

Chapter- 3

Management of Periodicals in College Libraries

3.1) College libraries:

Higher education is one of the complex systems of the whole process of education, which facilitates teaching, research, extension and understanding. In academic education college is middle of the school and university. So College library is most important for young generations, for developing ideas.

3.1.1) Definitions:

College:

“The dictionary of education edited by C.V. Good defines the term ‘college’ as: “An institution of higher education, usually offering only a curriculum in a liberal degree”. “A major division of a university, usually division of arts and science especially one that required for admission to study beyond the completion of secondary education”. Likewise, another Dictionary of education edited by R.P. Taneja defines the term ‘college ’as a “tertiary institute of higher education establishment, usually of junior status to a university”.

College Library:

Every educational institution requires library containing various information sources. Because library is a heart of any institutions. Every college has a library. P.N. Gaur defines the term ‘college library’ as a library organized and administered by a college for the use of its students and members of staff”.¹

3.2) Collections:

Today we live in 21st Century. Presently collection of print and non-print materials can be easily available for user’s satisfaction in the library. The goal of a college library is to provide an effective combination of print, non-print and electronic resources. All of these important resources support for the teaching, learning and co-curricular activities of the college. Any college library creates a self collection development policy for user satisfaction.

Collection and development of reading material or document is the most important activity of the library. Collection involves several kinds of documents like News papers, books including simple books & Reference books, periodicals, government publications, academic thesis and dissertation, research reports, annual reviews, trade literature , maps, globes, pamphlets and new types of document are floppies, compact discs, DVD, audio-visual materials, and also including e-journals is a advance version of periodicals.

3.2.1) Periodicals:

3.2.1.1) Journals:

Periodical is one of the most important sources of information in the library. It carries the latest information in all fields of the knowledge. The persons engaged in research and higher studies want to refer the periodicals to see their findings published and made known at the earliest.

Collection of Periodicals is very important for any academic and research libraries. Periodicals are the primary source of information and awareness and are invariable more up-to-date than those of books. Periodicals are also known as serials, journals, magazine, e-journals etc.

The importance of serials for offering current information particularly to research workers has long been identified. The latest ideas on any subject found in the periodical literature, rather than in a book. Most original scientific work is first published in a periodical.

“ Likewise ‘ serial’ is the term most frequently met with; it is considered by some to be synonymous to, by other superior to and still by other totally distinct from the term ‘ periodical’ Magazine, organ, review, journal and indeed, newspapers are also subjected to terminological chaos ”. ²

3.2.1.1.1) History & Development

The earliest serial were possibly represented some 4700 years ago by the annals transcribed on tombs of the first – dynasty kings of Egypt, who reigned from 2750 to 2625 B.C. According to Suetonius the only known periodical of the classical period was an official gazetteer started by Julius Caesar in 60 B.C. titled under various names such as acta diurna, acta populi and acta publica.

This organ recorded proceedings both of the senate and of the people for publicity. It also covered political affairs, news of the emperor and his family, and daily happenings of all kinds, it ceased in 330 A.D.

The earliest newspaper in China was Ti- Pao. It began as hand written paper during the Han dynasty, which extended from 206 B.C. to A.D. 220. It continued through the era of block printing and into the edge of movable type. The paper ceased 1736 and was succeeded by Ching - Pap. Thus Ti-Pao probably can be said to have become the first true serial.

After manuscripts newsletters came printed ones: The first printed newspaper was Avisa, 'Relation oder Zeitung' which was issued in Augsburg (Germany) the date 15th January 1609. The first newspaper in French was printed in Amsterdam (Netherlands) in 1620. The first newspapers in English came out in Amsterdam from 2nd December 1620 to 18th September, 1621 it is usually bore the title corrant out of Italy, Germany etc.

The first American newspaper appeared in Boston on 25th September, 1609. It was called public occurrence published Benjamin Harris. It was in 17th Century that the scholarly journals made their appearance. It generally agreed that the first learn journal i.e. the journal des Scavans was published on 5th January, 1665 by Denis De Sallo from Paris and it was weekly publication. Three month after the journal des Scanvans appeared the first of the 'Philosophical Transactions of the Royal Society' was published in London.

According to McKie (1948), the journal provided the springboard for the London publication. The transactions provide the classic example of the learned journal, as we know it today: the Journal das Scavans aimed at a large readership. Harff (1941) notes that the learned journals from the very beginning eschewed popularization.

The two above mentioned periodicals were joined three years later, in 1668, by the Giornali di Letterati, which is described by Ornstein (1928) as an imitation of the Journal des Scavans. Third original learned journal was the German Miscellanea Curiosa, a publication of the Collegiums Naturae Curiosum. It used the Philosophical

Transactions as a model and is the oldest periodical which specialized in particular subject.

Soon after this, Germany published *Acta Eruditorum* in 1682, and in 1691, the first “general periodical” or magazine was published in England, entitled ‘The Atlantic Mercury’. In U.S., the earliest known periodical reported to be Keimer’s at Philadelphia, was published in 1724, and few later in 1741, Bradford’s American magazine and Franklin’s journal magazine, made simultaneous appearance. These periodicals may be acknowledged as the forerunners of the modern periodicals. Without doubt, the 17th and 18th Centuries represented a late start of serial of publication 19th century attempts to make good of shortage while the 20th century projects phenomenal increase.”³

Malinowski states that “By 1800, there were approximately 100 research periodicals in the world. By 1900, the number had risen to 10,000 with the addition of abstract journal. At the present rate of growth the number of new research journal doubles every 10 to 15 years.

B.C. Vickery estimates that in 1965 there were 850,000 articles in the 26,000 periodicals held by BLLD. Price estimated in 1963 that scientific journal literature had double every 15 year since 1965. The British Library lending division (BLLD) in 1965 subscribed to 26,335 titles in science and technology. Lancaster estimates that by 1977 some 50,000 scientific journals were being published.

Osborn, using data from the library of congress and not limiting himself to journals or scholarly periodicals says that by 1957, 630,000 serial publications had at some time or place been published since the first printed newspaper in 1609. His estimate for 1971 was 900,000 serials, with projected figure of 1.5 Million serials by the year 2000.

Katz says there are now about 100,000 scientific technical periodical, which publish over 2 million articles each year. Against all these statistical evidences, author Andreola says that between 1970 and 1985 the growth in world wide scientific and technical literature will be seven- fold larger earlier projections. He says that there must be at least 10 million scientists, technologists, and practitioners who contribute to the output, instead of 3 million given in most previous estimates.

Although many forecasters disagree with this belief in all electronic communication world of the near future, there is no doubt that computer and telecommunication technologies are already making electronic publication feasible for some serials.⁴

Pandita in his article explains, “The publication pattern of Hindi, English and Urdu newspaper and other periodicals published in India, along with growth and distribution during the period 1941-2013. In India as on date 37.50% periodicals are published in Hindi language, 14.51% in English and 4.97% in Urdu language. Apart from these 43% periodicals are published in other regional and vernacular languages in India.”⁵

“Technology has affected serials from several perspectives, and its role in the historical development of serials is briefly discussed here. According to William F. Birdsall, by the 1920s, microform technology was “attracting the interest of many of the most innovative librarians, scholars, scientists and engineers”.

Perhaps the most famous of these is the Royal Society of London, founded in 1645 and officially chartered in 1662. On January 5, 1665, a weekly publication called *Journal des Scavans*, considered “the first true scholarly journal” by many authorities, began in Paris under the direction of Denis de Sallo.

The *Chemical Society Journal* started in 1848. The mid -1800s most journals were aimed at specialized audiences of scientists. According to Donald Davinson, the *Edinburgh Review* first published in 1802.

Although the first periodicals disseminated scholarly knowledge, periodicals whose chief purpose was to entertain emerged during the late seventeenth and early eighteenth centuries. The history of magazine publishing in America is usually dated to 1741. On February 13 of that year Andrew Bradford, a Philadelphia printer, first published *American Magazine*, or *A Monthly View of the Political State of the British Colonies*. Important trends in magazine publishing during the 1990s include competitive pressures that in combination with other factors often resulted in declining circulation; decreasing newsstand sales; mergers, acquisitions, and consolidation within the industry; an increasingly international market with separate

language and national editions; and the creation of magazine World Wide Web (WWW) pages ”. ⁶

The first Marathi fortnightly newspaper ‘Darpan’ was started by Balshastrri Jambhekar on 6th January 1832. On 27th April 1832 ‘Darpan’ became weekly, which was having 8 pages and the size was 19x11.5 and 3 months subscription was Rs.6. The said paper was bilingual that is in English and Marathi, which helped scholars to get knowledge in both languages. The main objective was welfare of common man and to educate people with western knowledge and to create public opinion for development of society and region. But it was closed on 26 June 1840. Before ‘Darpan’ was published on 9th July 1828 there was a note in Bombay Gazette”. ⁷

“Register of newspaper for India (RNI), Govt. of India on the record of press in India highlight for the year 2013-14 as given below;

The total number of registered publications, as on 31 March, 2014 is **99,660**. Newspaper category; **13761** and Periodicals category were 85,899. Percentage of growth of total registered publications the previous year was over 5.95%.

The largest number of publications registered in any Indian language (Hindi): 40159. The second largest number of newspaper & periodicals registered in any language (English) was 13,138.

The state of Uttar Pradesh has the largest number of registered publications which is 15209 and the state with the second largest number of registered publications is Maharashtra with 13,375 registration.

The largest circulated Daily: Ananda Bazar Patrika, Bengali, and Kolkata: 11,81,112. The second largest circulated daily: The Times of India, English, Mumbai: 10,26,153. The largest circulated Hindi daily: Punjab kesari, Jalandar : 7,23,862. The largest circulated multi-edition daily: The Times of India, English (29 editions): 47,42,671. The second largest circulated multi-edition daily: Dainik Bhasker, Hindi (35 editions) 35,9,796. The largest circulated periodical: The Sunday Times of India, English/weekly, Mumbai: 10,21,260 and the largest circulated periodical in Hindi: Sunday Navbharat Times, Hindi/weekly, Mumbai: 6,88,330. ⁸

Periodical is one of the most important sources of information in the library. It carries the latest information in all fields of the knowledge. The persons engaged in research and higher studies want to refer the periodicals to see their findings published and made known at the earliest. Various terms are used in the context of the periodicals i.e. serial, magazine, journal, e-journal etc. News paper is also a type of periodicals.

3.2.1.1.2) Newspapers:

Every morning maximum peoples are reading newspapers, to update from all news including in the newspapers, presently newspapers are published in so many languages. All current information about not only research also social problems, environmental, sports and entertainment event also include. So newspaper is the complete mirror of all society.

“A newspaper according to it “is a publication issued at stated and frequent intervals, usually daily weekly or semi-weekly, which reports events and discusses topics of current interests”.⁹

“According to Davidson, “newspaper is a medium of communication usually published daily or weekly by which information on current affairs, opinion and entertaining features are circulated among the people. It intended for the purpose of the swift and accurate dissemination of the latest news and views. It frequently advocates opinions, often contains advertisement and print matter of general public interest”.¹⁰

According to Ranganathan, “Periodical publication of which each volumes made-up of distinct and independent” Contribution not forming a continuous exposition, normally by two or more personal authors and normally the specific subjects and the authors of the contribution, is published in successive volumes also being in general, different but all the subjects falling within one and the same region of knowledge contemplated to be brought within its purview”.¹¹

“The Library of congress noticed the importance of serials in 1946 and began to improve their bibliographic control for an effective country wide service. The following statement was issued by the Library of congress in 1947 in respect of serials publication. Serials publications (including newspapers, periodicals, bulletins, reports,

most Government documents, and books in series), constitute perhaps 75 percent of all publications, an indispensable part from the viewpoints of research. It is in serial publications that advance information and discussion are found; in them are also found the detailed records which support most scientific, legal, and historical study. Attention to the acquisition and recording of serial publications is, therefore, of most importance to every large research library. Because the separate issues of serials cannot be treated individually as books are treated, but must be considered in conjunction with other issues, they represent the form of publication which is most difficult to be control at all stages – acquisition, accessioning, processing, and service.”

Glossary of library terms, e.g., “A publication issued in successive parts, usually at regular intervals and as a rule, intended to be continued indefinitely. Serials include periodicals, annuals (reports, yearbooks, etc) and memoirs, proceedings and transactions of societies”.

Tuttle eulogizes AACR2 for it has defined the term “serial” quite well. The following statement from the code is said to be standard definition: A publication in any medium issued in successive parts bearing numerical or chronological designations and intended to be continued indefinitely. Serials include periodical; newspapers; annuals (reports, yearbooks, etc.) the journals, memoirs, proceedings, transactions, etc., of societies; and numbered monographic series.”¹²

3.2.1.1.3) Magazine:

“A Magazine is defined by the ALA Glossary Library and Information Science as “a periodical for general reading, containing articles on various subjects by different authors”. Times, sports, Illustrated, people, or play boy are example of magazine.”¹³

According to **Gable**, “Without special periodical the scientist would be handicapped by lack of knowledge of development in his field.”¹⁴

“A good college library should also provide selected periodicals and news paper for recreational reading and for information purposes. Some college no doubt to a few news papers, journals and magazines but they do not generally make them properly available to the students for information and research. The literature on serial

publications has grown rapidly in extent and college libraries if they are selected to the needs of the students. One or two daily news papers are also necessary for having current information and also for clipping local periodicals on hobbies and recreation games and sports travel and geography etc. Some educational journals may also be subscribed for use of the teachers. Magazine title should be evaluated every year and new title should be subscribed & old one to be dropped if found unsuitable or less valuable. Some contain article, story, poems by the best writers, some contain mainly trash and many are a mixture of good writing and trash. The librarian should choose carefully out of the magazines available in the library those that are to be read regularly and put aside those that are least valuable to the student.

Magazines appear at regular intervals ranking from once a week. Several issues of magazines, such as all those published from January to December, make what is called value. Magazines holders or protectors should be employed when the periodicals are displayed in the reading room for use of the readers. The magazine parts making a volume should be well bound in to a book, usually with a title page often with an index and preserved in the library for audit and check purposed a separate register maintained, which should contain information regarding periodicals publication subscribed by the college library. ”¹⁵

3.2.1.1.4) Types of Periodicals:

The periodicals contain various types of information i.e. research results, advertising the activities of an institution, firm or industry and entertainment. They can be categorized according to their nature of thought contents, relating to the aims behind the publication and the time schedule required for their appearance.

“According to **Gable** the periodicals can be categorized as under:

- (1) Those intended to foster the interest of knowledge.
- (2) Those intended to foster the interests of a trade, profession or society.
- (3) Money-making ventures (Intended for popular appeal). ”¹⁶

The periodicals can be classified according to their thought contents as follows:

1) Scholarly periodicals:

This type of periodicals includes the research papers and the articles in support of the academic activities of the scholars. Scholarly periodicals are generally devoted

to the educational build-up of the society e.g. Indian Journal of Agricultural science, Indian Journal of social Research etc.

2) Trade periodicals

This type of periodicals is published by the trade organizations, firms and industries for the advertisement of their product. These periodicals focus on the popularity of the trade or the business of the firm's e. g. ESCORT News, Zuari News, etc.

3) Review periodicals

Review periodicals are helpful to the library personnels, book sellers and distributors. They publish the review of the newly published books or periodicals, i.e. Lalit, Book Review, Indian Books and Indian Press Index, etc.

4) Popular periodicals

A periodical publication which is simplified form of Government Department, Society or other corporate body by which it is popularly known e.g. Femina, Dharmayuga, Lokprabha, etc.

5) Magazines

Generally these are meant for the entertainment purpose. They contain the articles on various subjects by different authors e.g. India Today, Imprint, etc.

6) Indexing periodicals

This type of periodicals is fully devoted to the bibliographic information of the book or the articles published in other periodicals, e.g. Index India, Index Medicus.

7) Abstracting periodicals

Abstracting periodicals publish only the abstract of the periodical articles, books, pamphlets, proceedings of seminars, etc. along with the bibliographic description e.g. Horticultural Abstracts, Field Crop Abstracts, etc.

Indexing and abstracting periodicals are very useful for the researcher to retrieve the information on their subject of the interest without loss of the time.”¹⁷

“According to Harvey, There are various types of periodicals that are by their functions or forms;

- 1) Bank Journal
- 2) Computer based Journals
- 3) Current awareness Journals
- 4) Electronic Journals
- 5) Foreign language Journals
- 6) Government periodicals
- 7) Microform periodicals
- 8) Official periodicals
- 9) On demand periodicals
- 10) Reprint Journals.¹⁸

“D.E. Davinson categorizes periodicals into four classes those from learned and professional societies, house journals, “commercial ventures,” and newspapers”.¹⁹

3.2.1.1.5) Frequency:

Magazines, periodicals and journals are published at various intervals. According to the frequency of their publication it may be daily, bi-weekly, weekly, fortnightly, monthly, bi-monthly, quarterly, half-yearly, annual or irregular.

1) Daily:

This type of periodical is published every day. The best example of this type of periodical is the ‘news papers’ they contain the daily international, national, state, regional and local news. Example: Indian Express, Times of India, Maharashtra Times, Lokmat, Sakal etc.

2) Bi-Weekly:

Bi-weekly periodicals are published twice a week.

3) Weekly:

Weekly periodical is publishing on a particular day of a week, i.e. Economic & Political weekly, India Today, Employment News etc.

4) Fortnightly:

This periodical is issued twice in a month at the interval of fifteen days. Ex. Agricultural Science Digest, Krishi Pragati etc.

5) Monthly:

This type of periodical is issued in every month. Twelve issues are published in a year, i.e. Indian Journal of Agricultural Science, NAAC News, Journal of Library and Information technology, DESIDOC Journal of Library & Information Technology, Yojana, Lokrajya, Shikshan Sankraman, and Pratiyogita Darpan etc.

6) Bi-monthly:

Bi-monthly periodicals are published jointly for two months. Yearly volume contains six issues i.e. Agriculture Check list.

7) Quarterly:

Quarterly periodicals are published four in a year and at the interval of three months.

Ex. Dnyngangotri,

8) Half yearly:

Two issues are published in a year. Ex. Crop Improvement,

9) Annually:

Only one issue of the periodical is published for a year. Ex. Year Book,

10) Irregular:

No specific time schedule is allotted for the publication of this type of periodicals. In spite of above types of periodicals; some are published 3 times a year, 7 times a year, 8 times a year, etc.²⁰

3.2.1.1.6) Selection & Acquire of periodical:

The task of acquisition involves careful selection, methodological ordering and regular procurement of materials. While selecting the periodical titles, the librarian has to consider the influencing factors related to the financial position and readers demand. The material can be acquired by means of subscription, purchase, gift, exchange or deposit.

The term 'acquisition' is used for the procurement process of books and periodicals and other reading materials in a systematic manner. The aim of the Librarian while procuring the material should be the best material for most readers at the least cost.

Grenfell suggested the following factors to be considered while selecting the title.

- (1) Financial resources of the library;
- (2) Periodicals already taken;
- (3) The scope of the library;
- (4) Demands of the library;
- (5) Whether the title is easily available.²¹

Tremendous growth in publications, hacking_cost of subscriptions, shortage of funds and financial cuts in the library budget are the major problems in procurement of the periodicals. Therefore it is essential to have a proper title selection policy, identification of core periodicals and relevant reading materials. A basically sound program for serial requires a systematic linking of materials with course work and research policy of the parent system.

Paul-Mayes suggested involving the users in selection policy of the periodicals. He states that: "It is many ways good policy to involve users in selection/cancellation process. It not only leads to a more relevant collection but by involving readers in the decision making process it goes a long way to creating a better understanding on both sides." ²²

3.2.1.1.6.1) Selection of News papers:

News paper covers the matter at different levels i.e. local, regional, state, national and international. News papers are the source of up-to-date news and feature articles of all kinds. Some news paper aims to be comprehensive in their news coverage; some are bias towards education and social affairs. Some are solely concerned with financial information.

The selection of the news papers depend on the reader's interest. In public Library they prefer to have local news papers and some news papers covering the matter at state and national level. In academic or University Libraries they select the

newspapers, which publish scholarly articles along with the national and international news.

3.2.1.1.6.2) Selection Tools for Periodicals:

Periodical selection tools play an important role in the acquisition of periodicals. It facilitates the acquisition of good periodicals. The criteria of standard selection tool are that it should provide regular and up-to-date and maximum latest information on the periodicals published throughout the world. So this is important collection for selection.

“Lakshman Prasad has enlisted some sources which help in acquiring the periodicals.” They are:

- 1) Directories
- 2) Indexing and Abstracting services
- 3) Standard list of periodicals for different types of libraries.”²³

Mittal has enlisted 21 periodical selection tools. Some of them are:

- 1) Ulrich International Periodical Directory, New York;
- 2) World List of Scientific periodicals, New York;
- 3) Willing’s Press Guide: a comprehensive index and handbook of the press of the United Kingdom together with Dominion U.K.
- 4) Nifor Guide to Indian periodicals, 1955-56, Poona.
- 5) British Union Catalogue of periodicals.
- 6) Directory of periodicals, New York.
- 7) A catalogue of German periodicals, London.
- 8) New Serials Titles, Library of congress.
- 9) Overseas Newspapers and periodicals guide book, Europe.
- 10) World List of National News papers, London;
- 11) British National Bibliography, Great Britain.
- 12) Times Literary Supplement, under ‘Current Periodicals Column.
- 13) Bulletin of the New York Public Library.
- 14) College and Research Libraries.
- 15) Nature.
- 16) UNESCO Bulletin for Libraries;
- 17) Stechert Hafner Book News.

- 18) Aslib Information.
- 19) Serial Titles Newly received (Library of Congress)
- 20) Indian National Bibliography
- 21) A new Quarterly proposed to be published by the publisher of "Ulrich's Periodicals Directory."²⁴

There are many selection tools like Ulrich International Directory but there is no standard tool of Indian coverage. A few efforts, like Gidwani and Navlani's "Indian periodical : An Annotated Guide; INSDOC Guide to scientific periodicals, Reports of the Registrar of News papers (vol.2), Accession List: Annual serial Volume, and Indian periodical Record etc. are available.

"It must be the duty of acquisition librarian to tap all resources of information about serials that have just appeared or are forth coming. For this purpose he should:

- 1) Examine accession lists of other libraries
- 2) Go through trade and national bibliographies systematically.
- 3) Keep his ears to the local media; consult colleagues and specialists for hints of new titles.
- 4) Look for new works in abstracting indexing services.
- 5) Scan notices and reviews in journals.
- 6) Take counsel with selection officers in neighboring libraries.

It is thus essentials that a body of standard periodicals selection tools be acquired regularly and kept up-to-date so that maximum latest information can be had without much difficulty. The following are some of the important profession tools which should be kept in well established library.

- 1) The IMS directory of publications (formerly Ayer directory of publication) for Washington, Pennsylvania: IMS press, 1880 to- date annual.
- 2) Directory of Canadian scientific and Technical Periodicals Standard Periodicals.
- 3) Guide to Current Periodicals, London.
- 4) Irregular Serial and Annuals, New York.
- 5) Katz, Bill and Gargel, Berry, Magazines for Libraries for the general reader and public school, junior colleges and college libraries, New York.

- 6) New Serial Titles, Washington.
- 7) Standard Periodical Directory 1964 to-date, New York: Oxbridge, Biennial.
- 8) Stewart, J.D. and other, eds. British Union Catalogue of Periodical, London.
- 9) Ulrich`s International periodicals directory; A classified guide to a selected list of current periodicals: Foreign and domestic. 29th Edition New York, R.R. Bowker, 1990.
- 10) Willing` Press Guide, London.
- 11) World list of scientific periodicals. New York.
- 12) Ulrich`s Plus. It is complete international database on CD ROM disc. Gives access to complete Ulrich`s and irregular serials and annual database. Comprises more than 92,000 irregularly issued periodicals plus 46,000 irregular serials. Enables to explore database with 22 search categories and allows access by titles, by editor, first year of publication. Provides key word searching, boosting Ulrich`s 534 subject categories etc. (annuals).”²⁵

3.2.1.1.7) Serial Acquisition:

“Serial acquisition and ordering is the most difficult phase of serials management. A number of channels and alternatives are found in the field. To obtain periodicals through appropriate channels is the responsibilities devolve not only on the librarian but also on those who are engaged in library management.

Basically there are six means of acquiring periodicals to libraries

- 1) By purchase from a local book shop or news agents.
- 2) By subscriptions to publishers of the periodicals who mail copies directly to the libraries.
- 3) By dealing with vendor/ agents.
- 4) By taking up membership of the learned society or professional body.
- 5) By gift.
- 6) By exchange programme.

1) **By purchase from local suppliers:**

Local suppliers although accept responsibilities to supply periodicals seldom render good job. Worst happen when they are invited to bid for the supply contract. Local suppliers are also found who offer small discount on the cover price of certain periodicals on the condition that a certain amount of lucrative book business is given to them. A supplier giving a poor service wastes time and energy of the library staff for outweighing the discounts obtained.

2) **By subscription:**

More often libraries prefer purchase periodicals direct from the publishers who accept subscription and mail copies at the basic subscription prices. The subscription to periodical is generally paid annually in advance, the reason being that the publishers want to be sure as to how many copies would be consumed in a particular year.

Disadvantage:

There are some disadvantages in dealing with the publishers. It is argued that direct ordering costs more to the libraries because postal charges will increase as for each item a separate letter will have to be written. Also bills are not received for many months from the publishers despite requested many a time. A lot of time is taken by the banks in preparing the drafts for remittance. It will also need more staff members to deal with this increased correspondence. But the experience says that this cost is worth the return that we get in the form of satisfaction to the readers.

3) **By Dealing with Agents:**

The agents accept the whole responsibility for the supply of periodicals to libraries from the initial placement of order to the renewal of subscription, and the payment of multiplicity of invoices in a variety of currencies.

4) **By Becoming Members of Learned societies:**

Some periodical are received by a library in lieu of payment made either by the library or its parent body to various learned and societies and organization a membership fee. These societies generally publish one or more regular publications for keeping their members and the concerned professionals in touch with their

activities, programmes and achievements. These publications are generally received by the library without paying any extra amount.

5) By Gift:

Some publishers also supply some of their publications especially new ones so that these may be popularized. Some organizations, including libraries, offer as gifts duplicate copies of certain periodicals. One of the important functions of UNESCO's Clearing House for Publications. Similarly 'ASLIB Information' and 'Library Association Record' publish lists of periodicals, which are spare with certain libraries for disposal to those libraries which are ready to have them. But before accepting the gifts, it should be ascertained as to whether the material in question is of any use to the patrons of the library in question or not.

6) By Exchange:

"The UNESCO Bulletin for Libraries" publishers under the heading "Exchange" the list of many periodicals which can be had in exchange. UNESCO has again done an enviable job by publishing a "Handbook on International Exchange of publications, Paris, UNESCO." ²⁶

"The periodical and magazine can be acquired by any one or more of the following methods. Mittal has suggested following methods of the procurement of periodical.

- 1) Subscription.
- 2) By becoming a member of societies and learned institutions.
- 3) By Gifts;
- 4) By Exchange." ²⁷

3.2.1.1.8) Records:

Different methods are used for the recording of the receipt of the periodicals, the most common are:

- 1) Register system
- 2) Ledger system
- 3) One card system
- 4) Three card system
- 5) Kardex
- 6) Computerized recording

1) Register System:

Many libraries use register for recording the receipt of the periodicals issues. In this method one page is allotted for recording many periodicals. In this system, the monthlies, quarterlies, half-yearly are recorded on one page. The information regarding the title, volume, year, publisher Supplier, period, subscription, bill number and date are given on the page. The system is not useful for recording number of periodicals. It is useful where the number of periodicals is limited. The periodicals are entered in the register in an alphabetical manner or according to their frequency of publication.

The specific printed registers for the recording of the receipt of periodicals are available for sale with standard library material suppliers. In this register a particular page is allotted for one title. The columns for the detail information about the periodical are provided in the register. It is essential to provide an alphabetical index to the register referring to the page number of the register allotted to the periodical.

Name of the library _____ Place _____

For the year _____

Sr. No.	Title	Vol. & Year	Publisher	Vendor Or Supplier	Period: Jan-Feb...-Dec.	Subscription, Bill No. Date	Remarks

2) Ledger System

The ledger system is somehow similar to the printed advanced register system. In this system the periodical issues are entered in a permanent ledger in an alphabetical manner or in a numerical manner and an index of the periodicals is given in the beginning of the ledger. Each page contains the following information. The specimen page of such a ledger may be as under;

Name of the library _____ Place _____

Title _____ Frequency of publication _____

Publisher _____ **Supplier** _____

Subscription Amount _____

Year & Vol.	Jan.	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Bill No. & Dt.	Remarks

3) One Card System

“One card system may be followed by libraries subscribing to about one hundred periodicals. If the number goes beyond this limit, this system may not be suitable. In the one card system, blank cards of 6”x 4” are used for recording of the receipt of the periodical with the following columns are got printed beforehand.” It also contains additional information like reminders sent, claims made etc. Both the sides of the card are used for the recording of information. All the cards are arranged alphabetically in one sequence.

Specimen of the card used in the one card system (Recto)

Name of the library

Place

Title

Frequency/Periodicity.....

Publisher

Supplier/Vendor.....

Vol. & year	Jan.	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Rem-arks

(Verso)

Title

Vol. & year	Subscription amount	Bill No. & Date	Voucher No. and date	Reminders sent	Bound upto...	Remarks

4) Three Card System (Dr. S .R. Rangnathan)

Dr. S.R. Ranganathan has introduced three card systems for the recording of the receipt of the periodicals in the library. In this system three different cards of the size 5"x 3" are used, they are called Register card, the check card and classified index card. Specimens of cards used in Three Card Systems.

4.1) Register card

This card is prepared in the name of the periodical and arranged alphabetically in a tray. The card consists of the information on title, publisher, vendor, class number, periodicity, order number and date, note, volume and year, voucher number and date of payment annual subscription, volume and issue number date of publication and date of receipt. The complete information about the subscription payment can be seen at a glance.

Register Card					
Title Vendor..... Class No. Period in weeks Order No. Grace week And Date				Payment	
				Vol.or year	Voucher No. and Date
				Annual submscription	
Vol. and No	Date of publication	Date of Receipt	Vol. and No.	Date of publication	Date of receipt

4.2) Check card

Check card is the most important card which facilitates the checking of the receipt and non-receipt of a particular issue. It consist information on title, periodicity, volume and issue number / date of reminder, initials of the Librarian.

A check card is prepared for each of the periodicals ordered. The cards are divided into 60 groups considering 5 weeks in a month, 60 guide cards are also prepared.

The guide cards are arranged by numerical order. The check cards are arranged in a tray behind Guide Cards indicating the expected week of its receipt.

When a new issue of periodical is received, its check card is located from behind the appropriate week Guide. The receipt of the issue is recorded in the column and the check card is removed to the next week guide card when the next issue of the periodical is expected.

At the end of every current week the check cards remaining behind the corresponding week guide will be of these periodicals which are overdue. The reminders will be sent to them.

CHECK CARD

Heading

Period

Grace Week.....

Vol. of issue	Due week	Week of Rem.	L's initials	Vol. of issue	Due week	Week of Rem.	L's initials	Vol. of issue	Due week	Week of Rem.	L's initials	

4.3) Classified Index Card

The Classified Cards provide additional information to a reader by making it easier to know as to which magazines on a particular subject are received in the library. It further facilitates a reader to know as to the periodicals holding of a library including the cumulative indexes, supplements etc. These cards are arranged in a classified order.

Classified Index Card

Class No.	Annual subscription	Per. In week.
Title		
Vendor		
Publisher		
Vol. available		
Indexes, etc.		
Supplement, etc.		

Advantages of three card system

Many qualities have been seen in the three card system. It enables one to be vigilant about the non-receipt of expected issues. The reminders can be sent in time with least efforts. It enables one to find out quickly which the latest issue of a periodical is and when the next issue is due. The methods save the time, money and efforts of the staff. It is comprehensive and self-sufficient system.

It provides both the alphabetical and classified approach. The total collection of a particular periodical can be ascertained at a glance.

5) Kardex

Kardex is a steel apparatus specially manufactured by “Remington Rand of India” for the recording of the periodicals. The Kardex cabinet is approximately 10½” (broad) x 24” (deep) x 20½” (high). Each unit consists of 7 trays, holding 504 card holders with sliding dust cover and locking device. For each periodical there are two cards namely bottom card and top card for the complete processes about recording.²⁸

Following job is performed in the three card system.

- Receiving the mail.
- Checking the address on the wrapper.
- Returning the non-relevant mail to the post.
- Opening the pockets belonging to the Library.
- Arranging all the issues of periodicals alphabetically.
- Taking out the relevant Register card of the periodical from the tray.
- Making entries in the column of volume and number, date of publication and date of receipt.
- Putting the date of receipt on the issue of the periodical.
- Filling the Registrar card in the alphabetical sequence.
- Taking out the check card from the guide card sequence.
- Writing the due week of the next issue in the check card.
- Refilling the check card behind the next due week guide card.
- Putting ownership stamp on the issue.
- Taking out the classified index card from the classified sequence.

- Taking necessary entries on the classified index card.
- Refilling the classified card in the sequence.
- Displaying the issues.

3.2.1.1.9) DISPLAY OF CURRENT ISSUES:

“The Principle methods of displaying or shelving of periodicals according to Davinson are review here under:

1. Display alongside related subject on the book shelves
2. Display in separate sequence or sequences are but close related subject in a book sequence.
3. Display in classified sequence parallel to the book sequence but in another part of the room as a separate display feature.
4. Display in an alphabetical sequence according to titles of the periodicals.
5. Display in separate periodicals room, the sequence of periodicals either alphabetic by title or in subject group”²⁹

All the issues of the journals are displayed soon after its registration, on the periodical display racks so the proceeding issues are replaced with the new ones. The former issue may be sent to the department concerned for readily available.

3.2.1.1.10) CIRULATION:

In college and university libraries there is comparatively little circulation of current issues except among library staff for official purposes. The reasons for noncirculation are, firstly the tie-in with abstracting and indexing services and secondly conservation of stock for binding. Some items may circulate by way of exception only. Again, photo coping facility has reduced the need for item in the periodical room to circulate. However if they are loaned, the period does not go beyond three days or in some cases a week.

Advantages of periodical circulations:

Arguments in favour of circulation are reviewed as under:

- 1) If books are lent, periodical should also be loaned.
- 2) The research staff is too busy to be able to spend much time in the library and senior staff in particular must be available in their office or laboratory in case they are required.

- 3) Current literature can only be read or scanned by busy people in odd moments or during leisure hours.
- 4) The distance from the library prevents some people from using it regularly.
- 5) Small library have not sufficient reading room.
- 6) Material must be provided to the readers rather than remain unused, but available, on the library shelves.

Disadvantages:

The following arguments are equally valid against circulation:

- 1) Research staff should be made to realize the value of a visit to the library to browse and see other accession other than journals, and to make contact with the staff.
- 2) If current journals are circulated and no duplicate copies are received, the current numbers will inevitably not be available for other readers in library.
- 3) There will be delays, possibly of several weeks, before request for ordinary borrowing can be met.
- 4) The loan of journals to others not on the circulation list is a common failing and adds to the delay making it difficult to trace issues quickly and often resulting in lost copies.”
- 5) Failure to pass journals along within a specified time adds to conclusion, unless they are passed to each person on the list by the library itself, which is often an involved process.”
- 6) The duties connected with circulation with occupy as much as 25 per cent of working day of one member of the staff in an average library and in some cases circulation is full-time job. Often special messengers are employed to deliver journals at the residence of academic lords/member of the committee or “so-called” leaders of library profession in Pakistan. The librarians who deny this prerogative to the above high are risking their career. “³⁰

3.2.1.1.11) Preservation:

“Preservation is not an antiquarian exercise for keeping objects from the past simply because they are old. It is a managerial tool for making information available to users. The basic issues of the preservation policy can therefore best be stated in terms of the intended or predicted use of the materials. One can reduce these issues to three fundamental questions:

- 1) What is to be preserved?
- 2) For how long is it to be preserved?
- 3) By what means is it to be preserved?

If the collection to be properly developed and managed, there must be a process of selection for preservation.”³¹

However, there is no easy answer, and even major researches libraries are initiating to reconsider their commitment to total preservation. The objective of the preservation policy is to make information available to users by selecting for preservation the material in which information is stored.

“Deterioration is the process by which library material is damaged, destroyed or decayed by means of various factors like environmental, biological, chemical etc. Repair and restoration is also a part of preservation & conservation that is basically concerned with the already damaged or affected library material. It is our responsibility to create user - friendly environment and preserve library material for future generation.

In general ‘Conservation’ and ‘Preservation’ word are used synonymously but they are the two different aspect of the same coin. Preservation deals with the regular maintenance aspect whereas conservation deals with remedial treatment.

- 1) Environmental factors: Environmental factors are responsible for decay and deterioration of library material by two ways. First the environmental factors directly cause the deterioration under extreme condition. Secondly the environmental factor indirectly responsible to cause and accelerates the chemical and biological deterioration and damage.
- 2) Biological factors: Almost all libraries materials are prone to be attacked by groups of micro-organism insects and rodents. Very often library collections are damaged by pest and the phenomenon is generally known as bi-deterioration.
- 3) Chemical factors: Chemical deterioration is the most damaging and destructive conditions for the library material. It can be the internal which exists within element of the physical composition of library material or external that is more or less visible.

- 4) Other factors: Human involvement in causing deterioration and even destruction of library material is arguably one of the major factors.

Library materials represent the lifelong labors undertaken by philosophers and scientist. It is one's responsibility to create user friendly environment and preserve library material for future generation. After all one can say that if we want to fulfill the five laws of library science and satisfy our user it is necessary that document is in good condition. ".³²

3.2.1.1.12) Periodicals Binding:

Periodicals constitute a very significant part of library collection, especially research libraries and university libraries. The binding of these materials in a research library represents important elements of conservation. They should be carefully checked at intervals all through the year for completeness and due care should be taken to obtain for every periodical regarding its title page, contents and index from the publishers when available. The checked sets may then be bound according to the use anticipated. The advent of their wear and tear is comparatively less. Thus libraries can save space and money by going in for light storage binding that is a cloth binding with boards of strength adequate to save unnecessary expense. It is not advisable to bind permanent materials which are fragile, rare items, archives and newspapers. For their protection, they should be laminated. File envelopes and specially sized flat storage boxes are more suitable for archival material. Special collections, rarities and other beautiful works may be bound with special 'fine bindings'.

Microfilming offers the best available solution to the problem of conservation of newspapers. Newspapers can be bound in canvas covers or in an economy-binding consisting of stout boards covered with a paper like material with cloth or leather spines.³³

The accessioned journals are sent for binding. Generally the journal has a half-leather binding. The bulky volumes are bound in parts; one volume may have two three or more parts as the case may be. The bound journal bears name of the title in brief, year, vol. No. and the part (if any).

"Binding is major and labour-intensive operation in many libraries. During-1995-96. Association of Research Libraries (ARL) libraries spent more than \$ 25 million on contract binding of which approximately two-thirds was spent for serials. This section addresses the processing aspects of binding after the collection

management decision to bind a particular title has been reached. The discussion assumes that serials are bound at a commercial bindery rather than in house.

A binding schedule should be established for each title. Most periodicals are bound once a year, when a complete bibliographical volume is bound as a physical volume frequently issued titles that will be bound in more than a single physical volume may be sent to the bindery two or more times per year. Some libraries avoid sending the most recent issue to reduce pattern inconvenience. Instructions on the binding schedule and binding requirements for periodical titles can be kept in a check-in file, a bindery file, or an automated system. Some automated system contains a “Binding Information File” that serves as master files pertinent binding data.”³⁴

3.2.1.1.13) Furniture:

The needs of furniture and equipment of individual departments and sections should be given careful consideration so that the users and the staff experience ease, comfort, convenience and efficiency in their work. Generally library furniture is of two types wooden and metal. The standard furniture is usually made of metal whereas the ordered furniture is made with wood. These days some firms have also started manufacturing plastic furniture for the libraries. It is advisable to visit some good libraries and some manufactures of library furniture before deciding on the type of furniture to be ordered.

Three important criteria for selection of furniture are function, maintenance and appearance. Various kinds of furniture required for a library are stacking room racks. Periodical display rack, Cupboards, Display unit (Both side) Bulletin board, Card catalogue cabinet, Charging desks, Newspaper stand, Pigeonhole rack, Notice board for current issue, Book/Periodical Trolley and some special furniture items in Steel, Wooden, or Fiber etc., for sitting purpose, tables and chairs for the staff and the users are also required.

3.2.1.2) Electronic Journals (e-journals):

Several traditional journals are now being published both on the web and in print. Online subscription of e-resources is becoming very popular now a day. Many of the libraries are going on for such subscription.

“The arrival of electronic publishing is the fourth revolution in the means of production of knowledge after spoken language, written language and the printing press. Although information in electronic format was created with the advent of the computer in the 1950s, commercial publishers have occupied a major part of the market. The first prototype e-journal was during 1990 to 1995, mainly dominated by non-profit making group who were exploited the technology of their own sake.

Over the last few years, Internet has revolutionized the ways by which librarians can provide information sources and services to their users. The use of internet in the libraries is rapidly increasing and is changing the traditional functions and services of the libraries as well as role of the librarians.

The advent of computer, networking, internet, it is possible to access information sources from anywhere at any time. Many digital libraries, publishers and organizations provide access to their online information sources and are available on other networks due to developments in ICT. Authors and publishers are also much in favor of making available their articles online for free, because studies have shown that online accessibility of article have dramatically increased their citation, increasing the journal’s impact factor and the author’s prestige. Electronic publishing become more than a novelty.³⁵

“Electronic resources play a vital role in every field of knowledge more so in science and engineering studies. Electronic access to journals as becomes important and valuable tool for researcher, student and faculty. The user community is becoming more and more familiar with these tools and now they have started using them very regularly, which in turn enhanced the academic and research output many fold.

In India, the Ministry of Human Resource Development (MHRD), has set-up the “Indian National Digital Library in science and Technology (INDEST) Consortium” and UGC has started UGC-INFONET. The UGC INFONET Digital Library consortium, one of the largest consortium in India, on the recommendation made by the Expert Group appointed by the ministry under the chairmanship of Prof. N. Balkrishan, was launched in December 2003 by Dr. A.P.J. Abdul Kalam, the then President of India to support education and research in universities. Access to resources is now considered more important than collection building, especially if the

access is perpetual in nature. “The INDEST Consortium would, directly or indirectly, benefit most of the engineering and technical institution in India. The consortium has recently been renamed as INDEST-AICTE Consortium. The INDEST-AICTE Consortium is the most ambitious initiative taken so far in the country”.³⁶

3.2.1.2.1) Definition of ‘Electronic Library’:

According to the AACR-2 (2002 rev.), an electronic resource is “Material (data and) or programme encoded for manipulation by computerized device. This material may require the use of a peripheral directly connected to a computerized device. (e.g., CD-ROM Drive) or a connection to a computer network (e.g. The INTERNET)”. This definition does not include electronic resources that do not require the use of computer. For example, music compact discs and video discs.

An electronic library is a library in which collections are stored in electronic formats (as opposed to print, microform or other media) and accessible by computers. The electronic content may be stored locally or accessed remotely via computer networks”.³⁷

3.2.1.2.2) Types of Electronic resources:

“There are two main categories of electronic resources, determined by their physical format- 1) Direct access resources 2) Remote access resources.”³⁸

Types of Electronic Resources:

The following are the main types of electronic information sources:

- 1) CD-ROMs
- 2) DVDs
- 3) Electronic Journals
- 4) Electronic Databases
- 5) Electronic books
- 6) ETDs (Electronic Theses and Dissertations)
- 7) Digital Libraries
- 8) Internet Resources
- 9) Electronic mail Data
- 10) OPAC
- 11) Institutional Repository Systems.”³⁹

“Electronic journals are increasing day by day. Today’s the changes are taking place in infrastructure of libraries due to electronic journals. E-journals are powerful tools for research students in academic libraries. Information from e-journals can easily, quickly, pin-pointedly and remotely be retrieved, provided the journals are available in electronic format. Electronic journals are often referred to interchangeably as ‘Electronic serials’ ‘Online journals’ and ‘Electronic periodicals.’

In recent years, electronic journals have grown explosively, as have a variety of other electronic phenomena- including listservs- that have some of the characteristics of a serial. Accordingly, several important definitions should be addressed. What is an electronic serial? Are all titles termed “electronic journals” genuine serials? Is a listserv a serial? No generally accepted standard definition exists for electronic serial publications.

The terminology itself and the definitions have varied over time. Before the terms electronic journal and e- journal came into vogue, a variety of terms, including the “virtual journal,” the “paperless journal” and the “online journal,” were used.

Other Definitions:

According to D. Scott Brandt (1992):

“In its broadest definition, an e-journal is some grouping of information which is sent out in electronic form with some periodicity.”

According to other definitions, an electronic counterpart of a print journal is not considered a genuine electronic journal.

Marian Dworaczek and Victor- G. Wiebe:

“Consider a true e-journal to be a serial whose creation and distribution to the public entirely in electronic format.”

Tom Moothart:

“Those titles only available electronically “and uses the phrase “online journal” for “titles that have a print counterpart.”⁴⁰

According to Harrod's librarians Glossary:

“A journal for which the full end product is available on optical disc, over a network or in any other electronic form is called an e-journal”. Strictly, a journal in which all aspects of preparation, refereeing, assembly and distribution are carried out electronically is e-journal.

According to Online Dictionary of Library and Information Science:

“A digital version of a print journal or a journal-like electronic publication with no print counterpart, made available via the Web, e-mail or other means of Internet access is called electronic journal”.⁴²

E-Journals are Electronic versions of printed journal that can be reviewed online via any PC connected to be internet. Information Technology has made it possible to access online many of the research journals. Now a day E-Journals become a major information resource for each and every discipline. E-Journals play a vital role for scientific research and development. E-Journals may be defined as any journal, available over the internet in electronic format. These are accessed through Gopher, FTP, Telnet and email or discussion list. It was until the early 1960s that the first data base suitable for searching was developed. MEDLARS were the first on demand computer based information retrieval service. In 1971, MEDLINE, the online version of MEDLARS, was the first major online dial up database search service. In the following year, DIALOG offered first public online commercial online database. The technology of the 1980's namely CD-ROM technologies help a lot in electronic publishing.

3.2.1.2.3) “Three types of electronic journal are available:

1) Online e-journal: These types of e-journals are available through online hosts such as DIALOG etc. These are basically the online versions of the print journals.

2) CD E-Journal's ROM: E-Journals are usually full text of individual or collected journals in a variety of subject. These are full text journals published and distributed on CD ROM media periodically.

3) Network E-Journal: Network based e-journal is based on mailing software all client/server computer applications includes www and gopher. First generation of

e-journal is ASCII text files and either HTML or www to disseminate specially formatted files. These are networked electronic journals published and distributed via the internet.

3.2.1.2.4) Advantages of electronic journals:

1) Speed:

Articles can be put on the web as soon as they are ready, without having to wait may be months for a space for journal issue. This all means that the information is much more up –to-date than can be achieved.

2) Easily searchable:

Search ability is one of the core advantages of a digital format. Hitchcock et al. (1998) argue that the easier it is to find research, the fewer duplicated experiments there will be, resulting in less wasted time. However, Missingham (1999) raises the problem of information overload, with information easier to find, there will be much more to read and deep up-to-date with.

3) Interactive:

Articles can be read, commented on by the journal's readers and amended much more quickly than can be done with print. The ease with which e-mail can be sent, or forms filled in means that there can be much greater feedback through the web.

4) Accessible:

Several people can read an issue at once and also different layers of access can be given into different people with little extra effort.

5) Links:

Links are the mainstay of the hypertext format and should be exploited. Not only can papers link to those they have cited, but with a bit of effort, they can be linked to those that cite them.

5) Added value:

There are various advantages of web to add value, for example by using animation, virtual reality and interactive mathematical charts and also a large amount of supporting data can be linked to from the article if the reader wanted to look more deeply into the results.

6) **Expensive:**

There are 100% saving in open access e-resources over print costs.

7) **Flexibility:**

E-journals being able to evolve quickly as they are not tied to a format, printer or distribution network.

8) **E-magazines:**

An online magazine is a magazine that is delivered in an electronic form. An online magazine may be online – only, or may be the online version. E-Zine means electronic magazine about it is also called web-Zine. The articles that are store of a file server may be distributed or accessed via a computer network.

9) **Newsletters and Other E-Resources:**

Newsletters are provided to give you direct access to the information in which you are most interested and other E-Resources include Bulletins, Reviews etc.”⁴²

3.2.1.2.5) E-Consortia in India:

“Due to financial crunch and the rising cost of journals, many Indian university and college libraries cannot subscribe to all the required journals and databases. To overcome this problem, libraries are forming consortia. Consortia in India are still a new concept that requires proper guidelines and methodologies. In a survey by UGC in 2001, it was noted that although 142 university libraries had computer and internet facilities and were interlinked to INFLIBNET, they were subscribing to printed journals only. In order to enhance the e-resources access, UGC launched a major initiative called UGC-INFONET that provides high speed internet connections so as to have electronic access to library databases and resource sharing and provide high speed internet connection to users. In specific this has electronic access to professional literature including research journal, abstract, review, publication and databases from all area in science and technology, as well as in social science and humanities.

Besides this, the Ministry of Human Resources development (MHRD) has said up the “Indian national digital library in science and technology” (INDEST) consortium in 2003. The ministry provides funds required for the subscription to electronic resources for 38 academic institutions, including the Indian Institute of Science, IITs, Regional Engineering colleges, IIMs and about 60 central funded/aided

government institutions through the consortium. The INDEST consortium is the most ambitious so far in the area of engineering and technology discipline.”⁴³

3.2.1.2.6) Threats to e-journal's content:

3.2.1.2.6.1) Technological obsolescence:

“The physical media of digital information is vulnerable to fast damage; the format of e-journals may get lost forever. Even the technology which is used to store e-journals may become obsolete. The functionality which is required to access, browse and use information of e-journals may get lost. If the functionality of specific hardware and software is not available, the content cannot be used.

3.2.1.3) Print vs. online:

In good old days libraries used to subscribe print journals. Bound volumes of these journals are still available with many libraries in India. E-Journals are convenient for the users to browse and access economical in terms of management cost and storage space. But there are many problems and challenges associated with e-journals. The digital information which is contained in electronic journals is very fragile, JaJa and Song (2009) have clearly stated that digital information is very fragile and can be lost easily due to hardware and software obsolescence and frequent upgrading. The varieties of nature-fires, floods and hurricanes can also lead to loss of data.

In print environment, there is no distinction between preservation of journals for present or future use. There is lot of replication and redundancy in journal collection as many libraries subscribe and purchase the same journal titles. The copies of journals being saved for future generations are the same copies which are being used and read by the current generation of users. In print, most of the activities like binding, repair, handling and shelving which are routinely followed for maintaining journals and serving current generation of users also ensure their preservation and availability for use by future generations for next 100 years or so. In online environment, hardly any library actually holds digital copies locally.”⁴⁴

The speed of technological development has affected every aspect of library operations and services. In general, e-resources are subscribed and made available on

the campus network and or wide area network which are IP enabled. There is need to define the authorized user in order to prevent the e-resources from misuse.

“Ballary Ravi N. in his article explain the following the advantages of e-journals and type of e-journals.

3.2.1.3.1) Advantages:

- 1) No physical boundary.
- 2) Round the clock availability.
- 3) Multiple accesses.
- 4) Information retrieval.
- 5) Preservation and conservation.
- 6) Space.
- 7) Added value.
- 8) Easily accessible.

3.2.1.3.2) Types:

- 1) Free e-journals
- 2) Paid journals
- 3) Free access to e-journals with print journals.”⁴⁵

3.2.1.4) SERVICES:

Some services are very important for research students specially related to traditional periodicals to advanced e-journals. University and some college libraries provided following services:

1) “Electronic reference service:

Reference service can be defined as a way of establishing contract between a user and his/her document in a personal way. Almost all reference sources are now available as electronic reference sources such as electronic /online.

2) Current awareness service (CAS):

CAS is service to make the users aware of the availability of recent publications. CAS can be a list of journal titles or contents of periodicals or a list of newly arrived document. The libraries announce regularly the list of new additions of books, list of periodicals and current contents of periodicals to provide this service.

The role of library and information personnel in CAS/SDI is slowly fading as the information could be accessed directly from publishers and through networks.

3) Selective dissemination of information (SDI):

H.P.Luhn, who first gave the concept SDI service, define it as “the SDI is that service within an organization which concerns itself with the channeling of the new items of information, from whatever source, to those points within the organization where the probability of usefulness, in connection with current work of interests.

4) Electronic databases:

The Electronic Library allows users to access internet and get the relevant information of their interest. Different abstracting and indexing journals are now available on CD –ROM; for example; Library and Information Science Abstracts (LISA), Indian Science Abstracts (ISA),etc. The libraries those have infrastructure to use CD-ROM/ DVD provide this service to the users.

5) OPAC:

An Online Public Access Catalogue (OPAC) is a computerized online catalogue of the materials held in a library. The library staff and the public can usually access it on computers within the library, or from home via the internet. OPAC are often part of an integrated library system. The libraries which have computerized their collections are now providing access to their collection view Web OPAC, an online version of OPAC.

6) Online resources :

Many bibliographic and full text databases are now available online to library users to access them either from library, department, home or any other place.

7) Inter library loan services:

Inter Library Loan refers to request for a document not available in a library. The union catalogue of books and journals used to serve the purpose of locating documents. Now OPAC/ Web OPAC paved the way to promptly locate the documents and procure it or its electronic version through scanning and sending it as email attachment.

8) Newspaper clippings:

Library subscribes to all well known news papers and also provides Newspaper Clippings services, it include cutting of the important articles, issues published in news papers and make it available according to date or alphabetical order. In the present electronic environment, libraries also provide the same information through their network by scanning each and every important articles, issues etc.

9) Reprographic service:

The art and method of document reproduction broadly defined as 'Reprographic methods' which have come to stay as basic necessity in every aspect of modern life, more so in the field of communication and dissemination of information. The information about cost per copy and the materials, which can be photocopied (free from copyright act), etc. are some of the information are of utmost concern to librarians and libraries.

10) List of new arrivals:

List of new arrivals is compiled every week or may be fortnightly and distributed over the Net in addition to a print version. While all bibliographic information is added, in some cases a hyper-link to the cover pages (scanned Image) is also provided to the end user. The users need not enter the library as many digitized documents are available through Internet.

11) Current periodicals list:

Current list of periodicals is compiled every year and distributed over the Internet in addition to a print version. Now-a-days, many publishers are providing access to their online version of their journals, if the print version is subscribed.

12) Translation service:

The literature is available in different languages other than English. But the users are familiar with one or two languages. So the literature available in other languages is unknown to the users. To make available the non-English literature to the users, libraries arrange translation services. As machine translation has become order of the day, the translation services are provided easily for non-technical subjects. Electronic libraries play a great role in providing translation services to user community.

13) Bibliographic service:

A bibliography is an organized list of primary or other sources relating to a given subject or person. It is usually arranged alphabetically by author or chronologically or by topic-wise. Electronic libraries can compile the bibliographies easily as document references are available from OPACs/Web OPACs websites, online databases, digital repositories, institutional repositories, ETDs etc. Even the bibliographic service can be provided instantly.

14) Document delivery service:

In this service either the original document or its copies or translations are delivered to the users on demand. In this age of technology, the form of document delivery service has changed. The document is supplied or delivered in electronic form to the users. It may also include a form for requesting a book, a journal or a chapter of a book, to use Document Delivery Service.”⁴⁶

3.2.1.5) Facility & Security:

Every college libraries provides best facility for quality maintenance and attract to students. Some example is as given below;

- 1) Telephone & Intercom.
- 2) Teleconference.
- 3) Chatting on internet.
- 4) Over Head Projector.
- 5) Photo camera & Digital camera.
- 6) Fax.
- 7) Xerox machine.
- 8) Invertors.
- 9) Water filter.
- 10) Air cooler.
- 11) Canteen in campus.
- 12) Suggestion box (Complain box).
- 13) Vacuum cleaner.
- 14) LAN, WAN, MAN.
- 15) Wi-Fi etc.

The security of materials and information in library is quite essential. Now day's maximum libraries are adopting new IT with related equipment & techniques for the best of library management. Facility and library related security is important to supporting part of the best management of any college library.

3.3) Financial Management:

Budget for college library is an important factor for the overall development of the library, without funds neither library nor institute can do progress.

According to Webster's Seventh News Collegiate Dictionary, Budget is "a statement of the financial position of a sovereign load for definite period of time based on estimates of expenditures during the period proposals for financing them."⁴⁷

Simply budget or finance is an estimate of revenue and expenditure also budget is estimate or probable future income and expenditure. Provision of funds is need for college library development and financial management is more important for accurate & proper progress. Allocation of budget is an important aspect of a successful budgetary procedure. The success of a library budget largely depends upon the sound principles of allocation of budget to the different heads. The following are the approved items of expenditure from library fund; books, periodicals (learned journals, newspapers, magazines and e-journals) furniture, binding, library accessories and stationary etc.

The funds provided for the purchase of various types of library resources would in a very large measures determine the quality of the library resources. The library budget should be determined in relation to the total budget of the college. A minimum of four percent (4%) of the total revenue budget of the college including salaries should be a allocated for the library for the purchase of books, periodicals and other serial publications and binding. A suitable proportion of the budget should be earmarked for the purchase of periodicals in the case of all colleges; it should not be less than twenty-four percent of colleges offering post-graduate courses. This does not include expenditure on books and journals for the institution of new courses.⁴⁸

3.4) Human resource management:

The college libraries expressed the employees specially needed for library assistant, technical assistants with computer. "Any organizational which may be large

or small requires the services of personnel. Library staff helps the management in achieving its objectives. It gives the right timely suggestion for the welfare of the institution. Mooney has rightly said that, “A staff is an extension of responsibility of the executive. It means more eyes; more ears and more hands keep him informing and carryout his plan.”⁴⁹

3.4.1) Staffing formula suggested by UGC:

Staffing is one of the important areas of management which is now popularly called as personnel management or human resource management (HRM). Generally staff of any library can be four types i.e.

- 1) Professional 2) Semi-professional
- 3) Non-professional 4) Technical.

“First staffing formula for academic college libraries was the outcome of recommendation of the library committee appointed by the UGC under the chairmanship of S. R. Rangnathan in 1958. The formula suggested following staff to the different sections of the library. The formula suggests post of librarian, one deputy librarian, one accountant, one steno typist and one clerk. In addition to this the following staff is to be added, (some related sample is following)

- 1) Book section: one person for every 6,000 volumes added in a year.
- 2) Periodical publication section (Staffing formula related to the subject): one person for every 500 current periodicals subscribed.
- 3) Unskilled staff: one cleaner for every 30,000 volumes in the library.

One attendant each for every 6,000 volumes added in a year, for every 500 current periodicals subscribed and one each for the shifts in the circulation section, besides unskilled and semi-skilled workers normal to any institution. Dr. Rangnathan suggested following change in the above formula in 1965”.⁴⁹ But no change to the related of periodical sections for staff.

3.4.2) Staffing formula suggested by AICTE

“AICTE is another accrediting body in India which makes recommendations for technical education throughout the country. It has developed norms and standards for engineering colleges (degree programmes) in 1990 and has made them applicable too. These norms give number of staff admissible and job description. The council proposed following staff as minimum staff for an engineering college library:

Librarian	One
Assistant librarian	Two
Library Assistants	Four
Library attendant	Two

The formula does not give proportion of increase in staff if number of readers, documents or timing of the library increase. Further, this staff seems to be sufficient for one shift only. It is difficult to manage library functions for more than seven hours a day with the quantum of staff proposed.”⁵¹

3.4.3) Staffing formula in Maharashtra:

“In Maharashtra, the government issued orders in 1980 for the first time to specify the library staff to be appointed in academic college libraries. The resolution is as follows: Every affiliated college is entitled to have a librarian in the UGC recommended scale of pay to be in charge of the library. In addition to the librarian, college may be held entitled for additional library staff.

- 1) An assistant librarian, if the strength of students in the college is more than 2000.
- 2) Supporting library staff in addition to the librarian and assistant librarian (wherever admissible) shall be at the rate of one person for 250 students. Every four member of such supporting staff may be a junior clerk and the remaining persons shall be in the Class IV category (library attendants).

This means that till the strength of a college reaches 1,000 no separate clerical staff will be available for the library as such, there will be peons only; for the library and the clerical help, if any, required by the librarian will have to be secured from office only. The UGC is a recommending body. The formula’s suggested were not

accepted by many state governments and each step has issued separate circulars for supporting staff in the academic college libraries. This was done because only the post of librarian comes under the purview of the UGC scales and all other staff in the library is in the state sector.”⁵¹

3.5) Management for the quality:

Management is the most important process in the proper functioning of any organization. Present situation management is essential and important for the best development of every field. So without management in any human related organization can't progress. Library is also without benefit social organism. Its purpose is providing information minimum times to maximum readers which readers demand properly. Today variety of readers especially researcher put so many demands related to current information and these entire information ready on journals & e-journals. Both are the available in print and online for the readers. Different management techniques can be considered as the latest management techniques.

These latest management techniques include, Re-engineering, Total quality management, MBO, MIS, Outsourcing, Six sigma, SWOT- Analysis, Brain storming, Mind mapping, PERT/CPM, Quality circle, Pull and push technology, system analysis and so on.”⁵³

Some other is Quest techniques, Delhi technique, RFID etc. It's applied in library management techniques to save the time, money & energy.

3.6) NAAC:

Today's every university and colleges are maintaining their quality periodic for NAAC. NAAC has focused on the use of ICT also check to available facility of advance computer, internet and online journals and consortia in the library.

The NAAC (National Assessment and Accreditation Council) is an autonomous body affiliated to UGC (University Grants Commission). The role of the NAAC is to assess and accredit institutes of higher education with the objective of enabling them to work hard and continuously to improve the quality of higher education by maximizing their resources, strength, capabilities and opportunities. In the past the library was known only as a storehouse of books. But now most of the

information is available in non-print form. Many documents, which are available in print form, are now available in electronic-form. The libraries started building their document collection in electronic-form, as they need less storage e.g. Encyclopedias. So, it is essential that the present and future LIS professionals have to know the ways and means to handle the new materials. Government of India, NAAC and AICTE are seriously concerned as how to improve standards of education and establish best practices in the universities and colleges and their libraries. Joseph, M. Juran says that 21st century is devoted to 'quality' whereas 20th was for 'production'. So, one has to discuss about the issue of quality to improve library customer's satisfaction.”⁵⁴

E-journals are available instantly and could be browsed in the 24x7 modality. There are many agencies or consortiums which are providing e-journals. So many e-journals are available full text now. So these are the most widely used digital resource from researcher in the library. Periodical section is the most important section for students of the college library. So many problems is the section of periodicals like space, staff, computer with internet facility, finance, subscription of related subject, circulation etc. But librarians can have the best solution after adopting new management techniques in the library for readers satisfaction. Without management readers & staff can't complete the library purpose. So adopt new techniques is important to management of periodicals in college libraries.

References:

- 1) Satarkar S.P. (2000). Personal management in college libraries. Jaipur and New Delhi: Rawat publications, ISBN 81-7033-578-7, 50
- 2) Raiz Muhammad (1992). Serials management in libraries. New Delhi: Atlantic publishers and distributors, 5.
- 3) Ibid, 12, 13, 14.
- 4) Ibid, 15 -18.
- 5) Pandita, Ramesh. (July 2014). Growth and distribution of Hindi, English and Urdu Periodicals in India: An Analysis (1941-2013). *DESIDOC Journal of library & information technology*, 34(4), 309.
- 6) Shyama, Balkrishnan (2001). Library serials management, New Delhi: Common wealth publishers, ISBN 81-7169-665-1, 2-8
- 7) Lele R.K. (2004) Marathi vratpatra etihās, Pune :continental prakāshan.
- 8) www.rni.nic.in & 58 the Annual Report (Newspaper & Periodical) 2013-2014, The registrar of newspapers for India, Ministry of Information & broadcasting Govt. of India.
- 9) Raiz, Muhammad (1992). Op cit.5
- 10) Davidson, D.E. (1960). periodicals: A manual of practice for librarians London: Grafton & Co, , 5
- 11) Rangnathan, S.R. (1965). Acquisition of documents and other materials: A bird's eye view, *library Herald*, 8 (1-2), 1-2.
- 12) Raiz, Muhammad (1992). Op cit.5
- 13) Shyama, Balkrishnan (2001). Op cit.52-53.
- 14) Gable, J.H. (1937). Manual of serial work, Chicago: American Library Association, p.13.
- 15) Mishra K.C. (2004). 21st Century Library management. New Delhi: ESS ESS Publications. 56-57.
- 16) Gable, J.H. (1937), Op cit.19.
- 17) Joshi, C.R. (1990). Periodicals systems of MAUL; A system approach, unpublished M.Lib. Dissertation submitted to Marathwada University Aurangabad, 71-72.
- 18) Harvey, Joan M. Quoted by Mayes, Paul. In (1978). Periodical administration in libraries, London: Clive Bingley, 7-23.

- 19) Shyama, Balkrishnan (2001). Op cit.61.
- 20) Joshi, C.R. (1990). Op cit.76-78.
- 21) Grenfell, David (1953). Periodical and serials: their treatment in special libraries, *ISLIB*, London, 1.
- 22) Mayes, Paul (1978). Periodical administration in libraries, Clive Bingley ltd., London, 41.
- 23) Lakshman, Prasad (1986). Acquisition of periodicals in University Libraries, *In Library and Information Science: Current Trends in India*, Edited by Pawan k. Gupta and Usha pawan. Jaipur, RBSA publishers, 221.
- 24) Mittal, R.L. (1996). Library administration: theory and practice, 5th edition, Metropolitan book Company, 396.
- 25) Raiz Muhammad (1992) Op cit. 28-30.
- 26) Ibid, 33-39
- 27) Mittal, R.L. (1996). Op cit. 397.
- 28) Ibid, 422-434.
- 29) Raiz Muhammad (1992). Op cit.98-99.
- 30) Ibid. 111-112.
- 31) Shyama, Balkrishnan (2001). Op cit. 70.
- 32) Mishra Lakshimikant & other (Dec.2009) Preservation & Conservation of library materials. *Journal of library and information technology*, Editor Sharma C.K., 5(2). ISSSN-0975-6183,7-13
- 33) Dhiman Anil k. and Rani Yashoda (2004) Library management (A manual for effective management), Ess Ess Publication, New Delhi. ISBN: 81-7000-388-1, 358.
- 34) Shyama, Balkrishnan (2001). Op cit. 88-89.
- 35) Chauhan K. & Mahapatra R.K.(2013) Open access e-resources in library and information science, Ess Ess publications New Delhi, ISBN 978-81-7000-702-9, 02-05.
- 36) Naik, N. Rupsing (2013). Op cit.37-41
- 37) Ibid. 2
- 38) Ibid. 5.
- 39) Ibid.12.
- 40) Shyama, Balkrishnan (2001). Op cit. 62, 63.

- 41) Singh K.P. & Ms. Bebi (June2012) Use of E-Journals by Agricultural Scientists: A case Study of the ICAR libraries in Delhi; *Library Herald*, 50(2). 170.
- 42) Chauhan K. & Mahapatra R.K. (2013). Op cit. 11-15.
- 43) Kumar, Shailendra & Roy, Projes (2007) Electronic journals in Indian academic libraries: Issues and challenges, *ILA Bulletin*, 43(4), 32
- 44) Gaur Ramesh C and Tripathi Manorama (Sept.2012) Role of consortia in preservation of e-journals. *Annals of library and information studies*, 59, 205.
- 45) Bellary, Ravi N. (May-August 2013) A study of free journals in the area of management science, *Indian journal of library and information science*, 7(2). 156-159
- 46) Naik, N. Rupsing (2013). Electronic information resources in university libraries, commonwealth publisher's pvt.ltd. New Delhi. ISBN; 978-81-311-0470-5, 37-41
- 47) www.lisbdnet.com/librarybudget
- 48) Krishnamurthy, R. (1997). Library management. New Delhi: Commonwealth publishers, 121.
- 49) Aghav, Uddhav R. (2010). Industrial information systems. Nanded: Creative publication, 158.
- 50) Satarkar, S.P. (2000) Op cit.71-72.
- 51) Ibid.73.
- 52) Ibid.80-81 & 83-84.
- 53) Aghav, Uddhav R.(2012). Application of outsourcing: A management technique to a college library, *Grnathalay Vayvashtapanachi aadunik tantre*, (Pub. In Marathi & English) Editors; Mishra V.N. and Kulkarani J.N. Aruna prakashan, latur, 1.
- 54) Sawant Suhas, Waydande Hindurao& Masule A.A.(2012). Role of academic libraries with reference to ICT and NAAC Accreditation, *Grnathalay Vayvashtapanachi aadunik tantre*, (Pub. In Marathi & English) Editors; Mishra V.N. and Kulkarani J.N. Aruna prakashan, latur, 305.