different formats to meet user needs. The arrangements of broad subject headings development wise arrangement, classified arrangement and arrangement by confirmation of methods are the CAL formats.

Besides, that the library bulletins, notification of fourth coming meetings and newspaper clippings services who one of the best recognized for of CAS services in the academic libraries.

4.1.12 SELF ASSESSMENT QUESTIONS

1. What is CAS, described the activities of CAS services.
2. Evaluate the forms and information activities of CAS.

4.1.13 REFERENCES

1.Guha, B. Documentation and information: Services. Techniques and systems ed. Calcutta, World Press, 1983, p. 76.

2.Guha, B., *op.* cit. pp. 74-15.

3. Ranganathan. S.R Documentation and its facets. B®6r, Asia, 1963, p. 58.

4.Strauss, Lucille J. and others. Scientific and technical libraries 2nd ed. York Becker and Hayes, 1971, p. 239.

UNIT 4:

LESSON 2:

SELECTIVE DISSEMINATION OF INFORMATION

STRUCTURE

4.2.1 AIMS AND OBJECTIVES

In this lesson the author made an attempt to describe the selective dissemination of services (SDI) in academic libraries are presented in a very brief form after reading this lesson the students can understand:

1. What is SDI and find out the define and describe of SDI

2. The planning steps of SDI and it characteristics
3. The preparation of the user profile and matching of the information.

4.2.2 INTRODUCTION: HISTORY OF SDI

Any libraries have been giving some sort of individualized information service to the users before the concept of Selective Dissemination of Information came into being. But it was Hans Peter John of IBM who first gave to the world in late 1955[s] the concept of SDI as it is understood today. Luhan was of the view that the areas of interest of modern scientists and engineers have long ceased interest in the conventional concepts of disciplines. To meet this situation he felt that there was need of an information system which should monitor incoming documents to find out which one served the information needs of a particular user so that user might be informed about the availability of that document. Luhan conceived an information system for this in 1958, and based on his design, a full-fledged mechanized system was introduced by IBM in 1959. It was SDI-4 and SDI-5 was developed and implemented, today the SDI services are considered as the most important service.

The development and acceptance of SDI has been quite rapid. The factors which are responsible for it are as follows.

1. Availability of computer facilities at an increased rate;
2. Application of computer in type-setting which helps in generating almost automatically a machine readable data base;
3. The expansion of world literature which makes it more difficult and expensive to keep abreast of relevant literature and
4. The increasing cost of labour and labour intensive services, such as conventional library and information services.

4.2.2.1 SDI DEFINITION: & PURPOSE

According to Strauss and his collaborators have defined SDI as a refinement of the Current Awareness Idea. Which is designed to serve the individual scientists directly? According it Elhence, SDI is a type of personalized Current Awareness Service, which under optimum conditions, involves screening of documents, selecting information exactly tailored to meet the specific research needs of each user or a group of users and supplying the information directly to each individual or group so that the user can keep himself abreast of the latest development in the area of his specialization. Individual scientists directly to each individual group so that the user can keep himself abreast of the latest development in the area of his specialization. According to Connor, “any procedure whether manual or automated that attempts to provide a personalized current awareness service, selecting for each individual served, the current literature of probable relevance to his research interest may be considered as a SDI system.

4.2.3 CHARACTERISTICS OF SDI

A careful examination of above definitions the characteristics of SDI is described as follows: It is a Current Awareness Service meant to keep its user abreast of the latest development in the field of his interest;

1. It is a personalised service meant for an individual or a group of users having identical information needs;
2. Information provided through SDI is exactly tailored to meet the specific information needs of each user;
3. It is a quick service, which provides pin-pointed information; and It is meant for the specialists and research workers.

4.2.3.1 THE PURPOSE OF SDI SERVICE

To provide a personalised current awareness service for the scientist, keeping him informed of all information relevant to his interests;

To conserve the time of the scientists by screening out irrelevant information; thus keeping the 'information explosion a manageable problem.

4.2.4 PLANNING OF SDI SERVICE

It should be noted that in SDI service emphasis on the user interests; rather than on the document. A document is inducted in the system only if it conforms to the interest pattern of a user. If the document does not serve any of the users, it has no place in SDI service. The system first finds out the information needs of each of its users and then goes about finding those current documents which are; more or less serve the information needs of the users.

In the conventional information systems, the documents pertaining to a particular discipline are assumed to be of interest to the workers in that discipline. All the activities arc based on this principle and libraries locate, procure, classify and present the documents; discipline-wise with the assumption that they will serve the information needs of the users in that discipline. This is being done without ascertaining the individual needs of each user in that discipline. Since the whole system is based on assumption, it involves wastage of time and energy of the users.

In SDI system the contents of the incoming documents " are not to be seen in the context of the general map of knowledge or subjects; but in the context of the interests of the persons to whom information service is to be provided."[8] SDI is organised in such a way that the principal benefit of the system should be a more personalised service. It should provide the user not only with the wider coverage of literature sources, but also with a saving in one's own time and efforts.

4.2.5 STEPS INVOLVED IN SDI SYSTEM

With this background it is worth considering various steps involved in the planning of an SDI system. Bhattacharyya suggests the following ten steps: Maintaining a file of profiles which records the specific subject interests; including the specific author interest, if any;

1. Maintaining a file of entries for documents, which records the specific subjects of each of the documents, received by the service points;
2. Matching the specific subject interest of the individual;

3. Selecting the recipients of the sen-ice and the items of information to be notified through appropriate matching;
4. Connecting the right recipients with the right items of information;
5. Entertaining the responses of the recipients as to their degree of interest about the information notified, and also to their decision on notifying others;
6. Adjusting the profiles according to the reaction of the recipients;
7. Responding to the specific document needs of the recipients;
8. Notifying others according to the instructions of the recipients;
9. Keeping the file of profiles always representative of the living interests of the recipients.

4.2.5.1 ORGANISATION OF SDI SYSTEM

In brief, the organisation of SDI system consists: of (1) Finding out the subject interests or information needs of the users and subject contents of the in-coming documents, (2) Connecting a right user with the right document through matching and notification, and (3) Keeping the inters file of the users up-to-date and responsive to their needs on the basis of feedback.

4.2.6. OPERATION OF SDI SYSTEM

The main jobs involved and the work flow in an SDI system is depicted in the following figure.

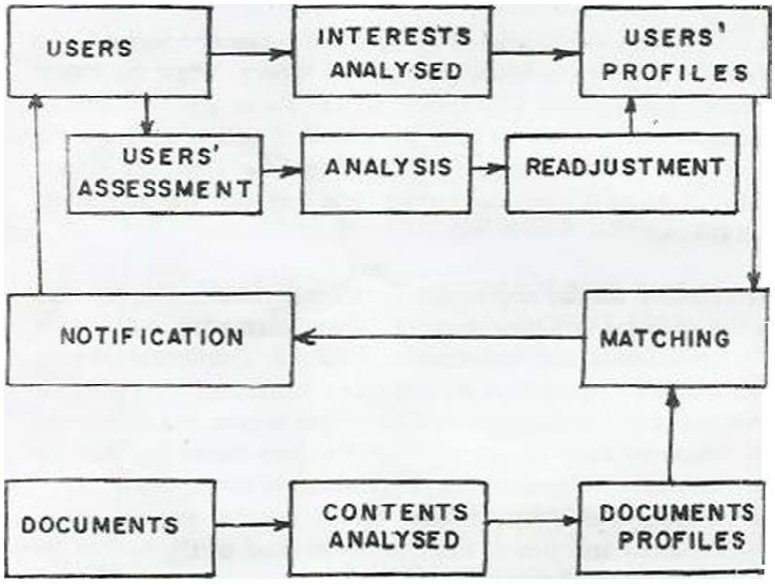


FIG. OPERATION OF SDI SYSTEM

The main jobs involved in SDI system are briefly discussed as follows:

4.2.6.1 USERS PROFILE

The users profile represents the specific subject interests of the users. It should be prepared with care because of its accuracy depends on the success of an SDI system.

After going through the policies the users; or the homogeneous groups of users requiring SDI service have been identified, the subject interest of each individual is found out; and is represented on a card in the form of i) keywords, ii) subject headings, iii) class numbers, iv) patterns of terms, v) code numbers, etc. Subject interests of the users are usually expressed by the keywords from some standard thesaurus, to ensure control of vocabulary. Each card bearing the subject interest of a user is known as a *profile.* These profiles when organised in a systematic way becomes the *Users Profiles File.*

The jobs do not end with the construction of users profiles. Keeping it up-to-date is also an equally important job. The information needs of a user may change with the passage of time. He may not be interested in the earlier subjects now, he is interested in a new one. Or he may be in a position to specify his" information needs more accurately now. Or in addition, to the old subjects he may now be interested with some new subjects. The' users profile should have, reflect all these; changes of inclusion; exclusion and proposing of new subject areas now. Thus after the compilation of latest users profiles and, its maintenance is very important. An up-to-date of users profile file, responsive to the information needs of the users is a must for an SDI system. Without it an SDI system has no meaning at all. Developing user's profile, and gathering of profile information, data on the following items may prove useful.

1) User's functional description and identification, including address;
2) The description of his subject interest both in narrative form and keyword form; and
3) Information which helps to identify, specific, and correlate his interest.

Elaborating the above further, the keywords denoting the subject interest, the names of the peers working in the same field of knowledge, the names of the organisations noted for their research activity in the field of interest, and the factors which may be used to limit dissemination, like language, specific journal, etc. are likely to be useful in compiling the user's profile correctly.

USERS PROFILE AND COLLECTION OF INFORMATION

1. Subject interest of the client represented in the shat expression form
2. Name of the research project
3. Information regarding the identification of the user
4. Names of the peers working in the field
5. Key-journals in the field of interest and
6. Names of organizations noted for their research activity in the fields of interest of the user.

The information collected through the above proforma may help in planners of an SDI system to understand the actual information needs of the users. If this is done, half the success of SDI system is ensured.

4.2.7 DOCUMENTS PROFILE

The documents profile is a record; which show the subject contents of each document, in the store. As soon as a document is received in the library or information centre, its contents are carefully analyzed and a record is prepared indicating the same keywords, subject-headings class numbers, pattern of terms, code numbers, etc. as were used for the user's profile. This is done to

make the matching possible. These documents profiles when organised as a file in a systematic way becomes the *Documents Profiles File.* The record for each document or document profile should give the following information:

1. Keyworkd (or class number)
2. Author of the document
3. Title of the document
4. Location of the document and
5. Accession number, if any

The work of subject analysis i.e., preparation of documents profiles and organization of documents profiles into a systematic way is done by the staff of the SDI system.

4.2.7.1 MATCHING OF PROFILES

The Users Profiles File and Documents Profiles files are matched in regular intervals (every week or fortnight) to find the right document for a right user. When it is found out that a particular document wears the information needs of a particular user, the details of the document as well as those of the user are noted.

It is necessary that the level of match between a user profile and a document profile is found out before the comparison or match-making the level indicates the depth of the subject which the user is working. Guha explains the meaning of 'level' as follows, "Suppose, A has given five keywords or five citations for his profile; it is to be filed out whether he will accept a document as relevant of its document description contains any one of these keywords, or it cites help the one of these references or a minimum number of keywords or any particular combination of them should be there to make ensured, matched document acceptable to him."

Matching can be done either manually or by computer. In fact the Luhan floated the idea of SDI in 1958, the application of computer for matching was in his mind. But this does not mean that the service cannot be operated manually. Each one of the user, can be informed individually about the coming documents, to find out his interest. This is done by matching usually the contents of the document with the information needs of user and finding out right document for the right user.

4.2.7.2 FEEDBACK

Feedback or reaction or response of the users is an important feature of the *SDI.* It keeps the system alive, effective, and responsive in meeting the needs of the users. The system provides a mechanism through which user's reaction or his response to each notification is obtained. A user may confirm that the information which the system has provided to him relevant or not to his needs. He makes certain suggestions in the latter case. The user may inform that the bare citation is not enough for his requirements and wants an abstract along with each citation, or he may ask for copy of the document along with the citation. The user may also inform that he is now no more interested in a particular subject and instead the user may demand a specific subject and he may also inform the system that; he needs a particular document, and which has been notified by him, would satisfy the information needs. Thus the feedback not only maintains the efficiency of an SDI system but also improves it. Any change in the interest of a user is automatically reflected in his profile.

4.2.7.3 READJUSTMENT OF PROFILES

In the light of the reaction or response of the users, their profiles are modified continuously to keep the system rejuvenated and up-to-date as also responsive to the requirements of the users. In other information services, there is no arrangement to modify or readjust them in response to the users needs after these have been planned and started. The decisions regarding the coverage, presentation, clientele, etc. are taken at the planning stage only. After that the documentation list issued at regular intervals. The system is not concerned with the feedback or with the knowing of the reaction of the users. It presumes that the SDI service is serving the information needs of the users.

4.2.8 ADVANTAGES AND DISADVANTAGES OF SDI

4.2.8.1 ADVANTAGES

1. The SDI service gives 'tailor made' information service to each user according to his needs.
2. The information bearing documents received at the library are best utilized as these are channelized to those persons to whom they are most useful. The service provides right document to right user.
3. Since the search time of the users is reduced almost too nil, the service saves the time of information seekers.
4. SDI service does not require any search strategy.
5. The users need not remain alert themselves to keep track of the new literature coming in their fields, they are automatically alerted by the SDI system.
6. The dissemination of information through an SDI system is comparatively quicker.

4.2.8.2 DISADVANTAGES

1. It is always not possible to ascertain accurately the information needs of the users. The users often find it difficult to specify their interest correctly and precisely.
2. The manually operated SDI system finds itself difficult to satisfy a large number of users. The mechanically operated SDI service, on the other hand, may lose the personal touch which is a vital aspect.
3. Many users do not respond to all notifications. This affects the feedback mechanism and consequently the efficiency of the system.
4. Properly trained staff to operate the SDI system may not be available at a small library or information centre.

4.2.9 SUMMATION

The Selective Dissemination of Information (SDI) is a Current Awareness Service (CAS) with a different. Both CAS and SDI are tended to keep a seeker of information abreast with the latest developments in his field of interest. But whereas CAS is not in response to a particular enquiry and is meant for a group of users, SDI meant for an individual and is exclusively restricted to the area of his interest. What is not required by this user is not served to him .The principle on which SDI is based is that no two users have identical information needs and as such each one should be provided only that information which he actually needs. CAS is an all –embracing information service.SDI, on the other hand, is an individualized service .CAS is a general appetizer but SDI is user-oriented. In CAS were users with divergent information

needs are served by the same documentation list and it is for each one of them to find out such information as is relevant to his needs. This requires some effort on the sort of a user to dig out his information .SDI saves this effort on the sort of the user by presenting him the information he needs.

4.2.10 SELF ASSESSMENT QUESTIONS:

1. Define, SDI, discuss the steps involved in the functioning of SDI.
2. Examine the purpose, functions and characters of SDI services.

4.2.11 REFERENCES

1. Dammers, II.F. SDI: Some economic and organizational aspects. *As lib. Proc.* 1971:517-22.
2. Luhan, H. Peter. Selective dissemination of new scientific information with thick of electronic processing equipment. *Amer. Docu/n.* 12(4) 1961: 131-38.
3. Glhence. D. Selective dissemination of information. *In:* Training *Course* Documentation and Information Services. Delhi. 18 Oct-13 Dec. 1975. Material. New Delhi. INSDOC, 1976.
4. Schneider, J.I I Selective dissemination
5. Semi nation and indexing of scientific information *Science*

UNIT 4:

LESSON - 3 :

DATA BASE SEARCH SERVICES

STRUCTURE

4.3.1 AIMS AND OBJECTIVES

In this lesson in attempts to describe the types of databases, tips for database searching and types of popular search facilities available in the libraries. After going to this lesson one can understand:

1. Types of databases and importance of bibliographic data bases
2. Tips for database searching
3. All the available general search facilities available in automated and manual form.

4.3.2 INTRODUCTION

WHAT IS A LIBRARY DATABASE:

Library databases contain information from published works, viz. Books, Magazines and newspaper articles, Encyclopedias and other Reference books etc. And the Library databases are searchable; by **Keywords, Subject, Author, Title** and **date** etc. Library databases are also providing citation information, i.e. author; title of article; publication (Title of Journal/Magazine, Newspaper, or Reference Book); Publisher; and Date of Publication. Generally, the Library databases are often containing: Abstracting and Indexing databases, full-text articles and integrated reference packages and numeric or statistics databases. The Abstracting and Indexing databases contain mostly summaries only, while the Full text databases give complete text of the original record. The Numeric databases give factual data; eg. PROWESS of Center for Monitoring Indian Economy, Mumbai is a statistics/Numerical database as it offers varied types official, production and market data about thousands of companies in India.

4.3.3 TYPES OF DATABASES

There are several kinds of databases available as Online and CD-ROM databases, are grouped into three types:

Source databases Full Text databases Numeric databases Textual/Numeric	Reference databases Referral databases Bibliographic databases	Mixed types of databases (more than one database)

into four categories, i. Full text; Textual & Numeric, the Full text databases contain the complete text of a document, and **ii. Numeric/Statistical databases** are machine-readable. But the Textual-Numeric databases consists of records both in textual and numeric fields, these are primarily useful for giving facts or question-answering, also called as Directory-Type databases**. iii. Reference databases** contain a collection of data referring a user to the other. The Reference and Referral databases are referred as Non-Bibliographic databases. **iv. Abstracting and Indexing databases**, contain mostly summaries only. There are some subject databases:

4.3.3.1 SUBJECT BIBLIOGRAPHIC DATABASES

1. Agriculture — AGRICOLA, BIOSIS PREVIESS
2. Books & Monographs — BOOK REVIEW INDEX, LBOOKS IN PRINT, LC MARC

3.	Business and Economic	ABI / INFORM, MANAGEMENT CONTENTS
4.	Chemistry	CA SEARCH
5.	Current Affairs	MAGAZINE INDEX, PARIS, UPI NEWS
6.	Education	ERIC, ICDE
7.	Medicine / Biological Sci.	MEDLINE, BIOSIS PREVIEWS, EMBASE
8.	Multidisciplinary Areas	DISSERTATION ABSTRACTS
9.	Science & Technology	COMPENDEX, INSPEC, SCISEARCH
10.	Humanities & Social Sci.	HISTORICAL ABSTRACTS, PSYCINFO, SOCIAL SCISEARCH, SOCIOLOGICAL ABSTRACTS
11.	Census of India data	DIRECTORY TYPE DATABASES
12.	Telephone Director	DIRECTORY TYPE DATABASE

4.3.4 INDIAN DATABASES : ONLINE AND CD-ROMS

1.	CMIE, Mumbai	India Trades	Export Import Data from GOI
2.	CMIE, Mumbai	Prowess	Financial Information, very exhaustive and reliable, on 8000 plus Indian companies.
3.	Informatics, Bangalore	IBID India Business Intelligence Database	Abstracts of News Items from 90 Indian periodicals. CD & Online
4.	NIC, Delhi	JUDIS	Legal Database of Acts and Rules of Center and States
5.	Spectrum, Mumbai	JURIX	Legal database of SC cases. CD; updates to CD online.
6.	Vans Communication, Mumbai	Vanscomm	Summary of Environmental Info. Business journal Index.
7.	Vans Communication, Mumbai	VSL, Database	Records of IBooks and articles from ET, FE and economic journals.

4.3.5 TIPS FOR DATABASE SEARCHING

How to search a database or unfamiliar journal database or new database? Although many databases are seem s , most of the databases are different at first level, most of the databases are similar features. Understanding these basic features of the databases will improve the efficiency and effectiveness of your searching. It will save your time and also improve the accuracy and

comprehensiveness of your searches. The experiences and knowledge with one database can be applied in most of the other databases what you have encountered. Below is a list of things to consider about, one can remember about the database and its tips, on how to determine the specific features of a database you wish to search.

4.3.5.1 CHOOSE SEARCH TERMS: Think carefully about the terms that you type into the search box. Generally, there are some common mistakes like:

a) **Too many search terms:** If you type too many words, you may retrieve no references, or very few references. The database is trying to find references that contain all those words.

b) **Too few search terms:** If you type too few words, you may re retrieve too many references.

c) **Inappropriate search terms:** If you don't type the terms that are commonly used to describe the subject you are researching, you may retrieve irrelevant references.

d) **Incorrect spelling**

4.3.5.2 HOW TO FIND APPROPRIATE DATABASE: The Libraries subscribes number of databases, and there are also databases that are available free on the web. There are types of databases, viz. i. Some databases cover only Books; ii) some databases cover journal articles; iii) Some cover Newspaper articles; iv) Some cover only Ph.D. theses, and v) Some databases cover a range of publication types.

Out of which the databases on the University Library home page generally will allow you to select databases by subject and will allow you to search simultaneously across many databases. This is a good starting point, if you do not know which database you want to search; and it is also useful searching; with cross-disciplinary research topics.

4.3.5.3 WHAT ARE YOU SEARCHING: Some databases search the full text of the references that they contain. Other databases only search a brief description, or summary of the references. If you are searching a full-text database, you will be able to search on very specific terms. If you are searching a database that may have summaries or abstracts, you may have to use few terms and less specific terms.

4.3.6 TYPES OF SEARCH FACILITIES

The database search strategy software may provide certain facilities which are commonly available such as simple search by terms, and searching by some portions of the terms etc. Complex search strategies could be formulated based on the requirements and use of: i) Searching by Simple Terms; ii) Boolean Logic; iii) Truncation; iv) Phrase searching and Proximity operators; v) Subject Heading and Thesaurus; vi) Known Item searching: Author and Title; vii) Range Searching:

4.3.6.1 SEARCHING BY SIMPLE TERMS: The terms, words or a phrase may be researched jin the indexing language of the system. Searching by Simple Terms are considered as hits when it would be retrieved.

4.3.6.2 BOOLEAN LOGIC: The most powerful facility in any search software is the search formulation by using Boolean logic. Complex search statements involving combination of several terms could be created using this logic. Boolean Search Logic is used in most of the Library and Information systems to specify combinations of terms to match the query. The Boolean logic uses three operators; namely AND OR NOT; are represented, as follows:

Practical application of the Boolean logic is as follows:

Eg: In the Library, there are three documents, i.e. 1(A), 2(B), and 3(A+B)

The concepts discussed in the above documents are: A=Industry; B=Finance

Document = 1, discussed about the Industry-subject i.e. A

Document = 2, discussed about the Finance-subject i.e. B

Document = 3, discussed about the subject i.e. A+B (Industry and Finance)

Operator search type	Venn diagram	meaning
AND Conjunctive – asterisk (*) Retrieve document No.3(A+B)		Logical product, symbolized by A AND B, A, B, A x B or (A) (B) both index terms A and B must be assigned to a document for a match ,e.g. Industry + Finance. **This will narrow your search, will retrieve all references which contain both terms**.
OR Additive – plus (+) A(Industry) or B(Finance), retrieve documents A, or B		Logical sum, symbolized by A OR B, or A + B. Only one of the two index items, A or B, needs to be associated with a document for a match. This operator is usually introduced when A and B can be regarded as equivalent for the purposes of the search, e.g. Industry or Finance. **This will broaden your search; will retrieve all reference with both terms.**
NOT Subtractive – minus (-) The search expresses A, not B (rejects B), retrieve A only.		Logical difference, symbolized by A NOT B, or A – B. The index term A(Industry) must be assigned, and assigned in the absence of the term B(Finance) for a match. **This will narrow your search, will retrieve all references, except 'A".**

4.3.6.3 TRUNCATION(WILDCARDS) : a) Truncation allows terms to be searched for by their word stems, indicated by a special character such as $ or *. The system will then search for a string of characters, regardless of whether that string is a complete word. Eg. If a search is entered for the term **Theat$,** this would retrieve records containing the words **Theatre, Theater**, **Theatres, Theaters and Theatrical.** The use of truncation eliminates the need to specify each word variant and thus simplifies search strategies.

b) The most basic truncation is right-hand truncation, where characters to the right of character string are ignored. Left-hand truncation can be useful in circumstances where a variety of prefixes might occur, such as in chemical databases. **Eg: $Ethane might retrieve** records of **methane, chloroethane and bromoethane**.

c) The Truncation, or masking is sometimes available in the middle of words. This is a useful facility to handle alternative spellings, so that Organisation and Organization would both be retrieved by the search term Organi%ation.

4.3.6.4 PHRASE SEARCHING &PROXIMITY OPERATORS: Generally databases will assume that a string of words should be searched for a phrase. In other words, it will only retrieve reference in which the words occur side by side or in very close proximity. The subject headings are best described by phrase of two, three or more words. Eg: Commonwealth Games and Artificial Intelligence need two words to describe them. If the system allows AND operator, and it would search for the two words together. Eg: Commonwealth AND Games. This would retrieve records containing the phrase along with other records where both words appear but not next to each other. This method allows only crude phrase searching.

Proximity Searching: It means, that finding words within a specified distance of each other. Some databases allow you to search for words within a specified distance of one another. This is particularly important when searching large full-text databases. Proximity searches limit the number of words between your search terms. Eg. (Television) within 5 (violence) retrieves references that contain television and violence in any order, but not more than five words apart. (Television) near (violence) retrieves references that contain television and violence in any order, but within a certain proximity, which is defined by the database (perhaps in the same sentence, or in the same paragraph). The way that you perform a proximity search and if so, how you should construct your search statement.

Proximity ope4rators can be use4d with natural language and free term indexes as well as controlled vocabulary. They allow the user to state whether the terms should be searched for :

- Where the terms appear in the same field or paragraph (Eg: User, Interface, Design);
- Where the terms are within a specified distance of leach other, with the maximum number of words to come between them (Eg. The proposal for the Research Project).

  Indicating terms in proximity or adjacent to other terms assists the user to carry out a more precise search.

4.3.6.5 SUBJECT HEADINGS AND THESAURUS: Subject headings, subject terms, some times called descriptors or keywords, and are standard terms used to describe the content of publications. Using the subject terms can make searching easier and more reliable. Some databases

list all these terms in a thesaurus. The thesaurus may have an elaborate structure of broader, narrower and related terms, which will help you to search very precisely. The thesaurus may allow you to explode a term. This means that you are searching on your selected term and also on all narrower terms which have been linked to that term in the thesaurus.

a) The thesaurus displays the controlled vocabulary used and shows the relationship between terms. It is therefore a useful facility for narrowing or broadening searches.

b) A subject heading list is normally displayed in alphabetical order and helps the user to use the correct phrase for the search. Library of Congress Subject Headings (LCSH) are most commonly found in OPACs, although in the UK the subject approach is often derived from the classification scheme. If the thesaurus or subject heading list can be displayed in a window to assist users as they attempt to create a search strategy. This facility is available on **most** CD-ROMs and on a number of OPACs.

4.3.6.6 KNOWN-ITEM SEARCHING: AUTHOR AND TITLE: Known-item searching is performed by users when they know what they are looking for and usually possess some characteristic of the information such as author, editor or title. In academic OPACs it is common to find students performing known-item searches with a course reading list in order to discover the location of recommended texts. Searches on an OPAC or other bibliographic database would be carried out under the **author field, the title field or** under a special **author/title field** which allows users to enter an appropriate combination of characters **from the author and title headings of the item.** The known-item searching is easy, and always the query produces a good and positive response. As per the reports, 10 per cent failure rate of known-item searches on academic library OPACs does indicate a 90 per cent success rate.

4.3.6.7 RANGE SEARCHING: Range searching is particularly useful when selecting records on the basis of numeric or data fields. Selection of records according to a price field for publication date field can be carried out through range operators. Common range operators are:

Cntr – Z	Equal to	LT	Less than
NE	Not equal to	NL	Not less than
GT	Greater than	WL	Within the limits
NG	Not greater than	OL	Outside the limits

Generally these operators are found more commonly on on-line hosts and CD-ROM databases.

HOW A LIBRARY DATABASE DIFFERENT FROM A WEBSITE

The distinction between the library database and the web sites are discussed here to trace the basic difference and thus one can select the search techniques to be used for the databases:

Sl.	Library databases	Web sites
1.	Library databases get their information from professionals or experts in the field.	Web sites can be written by anyone regardless of expertise.
2.	Library databases contain published works where facts are checked.	Web sites content is not necessarily checked by an expert.
3.	Library databases are easy to cite in a bibliography and may create the citation for you.	Web sites often don't provide the information necessary to create a complete citation.
4.	Library databases are updated frequently and include the date of publication.	Web sites may not indicate when a page is updated.
5	Library databases can help you narrow your topic or suggest related subjects.	Web sites often aren't organized to support research needs.

HOW TO SEARCH A DATABASE

Databases can be used to find journal articles, newspaper articles and conference papers etc. The latest research findings, discussion on topical issues, literature reviews and scholarly debates are often published in the form of journal articles or conference papers.

STEPS FOR SUCCESSFUL SEARCH:

1. Think about your topic and what is required for the assignment.

2. List the keywords or phrases and could be used to describe the major concepts or subjects, including alternative words or phrases that mean the same thing (synonyms) and alternative spellings.

3. List the qualifying terms that could be used to limit hour search by location, time period or organization.

4. Select the database which may be relevant to your topic –

5. If your are not familiar with searching the database that you have selected, use the databases online help screens to find out how to conduct your search.

6. Look at the results of your search, land identify any relevant articles.

7. Note the Subject Headings (also called descriptors), words or phrases that have been used to describe the items and repeat your search using these keywords. You may need to repeat this step a number of times or even try another database.

8. Finding nothing – repeat steps 1 – 4 above. You may have selected the wrong key words or database to use for the topic. Try using more general terms to broaden your search.

9. Locate the article; some databases include the full text of the journal article. When you find the article that you require, you can follow a link directly to the full text.

10. Finally, the Library Reference Staff or you lecturer, may be able to help you select appropriate key words to use for your search.

4.3.7 SUMMATION

Library databases contain information from published works, viz. Books, Magazines and newspaper articles, Encyclopedias and other Reference books etc. And the Library databases are searchable; by **Keywords, Subject, Author, Title** and **date** etc. While the Source Databases, provide primary sources of information, and can be divided **into four categories, I.e. , i. Full text; ii. Numeric/Statistical databases; iii. Reference databases; iv. Abstracting and Indexing databases.**

The database search strategy software may provide certain facilities which are commonly available such as simple search by terms, and searching by some portions of the terms etc. Complex search strategies could be formulated based on the requirements and use of: i) Searching by Simple Terms; ii) Boolean Logic; iii) Truncation; iv) Phrase searching and Proximity operators; v) Subject Heading and Thesaurus; vi) Known Item searching: Author and Title; vii) Range Searching; and their research techniques has been described.

The search facilities within any database, provides access to information are based upon the structure of the data stored in the database. The search techniques, indexing languages, are used as a part of the data structure and are the “terms and codes that might be used as access points”. A searching language is employed by a user to enter the requirements of the query provides access to information.

There has been considerable research over the last ten years, to explore, how users search information from the databases and what strategies they employ. Every generally searcher aims to retrieve sufficient relevant records and to avoid; i. retrieving irrelevant records; ii. Retrieving too many records; and iii. Retrieving too few records. Interaction with the database allows users to modify and their searches in order to retrieve relevant information to answer their query.

4.3.8 SELF ASSESSMENT QUESTIONS

1. Define database, discuss the importance of search techniques, to access information from library databases.

2. Describe and distinguish the importance of different search strategies.

4.3.9 REFERENCES

1. Jennifer Rowley and Frances Slack (1998): Designing Public Access Systems, Gower Publishing House, England.

2. Bates, M.J(1986), Subject access in online catalogs: a design model, Journal of the American Society for Information Science, 37(6),357-76.

3. Shenouda. W((1990): Online bibliographic searching: how end-users modify their search strategies, in ASIS,90: Proceedings of the 53rd ASIS Annual Meeting, Toronto, 4-8 November (ed. D Henderson), Learned Information, Medford, NJ,pp.117-28.

UNIT 4:
LESSON - 4 :

INFORMATION LITERACY

STRUCTURE

4.4.1 AIMS AND OBJECTIVES

In this lesson on Information Literacy covers the imputes of Information Literacy Programmes, and its influence in developed country can understand by the student, after going through this lesson, one can understand the following: .

1. What Information Literacy and how it define from user education.
2. Education processes and Information Literacy
3. Information Literacy Activates in other countries

4.4.2 INTRODUCTION:

Information literacy is a set of abilities requiring individuals to recognize where information is required must have the ability to locate, evaluate, and use effectively the information. Information literacy is also increasingly important in the contemporary environment of rapid technological changes and in proliferating information resources. Because of the escalating complexity of this environment, individuals are faced with diverse, abundant information choices- in their academic studies, in the workplace, and in their personal lives. "Information is available through libraries, community resource, organizations, media, and the internet. In addition, information is available through multi media, including graphical, aural, and textual, etc pose new challenges for individuals in evaluating and understanding it.

Information literacy forms the basis of lifelong learning; it is common to all disciplines, and in al learning environments, at all levels of education. It enables learners to master content and become more self-directed, and assume greater control over their own learning. The information literate individual is able to achieve the following:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically'
- Incorporate selected information into one's knowledge base
- Use information effectively to accomplish a specific purpose.
- Understand the economic, legal, and social issues surrounding the use of information, and use information ethically and legally'

4.4.2.1 DEFINITION AND MEANING:

a) As per oxford dictionary definition of wisdom is precisely applicable to the concept of Information Literacy (IL). The 'information literacy' is a 'possession of expert knowledge together with the power of applying it practically'

b) The American Library Association Committee defined the 'Information Literate person as one who must be able to recognize, when information is needed and have the ability to locate, evaluate and use effectively, the needed information (Breivik and Wedgeworth, 1988).

But, the meaning of the term' information literacy' continuous to be disputed, and remains a vexed question (Toold, 1999). The concept of information literacy merely constitutes a repackaging of the concept known as bibliographic instruction, user education, and library research, etc.

4.4.3 INFORMATION LITERACY (IL) AND LIBRARIES:

Information Literacy refers to the ability to access, evaluate, and use information effectively. It calls for a wide range of skills, including the ability to; 'use information to solve problems and make decisions, share knowledge and using appropriate formats for intended audience, use a variety of information resources, including books, journals, newspapers, the non-book materials, special materials, and digital sources, software, CD- ROMs, and the Internet Sources.

The students, who learn on their own at any level of their studies, can use information literacy skills to find out required materials to prosecute their studies, class work, and to prepare their reports, projects, and research dissertations, in the higher education The schools, colleges and Universities are promoting information literacy, through resource based learning, which places student projects at the center of the curriculum and encourages students to use a variety of information sources and ICT to find out the information they need.

There are two important areas of this study I) First one is Resource-based learning ultimately enables students to assume responsibility for their own learning and prepares them for the information - based society. ii) Secondly, the study, felt that the state and central governments must take initiatives and recognize the importance of information literacy concept. The information literacy concept should be incorporated in the curricular of Schools, Colleges and Universities to achieve the objectives of the Information literacy.

4.4.4 ROLE OF LIBRARIES- INFORMATION LITERACY PROGRAMMES

The most important area of IL is, the role of libraries and the Librarians, who are often called as 'Library media specialists' are supporting information literacy by educating and guiding the users, how to trace the required information and how to use the ICT in Libraries. Information literate requires knowing, how to define a subject and select the appropriate terminology, which expresses the concept or subject, then formulate a search strategy that takes into consideration of different sources of information and subsequently the information turned into knowledge.

Librarian sees the information literacy as a key requirement in accessing the vast amounts of information, available through the Internet, in this Information age' The growth of digital media and communication resulting in a wide spread information overload, leading toward the effective information and knowledge management' In higher education, the libraries must have taken up this new challenges of electronic information resources to learners, and educating them in effective use of these digital and online sources, The IL progress would assist learners in developing their information related competencies. Thus, information literacy provides a) awareness about the way in which information system. Work; b) the dynamic links between particular information need; c) and the sources and channels that required satisfying that need

4.4.5 INFORMATION LITERACY AND EDUCATIONAL PROCESS

Information Literacy and its relationship to the educational process is an assumption among LIS professionals and the integration of information literacy into teaching curricula, ensures, that students become information literates. The LIS professionals, hence have embraced the idea of information literacy education' and literature weighted heavily towards consideration of the teaching role of the academic librarian. The lack of integrated information literacy programmes in the colleges and universities is attributed to reluctance on the part of academic staff, and who are happened to be the members of designing the undergraduate curricula' collaboration between these two groups, in teaching terms, does not exist, as the librarians are treated as service-providers to the academics, and they are concerned with the management of information resources only. While, the majority of the student overall perception towards librarians as support staff. There is evidence that the teaching carried out by library staff is of minor concern for most of the academics.

On the whole, it was established, that they do not believe the library staff currently play a significant teaching role in the university, and that they are uncertain about how this could be achieved. Information literacy education is perceived as merely one of number of imperatives facing academic staff, and expressed a tendency that students were' picking it up' in due course of their studies, with their own experiences as students., The concept of IL, demands , that the LIS professionals are also included as members in the design and development of IL education Programms. Thus, we can achieve better results, through the implementation of education with the collaboration of LIS professionals are allowed to share the class room, along with academics.

4.4.6 USER EDUCATION AND INFORMATION LITERACY

The Information Literacy has been debated in USA, UK and Australia for several years. Necessary standards have been developed, and provided a firm foundation in the part of learning processes. In UK; lead has been taken long, to be followed in higher education, particularly after the development of SCONUL (Society of Colleges, National University Libraries).with Seven Pillars of wisdom framework, This is the moving agenda forward from the old idea of 'User Education' toward a defined set of information skills taking into account of the latest hybrid library.

User education has become information literacy, because of the changing agenda in education, and the development of the hybrid library system. There is every need to use a mix of print and electronic resources, and the explosion of freely available materials on the web, has made the research for information seem easier to do, and yet it is difficult to manage successfully, is through information literacy. In the past, the guidance provided by librarians has fallen short of the ideal. There has been limited or little opportunity to the librarians in the name of 'User Education', to educate or to guide how to use library resources, wherein many students have little grasp of basic skills, (e.g. locating the text books; reference books; periodicals etc.). The information Literacy is a cumulative process, and thus motivates the student and educates them with all the required skills.

4.4.7 STUDIES ON INFORMATION LITERACY IN UK, USA, AUSTRALIA AND INDIA

This concept of information literacy depends upon an ability to recognize the difference between those who are information literate, and those who are not. Recognition of these differences will help

in designing programs to improve the information skills. This information literacy concept is an approach to information age and viewed and important area of skills development among the learners

a) UK: The information age was one of the important key factors in UK, recognized by the Labour Government in 1997. The information infrastructure, the learning agenda, and packages for lifelong learning, are the areas of the 'key skills'. The National Committee of Inquiry into Higher Education, 1997 (NCIHE, 1997) report identified a concept of 'graduations', with the following skills: Communication skills. Numeracy, Use of Information Technology; Learning how to lean; and Subject-specific skills

4.4.7.1 SEVEN PILLARS:

In early, 1999; the SCONUL (Society of College, National and University Libraries) Task Force on Information Skills was first convened. The result is 'information skills training as an important strategic issue for university and college libraries and information services'. The SCONUL Task Force produced briefing paper, during 1999, an important part of the paper dealt with the 'Seven Pillars' model of the information skills, can be developed by introducing in curriculum developments. The library and other staff in higher education concerned must come together in developing the student's skills. This model identified that range of skills illustrated in relation to information skills and IT skills, and the plan of curriculum through first year to postgraduate and research level.

It enabled the identification of 'seven pillars" the basic library and basic IT skills are prerequisites for the headline skills. Peter Godwin, current Task Force member' has developed a programme of Seven Pillars skills implementation from 'novice' to 'expert' from n four levels of undergraduate and the Master level of postgraduate work'

The Seven Pillars Model-Information Literacy

(A)Basic Library Skills
1. Recognize Information need
2. Distinguish ways of addressing gap
3. Construct strategies for locating
4. Locate and access

(B) IT Skills

5. Compare and evaluate
6. Organize, apply and communicate
7. Synthesize and create

The reviews on Information Literacy observed that the traditional form of user education the techniques that are primarily based on the print materials known as user education and the techniques, procedures and practices that are adopted in organization' storage and retrieval of information from non- book materials, the Micro Forms' the special materials and the digital forms with IT skills may be known as Information Literacy. The Information Skills and the Library Instruction are the words that are supplement the Information Literacy

4.4.7.2 USA.

b) **USA, the concept of** Information Literacy has been recognized, and National Forum was created in 1989. The new education must the individual to classify and reclassify information, to evaluate, to change categories when necessary, to move from the concrete to the abstract and back, to look at problems from a new direction-to teach him .Tomorrows illiterate will not be the man who can't read; he will be the man who has not learned how to learn (Herbert Gerjuoy). The Big 6skills the National Information Literacy Standards developed by the American Association of School Librarians (AASL) AND Association for Educational and Communications Technology (AECT) and the National Educational Technology Standards for Students (NETS-S) to organize an introduction to research on the Internet

The Big 6 Skills:

THE BIG 6 SKILLS	BASIC ACTIVITIES	ADVANCED ACTIVITIES
1.Task Definition	Concept Mapping. Graphic Organizers	As Essential Questions
2.Information Seeking Strategies	Subject Directories Evaluating Web Sites	Web Site Evaluation
3.Location an Access	Keyword Searching Search Strategies	Advanced Search Strategies
4.4.Use of Information	Extract Information Analyze Sources Bibliographic Citations	Identify Point of View
5.Synthesis	Critical Thinking appropriate Product	Class room Applications
6.Evaluation	Assessment Rubrics	Information Power

4.4.7.3 AUSTRALIA:

The Australia Government (Mayer Committee, 1992) suggested the 'Competency Standards' for their citizens as follows:

1. Collecting, analyzing and organizing information.
2. Communicating ideas and information
3. Panning and organizing activities.
4.4. Working with others in teams.
5. Solving Problems.
6. Using technology.

Subsequently Australian government appointed Task Forces, and conducted conferences, created Standards and joint Australia and New Zealand Institute for Information literacy was established.

4.4.7.4 INDIA

In India, the concept of information literacy was attributed in the graduate and master course level, with the introduction of INFLIBNET. The UGC is planning to connect 1.10 crore students and 40 lakhs faculty of over 1,600 educational institutions in the country at the undergraduate level through the programme. About 102 Government Degree Colleges out of the 178in Andhra Pradesh have already been automated and the rest would be completed soon. More than 100 Librarians are given advanced training in the automated library activities, in the first batch. It is felt that the information skills programme, may be implemented in India with the help of influent, is one of the possibility. Information Literacy is not an established practice in the Indian Education System. The Dept of Library and Information Science, Andhra University, offered a curriculum almost similar to Information Literacy at the level of under graduate courses. Unfortunately, no College has come forward to implement this kind of programme.

4.4.8 INFORMATION LITERACY AND STANDARDS

Standard 1: The student who is information literate accesses information efficiently and effectively.
Standard 2: The student who is information literate evaluates information critically and competently.
Standard 3: The student who is information literate uses information accurately and creatively.

INDEPENDENT LEARNING:

Standard 4: The student who is an independent learner is information literate and pursues information related to personal interests.
Standard 5: The student who is an independent learner is information literate and appreciates literature and other creative expressions of information.
Standard 6: the student who is an independent learner is information literate and strives for excellence in information seeking and knowledge generation.

SOCIAL RESPONSIBILITY:

Standard 7: The student who contributes positively to the learning community and to society is information literate and recognizes the importance of information to a democratic society.
Standard8: The student who contributes positively to the learning community and to society is information literate and practices ethical behavior in regard to information and information technology.
Standard 9: The student who contributes positively to the learning community and to society is information literate and participates effectively in groups to pursue and generate information

4.4.9 SUMMATION

The Developments taking place in information technology have direct bearing upon higher education throughout the world. These information technology changes have effect on all levels of education i.e. teacher and student. The teachers have to learn the latest information technology skills and understand the techniques in electronic form. These skills are equally necessary to impart the knowledge to the satisfaction of students. The students are also required to make an effort to get

high levels of information literacy during every phase of their education. At this juncture the library professionals in academic libraries have to play a major role in the educational changes taking place in teaching, learning and research by providing an appropriate information environment and access to information resources.

USA and in Australia are already beginning to address lifelong educational and professionals information skills. The UK has advanced with its seven pillars concept educating IL Librarians on every continent have been working on teaching people a variety of library and information skills. IFLA members have focused their concerns regarding the teaching of library information skills through the establishment of roundtable on User Education. Recently changed to the User Instruction. During the past five years a number of programmes sponsored by the roundtable and the University and Research Libraries Division have focused on Information Literacy .The information Literacy concept must be incorporated in the curriculum of schools and colleges. And the LIS professionals must be equated with the academic staff to share the classroom. The Library Professionals should be equal partners in designing syllabus of the school and college studies.

The traditional form of user education techniques are primarily based on the print materials known as user education and the techniques, procedures and practices that are adopted in organization, storage and retrieval of information from non- book materials, the Micro Forms, the special materials and the digital forms with IT skills are known as Information Literacy. The Information Skills and the Library Instruction are the words that arc supplement the information literacy. It was concluded that the LIS Professionals should share the classroom as well as the responsibility of Curriculum design in graduate and master level to introduce information literacy

4.4.10 GLOSSARY

I L	:	Information Literacy
I C T	:	Information Communication Technology
S C O N U L	:	Society of Colleges, National University Libraries
N C I H E	:	National Committee of Inquiring into Higher education
A A S L	:	American Association of School Libraries
A E C T	:	Association for Educational and Communication Technology
N E T S-S	:	National Educational Technology standards for students
C S F	:	Critical Success Factors.

4.4.10 SELF ASSESSMENT QUESTIONS

1. Define Information Literacy; narrate the activities education at USA and UK.
2. Distinguish Information Literacy and User Education, Enumerate the standards of Information Literacy

4.4.11 REFERENCES

1. Information and IT Literacy: Enabling learning in the 21't Century, l[st] Ed., Edited by Alan Martin and Hannelore Rader, published by Facet Publishing, London 2003.

2. SCONUL (1999) Information Skills in Higher Education: as SCONUL position paper, London, SCONUL. Available at www.sconul.ac.uk / publications / publications. Htm#2.

3. ALA (1989) American Library Association Presidential Committee on Information Literacy: final report. Available at wrnw.ala.org/acrl/nili/ilit1st.htmal.

4. QCA (2001) Qualifications Curriculum Authority - National Qualification – Key Skills. Available at www. qca.org.uk/nq/ks1main2. asp/.

5. Bruce, C.S.(1999) Workplace Experiences of Information Literacy, International Journal Of Information Management, l9 (I), 33 -47.

UNIT-5 :

LESSON-1

USER STUDIES AND USER EDUCATION PROGRAMMES

STRUCTURE

5.1.9 Self Assessment Questions

5.1.10 References

5.1.1 AIMS AND OBJECTIVES

In this lesson, an attempt has been made to review the "Information Needs of the Users" The types of studies, and techniques used are described in this lesson. After going through this lesson, the students are able to understand:

- Academic Institutions and Types of User Community;
- Nature of Information needs and types of User Studies; and
- Survey techniques of User Studies etc.

5.1.2 INTRODUCTION

The established studies revealed that the information professionals are neglecting the most important component of the information system i.e. the User. No doubt the library professionals are more concerned with the documents and their bibliographical organisation and control of the library.

But the information professional have very little knowledge about the exact user needs, or nature of his needs. What type of documents the user needs, the nature and scope of information the user required, was not known to the library professionals? The user came to be observed like bright dolphins from a distance, without being asked, anything about their information needs. It is only in the recent times, the systematic studies are conducting on the user community, has been initiated in the Academic Libraries. The basic objective behind these user studies are; the User Education Programmes or the User Training Programmes; are taken up to assess; 5.1. To what extent the present information system is functioning; 2. Whether the user community, able to obtain required information; and 3. How to improve the functioning of information system; and to meet the user needs by opening new bibliographical tools; new channels of communications and how to modify the existing information system to meet the information needs of the user community.

The terms 'User Education', 'User Orientation' and 'User assistance' are often used interchangeably. User orientation and user assistance activities relate to a specific information system or services, while user education connotes a more general educational activity not relating to a particular information system. User assistance usually refers to helping the individual user rather than a group. But User Orientation covers two subcategories of interrelated activities:

a) Familiarizing users with a particular information system or type of system; and
b) Designing of information systems to meet the requirements of the respective clientele;

Meeting 'user requirements' denotes:

- The provision of relevant, reliable, timely information;
- The presentation of information in the manner, form, or package most convenient to the user; and
- Making the system user-friendly.

5.1.3 TYPES OF USERS IN ACADEMIC INSTITUTIONS

The User Community, in academic institutions are having wide variety of background and knowledge. The generally the academic libraries are classified into three categories, i.e. School Libraries; College Libraries and University Libraries, and the user community may be broadly identified as follows:

1. Novice,
2. Expert,
3. Occasional,
4. Frequent,
5. Child,
6. Older Adult, and
7. User with Special Needs.

Novice: A Novice user has never used or visit the library, before and he does not know the functions of the library system. A Novice user needs to learn, how to use the library, in as short a time as possible, and having motivation to come again and try to use the system.

Expert: Expert user access the Library services in a regular basis, and he was very familiar with most of the functions of the library and can negotiate with them at his own knowledge and experience. This shows, that the expert user can complete his tasks quickly, as well, he is able to interact with the library online facilities, like OPAC, and CD-ROM databases etc.

Older Adult: The Older Adult User may be considered under the age group of over 50 years; i.e. some of the Teaching Staff; Engineers, Technicians and Other Administrative Staff of the Institute. They are able to access the library with their previous experience; but still they require special information needs; hence they require professionals support, due to their improper vision, hearing impairment, and infirmity. Special attention of the library professionals is required towards their information needs.

Occasional: Some User visits the library occasionally and interacts with the library system, but still he will gain some familiarity with some of the main functions of the library. But this user will be familiar with one or two areas, information activities of the library. An occasional user prefers to complete his tasks easily by using some, short cut methods.

Frequent: The Frequent Users are generally students, schools and teachers, have had enough knowledge about the library system and they are familiar with most of the library functions, and he may not be so familiar with all the functions of library system.

Child: In the School Libraries, the school children may be treated as the user community, when their reading skills are yet to cultivate through the library. However, a child may have a better learning capacity, memory and will certainly be able to experiment with the library sources and services, and explore the library functions according to his choice.

User with Special Needs: The User community with special needs; may be from School Library, College Library and University Library, may have had, some specific physical disabilities like: vision, or hearing-impaired etc. The important point in this context is, that the library or information centre must be in a position to support his special requirements of his information needs, by providing the required form of materials. However, providing required form of materials to the severally disabled users may be costly affair to the library sometimes; but still the library system must be so designed to meet their information needs.

In general, the teachers, research scholars, students are considered as the basic component of the user community of the academic institutions. According to the views of Dr. S.R. Ranganathan, Whitaker and Peter Bropy etc. The Teachers Staff, Research Scholars, Students (UG, and P.G.); students of Distance Education, Physically challenged students, administrators, engineers, professional and technical staff of the University, College or Institute.

5.1.4 TYPES OF USER STUDIES

The User studies and Surveys have been conducted so far, of various types, to find out the User needs and satisfaction. Prof. Herbert Menzel has grouped these User Studies into "three" main categories i.e. 5.1. Behaviour Studies; 2. Use Studies, and 3. Flow of Information, Studies. He was also expressed that quite a few survey have different aspects and hence overlap on the other categories. These categories are considered as different points of approach.

5.1.4.1 BEHAVIOUR STUDIES The most comprehensive study of communication behaviour was a survey conducted by the Operations Research Group of the Case Institute of Technology in 1958. This study revealed that scientists generally spend almost half the time to their working hours in some form of communication, such as perusing literature, looking up for references, actual reading, talking or listening to a colleague and so on. A number of British surveys have revealed that the average number of journals regularly pursued by a scientist is only six, or every scientist has six favourite journals. It has also revealed that scientists depend to a large extent on non-documentary channels. They get information from colleagues, from teachers, from group leaders and so on. In fact, while planning or talking about the science communication system, we have been keeping in view mainly the documentary part of it. Now, it appears, almost half of the communication system is non-documentary in character.

5.1.4.2 USE STUDIES: In the category of use studies, a larger number of surveys have been conducted to find out the relative use of different channels in response to questions like 'where would you search for information' or 'how did you find the reference' etc. The possible channels to be named in response to such questions could be – 'by chance', 'personal recommendation', from 'abstracting or indexing services', 'through regular perusal of journals', etc.

Two important studies of this nature – by averages of previous surveys' – both published in 1961, Voigt and Vickery respectively, identified 'chance' (including regular perusal) as the most important, the second most important channel is 'personal recommendation' has quite high ranking,Whereas, the 'abstracting and indexing', identified with high ranking in British studies, while Voigt's average shows with 5% and above. However, it can be said in general that the choice of the

appropriate channel is influenced by a number of considerations, like, job function, size of organisation, qualifications, place of employment, academic discipline, accessibility of information sources etc.

It has been observed that technologists make more use of oral communication than the research workers. It is also found, that scientists also use oral or other informal channels, mainly to get current information. The John Hopkins University Centre for Research in Scientific Communication and the American Psychological Association have conducted a number of independent studies to find out the efficacy of conference as a communication channel. The oral presentations, and the written presentations through 'reports', and 'Ph.D. thesis', the journal articles within three months of its publication, are considered as a basic channels of communication.

5.1.4.3 INFORMATION FLOW STUDIES: Information flow studies have been made from different points of Some excellent studies have been made by Garvey and Griffith of the American Psychological Association, appears to be a surprising 'degree of orderliness in the system' and their findings seem to hold good for the entire science communication system. Garvey and Griffith observes, "Information Flows" through in an orderly manner, and although there are a variety of routes, specific kinds of information produced by specific types of research workers are very often associated with the specific needs of the user, and the information is shaped and reshaped to fit the characteristics of channels and the needs of audiences"

5.1.5 NATURE OF INFORMATION NEEDS

The importance of User Studies have been realised now, that information need is a composite concept of different types of requirements and approaches to information. A remarkable analysis of this composite nature was made by Melvin Voigt. His studies revealed that the same person could interact with the information system different ways at different times depending upon his purpose in relation to his work, stage of his work, and general interest etc. Since then quite a few similar studies have been made of which the works of Fishenden, Barnes, Wood and Stephnie Barber are worth mentioning, but at the same time, they bring out the important facts and conclusions that have emerged from them.

5.1.6 IMPORTANCE OF USER STUDIES & SURVEYS

In recent years it has been accepted that information need surveys are not like opinion surveys are not like opinion surveys. Such surveys are only meant to elicit certain facts like use of information, use of particular channels of information, efforts made in getting it and so on, which when properly analysed can provide a measure of effectiveness or guide to the design of an information system. This view has naturally shifted the emphasis on the techniques of user surveys and user studies. On this point it has now been well established that the information needs of scientists cannot be ascertained simply by asking a cross-section of questions about their information requirements and information needs. Hence, a definite methodology is needed in the field of information need study:

5.1.6.1 AVAILABLE TECHNIQUES: The review of literature identified the general methods or techniques of social surveys e.g., interview, questionnaire diary, etc. have been extensively used by workers in the information use studies. The methods used so far may be listed as follows:

A) General or conventional methods

A5.1. Questionnaire

A2. Interview
A3. Diary
A4. Observation by self
A5. Operations Research Study

B) Indirect methods in the context of information use
B5.1. Analysis of library records
B2. Citation analysis

C) Special and unconventional methods
C5.1. Computer-feedback
C2. Unconventional methods

A) GENERAL OR CONVENTIONAL METHODS:

A5.1. A questionnaire Method: is essentially a skilful translation of objectives into a set of questions intended to be answered in writing. A question may request for facts or opinion. Questions may be framed in such way that the answer can be given by a YES or NO, in an 'open ended' fashion by one or more sentences. The length of questionnaire, the time required for filling it, whether answers can be given straightway or requires consultation, and such things are also to be taken care of in designing a questionnaire. Questionnaire design is now a well established technique in social surveys. It is always better to consult people well versed in such techniques. To reach a large and scattered sample, this method is convenient.

A2. Interview Method: The essential characteristic of the 'Interview Method' is that questions are asked in person. Interview method may be of two varieties: 5.1. First one uses the same type of questions that are used, which are previously formulated questions asked in particular order. This called structured interview. 2. Secondly, it is called unstructured interview, there is no fixed order of questions. Answer to one question may be used as the basis for the next question. In fact that may not be a set of previously formulated questions. The interview may be more like a discussion. The method has a great degree of flexibility.

A3. Diary Method: The characteristic of this method is that individuals under study are asked to keep a detailed record of particular information activities e.g., searching for information, actual reading, discussing with colleagues, library use, etc. for a given period of time. To facilitate the work of recording 'Diary Formats' are supplied to the subjects. It is to be admitted that information can be gathered, by this method, getting detailed information is impossible, while comparing with the other methods.

A4. Observation of by self: This is really a modification of the diary method. The observation method is helpful in selecting the sampling techniques and sample population also. The pressure on 'subjects', particularly in putting their 'efforts and time' is considerably less than the diary method. The research tool – Recording forms may also be in the nature of checking-off type.

A5. Operations Research Study: This method is actually observation by others. Selected participants are observed at random times during working hours and the time spent on various information activities are recorded. A number of such studies have revealed that scientists generally

spend almost half of their working hours in some form of communication - : Like; perusing literature, looking yup for references, actual reading, talking or listening to a colleague and so on. The above five techniques, are general survey and investigation techniques and can be used for any type of survey. Naturally they are available for information need surveys also. Now let us consider some indirect methods specially used for information need surveys.

B) INDIRECT METHODS IN THE CONTEXT OF INFORMATION USAGE:

B5.1. Analysis of Library Records: Library records of various types have been used by librarians for a long time to elicit useful information. Records of reference questions and literature searches can give librarians insight into the operations of a library, use of various types of documents, number of documents used per question, number of facets per question time taken to answer a question etc. All these can be utilised in the design and improvement of a library services. The Library Circulation Records can be analysed to determine the activity of a library as well as to determine reading habits of library users.

B2. Citation Analysis: Citation Analysis is another indirect method, like the analysis of library records, to determine the actual use of documents or sources. In fact many of the earlier studies are based on this method. This method entails the analysis of the bibliographical references that are usually appended with every research communication. Citation analysis can reveal useful information like the relative use of different kinds of documents such as books, periodicals, reports, patents etc., the age of these documents which reveal the rate of obsolescence of literature, the most frequently used titles of periodicals, scattering of literature, language preference, etc, within different scientific communities according to subjects, nationality etc. This type of information can be utilised for acquisition of materials, selection of periodical titles, judicious distribution of library funds on binding and so on

It is held, that citation studies, being indirect in nature, can completely ensure the elimination of bias inherent in most of the direct methods. At the same time citation studies can be much more broad based than the library records, hence findings of such studies can be said to be valid within a wider context, while comparing to any of the direct methods.

C) SPECIAL AND UNCONVENTIONAL METHODS:

C5.1. Computer-feedback: Essentially this method makes use of records obtained as by-products of computer search. Hence, this is also an indirect method which does not disturb or interrogate the user in any way. Usually, the technique is used to generate clues for the improvement of search. The Computer-feedback is also an indirect method which does not disturb or interrogate the user in any way. Usually, the technique is used to generate clues for the improvement of search strategies within the limited context of individual computerised systems.

C2. Unconventional Methods: Most of the conventional methods discussed above, such as questionnaire, interview, diary etc. tend to be structured, or semi-structure. One difficulty with them is that they tend to highlight the areas that the investigator thinks to be important. Hence, some people advocate more and more unstructured approaches are suggested in this unconventional method.

5.1.7 PLANNING OF A SURVEY

As stated above, various research techniques are available for the **general** survey, but their relative advantages are basic question about the conducting of a user survey. While conducting a 'User Survey', the researcher has to remember certain essentials areas of study, and its relevant variables, dependent variables of the survey have to be determined. The various stages of work are, i.e. Spelling out the general objectives of the study, translation of the objectives into a set of questions or means for answering the questions, selection of the tool or the selection of appropriate research technique, the selection of the sample of users to be observed, a plan for getting the necessary cooperation, the pretesting of th4e technique, the full scale study itself, analysis of data, and preparation of the report.

5.1.7.1 DIFFERENT TYPES OF STUDIES:

The objectives of the proposed survey should be spell out in clear terms, which gives the scope and nature of the study, and subject coverage, followed by its limitations. In this context it may be pointed out that what are generally referred to as information use or need studies or surveys are a composite site of many different things. It may be mentioned here, that any particular survey may have different aspects and hence there is every possibility of overlap over the three categories mentioned above.

5.1.7.2 FRAMING OF QUESTIONS:

The objectives will largely determine the type of questions that are likely to come up. These, of course, will have to be refined as per the theories of survey techniques. The objectives and the type of questions that are to be put to the subjects or the nature of the information that will have to be elicited will determine, generally, the technique that will best suit the purpose. It should also be mentioned here, that the size of the sample, composition of the sample, and the location of the subjects in the sample, etc. will also be determined by the objectives.

5.1.7.3 COMPOSITION OF VARIABLES:

There have been some criticisms on the question of sampling in user studies. In selecting the sample the refined techniques of random sampling have to be taken into account. Here, it is not only the size of the sample that is important but also the composition of it taking into consideration, the environments of the participants. The different environments may be: 5.1. Academic Institutions; 2. Research Organisations; 3. Industry; 4. Government; 5. Professional Associations; 6. Trade unions and political parties; and 7. The Press and Broadcasting. Similarly, users can also be categorised according to functions as: 5.1. Research; 2. Teaching and Training; 3. Management; 4. Social work and administration; 5. The press and broadcasting; 6. Politics; 7. Business and commerce; 8. Study and Learning etc. All these are likely to influence persons' information needs and behaviour.

5.1.7.4 ANALYSIS OF DATA:

In fact proper analysis only can lift many of the information use studies from the level of opinion surveys to specialised surveys that can provide sufficient insight into the functioning of information systems. Many researchers in the field have complained that the findings of the most of

the surveys are incompatible due to the diversity of forms, classification of user groups, channels of communications used and so on. Hence, it becomes imperative to see that future studies are made compatible. This Analysis of Data will ensure that the results of user studies be capable of accumulation and synthesis and also has general application.

5.1.8 SUMMATION

User Education denotes the development of motivation, propensity, and potential for seeking and using information for problem-solving, development, and self-educational purposes. Creating awareness among the user community, about the availability of relevant information, information searching tools, thus access to required information. U**ser Orientation** is a programme, to create awareness and guidance and understanding about the features of a specific information system or type of information system in relation to user needs. Provision of guidance to the user community; on the specific information sources and its accessibility to the user, from the information system. Creating awareness, and familiarity, among the users, how to get the outputs through a specific system. **User Assistance** develops a understanding among the user group; on the subject areas covered by the different sources in the library, and how to retrieve them, for their use in the library. Thus the User Education is essentially part of the education to the individual about the library and information activities in the library, how to utilise those services, sources and facilities available in the library in various dimensions, is the basic concept of the user education, user training and user orientation.

5.1.9 SELF ASSESSMENT QUESTIONS

1. Examine the importance of User Education programme in the Academic Library system.
2. Explain the meaning of the User Study; and Evaluate the types of User Studies,
3. Evaluate the different research techniques available for the User Surveys – Discuss.

5.1.10 REFERENCES

1. Brophy, Peter (2005): The Academic Library. Ed.2, London; Facet Publication.
2. Devarajan, G(1995): Library Information User and Use Studies., Delhi8: Beacon Books.
3. Girja Kumar (1983): Philosophy of User Education. New Delhi; Vikas Publications.

UNIT-5:

LESSON-2:

USER INFORMATION NEEDS AND INFORMATION SEEKING BEHAVIOR STUDIES

STRUCTURE

5.2.1 AIM AND OBJECTIVES

In this lesson the user information needs and information seeking behavior studies have been described. After needed this lesson one can understand the importance of the:

1. User behavior and the concept of user information needs
2. Basis of information need; factors influencing the information needs. and
3. Information seeking process ; and information seeking behavior studies

5.2.2 INTRODUCTION

The information needs of the users are of central concern to providers of information services in the library. The ultimate aim of any information retrieval system is to supply and deliver the information which can precisely match the information requirements of the user. It is beyond doubt that the success of the information service is more achieved by in meeting the specific needs of the user community.

In every no field of human activity the information is one of the important components, whether it is a research and development, business and industry. The information has to be acquired, processed, stored, retrieved and disseminated for communication to satisfy the variety of user needs. Information generation, dissemination, transfer and communication take place between the library and the users through channel and media in a variety of contexts & Environments. Hence a fairly accurate assessment of information needs of users; will alone form the basis for all information activities. The information need of the users has to be assessed for the effective provision of information service in meeting the user needs.

The information handling activities are to be based entirely on the needs of the users. The user categories have had, different needs for information depending upon their functions, responsibilities and duties. The user group included government officials, legislators, parliamentarians, industrials entrepreneurs, researchers, lectures, and students, skilled workers in various sectors of production, grass level people and the general public. Information needs varies distinctly among these categories of users. The matching of information needs to sources of informant has to be based on the careful assessment of information needs. Use of information, user behavior in gathering information, and their information seeking behavior studies are also presented in this lesson.

5.2.3 INFORMATION AND ITS USERS:

The users in and input component in any information system. Users are the important like in the information communication system. Users are the important component in any information communication systems. The information system exists to satisfy the information needs of the users depending on the extent of use of information. A user as an essential component of the information system is the most neglected item of attention. The information system has to take into consideration the information requirements of potential users. The potential user may be defined as those who would provide a high volume and reasonable frequency of use. The use of information by user may occur without demand being expressed or even without a demand rather based on their actual information need. The way in which users (may be a scientist, engineer, technologist, manger, planner etc) make use of the information at their disposal. The information seeking behavior i.e. strategies and action undertaken to locate discrete knowledge elements varies from one user group to other user group. A user group may be an end user. Thus the study of the users seeking behavior has become essential to explain the observed phenomena of information use; and the improvement of

the utilization of information through manipulation of essential conditions. The new information & product should be matched with the users' need.

Information science comprises of sets of practices and related disciplinary studies, which is concerned with the transmission, organization storage and use of information together with studies of users of information.

5.2.4 CONCEPT OF USER INFORMATION NEEDS:

The objectives of studying user information need may be:

1. Observations of information use patterns or expressed information needs, for better expressed information needs according to the available sources.
2. The prediction of instances of information use; or expected better sources;
3. The control and improvement of the utilization information through manipulation of essential conditions. Under the available resources; to satisfy the user;

The information need is factual situations in which it exist an inseparable inter connection with 'Information' and 'need'. Information originated & generated because there exists needs or an interest. The content of information is of primary concern. The information objectively necessary for realizing a function is the objective information. Such information need of users have satisfied. It may be emphasized that information need is a objective need i.e., they are oriented towards really, practice and task. Looking to the different aspect of need, it can be said that information need is a condition in which certain information contributors to the achievement of a genuine purpose. Information need is a relationship which obtains between information and information purpose.

5.2.5 BASIS OF INFORMATION NEED

The next immediate question is what the conditions for concluding that a particular area has a need for information. Whether the awareness of the need for information either necessary or sufficient for saying that the need exists. Whether the presence of desire form information a necessary condition for saying that there exists a need for information. Thirdly is the lack of information a necessary or sufficient condition for concluding that the information need exists.

According to Derr,The presence of a purpose for the use of information leads us to conclude that it is needed. Thus the presence of what might be called an 'information purpose' is a necessary condition of information need. There are two necessary conditions of information need:

i).The presence of an information purpose
ii).The information I question contributes to the achievement of the purpose.

It has been seen that the users do not always need the information request by them. They lack a genuine purpose for the use of information. This implies that the claim rests upon a judgment about the users' information purpose. The judgment is required to see whether the information is

question contributes to the achievement of the information purpose. Idle curiosity may not be a legitimate reason for information need. The attribution of information need require the making of value judgment.

The conclusion that a individual or organization has a purpose for certain items of information is a value judgment. The attribution of information need inextricably involves making of value judgment with respect to the implicit information purpose. Further the judgment as to whether the information is question, contributes to the achievement of the designated information purpose is a straight forward factual judgment.

The information need may be expressed as a input process-output mode. The basic components of the system are: (i) problem (ii) problem solving process (iii) solution. The problem is analyzed to determine information need. It is indicative of the uncertainty in knowledge. Solution results in resolving of the situation by filling the gaps in the knowledge.

5.2.6 FACTORS INFLUENCING INFORMATION NEEDS

The ranges of information requests were inference the information needs and information needs affected by a variety of factors which are as follows:

(i) The users to which information will be put to use

(ii) The use to which information will be put to use

(iii) The background, motivation and professional orientation and other individual characteristics of the user.

(iv) The social, political & economic systems surrounding the users.

(v) The consequences of information use

5.2.7 INFORMATION SEEKING BEHAVIOR

In order to satisfy the information need, the user meet actively undergoes the information seeking process. The attempts of the user in obtaining the needed information results form the recognition of some need, perceived by the user. Under the information seeking behavior; the user will be express the following steps:

i. Identifying objectives,

ii. Defining need,

iii. Accessing information systems,

iv. Establishing sources of information,

v. Information acquisition,

vi. Uses of information,

vii. Satisfaction/dissatisfaction,

Thus information seeking behavior essentially refers to the strategies and actions undertaken to locate to sources of required information. It can be said that the user behavior which undergoes the above process yields the highest information satisfaction.

The information seeking behavior results from recognition of some need experienced by the users. Over the year there has been a change in the understanding of the user behavior. More recently it was recognized, that the factors influencing the needs and information seeking behavior opines that the human personal needs, such a physiological, affective needs are the root cause of motivation towards information seeking behavior. Information seeking behavior is seen as related situation between the user and necessary services. The knowledge beliefs, goals environment and situation as forming the basis of information. The best way to view information behavior is to treat it as an aspect of human behavior in general, the information seeking pattern of an individual, and determinant of that individual environment, which consists of:

i. Background and characteristics of the individual

ii. The nature and type of information need with which he/ she is confronted.

iii. The type and availability of information providers.

iv. Information provides capability in responding to a request,

v. Existence of barriers that serve to diminish or deter the effective linkage between information providers and seeker, and

vi. The degree and satisfaction perceived by an individual with the ability of one or more information providers to respond to his/ her information needs.

The information use is that seeking behavior that leads to the user of information in order to meet the individual needs. User studies use studies, information need studies, information transfer studies, information dissemination and utilization studies, user research etc are closed related & often not precisely defined. User component will have bearing on almost all aspect of library and information system. The enquires about users with need to understand their characteristics features , needs preferences, practices opinions, attitudes, behavior, evaluation etc with respect to library & information service that ate offered or likely to be offered or need to be offered . the ultimate aims is to help designing, alerting evaluation and improving efficiency and effectiveness of library & Information systems and their products/ service in meeting their predetermined goals. The study of users and their information needs help in discovering (i) characteristics; (ii) Information needs (iii) behavior, attitudes, opinions, priorities, preferences and evaluation of users.

The selection and reception of information will depend upon the individual conception of his own needs; one users information needs is another users noise. Studies relating to information need have categorized needs as perceived needs & actual or idealized needs continuous needs, immediate needs, deferred needs, regular and irregular needs. Furtherer information needs could be unexpressed

or expressed/articulated, felt or unfelt. In addition information needs of users can be expressed in terms of time (i.e. urgency), content or amount or quantity of information. Accordingly information needs have been classified a needs for single facts or exhaustive information, technical or business information. However information needs are frequently determined in terms of kind of message i.e. nature and type of information, the type of documents embodiments of information needed and the purpose of use. Very few studies have investigated and focused on the need for substance or nature of material in terms of characteristics of texts.

5.2.8 USER STUDIES AND METHODOLOGY

It is quite evident that most of the general methods or techniques of social surveys e.g. Interview questionnaire, dairy etc. have been used in the information use studies by Jahoda(1964) and (1965) wood(1969) stated that user information need studies should be evaluated with mixed methodologies. He prefers methods like questionnaire, interview dairy methods observations and the use citation analysis method to assess the pattern of use of documents by specialists.

Magyar (1974) also favors bibliometrics analysis as a valuable tool. He points out that year-wise analysis shows the growth of research and scientific activity. Koretomo (1977) and Kathleen (1982) have used the questionnaire method for assessing user information needs. Singh (1979) also favored the view point of wood and discusses methodologies like citation analysis bibliometry, interview and questionnaire as useful producers in assessing the information needs and users. Pratap Lingam (1980) discussing the methodology for identifying and recording information needs of users in an industrial enterprises, favors' the direct interview method, he interviews the users and records the subject interest recoded subject interest are further used to draw users profiles.

5.2.9 USER STUDIES

Even in the early surveys, most of the user studies, concentrated in the area of science and technology serious investigations began in 1940s, marked by an early and important paper in 1948 by Bernal (1948) an early survey in 1952 by Herner (1954) showed that subject use seemed to be marked differences in information habit between two sets of engineers-academic and non academic. The two international conferences –the royal society conference held in London in 1948 and the Washington conference of 1958 helped much to focus in document list. One of the most important studies entitled pilot study on the use of scientific Literature by scientist conducted by Halph R Shaw (1956). It was held that in the library and information services, the technical services were essential and the user was in a position to say what he wanted form an information system.

5.2.10 USERS ARE NOT AND SURVEYS THAT HAVE BEEN MADE SO FAR ARE OF VARIOUS TYPES.

Users are not always able to state what they need form library and information services, so that soliciting their views can prove rather ineffective. This is the theme of a comprehensive attack on user surveys in science and technology by Taube (1959) proliferation of use studies follows an exponential growth pattern typical of scientific literature itself.

Line distinguished the following characteristics as influences on information habits.

1. Age
2. Experience in research or particular job

3. Background qualification
4. Seniority
5. Whether solitary or team workers
6. Persistence
7. Thoroughness
8. Orderliness
9. Motivation
10. Independence
11. Breadth of approach
12. Information threshold, limited by absolute capacity and rate of absorption
13. Awareness of sources of published information
14. Awareness os sources of non-literary media of information Language understood

5.2.11SOME USER PROFILES BASED ON SLATER

Industrial users dependent on resources of their own library and inclined to use it as a first resort. Not frequent library users. When seeking information outside their own library, they were twice as likely as other employer groups to use personal channels. Practical problems concerning equipment, sources of supply etc., were a more frequent reason for using the library amongst this group. High level of demands for both specific information and documents. Did not use library much as a place in which to work. More librarian –dependent than any other any other group. Industrial users has high success rate in obtaining desired documents or information and were persistent in following up unsuccessful demands. Time factor was more important than in other lines more frequently than other group's acquisition of information about an object process or method was highest in this group.

A) Government users showed similarity in pattern to industrial users like industrial user they used the library less frequently, but used the library as a first resort more often that other groups. When seeking information outside their own library first the most frequent methods were consultation of personal or departmental notes, records or files or use of another library .Incidence of peripheral or unfamiliar subjects was relatively high, although practical problems rated low as a reason for using the library. Not interested in libraries as a place in which to work. Use of librarian assistance was low. Higher success rate in searching. Time was a factor for 67% of users. Shortest search periods (10.2 Minutes). Use of periodicals and current awareness journals was above average. The level of findings that were interesting but not immediately useful was highest in this group.

B) Academic users frequent customers of their own organist ion's library. Tended to make multiple demands on the library's resources. Unlikely to attempt elsewhere first and, if they did they demands. Equally interested in information or specific documents. High use of library as a quiet place to work (49%). Little use made of librarian assistance. Low success rate in searching (51%). Time factor was less important and they tended to experience out a methodological search than any other group. Average time spent searching was low (9.6Minutes). Made heaviest use of textbook and average use of periodicals, abstracts journals and indexes, current awareness journals and data books.

C) Public library users (based only on public library) least regular user group. Attempts to get information elsewhere first were highest in this group, normally by consulting other libraries. Demands were less likely to be concerned with the central subject field, although the level of consultation about small practical problems encountered in work was above average. Use of library as a quiet work place was mentioned by 30% of users in the public library did their own searching more often than government of academic users did. Unlike all other groups, information was sought more frequently than specified documents. Success rate at 68% was above the academic user level but below that of other groups. Time factor was not a real problem. Heavy users of textbooks, journals, dictionaries and encyclopedias. Tends to achieved useful results along anticipated lines. Also high level of accidental useful findings.

5.2.12 DISCIPLINE

A) Scientist was the most frequent users of library services and were least likely to try somewhere else first' prior sources of information were usually other libraries. Demands were likely to arise from central subject fields of current work. Lower level of practical problems. More interested in keeping up-to-date and more inclined to do own searching. Time element was less important than for other discipline groups. Made heavier use of periodicals, abstracts, and indexes than other groups. The level of useful result along anticipated lines was lower for these two groups that it was for non-technical personnel's, whereas the level of interesting but not really useful material was slightly higher

B) Engineers were the least frequent library users, and were more likely to go outside the resources of their own library than scientists, using friends, colleagues and experts more than the other groups. Brought the higher level of practical problems to the library. Asked for information (rather than specific documents) more frequently than other groups and depended on librarian assistance, despite longer searches (13.6Minutes). Low use of periodicals compared with other groups, tended to use handbooks, data books standards and specification. Level of occurrences of description of an object process or method was highest for engineers. Appeared to have more problems with getting information.

C) Non- technical personnel (employed by science and engineering based organizations) surprisingly the library service seems to cater better for this peripheral group than for engineers. Frequent library users and tended to use other library resources more frequently than scientists and engineers in many respects their information use lies between that of scientist and that of engineers. 'Useful results along anticipated lines most frequent in this group

5.2.13 WORK ACTIVITY

a) Qualified scientists or engineer (working as such) used the library more of the than technicians, but less often than teachers or students. Tended to make multiple use of the library. High level of demand for practical information (although less than technicians) and for peripheral and unfamiliar subject material. High demand for documents, as opposed to information. High need to keep up to date. More likely to ask the librarian for help. Highest success rate. Usage of periodicals and abstracts journals and indexes was fairly heavy, although below that seen

in postgraduate students. Higher level of interesting but not immediately useful friends than any other group and second high-level of useful results long anticipated lines.

b) Teachers and lectures were frequently library users. Although not a frequent as students. Very prone to make multiple use of the library and least likely to make prior attempts to get material outside the survey library high-level of core demands. Need to keep to date felt most keenly by teachers. Like students appeared to do their own searching. Success rate was highest (72%) of any group . deadline were more of a problems to teachers than any producer, and certainly have short search times . Highest indecent of 'useful results along anticipated lines and picked up the highest number of 'simple facts for immediate practical use.

5.2.14 SUMMATION :

The studies on user information needs basically met to serve better, information needs and users must become the central focus of system operation. It should be clear that the success of information service is more likely to be achieved by adjusting the services to meet the specific needs of an individual rather than trying to adapt the individual user to match sale output of an information system. Information need can be sequenced into substance versus channel dimension. As a Scientific discipline the study of information needs and users are still in its infancy. Finding a conceptual framework for researcher has been a continuing theme. The study of users and their information needs help in discovering i) characteristics ii) information needs iii) behavior attitudes , printed and preferences of the users

5.2.15 SELF ASSESSMENT QUESTIONS

1. Describe the basic concept of Information Need?
2. What are the factors considered to be influencing the information needs?

5.2.16 REFERENCES

1. Krihsna, Kumr Information Source And Service

2. Ranganathan, S. R. 1963. The Five Laws of Library Science. Bombay : Asia Publishing House. 2nd ed. (Ranganathan Series in Library Science; no. 12)

3. Ranganathan's laws of library science are: "Books are for use; every reader his book; every book its reader; save the time of the reader; the library is a growing organism."

UNIT-5

LESSON-3:

USER EDUCATION & INFORMATION LITERACY

STRUCTURE

5.3.1 AIMS AND OBJECTIVES

In this lesson an has been made to distinguish the User Education and Information Literacy program. The Characteristics, attributes and processes of the Information Literacy was also discussed

in this lesson. As well as the various aims and objectives of the different countries about the Information Literacy programe was attributed in this lesson. After going through this lesson, one understand:

1. The difference between the user education and Information literacy programe,
2. The Information Literacy, Definition, Characteristics, & Attributes, and
3. Aims of the Information Literacy programmes by the various countries

5.3.2INTRODUCTION

User Education is a program organized by the library and library professionals, particularly in Academic Libraries to support the teaching and research needs of institutions, they serve. It is the libraries responsibility to ensure that the use of its information sources, resources and services are maximized to benefit its users. The User Education program initiates at the beginning of every academic year or semester, applicable to all those who are using the library for the first time. E.g. Library Orientation and Library tour subject oriented instruction for undergraduates at the stage when they are admitted to special branch or subject of their choice.

An effective user education programme can enhance the effectiveness of user orientation; and a better knowledge of an information system developed through user orientation can help enhance user's awareness and knowledge of information sources and systems. Similarly, a good user orientation programme could facilitate the efficiency and effectiveness of user assistance.

5.3.3 USER EDUCATION

The history of user education says, that during 1700s, as per the literary evidence, indicates that German Universities gave library instruction in the form of lectures. During 1820s, the early rise and rapid decline of library instruction in the form of lectures and in 1900s, the question of basic skills to freshmen level was introduced.

Lewis Shoares, the doyen of "User Education", foresee this as early as 1934, when he enunciated the concept of LIBRARY COLLEGE in his library college charter. His classic statement; needs to be quoted underlying its contemporary significance: "The purpose of the Library-College is to increase the effectiveness of student learning, particularly through (though not limited to) the use of library centre's, independent study with a bibliographically expert faculty". **The user education was symbolized as independent study, in fact the indication of that the traditional library service has stood for**. Further the philosophy of user education is best summed up as: a) there exists a mind which play a significant role in learning, b) the mind is endowed with a structure, called cognitive structure, which is in-born with built-in capabilities and limitations, c) the cognitive structure is primary land precedes experience, and d) the primary function of mind with its cognitive structure is abstraction". Thus it underlines **the essence of user education is "that cognitive processes bring about a transformation, whereby the learner turns into a self-learner and independent thinker**.

By the end of 1940-1970, due to enormous developments in IT and ITC, and its impact, focused on access skills and bibliographic tools; problem solving was introduced, during 1980s and

expansion of user education to information literacy, starts way back in 1990s and the development of online catalog, introduction of databases, and increased use of Internet drastically changed the face of the User Education. By 2000, the use of multimedia aids, online tutorials, modular teaching methods, and heightened focus on information literacy.

5.3.3.1 DEFINITION OF USER EDUCATION:

Fleming (1990) defines user education "as various programs of instruction, education and exploration provided by libraries to users to enable them to make more effective, efficient and independent use of information sources and services to which these libraries provide access"

User Education simply means educating the library patron, whether student, staff, or member of the public, on how to use the library and its services. User education program, which include any effort or program that will guide and instruct existing and potential users in the recognition and formulation of their search to meet their information needs. The user education will enhance the effective and efficient use of information sources, services and facilities and their assessment in the library.

5.3.3.2 LEVELS OF USER EDUCATION:

A) **At the beginning** of every academic year or semester, this program will be applicable to all those who are using the library for the first time, e.g. Library Orientation and library tour subject oriented instruction for undergraduates at a stage when they are admitted to a special branch or subject of their choice or at the time of project work. Literature search training, provided at the beginning of their research work.

B) **User Education at Undergraduate Level**, starts with a general introduction to the geography of the University Library, as well as some useful information about the library cataloguing, reference sources, etc. Post-graduate Level in addition to the above information, instruction on classification systems, bibliographies available, library services offered etc.

C) **User Education at Research Scholars Level**, detailed information about literature search, compilation of bibliographies for their projects, technical writing, giving footnotes, etc. At Faculty Level the conduct of User Education will be fruitful when it helps the research and thus enable faculty to teach well, and they need to know the steps in literature search, information retrieval, technical writings, interlibrary loan, and relevant library services.

D) **Course-related Instruction:** If the User Education program planned as 'Course-related instruction' viewed as one of the most effective user education methods, which it required the cooperation of faculty and faculty member authority to decide, when to start the instruction and who are the target recipient group. As the Librarians have limited control over the student community, and the course-related instruction is the staff intensive. And high ratio of students group is a big problem for librarians. And the librarian needs to continue to look for additional ways of reaching students through workshops, handouts, and library assignment consultations etc.

5.3.3.3 THREE STAGES OF USER EDUCATION:

i) The First stage: The library orientation is to be given at the beginning of every academic year or semester, it should be applicable to all those who are using the library for the first time.

ii) The Second Stage: The subject oriented instruction for undergraduates at a stage when they are admitted to a special branch or subject of their choice or lat the time of project work.

iii) The Third Stage: Literature search training should be provided at the beginning of their research work.

The literature search is specified as being for post-graduate students but with students developing as self-guided independent learners there is no reason why this should be the case. Depending on the student, the course, and the assignment there may be some overlap between the three stages. Knowing which level of user education is required by a particular group of students enables the librarian to determine the aims and objectives of the session. The three main aims of user education regardless of level are:

- To train the user to exploit the library resources effectively,
- To provide the user with the skills for independent information seeking, and
- To encourage the user to seek the assistance of library professionals.

5.3.4 PLANNING & NEED FOR USER EDUCATION

The mission of the library is to teach users how to become more effective, efficient and independent in their information search. To develop 'User Education' programs which are more responsive to their information needs. Library User Education is an important activity, however the factors of change affecting libraries and how a librarian can respond to these changes.

In the mix-sixties, John Dewey and Dr. S.R. Ranganathan, who recognized the importance of User Education Program in the libraries? The establishment of the UNISIST program within UNESCO as an inter-governmental program to stimulate and guide voluntary Co-operation in the flow of S&T information at the national, regional and international levels, and the launching of national information systems, such as NISSAT in India, has focused attention on the need for training the users in the effective use of information. The UNESCO General Information program (PGI) has been making organized efforts to promote user education and training programmers through organizing seminars, workshops, and developing tools, publications and guidelines. The UNISIST Guide for Teachers, land the Guidelines for Developing and Implementing a National Plan for Training in information use are the two very useful publications. Several countries, particularly USA and UK, have made organized efforts in promoting program for educating and training information users and extensive literature in the field is available to guide the formulation of such program in India. User education program should aim to make all users aware of the information resources available both directly in the library and from external sources and enable users to enjoy the search for information. Universities have

unique identities "each university library must design its own course to meet the immediate needs of its clientele.

User Education is an essential component, it helps publicize library services, and it improves the image of the library. Above all, the user education and training are the best ways to implement Dr. S.R. Ranganathan's Five Laws of library science. UNESCO's Asian Program of Educational innovation for Development provides a suitable frame work for inter-country cooperation to develop innovative approaches to **User Sensitization through User Education, User Orientation and User Assistance** as an integral part of its activities in the file of educational innovation.

5.3.4.1 USER EDUCATION, USER ORIENTATION & USER ASSISTANCE:

The terms 'User Education', 'User Orientation', and 'User Assistance', are often used interchangeably. Although their connotations overlap, it is helpful to keep the distinctions in mind.

User Education	User Orientation	User Assistance
Develop motivation, propensity, and potential for seeking and using information for problem-solving, develop self educational purposes.	Provision of guidance for understanding the features of a specific information system or type of information system in relation to users' needs.	Help in understanding he subject coverage limitations etc. o a specific information source or database.
Creating awareness of the availability of information relevant to different needs and situations.	Provision of guidance on the specific information sources accessible through a specific system.	Help in interpreting the data elements in an entry in a catalogue or a display on a visual display unit.
Creating awareness of the availability of different tools for and approaches to information searching and accessing.	Provision of guidance in the use of specific tools (e.g catalogue, thesaurus, terminal operations) used in specific information systems.	Assistance in abstracting, or repackaging work on information retrieved in relation to a specific query.
Developing the ability to extract, synthesize, and repackage information to suit individual need and convenience.	Developing familiarity with the outputs obtainable through a specific system.	--

User Education denotes the development of motivation, propensity, and potential for seeking and using information for problem-solving, development, and self-educational purposes. Creating awareness among the user community, about the availability of relevant information, information searching tools, thus access to required information. U**ser Orientation** is a program, to create awareness and guidance and understanding about the features of a specific information system or type of information system in relation to user needs. Provision of guidance to the user community; on tracing the specific information sources and its accessibility to the user, from the information system. Creating awareness, and familiarity, among the users, how to get the outputs through a

specific system. **User Assistance** develops a understanding among the user group; on the subject areas covered by the different sources in the library, and how to retrieve them, for their use in the library. Thus the User Education is essentially part of the education to the individual about the library and information activities in the library, how to utilize those services, sources and facilities available in the library in various dimensions, is the basic concept of the user education, user training and user orientation.

5.3.5 INFORMATION LITERACY

The term "Information Literacy" was first appeared in library and information science literature during the 1970's, later it is traced, used by Paul Zurkowski in 1974, in a proposal submitted to the National Commission on Libraries and Information Science (NCLIS). In the twenty first century information literacy has become a crucial issue for political, economic, social and cultural development in all countries. Information literacy is a global phenomenon today. And it is now wrongly employed to describe library user education and bibliographic instruction.

5.3.5.1 INFORMATION LITERACY – DEFINITIONS & CHARACTERISTICS:

Breivik and Gee, two of the leading authorities on Information Literacy purpose that the definition is:

> "The definition of literacy has continued to evolve as society's need to acquire information evolves.. Most scholars of literacy recognize he importance of its social, cultural, political, and economic context. In the midst of the information explosion, the ability to access, retrieve, and evaluate information should constitute a significant part of today's definition of literacy".

Rader definition of Information Literacy as:

"Understanding the processes and systems for acquiring current and retrospective information, such as systems and services for information identification and delivery;
"The ability to evaluate the effectiveness and reliability of various information channels and sources, including libraries, for various kinds of information needs:

"Mastering certain basic skills in acquiring and storing one's own information in such areas as databases, spreadsheets, land word and information processing".

Characteristics of Information Literacy are an integrated set of skills (pertaining to research strategy, land evaluation), and knowledge of tools and resources. The characteristics are developed through the acquisition 9f latitudes relating to persistence, attention to detail, and caution in accepting the printed word and single sources. Furthermore, the characteristics are: time and labour intensive; need-driven (that is a problem-solving activity); and distinct from but relevant to literacy and computer literacy.

Information Literacy is not only knowledge of resources, it is not dependent on the library as the sole source; and it is not only information finding but also understanding and evaluating that information. Information Literacy is not synonymous with IT literacy. It literacy does not give a person the skills to become information literate. **IT literacy is a subset of information literacy.** IT literate will have had the skills necessary to effectively manage the hardware and software which will allow access to information which is in electronic or digitized form. A person who is library literate cannot

be regarded as fully information literate. **Library Literacy is a sub-set of Information Literacy. The term "User Education" or "Library Orientation" programs are aimed for creating information literacy skills is misleading.**

According to **Behrens:** Library skills are tend to focus on the ways of locating information or otherwise, instrumental in the aspects of information retrieval. They do not usually cover the broader contextual elements and the higher-level analytical skills necessary to effectively search, trace and utilize information, which will withstand appropriate scrutiny. Information literate people are those who have learned how to learn. They know how to learn because they know how information is organized, how to find information and how to use information in such a way that other can learn from them.

5.3.6 INFORMATION LITERACY ATTRIBUTES & PROCESSES

Information Literate Person Attributes:

Doyle, drawing on an expert panel provided the following **list of ATTRIBUTES**:

"An Information Literate person is one who:

- Recognizes the need for information
- Recognizes that accurate and complete information is the basis for intelligent decision making
- Identifies potential sources of information
- Develops successful search strategies
- Accesses sources of information, including computer-based and other technologies
- Evaluates information
- Organizes information for practical application
- Integrates new information into an existing body of knowledge
- Uses information in critical thinking and problem solving

INFORMATION LITERATE PERSON PROCESSES:

Bruce & Bjorner states: The Information Literate person implements **information processes** into Two forms, viz. 1) **General processes and 2) More Specific processes**.

General Processes:

a) Recognizing and accepting an information gap,
b) Responding positively to the need for information,
c) constructing alternative strategies to reduce the information gap,
d) evaluating and selecting a strategy,
e) acting on strategy, assessing the effectiveness of a strategy
(that is, evaluating the information fund),

f) using information (that is, synthesizing and communicating information), and
g) storing the information for future use

More Specific Processes:

a) The ability to design and implement strategies for the location of on-line and print information sources,

b) The ability to design and implement strategies for the retrieval of information from community-based resources that are not part of formal, organized information networks; and

c) The ability to use applications software for the management and communication of information. These processes involve a synthesis of information location, critical thinking and communication skills. I.e. familiarity involves understanding the system of scholarly information, indexing theory, land issues such as intellectual property and other political, social and economic agendas associated with information creation land provision.

5.3.6.1 INFORMATION LITERACY & EDUCATIONAL PROCESSES:

The Information Literacy programs which ensure that people of school age and up; and taught about information use patterns; not jonly available jlwithin the library in print and digital form. But the information available through: cartographic materials, special materials, microforms, electronic form and online sources etc. are also provided with the context jin wich information in created, located and utilised in the kwider world of linformation and knowledge.

The Learning Society: Individuals can be empowered to learn, what, when, how and where they like, throughout their lives, is constrained in practice. Information literacy may well provide an imporltant connection between the information society and the learning society. Information literacy skills assist people to learn and re-learn, to train and re-train the students. Information Literacy is a set of skills lallowing people to make the most of both formal and informal learning opportunities. People develop a mind-set to continue learning throughjut their lives to keep abreast of relevant developments thus remaining engaged in a real sense to the world about them. High order information skills are becoming mandatory to function efficiently. Access to, and critical use of information and of information technology is absolutely lvital jto lifelong learning, and accordingly no graduate can be judged educated unless he or she is information literate.

Flexible Learning: Flexible lerning is an educational response to the need for lifelong learning generated by the learning society, and information literacy provides essential skills in the context of flexible learning. The new requirements of flexible learning go well beyond changing teaching practice and their impact on libraries, It services and education administration. Apart from changes jin teaching practice (including assessment and delivery) the change to flexible learning places the library even more centrally in the teaching and learning processes, thus necessitating closer collaboration between teachers and librarians and requiring that students develop information literacy skills.

Processes of Education: In the new mode, the processes of education bears equal importance to information literacy, plays a major role in addressing the process concerns of education. It is seen as an enabling process, a meta-skilling lwhich is critical to fleaxible delivery methods in formal contexts and the ongoing personal pursuit of knowledge beyond the walls of the University.

Flexible learning aims to maximise the use of information resources to that the teacher's contribution becomes simply one of many resources. The teacher being a facilitator to a broader spread of information from which the student is reaquired to choose the most relevant, the most accurate, the most robust. Information literacy providwes the student with the required skills to make best use of the information resources available and to integrate these into successful course outcome. One of the critical aspects of the shift towards flexible learning is the matter of re-defining the relationships in the teaching and learning environment. There are considerable opportunities here for closer collaboration between librarians and teachers in order that students can gain information literacy skills. The concept of Information Literacy thinking of; that the Library and Information Professionals are also included as parterns in the design and development of Information Literacy Education Program(ILEP). Through this ILEP, with the cooperation and collaboration of library professionals, and preferred to share the class room, on par with the academic staff, will give better results.

The Aims of information Literacy Programmes:

The Aims of Information Literacy program was based on the taxonomy presentations of Information Skills proposed for Secondary School by Marland(1981), Oberman and Strauch(1982), on Bibliographic Education; Kumar and Kumar(1983) on User Education, Irving(1985) on Information Skills, Kirk(1987) on Information Literacy, Bruce(1995) on Information Literacy Programme Elements, Durack(1996) Katherine T(1995) on New Users to the Internet and Mike Eisenberg and Bob Berkowitz(1996) on The Big Six Skills Information Literacy Model.

5.3.7 THE AIMS OF LINFORMATION LITERACY PROGRAMMES

1) Marland present information skills presented for Secondary School Students:

1. What do l need to do?
   (Formulation and analysis of need)

2. Where could I go?

(identification and appraisal of likely sources)

3. How do I get to the information?

   (tracing and locating individual resources)

4. Which sources shall I use?

(examining, selecting and rejecting individual resources)

5. How shall ll use the resources?

   (interrogating resources)

6. What should I make a record of?

   (recording and storing information)

7. Have I got the information I need?

   (Interpretation, analysis, synthesis, evaluation)

8. How should l present it?

   (presentation, communication, shape)

9. What have I achieved?

   (evaluation)

2) Oberman and Strauch, writing in 1982 on "bibliographic" education press for a move from purely technical skills to a contextual approach and the development of a conceptual framework of principles. The critical and evaluative approach to information, wherever found, was stressed and **the gulf between bibliographic instruction, library education** and the broader contextual issues and the higher evaluative analysis of sources of information was made clear.

3) Kumar G and K. Kumar, in 1983 stresses the need to supplement practice and techniques of **user education** with theory and methodology. The application of general principles was considered important so that the skills acquired could retain their usefulness well beyond the immediate learning requirement.

4) Irving emphasizes "kowing that there is to know about, and what questions to ask in order to find out".

5) Kirk, produced a taxonomy of Information Literacy 1987:

1. Define purpose

   Clarify information task; review personal skills and knowledge

2. Locate sources

   Develop a manageable search plan; gather sources

3. Select data

   Locate data in sources; assess relevance of data;

   Assess credibility of data; record relevant and credible data and sources

4. Process information

   Combine data into units of information;

   Combine units of information into a structure; review structure

5. Present information

   Decide how to present information; present information

6. Evaluate the information task

   Review the content of the completed information task;

   Review the steps taken in the information task;

   Evaluate the learning outcomes of the completed information task"

6) Bruce's "Information Literacy programme elements":

- Understanding the nature of the information society
- Acquiring values that promote information access and use
- Being able to implement the processes of identifying an information need
- Locating retrieving, evaluating and synthesizing the information required
- Developing a high level of communication skills, including the ability to communicate with colleagues and information professionals
- Developing a sound knowledge of information sources, including network sources, and strategies for using them
- Developing the ability to manage the information retrieved through the appropriate use of, Eg: Word Processors, Spreadsheets and Bibliographic management software
- Developing a familiarity with the hardware of information technology, books, newspapers, videos, compact discs, computers and all their accompanying apparatus".

7) Durack, Katherine T "New Users to the Internet warns":

"Novice network users – like many television viewers – may easily fall into the trap of taking everything they read, see, or retrieve from the Net as THE TRUTH….almost everyone with a computer and a connection can "publish" whatever they want to on the Net. The lack of gatekeepers – one function of the print based publishing community – has both advantages and disadvantages. On the good side, people have access to ideas and information on the other hand, no one entity is responsible for l verifying facts and evaluating the usefulness of files to ensure any standard quality, also there is a lot of junk in the internet in addition to the gems".

8) Mike Eisenberg and Bob Berknowitz "The Big Six Sills Information Literacy Model"

The Big six Skills approach is one of the most widely-used models of information Literacy. The big six represents a systematic approach to information problem-solving. It is a set of skills that is transferable to school, personal, or works applications, as well as all subject areas across a full range of grade levels. According to the Big Six approach, whenever a student has an information-oriented problem, it is appropriate and useful to initiate the following six steps and sub steps.

1. Task Definition

1.1 Define the problem

1.2 Identify the information requirements of the problem

2. Information Seeking Strategies

2.1 Determine the range of possible sources

2.2 Evaluate the different possible sources to determine priorities.

3. Location and Access

3.1 Locate sources (intellectually and physical)

3.2 Find Information within a source.

4. Use of Information

4.1 Engage (e.g. read, hear, view) the information in a source.

4.2 Extract information from a source.

5. Synthesis

5.1 Organize information form multiple sources.

5.2 Present information

6. Evaluation

6.1 Judge the product

6.2 Judge the information problem-solving process (efficiency)

Although presented in a logical order, the Big Six approach does not assume that information problem –solving process. In completing tasks and solving problems, students may locate and use a source (Steps 3 and 4) and later loop back to figure out exactly how they will handle the situation (step1). In other situations, students may decide to use one source at a time, going through steps 2-5 a number of times. However, to successfully solve information problems, students must successfully complete the various steps at some point.

5.3.7.1 INFORMATION LITERACY PROGRAMS IN INDIA:

With the initiation of **INFLIBNET,** the UGC is planning to train the students at University and College, at lst level to access the information sources and services through online. The major group of the user community is students, research scholars and academic staff, serviing in the Universities and Colleges. At the lst instance, about 1.10 crore students are aimed to train, followed by the 40 lakh faculty, out of the 1,600 educational institutions in the country. Nearly 102 Government Degree College Libraries are automated, as well, the librarians and professionals from the Government Degree Colleges are also extended the training, in handling the sources and services through online from the INFLIBNET.

In Andhra Pradesh, the Department of Library and Information Science, made an attempt during 1995, to introduce the BLISc., syllabus as a specializations at the Degree level, in Degree Colleges. The proposal was accepted by the Academic Senate of Andhra University. But no degree college is come forward to introduce these subjects as specializations in any degree course, with the prescribed combinations suggested by the Department of Library and Information. Thus the attempt of Information Literacy programe at degree level was discouraged.

5.3.7.2 USER EDUCATION AND INFORMATION LITERACY A COMPARATIVE STUDY

No	User Education	Information Literacy
1.	User Education is meant for creating awareness, orientation and to assist the user, to know about the library stocks, sources of information that are available; and how to locate and access the materials, information services and facilities available in the library to meet their information needs.	Information Literacy is a signal skills for life long and flexible learning situations. It is a set of skills (pertaining to research stragecy and evaluation), and knowledge tools and resources. Information Literacy is a processes and systems for acquiring current and retrospective information, such as systems and services for information identification and delivery.
2.	The Organisation, Management and Implementation of User Education through the levels of training, i.e. in three levels : 1st Level – Library Orientation to beginners; 2nd level – Subject oriented instruction of undergraduate and 3rd level – Literature search strategy and training should be provided.	Information Literacy persons are prepared for life long learning. According to ALA definition, understanding of Information Literacy is through the attributed and processes of Information Literate person. (the attributes and processes are presented in the text in previous pages). The aims of Information Literacy programme was based on the taxonomy presentation of Information skills by Marland (1981), Oberman & Strauch(1982), Kumar & Kumar(1983), Irving(1985), Kirk(1987), Bruce(1995), Durrack(1996), Katherine T and Mike Eisenburg & Bob Burkowitz(1996).

3.	User Education aim to; 1) train the user to exploit the library resources effectively; 2) to provide the user with skills for adequate information seeking, and iii) to encourage the user to seek the assistance of library professionals.	Information Literacy aims towards the: 1.Marland – Taxonomy of Information Sills; 2. Oberman & Strauch -"Bibliographic & Technical skills; 3. Kuar & Kumar – Need to provide supplement practices & techniques of User Education with the methodology; 4. Irving – Knowing that there is to know about; 5. Kirk – produced a taxonomy of Information Literacy; Bruce's – Information Literacy Programe Elements; 7. Durack, Katherine T – New Users to the Internet warns; and 8. Mike Eisenberg and Bob Berknowitz – The Big Six Sills - Information Literacy models.
4.	The User Education program, which includes any effort or program that will guide and instruct existing potential users in recognition and formulate of their search to meet their information needs. The education will enhance the efforts and efficient use of Information Sources, Services and facilities and their assessment in the library.	a)The basic idea behind the "Information Literacy" component into curricula, articulate through a Course or groups of courses. b) Integrating an Information Literacy component into one of more selected subjects. c) Initiators of information literacy programs require the collaboration of lecturers (discipline experts), librarians, computer scientists, media specialists, and possibly community stakeholders. Thus the responsibility for information literacy is shared and implemented in a climate of collaboration. d) Information Literacy cannot be achieved from one discipline and it is the cumulative experience from a range of subjects and learning experiences that creates the information literate person.
5	The historical origins of User Education, starts in 1700, at German Universities, initiated library instruction in the form of lectures, but in 1900's it is in the basic skills to freshmen level. Lewis Shoares, as early as 1934, the essence of user education is that cognitive processes bring about a transformation, where by the learner turns into a self learner and independent thinker. By 2000, the use of multimedia aids, online tutorials, modular teaching methods, and heightened focus on information literacy. The term "User Education" of "Library Orientation" programs are aimed for creating information literacy skills is misleading.	The term "Information Literacy" was first appeared in library and information science literature during the 1970's, later it is traced, used by Paul Zurkowski in 1974. In the twenty first century information literacy has become a crucial issue for political, economic, and social cultural development in all countries. Information literacy has an ability to access, retrieve, and evaluate information should constitute a significant part of today's definition of Information Literacy. Information Literacy and Library Literacy are sub-sets of Information Literacy. Information Literacy wrongly employed to describe library User Education and Bibliographic Instruction.

6	The students, who are admitted into any College or University, the User Orientation given to them, how to use the library is known as User Education. The User Education, in the form of various programs of instruction, education, and exploration **provided by the libraries** to users to enable them to make more effective, efficient and independent use of information sources and services, which are available in the College/University libraries.	Information Literacy program is a sort of continuous education, blend with the academic program, through out their education. The preparation of the syllabus was shared with the views and experiences of the library professionals/librarian. **And the librarians are also share the class room in teaching information literacy along with the academic staff**. Information Literacy jis not only knowledge of resources, and it not only information finding but also understanding and evaluating the information. **Information Literacy practices are the blend of class room teaching, and it is a continues process for all admitted students in the college or university**.

5.3.8 SUMMATION

The user education was symbolized as independent study, and it underlines the essence of user education as “cognitive processes bring about a transformation, whereby the learner turns into a self-learner and independent thinker. The mission of the library is to teach users how to become more effective, efficient and independent in their information search. To develop “User Education” programs which are more responsive to their information needs? Library User Education is an important activity, however, the factors of change affecting libraries and how la librarian can respond to these changes.

User Education is an essential component, it helps publicize library services, and it improves the image of the library. . UNESCO’s Asian Program of Educational innovation for Development provides a suitable frame work for inter-country cooperation to develop innovative approaches to **User Sensitization through User Education, User Orientation and User Assistance** as an integral part of its activities in the file of educational innovation.

Information Literacy was an integrated set of skills (pertaining to research strategy, and evaluation), and knowledge of tools and resources. The characteristics are developed through the acquisition of attitudes relating to persistence, attention to detail, and caution in accepting the printed word and single sources. Furthermore, the characteristics are: time and labour intensive; need-driven (that is a problem-solving activity); and distinct from but relevant to literacy and computer literacy.

Information Literacy is not only knowledge of resources, it is not dependent on the library as the sole source; and it is not only information finding but also understanding and evaluating that information. Information Literacy is not synonymous with IT literacy. It literacy does not give a person

the skills to become information literate. **IT literacy is a subset of information literacy.** IT literate will have had the skills necessary to effectively manage the hardware and software which will allow access to information which is in electronic or digitized form. A person who is library literate cannot be regarded as fully information literate. **Library Literacy is a sub-set of Information Literacy. The term "User Education" or "Library Orientation" programs are aimed for creating information literacy skills is misleading. Information Literacy is continuous education, and User Education is a training program for the admitted students.**

5.3.9 GLOSSARY

IL	Information Literacy
IT	Information Technology
ICT	Information Communication Technology
AASL	American Association of School Libraries
AECT	Association for Educational and Communication Technology

5.3.10 SELF ASSESSMENT QUESTIONS

1. Define and Distinguish the User Education and Information Literacy program.
2. Describe the aims and objectives of the Information Literacy program.
3. Discuss the aims of Kirk's Taxonomy; Bruce's Programme elements, and Big Six Skills of Information Literacy.

5.3.11 REFERENCES

1. Marland, M. ed. Information Literacy Skills in the Secondary Curriculum: The Recommendations of a Working Group Sponsored by the British Library and the Schools Council. London, Methuen Educational, 1981. Pp.30-37.
2. Obserman, C. and K. Strauch. Theories of Bibliographic Education: Designs for Teaching. New York, Bowker, 1982.
3. Kumar, G. and K. Kumar. Philosophy of User Education. New Delhi, Vikas, 1983.
4. Irving, A. Study and Information Skills Across the Curriculum. London, Heinemann Educational Books, 1985. P. 22.
5. Kirk, J. Information Skills in Schools. Australian Library Journal, 36(2) 1987, p.86.
6. Bruce, Christine Susan. Information Literacy: A Framework for lHigher Education. The Australian Library Journal. 44(3) August, 1995. P.163.

7. Durack, Katherine T. Introducing New Users to the Internet in Teaching Electronic Information Literacy: A How-to=do-it Manual(educted by) Donald A. Barclay. (How-to-do-it Manuals for Librarians. No.53), New Yorkl Neal-Schuman Publishers, 1995.p.87.

8. Johnson, Dough and Mike Eisenberg. Computer Literacy and Information Literacy: A Natural Combination Emergency Librarian, 23(5), 1996, p.12.

9. Michael Wooliscroft. From Library User Education to Information Literacy: Some issues arising in lthis jevolutionary process. Paper presented at COMLA Workshop, Gabarone, Botswana, July, 1997.

10. Breivik, Patricia Senn and Gordon, lE. Gee. Information Literacy: Revolution in the Library. New York. American Council on Education/Macmillan Publishing Co., 1989.p.23.

UNIT-5:

LESSON-4:

INFORMATION SERVICES AND EVALUATION

STRUCTURE

5.4.1 AIM AND OBJECTIVES

This lesson aims at describing the evaluation of Information services and how the information services are rendered in the library. The student can be able to understand:

—— Factors influencing information services
—— Guidelines for the evaluation of information services
—— Purpose and methods of information evaluation etc.

5.4.2 INTRODUCTION TO INFORMATION SERVICE

Libraries have an inherent obligation to provide information service to support the educational, recreational, personal and economic endeavors of the members of their respective libraries'. Information services in libraries take a variety of forms including direct personal assistance, directories, signboards, exchange of information from a reference source, reader's advisory service, dissemination of information in anticipation of user needs, and access to electronic information. A library, because it possesses and organizes of information resources, and develop information services appropriate to its community. These services should take into account of the information-seeking behaviors of the information needs, and the service expectations of the members of the user community. Provision of information in the manner most useful to its clients is the ultimate test of all in libraries. In that spirit, these guidelines are directed to all those share responsibility for providing information services, including, educators, administrator's supervisors, department heads, and information staff in all types of libraries.

5.4.3 NEED & PURPOSE OF EVALUATION:

There are differing ideas about what evaluation is and why it should be Done, Blogden (1990) provides a useful summary. The management approach monitoring performance as an integral part of good management which is undertaken for two reasons.

(1) As per the budget sanctioning as well to study the clients that the service delivering to the benefits of the user that was expected when the investment was made.

(2) As an internal control mechanism to ensure that the resources are used efficiently and effectively

Lancaster (1988) has provided the following reasons: -

(1) To establish a type of" benchmark" to show at what level of performance is the Service is now operating.

(2) To compare the performance of several libraries and services.

(3) To justify the existence of an information service. This is an analysis of the Benefit of the service or an analysis of the relationship between services.

(4) To identify possible sources of failure or inefficiency in the service with a view to raising the level of performance in future.

5.4. 3.1. METHODS OF EVALUATION

There are two main methods for the evaluation of information service in the library's effectiveness.

(i) SUBJECTIVE METHODS OR DIRECT METHODS: Involved getting information directly from the user and include questionnaire or interview studies, diary keeping and observational techniques.

(ii) OBJECTIVE METHODS OR INDIRECT METHODS: The Quantitative and include use of quantifiable objectives. Some sources of indirect data or user behavior includes, records of circulation, in house use and in inter- library loan requests.

5.4.4. FACTORS INFLUENCING INFORMATION SERVICES (FIIS)

Before undertaking an evaluation of information services; librarians must be convinced of the need for information and its importance. The first reason is that, since quality control is one of the four major functions (planning, organization, administration and control) of sound management, libraries.

To check whether the library is achieving its objectives or, to make sure that it adequately meets the needs of its users, the purpose of an evaluation of information is to provide the administrator with the systematic information he requires to assess the quality of services objectively and take a rational decision.

The ultimate aim of any evaluation project is not that, to monitor with the purpose of rewarding or punishing but rather to improve the performance of a documentation service. Viewed from this standpoint, an evaluation study becomes a management tool enabling the staff of a particular library to determine how far it is meeting user requirements and to identify the shortcomings and gaps in its services with a view to making the necessary improvements.

5.4.5 GUIDELINES FOR INFORMATION SERVICES

The following are the basic guidelines, and stands as guiding principles for information service and evaluation of information services also.

1. **Services**
2. **Resources**
3. **Access**
4. **Personnel**
5. **Evaluation**

5.4.5.1 SERVICES:

The goal of information services is to provide the information sought by the user. Information service should anticipate as well as meet user needs. It should encourage user awareness and the potential of information resources to fulfill individual information needs. The library should develop information, reference, and directional services consistent with the goals of the institution or community it serves. The library should strive to provide users with complete, accurate answers to information queries regardless of the complexity of those queries.

The library should provide the necessary user aids in appropriate formats to help users to identify items in the collection relevant to their interests and needs. Reference Guides can also offer assistance in using particular resources or in performing research in a specific subject area.

The library should provide instruction in the effective use of its resources. Through the library instruction, include the individual explanation of information resources or the creation of guides in appropriate formats, formal assistance through tours and presentations designed to provide guidance, and direction in the pursuit of information. The library should serve its community by collecting and creating information and referral files to provide access to the services and resources of local, regional and state organizations.

The library should participate in consortia and networks to obtain access to information sources and services which it cannot provide on its own.

When the library is not able to provide a user with needed information, it should refer the user or the user's question to some other agency, an expert or other library that can provide the needed information.

The library should develop and make available to the public a statement of its reference service policy.

5.4.5.2 Resources

The library should collect or provide access to information resources and services accordingly to its mission and reflecting the full spectrum of the population it serves.

The library should develop an information resources and collection development policy to meet goals and objectives of its library or use community. These information resources should satisfy through content, currency, format, organization, and quantity a diversity of user needs.

5.4.5.3 Access

The library should arrange information services according to a coherent plan, to provide ready accessibility to users. The information services workspace should be large enough to accommodate staff, the library collection and information resources, equipment necessary for accessing the information

The library should make service areas for information services highly visible and accommodate the needs of users, including users with disabilities. Necessary boards should direct users, where they can obtain assistance in finding the information they seek.

The library should provide appropriate equipment in adequate quantities and in good working order. This includes communications hardware and software to receive and answer queries for information from users.

5.4.5.4. Personnel

Information services staff should to communicate effectively with the full range of the library's clientele regardless of a user's age, gender, sex, ethnicity, disability, or language proficiency.

Information services staff must have knowledge and preparation to meet the information needs of the clientele. Personnel responsible for information technology services should be familiar and competent in using information technology and should also possess effective interpersonal communications skills.

It is the responsibility of the individual staff member to seek continuing education and of the employing institution to support its staff's continuing education efforts.

5.4.5.5 Evaluation

The library should regularly evaluate its information services to ensure the institution's goals and that the goals reflect the needs and interests of the community it served. Formal and informal evaluations should be used to determine the optimum allocation of resources to provide quality service.

The library should integrate the perspectives of staff and community in the overall evaluation procedure for information service.

(A) In its evaluation of information services, the library should emphasize the following factors which are most important to the community who are using different services: (1) time; (2) accessibility of services (in terms of physical access, convenience of location, convenience of service hours); (3) the value and effectiveness of services for various groups among the user community; and (4) effectiveness in anticipating its community's needs.

(B) The library should gather relevant statistics for use in evaluation. The library should conduct evaluative studies using techniques and measures that will yield data comparable to those from similar institutions and addressing such national norms or common standards as may exist, modified if necessary, by local needs.

(C) The library should evaluate individual resources within the collection based upon professional standards and users' needs. It should also evaluate its information resources as a unified information system, including in-house print and non-print as well as accessible external resources.

(D) The library should appraise the performance of individual information service staff members and the collective performance, of that staff at regular intervals, using recognized personnel evaluation techniques and instruments agreed to in advance by those to be evaluated and those performing the evaluation.

5.4.6 SUMMATION:

There are differing ideas about what evaluation is and why it should be Done. Blogden (1990) provides a useful summary. The management approach sees monitoring performance as an integral part of good management which is undertaken for two reasons:

(1) To convince the funders and the clients that the service is delivering the benefits that was expected when the investment was made.

(2) As an internal control mechanism to ensure that the resources are used efficiently and effectively.

5.4.7 GLOSSARY:

ISE Information services evaluation
IS Information Services
FIIS Factors Influencing Information Services

5.4.8 SELF ASSESSMENT QUESTIONS

1. What is evaluation? Need and purpose of evaluation?
2. Guidelines for information services evaluation
3. Influence factors evaluation?

5.4.9 REFERENCES:

1. S.R. Ranganathan Reference Service, 1989
2. Young, Heartsill, (Ed). (1983). The *ALA Glossary of Library and Information Science*. Chicago: America Library Association.
3. . Dewdney, P., & Ross, C. S. (1994). Flying a light aircraft: Reference service evaluation from a user's viewpoint. *Reference Quarterly*, 34(2), 217-230.