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**LIBRARY AUTOMATION: AN OVERVIEW IN RATNAGIRI DISTRICT COLLEGE LIBRARIES
AFFILIATED TO MUMBAI UNIVERSITY**

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ABSTRACT

This paper is focused on the overview and status of library automation in Ratnagiri District College Libraries affiliated to Mumbai University. The Automation of libraries its need for changes in modern age. The specific objectives are to know the status of library automation in college libraries, and to promoting the IT based services, The impact of ICT has changed the library operation and its functionality in to a fast to faster mode. Automation has reduced the man power and saving the time of users. The Survey methods was used in this study. Well structured, open as well as closed questionnaire use for this study. Suggested Library and Information Centre cannot function without computer and information technology. To fulfil the information, need of users, library should provide computer facility with uninterrupted internet to its users.

Keywords: Library Automation, ICT, OPAC, Library Software

INTRODUCTION

Best libraries have always been considered as good Assets and “**Heart of Institutions**” and the channels of information centres. The value of the library is found in its collection of information resources and its services. In the age of ICT has brought dynamic changes in information and dissemination of knowledge to its end users. It is important to know the perception and use of computer & Internet services in general and the electronic resources in particular LIS professionals. Library Automation is needed today in the ICT era for providing the needed information to all types of the user community. The Automation has become the bare necessity for each and every library; hence all library professionals needs to have basic knowledge of library automation. The main purpose of including this to direct the LIS Professionals that will allow them to discover the material they work with fellow users to understand the curriculum.

The primary objective of the library is to promote the use of its resources. Library services bring together the document or Information sources and their users by personal efforts of the library staff. User's information requirement depends upon the purpose for which he/she is seeking information. Library services satisfy information need of users through dissemination of information resources.

MEANING OF LIBRARY AUTOMATION

The word ‘Automation’ has been derived from a Greek word ‘Automate’ which means something which has the power of spontaneous motion or self-movement (Webster’s Third New International Dictionary of English Language, 1966). The term ‘Automation’ was first introduced by D.S. Harder in 1936, who was then with the General Motor Company in the United States. He used the term automation to mean automatic handling of parts between progressive production processes.

According to Encyclopaedia of Library and Information Sciences “Library Automation is the use of automatic and semiautomatic data processing machines to perform such traditional library activities as acquisitions, cataloguing, and circulation. These activities are not necessarily performed in traditional ways, the activities themselves are those traditionally associated with libraries; library automation may thus be distinguished from related fields such as information retrieval fields such as information retrieval, automatic indexing and abstracting and automatic textual analysis” (Kent, 1977).

OBJECTIVES

- To Know the Status of Library Automation in College Libraries.
- To Promoting IT based services in the Rural Area College Libraries.
- To improve the Quality of Library Services.
- To Know the Present status of NAAC Accredited colleges in Ratnagiri District and its impact on library services.

NEED OF LIBRARY AUTOMATION

- To save the time of Library users/readers.
- Bibliographical record keeping of documents.

- To provide the access of Information in faster way and single click.
- To avoid duplication work.
- Flexibility in information searching.
- Participating in resource sharing and union catalogue.
- Speedy processing of information and its retrievals.
- Improve the quality of existing services and to reduce routine and time consuming clerical works.

SCOPE AND LIMITATION OF RESEARCH STUDY

In Ratnagiri district, nearby 28 senior, 2 IT, 4- Hotel Management, 6, polytechnic colleges, 4 Engineering Colleges, 3 Pharmacy, 3 B.Ed., 1 Law, 3 College of Education and one University Sub-Centre, affiliated to Mumbai University is extending the educational facilities to the patronage. The scope of the present study is to ascertain the Status of Library Automation in Ratnagiri district of Maharashtra. Therefore, 16 senior colleges from 9 talukas of Ratnagiri district, which are affiliated to University of Mumbai are select for this study.

METHODOLOGY

Present study has used survey method. Survey method plays a significant role in research as can be seen from the statement. "The survey method is one of the most effective and sensitive instruments of research. Survey research can produce much needed knowledge" (Kasyap, 1969).

The steps in the research methodology included:

DATA COLLECTION

Researcher collected the data with the help of structured questionnaire. While preparing the questionnaire, use both types of questions, viz, structured (open-ended and closed-ended). This facilitated the researcher to collect the requisite data in the useful format.

DATA ANALYSIS & INTERPRETATION

The collected questionnaires are analysed and put in the form of tables and graphs with the help of statistical analysis software i.e. SPSS package and presented data in from.

Table No. 01: Distribution of Colleges by year of establishment

Year of Establishment	Number of Libraries	Percentage
1945-1970	02	12.5%
1971-1990	03	18.75%
1991-2010	11	68.75%
Total	16	100%

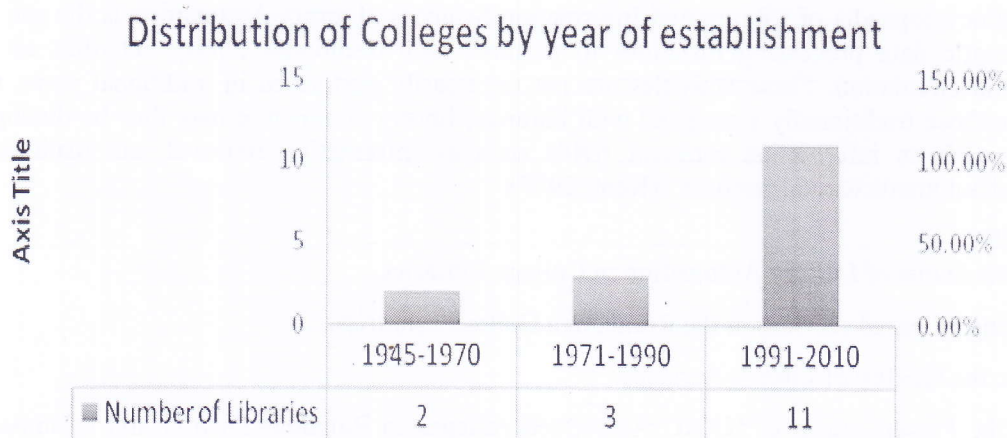
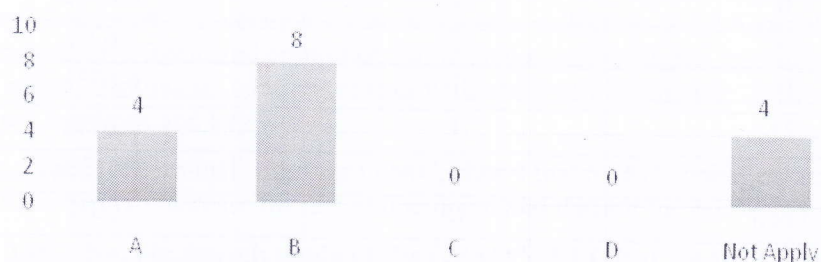


Table No. 02: Present status of NAAC Accreditation for selected Colleges in Ratnagiri Districts

NAAC Grade	Responds	Percentage
A	4	25%
B	8	50%

C	0	0
D	0	0
Not Apply	4	25%

NAAC Accreditation Status



It is observed from Table No. 01 and Table No. 02 that, colleges established before 1997 were got NAAC accreditation and colleges established after 1997 were not gone through procedure of NAAC accreditation in Ratnagiri District. Also above table showed that total 4 (25%) colleges are got “A” grade in NAAC Reaccreditation 3rd Cycle. And 8 (50%) colleges are got “B” grade in NAAC Accreditation. And 04 (25%) colleges are not gone through procedure of NAAC accreditation.

LIBRARY USERS RESPONDENTS

Table No. 03 : Male and Female Librarian percentage in different Degree Colleges in Ratnagiri District

Users	Male	Female	Total
Librarian	12	4	16
%	75%	25%	100%

We have got 16 colleges’ library data which is recorded in the Table No. 03. The above data shows that, a total of 12 (75%) male Librarians and 4 (25%) female Librarians have Responded the questionnaires, and the data reveals that male Librarians are more than female librarian in Ratnagiri District Libraries.

• Library Automation

There are so many commercial and open source software’s are available in market and its use by libraries for smooth functioning library services. The researcher tried to know the status of library automation with the help of the following sections.

1. Number of Computers are available in the Library
2. Software Used
3. Status of Automation
4. OPAC (Online Public access Catalogue)
5. Barcode facility available for Circulation
6. Status of serial Control
7. Institutional Repository
8. SMS Alert system
9. Library attendance system using software/biometric
10. Digitization Unit
11. Website/portal /Blogs

• Number of Computers are available in the Library

Computers can perform library work very fast and accurately and the service can be made available fast to the users with the help of computers.

Therefore, researchers tried to know the number of computers are available in the library.

Table No. 04: Number of computers available in the Library

No. of computers	Respondent	Percentage
1	2	13.13%
2	5	33.33%
4	2	13.13%
6	1	6.67%
9	1	6.67%
10	1	6.67%
22	1	6.67%
NA	2	13.13%
Total	15	100%

From the above **Table No.04** it is noted that the majority of 86.67% libraries have computers to perform various services/work in the library. Out of the responding libraries, some 46.67% libraries have one or two computers, 26.67% libraries have 4-9 computers, whereas 13.33% Libraries have more than10 computers to perform various work.

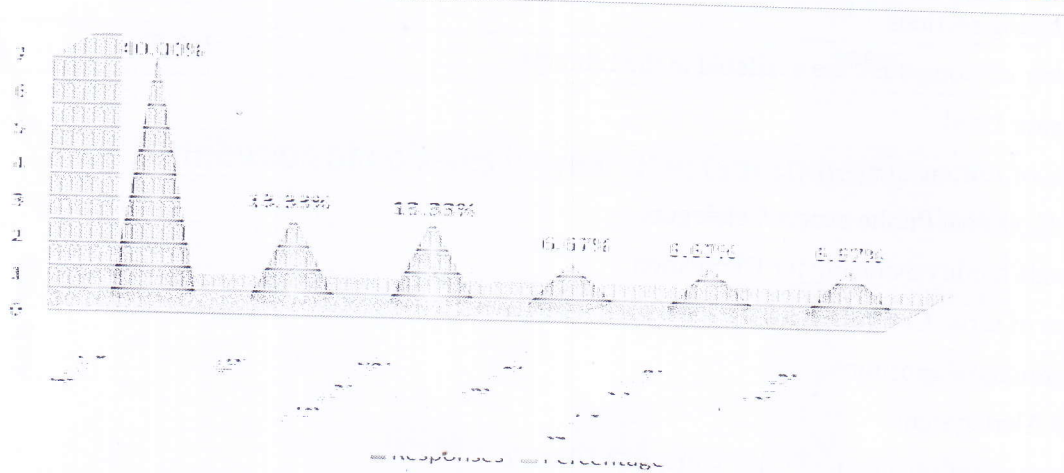
• **Software Used**

Software is an important thing in the library automation. Therefore, researcher has tried to know how many libraries have purchased or developed software for the automation purpose. From the data of surveyed libraries, it is observed that more than 60% libraries have purchased software from other agency. And 26.67% libraries are used open source software. Not a single library has developed in-house software for the automation.

Further the researcher has tried to know name of the software purchased by the library. It is noted that majority 40% responding libraries have purchased Soul Software. (26.67%) libraries are use Open source Software like Koha and E-Granthalaya. A few libraries have purchased Microsys, MKCL's and Libman software for Library Automation.

Table 05: Software used for Computerization of the Library

Software Used	Soul 2.0	Koha	E-Granthalaya	Microsys	MKCL's Libreria	Libman
Responses	6	2	2	1	1	1
Percentage	40%	13.33%	13.33%	6.67%	6.67%	6.67%



Computerization of library with standard digital software is very important as per NAAC guidelines. Libraries were asked to furnish information regarding the library application software being used by them and the response obtained is depicted in Table 05. It is found from the said response that 40% libraries are using Soul 2.0 Software developed by the INFLIBNET, Ahmedabad, followed by 13.33% libraries using Koha, and E-granthalaya software each, 6.67% libraries using Microsys, MKCL's Libreria, and LIBMAN, software each. The study reveals that Soul 2.0 Software enjoys the greatest popularity in Ratnagiri District, while the popularity of other software is not mentionable.

• Status of Library Automation

The respondents were asked to mention the status of library automation. From the data of the surveyed libraries it is noted that (60%) Libraries were completely automated whereas (26.67%) libraries were partially in automation process or started to work on computerization.

• OPAC (Online Public access Catalogue) /Web-OPAC

Web OPAC is a catalogue of library material which tells us that the required material is availability or not. Online Public Access Catalogue is a catalogue consisting of a collection of bibliographic records in machine readable form maintained on a dedicated computer that provides uninterrupted interactive access via terminals or work stations in direct, continuous communication with the central computer. Most OPACs are searchable by author, title, subject headings and key words.

The data received in respect of terminals used for OPAC, shows that 66.67% college libraries have OPAC using a separate terminal for OPAC to increase the use of document and that for the sake of convenience of the users.

Table No. 06: Search mode of the OPAC/WEBOPAC in the Library

Search Mode	Author	Title	Subject	Class No.	ISBN	Publisher	Accession No.	Boolean Search
Responses	10	10	10	9	5	7	9	5
Percentage	66.67%	66.67%	66.67%	60%	33.33%	46.67%	60%	33.33%

From the above Table No. 06, it is noted that (60%) college libraries have completed Computerization or it is in progress. From there libraries almost all of them have OPAC. It is also observed that 100% college libraries have search mode like author, title, subject and accession number in the OPAC. Whereas (60%) college libraries have search mode like publisher and class number; 27 (33.33%) college libraries have search mode like Boolean Search and ISBN. The data can prove that, (40%) college libraries use soul software or these libraries were actually using OPAC. because soul software has all these above-mentioned search modes in the OPAC.

• Automated Circulation

In manual circulation mistakes, may occur, for reducing manual mistakes, computerized circulation is a good option. Therefore, respondents were asked to mention whether the library circulation is automated. In the response, the researcher tried to know the fields of circulation computerized. It is observed that (66.67%) responding libraries have computerized issue / return, renewal and reservation fields of circulation.

• Bar-Code technology for circulation

The researcher has tried to know how many libraries use bar-code technology for circulation work. From the responses, it is found that (53.33%) responding libraries use bar-code technology for circulation work wherever (46.67%) responding libraries not use bar-code technology for circulation work.

• Automation for Serial Control

Automation of serial control is quite a headache job rather than the automation of books and other documents. Therefore, respondents were asked to mention whether the libraries have completed automation / computerization of serial control work. The data of responding libraries reveals that the position or progress in serial control of the surveyed libraries was very poor. It is noted that only (33.33%) libraries have automated serial control whereas 10% libraries tried to computerize their serials.

• E – Resources available in the Library

E-resources play a vital role in storage and retrieval of information. Academic libraries should facilitate these types of resources to their users. Therefore, respondents were asked to mention e-Resources available in the library.

Table No. 12 shows that (80%) libraries provide e-journals and E-books to their users with the help of N-list program whereas (20%) college libraries had not subscribed N-list program.

Table No. 07 : Membership of N-LIST Database

E-Resources	Yes	No
N-List	12	3
%	80%	20%

From the collected data of the surveyed libraries, it is Observed that those colleges are covered under 12B section of UGC act are subscribed these Database. In Ratnagiri District 12 (80%) Private aided College are

subscribed N-List E-resources whereas only 3(20%) private un-aided college Libraries are not subscribed this e-resources due to insufficient funds.

- **Institutional Repository**

An institutional repository is a web based database of any Colleges scholarly resources. Institutional Repository may include thesis and dissertations, images, data sets, course materials, Journals articles accepted for publication, Seminar/conference/workshop papers, teaching aids/learning materials, student projects, free online journals, free e-books, photographs, audio/video recordings on concerned subjects, annual report/activities of the Colleges, course wise syllabus, semester wise previous exam question papers, reports of the academic/cultural programs of the institution, institutional data/information, committee reports and memoranda, surveys, annual report of the library. The main task of the Institutional Repository is to collect the scholarly materials to store and disseminate in digital format for wider use.

From the collected data of the surveyed libraries, it is observed that only (33.33%) colleges are libraries were provided Institutional Repository using DSPACE or any other software whereas (66.67%) colleges are not provided this Service to its users.

It can be concluded that position of Institutional Repositories in the college libraries in Ratnagiri district are very poor.

- **Digitization of Documents**

Digitization is the conversion of materials that were originally created in another format into an electronic form. Digital conversion of library material has advanced rapidly in recent years. It is important to resist the urge to digitize everything in a library or archival collection to save the space of the library. Digitization is an excellent way of providing access to library materials to the readers. Digitization has proven to be possible for nearly every format and medium presently held by libraries from map to manuscripts and moving images to sound recordings. Copyright assessment plays a defining role in digitization of library materials and must be taken permission from the original publisher/author/editor. Before digitization, librarian has to decide what materials to convert into digital form; intellectual quality of source material; rare materials, original books, manuscripts, photographs, paintings etc.

The researcher has tried to know how many libraries digitized their rear documents in their library. From the surveyed data it is observed that only one single library digitized documents. It is clear that the process of digitization is yet to start in the college libraries in the Ratnagiri District.

It can be concluded that position of digitization in the college libraries in Ratnagiri district are so poor.

- **Mobile Phone service-SMS Alert service**

Now a days SMS Alert service is very important tools for the quick communication via telecommunication to customers. It is a great revolution in the 21st century. Many libraries are using SMS alert service facility to deliver alert service to its users. Various types of services library can provide to the SMS facility. SMS can be sent to the users at the time of book issue, book return, reminders, news announcement, brief notice, etc. In every 90% of the college students have own mobile for Communication. So library provides SMS alert service through Library Software.

The researcher has tried to know how many libraries are provide their SMS alert system to its users. From the surveyed data, it is observed that not a single library provided this service in the Ratnagiri District College Libraries.

- **Library Attendance System by Using Barcode Scanner/Biometric**

As per NAAC new guidelines, there is essential to compute per day usage of library and library services by teachers and students. This system is helpful to reduce paperwork and save the time of library users. Also, library usage defiantly increase after attract and satisfaction with this using technology.

It is found that not a single library in Ratnagiri district using this system in Library.

- **Internet Service**

Internet is good technological tool to improve library services. It increases vision of the Librarian. Internet stores and retrieves information as on effective communication medium. It is a virtual library without wall which provides everything everywhere and every time. The basic aim of the college library is to provide information to its users; therefore, college libraries should be connected online with internet to render better services to the users. Data of the surveyed libraries reveals that (66.67%) colleges' libraries have connectivity of internet and they provide internet services to their users.

FINDINGS

From the above research work, the researcher has drawn following certain findings.

1. It is found that 28 senior colleges in Ratnagiri district are affiliated to Mumbai university. From these affiliated colleges 13 colleges were found accredited by NAAC, Bangalore. Almost all accredited colleges were established between 1945-1999. Majority of the colleges were old and they all are (100%) NAAC accredited. Out of which 7 colleges got 'B' grade and 2 Colleges got 'B+' grade in 3rd Reaccreditation whereas 4 colleges got 'A' by NAAC Accreditation.
2. From the surveyed colleges were found 8 colleges got 'B' Grade and 4 colleges had got 'A' grade in NAAC Accreditation. 3 colleges are private un-aided. They are not applying for NAAC. All Surveyed colleges were established between 1945-2009.
3. It is noted that 86.67% libraries are using computers to perform various activities in the library. But very few numbers of computers are available in library for Student and faculty use.
4. **Software Use for Automation/computerization:** Almost 86.67 % libraries have use commercial or opensource software for library operations. From these responded libraries majority of libraries purchased Soul 2.0 software from infibnet, Ahmedabad whereas few libraries purchased Libman, MKCL's Libreria and Microsys software and some libraries are use open source software like Koha and E-granthalay.
5. From the surveyed libraries 60% libraries completed library automation/computerization whereas 40% libraries are in progress or they partially completed or they just started process of Library computerization.
6. **Bar-code Technology:** It is noted that 53.33% libraries having computerised circulation module and all these are using bar-code technology for circulation operations.
7. **Serial Control:** It is noted that only 33.33% libraries have automated serial control whereas Very few 20% libraries have been trying to automate serial control operation in the library using software.
8. **OPAC/Web-OPAC:** 66.67 % college libraries have OPAC using a separate terminal for OPAC/Web-OPAC to increase the use of document and that for the sake of convenience of the users.
9. **Website/Blog:** Website or blog is most promoting and marketing tools of library. It is found that few libraries in Ratnagiri have own web Page. And its uncompleted or its not regular updated.
10. **E-Resources:** 66.67% libraries have resources in the form of CDs/DVDs, and 80% libraries subscribed N-List E-resources (E-journals and E-books) for their users.
11. **Institutional Repository:** It is found that only 33.33% libraries are providing institutional repository using DSPACE or any other software.
12. **Digitization Document Unit:** Only Gogate -Joglekar College, Ratnagiri has Digitisation unit for digitising their manuscript and rare books. It can be concluded that position of digitization in the college libraries in Ratnagiri district are so poor.
13. **Mobile Phone service-SMS Alert:** From the surveyed data, it is observed that not a single library provided this service in the Ratnagiri District College Libraries.
14. **Library Attendance System by Using Barcode Scanner/Biometric:** It is found that not a single library in Ratnagiri district using this system in Library for users usage record. All the libraries are use manually visitors In/Out Registers for maintaining usage record but users are not promptly enter his/her name in In/Out Register while using or visit library.
15. **Internet Service:** Data of the surveyed libraries reveals that (66.67%) colleges libraries have connectivity of internet and they provide internet services to their users. But the number of computers are available in Libraries are very poor.

RECOMMENDATIONS/SUGGESTIONS

The findings and suggestions of this study provide effective insights for library to take essential steps to strengthen the existing services and facilities to optimise the use. Based on results / findings of the study, following are the Suggestions were made for the academic library to provide committed services to the users:

1. As per NAAC new guidelines effective from July 2017, there is essential to maintain usage record and analyse use of library and library services by teachers and students using computing method. So All the

college libraries should use the computerised attendance system for usage record and save the time of library users.

2. Today, Library and Information Centre cannot function without computer and information technology. To fulfil the information, need of users, library should provide computer facility with uninterrupted internet to its users. Also provide backup for computers.
3. Library Orientation programs should be conducted to make the users aware of the library resources.
4. Training on use of e-resources for users in highly essential.
5. Access to e-resources must be quicker.
6. Every library should have Dynamic library website or blog for promoting and marketing of Library resources and services.
7. Make available computer services to all sorts of readers to avail themselves of e-books, e-journals etc. and to make use of Modern Information Service.
8. The library should improve services with ICT technology.
9. A separate audio-visual section must be in the Library.

CONCLUSION

It is observed during the course of investigation that there is variation in the use of IT as a tool for library services between rural and urban as well as between aided and un-aided colleges. The aided urban colleges are at the forefront in the use of IT whereas others are lagging behind.

The study reveals that most of the libraries in Ratnagiri district are aware about use of ICT applications in library. The computer and internet technology has brought revolution in the library services and created positive impacts among the library users. The impression of ICT is clearly visible on information resources, services and users in the library in the region. Although, the use of ICT is increased in the library related services in the district, it is far back as compared to the colleges of Metropolitan region. Hence, it is suggested to extend the use of ICT in the library services as per their requirements.

REFERENCES

1. Sharma, R.N. (1986), "Indian Academic Libraries and S. R. Ranganathan: A Critical Study", Sterling Publication.
2. Jadhav, U.S. (2012), "Library & Information: Sources and Service", Regency Publications.
3. Kumar, G. K. Sampath (2012), "Digital Library and Information Technology: Changing Concepts", Altar Publishing House.
4. Dandavate, Vrushali (2013), "Application of Six Sigma in Library and Information Science", EssEss Publications, New Delhi.
5. Waghchoure, ShilpaSatish,(2016), " Best Practices in Academic Libraries", EssEss Publications, New Delhi.
6. Singh, Gurdev,(2015)" Academic Library System & Services", EssEss Publications, New Delhi.
7. Chopra, H.S. (1996),"Information Marketing", Rawat Publications.Gower.
8. Brophy, Peter. (2000). The Academic Library, London: CA,224 P.
9. Ghumre, Shivshankar Kondiba. (2012), "College Library Services in Marathwada", Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
10. More, Sudhir, (2015). "Information seeking behaviour of Under-graduate students in Ratnagiri District Colleges, affiliated to university of Mumbai".
11. Prasad, H.N. (2016), Librarianship in 21st Century, EssEss Publications, New Delhi.
12. Mittal, Arvind, (2017), "Emerging Technologies and their Impact on theLibraries"
13. <http://www.lisbdnet.com/library-automation-concept/>
14. dce.kar.nic.in/.../4TH%20SEP%20The%20College%20Library%20Manual.pdf