



UNIT - 6

STORAGE AND MAINTENANCE WORK

Unit -6	Storage and Maintenance			
Location Class Room, visit to other library.	Maintenance Work in Libraries			
	Learning Outcome	Knowledge Evaluation	Performance Evaluation	Teaching and Training Method
	<ul style="list-style-type: none"> Understanding the concept of maintenance work. 	<ul style="list-style-type: none"> Knowledge about need of maintenance work in the library. 	<ul style="list-style-type: none"> List out the different activities covered under maintenance work. 	Interactive lecture: <ul style="list-style-type: none"> Discuss the maintenance work in library.
	Inventory Control			
	<ul style="list-style-type: none"> Understanding the concept of inventory control. Understanding the government norms on physical verification of libraries. Identification of factors responsible for inventory control. Understanding the steps involved in conducting an inventory control. 	<ul style="list-style-type: none"> Knowledge of inventory control. Knowledge of guidelines for physical verification of holdings as per GFR or Government of India. Knowledge of reasons of inventory control followed in the libraries. Knowledge of steps involved in conducting on inventory control. 	<ul style="list-style-type: none"> Definition of stock verification. List the guidelines of physical verification decided by Govt. of India. List out the factors of inventory control. Explain the different steps involved in conducting an inventory control. 	Interactive lecture: <ul style="list-style-type: none"> Discuss the inventory control and its purpose. Discuss the reason for inventory control. Discuss the steps for conducting the inventory control.
	Preservation and Conservation			
	<ul style="list-style-type: none"> Understanding the concept of preservation, its importance and advantages. Understanding the concept of conservation and its importance. 	<ul style="list-style-type: none"> Define preservation and explain the importance and advantages of preservation. Knowledge of general policies of preservation Define conservation and explain its importance. 	<ul style="list-style-type: none"> Differentiate between preservation and conservation. List out the policies for preservation. Explain the guidelines for conservation in libraries. 	Interactive lecture: <ul style="list-style-type: none"> Discuss the preservation and conservation process and explain its importance. Discuss the digitization process and its benefits.



	<ul style="list-style-type: none"> • Understanding the concept of digitization for conservation. • Understanding the concept of different terms used in digitization process. 	<ul style="list-style-type: none"> • Knowledge of digitization, its benefits and steps involved in digitization. • Knowledge of technological obsolescence, media degradation, migration and emulation. 	<ul style="list-style-type: none"> • List out the benefits for digitization. • List out the various steps involved in digitization process. • “Digital information is fragile in nature” give reason in support of the above statement. 	<ul style="list-style-type: none"> • Discuss the digital preservation and its need.
	Commercial Binding			
	<ul style="list-style-type: none"> • Understanding the concept of binding and its need. 	<ul style="list-style-type: none"> • Knowledge of binding requirement in the library . • Knowledge of steps followed for binding of books and journals. 	<ul style="list-style-type: none"> • Explain the steps followed for getting the books and journals bound. 	Interactive lecture: <ul style="list-style-type: none"> • Discuss the need of binding and steps followed in binding process.
	Weeding			
	<ul style="list-style-type: none"> • Understanding the concept of weeding and its purpose. 	<ul style="list-style-type: none"> • Knowledge of need and purpose of weeding out. • Knowledge of criteria for weeding process. • Knowledge of weeding out procedure. 	<ul style="list-style-type: none"> • Explain the need and purpose of weeding out. • List out the criteria for weeding out process. • Explain the weeding out procedure. 	Interactive lecture: <ul style="list-style-type: none"> • Discuss the need and purpose of weeding out. • Discuss the criteria for weeding out and its process.
	Shelf Preparation			
	<ul style="list-style-type: none"> • Understanding the concept of shelf preparation. 	<ul style="list-style-type: none"> • Knowledge of shelf preparation and its need. 	<ul style="list-style-type: none"> • List out the various activities required for sending the materials to shelves. 	Interactive lecture: <ul style="list-style-type: none"> • Discuss the shelf preparation process.



	Stack Maintenance			
	<ul style="list-style-type: none">• Understanding the concept of stack maintenance.	<ul style="list-style-type: none">• Knowledge of stack maintenance.	<ul style="list-style-type: none">• Explain the importance of stack maintenance.	<ul style="list-style-type: none">• Discuss the concept of stack maintenance.
	Maintenance of Computers, Peripherals, OPAC Online Database			
	<ul style="list-style-type: none">• Understanding the concept of maintenance of computer and its peripherals.	<ul style="list-style-type: none">• Knowledge of maintenance of computers, peripherals and online database.	<ul style="list-style-type: none">• Explain the need of maintenance of computers and online database.	Interactive lecture: <ul style="list-style-type: none">• Discuss the maintenance of computers peripherals and online database.

Resource Material:

1. Cloonan, M. V. (2011), The Boundaries of Preservation and Conservation Research, Libraries & The Cultural Record, 46(2), 220-229.
2. Driedger, K., & Mika, J. J. (2010), The Preservation Resource Needs of Michigan's Public Libraries, Library & Archival Security, 23(2), 79-103.
3. Government of India (2010), General Financial Rules (2005) retrieved on 10th Nov, 2013 from http://finmin.nic.in/the_ministry/dept_expenditure/GFRS/GFR2005.pdf.
4. Pilette, R. (2007), Book Conservation Within Library Preservation, Collection Management, 31(1-2), 213-225.

Websites Accessed:-

- www.vtls.com/products/virtua
- <http://library.illinoisstate.edu/>
- <http://www.digitalpreservation.gov/>
- <http://www.niilmuniversity.in/>
- <http://www.nedcc.org/>

6.1 Introduction: Maintenance Work in Libraries

The word maintenance has been derived from Anglo- French word “maintenir” which means to keep in an existing, good, working state and preserve from failure or decline. The maintenance of any system is very essential in order to keep it functional and ensure its existence and optimum use for which it is intended. Libraries acquire, process, organize, display, store documents-books, journals, theses, newspapers, online resources etc. for use. It is imperative that these are kept in proper order and condition for long term use. The maintenance work entails monitoring and upkeep on a regular basis. It aims at keeping the physical and computing infrastructure in a good working condition and prevents their decline.



The following activities are undertaken in libraries in order to keep them in a good working condition: ■

- 6.2 Inventory control
- 6.3 Preservation and conservation
- 6.4 Binding
- 6.5 Weeding
- 6.6 Shelf preparation
- 6.7 Stacks maintenance
- 6.8 Maintenance of OPAC, online databases computers, peripherals etc.

6.2 Inventory Control

Inventory control or stock verification, stock taking are the terms which are synonymously used. They have the same purpose of ascertaining the physical availability of the items which have been procured and recorded in the stock register. Inventory refers to the material or items in the stock or collection. Inventory control is done in order to find out that the items which have been procured, recorded or listed in the stock register or accession register, for which an organization has spent a considerable amount of money, are physically present in the collection.

In India, libraries must undertake physical verification of their holdings as per the following guidelines:

- Complete physical verification of books should be done every year in case of Libraries having not more than 20000 volumes.
- For libraries having more than 20000 volumes and upto 50000 volumes, such verification should be done at least once in 3 years.
- Sample physical verification at intervals of not more than three years should be done in case of libraries having more than 50000 volumes. In case such a verification reveals unusual or unreasonable shortages, complete verification shall be done.

In libraries, inventory control or stock verification or stock taking involves checking the library collection on the shelves against the catalogue records. This helps in identifying the cost of misplaced, mutilated damaged items which need to be replaced, mended or repaired or weeded out.

Inventory control is followed in libraries because of the following reasons:

To Maintain Accountability and Transparency.

The libraries procure, organize and display different kind of materials like books, journals-print and electronic form, CDRoms, maps, theses and dissertations, furniture, computers and equipment for the readers. The library staff has to maintain a proper record of what has been received, the expenditure involved. The staff is accountable for each and



every thing procured or bought in the library. Stock verification helps in maintaining accountability and transparency by highlighting the losses and damages suffered by the library. It helps in ascertaining that whatever has been procured is physically available in the library. ■

To Maintain Accuracy of the Catalogue Records

There may be inconsistencies, discrepancies or gaps between the library's actual holdings and catalogue records. These discrepancies or gaps may arise due to items getting lost, misplaced, and mutilated beyond repair. There may be instances when a user may spend considerable time in searching a book which is shown in the catalogue, but in fact may be lost or misplaced. The instances of such kind are an embarrassment for library staff and disappointment for users. This also erodes users confidence in libraries as perfect partners in catering to their information needs in a timely manner. Inventory control helps in finding about the lost books, accordingly the catalogue can be updated .

During the inventorying, if the library discovers that an item is lost it can do any of the following

- Replace the item with a new one.
- Flag the record in the catalogue and initiate the procedure to trace the lost item, misplaced item.
- May withdraw the lost or misplaced records from the catalogue.

Thus the accuracy of the catalogue can be maintained.

To Evaluate the Condition of Materials on the Shelves

Inventory control also helps in revealing the physical condition of the items. The items may be damaged, mutilated. Such items can be mended, repaired and preserved for future use. If the library staff feels, the item is damaged beyond repair, it will be removed from the collection and the information will be updated accordingly, in the catalogue.

To Evaluate the Quality of the Cataloguing Record

The inventory control process may bring to light the errors in the catalogue records of items held by the library. For instance, the entries may not have been prepared according to the catalogue code rules or so, there may be other errors in spellings, punctuation marks, random use of articles and so forth. A report may be prepared for all such errors and library staff may review the report and rectify the errors.

To Analyze the Strengths and Weaknesses of the Library Collection

Inventory control also highlights the subject areas or disciplines in which library has rich, strong collection and areas in which collection needs to be strengthened. The library staff after a proper review in consultation with faculty members procures items accordingly. Besides, circulation records can be analyzed to find out popularly, frequently,



less frequently, never used books in light of the circulation records, the dated, underused, never used items may be removed from the collection. ■

To Find out and Assess the Efficiency of the Security System of the Library

Inventory control brings to the fore the lost items for which the system has no information otherwise. When the students lose or damage a book which is checked out to them, libraries can recover the cost when the damaged books are checked in. When the students inform that they have lost a book, which was issued to them, they are supposed to pay the cost of lost book as fine. The information of the lost or damaged books is recorded by the system. But there may be instances, when libraries lose books in thefts or other kinds of vandalism shown by students. Such cases remain unnoticed until and unless an inventory control is conducted- a library is supposed to be very much aware of these losses and must take preventive action. It also helps in assessing and evaluating the efficiency of the security system deployed in libraries.

Time for Inventory Control

The work of inventory control is very time consuming and tedious. It is repetitive in nature and requires utmost commitment on the part of library staff. Inventory control should be conducted at a time and in a manner which causes least inconvenience to the readers.

Different Steps Involved in Conducting an Inventory Control

Notifying or Intimating

The users should be intimated about the inventory control and should be asked to return the borrowed books. The library has to decide if it will remain closed or certain number of racks will be inaccessible to the students during the inventory control.

Training the Staff

The library has to take decision whether the work of inventory control will be done by in house staff or it will be outsourced. If it decides, in favour of the first option, proper training needs to be imparted to the staff and the whole inventory control needs to be conducted under the supervision of an experienced staff.

Shelving

Before the inventory control activity starts, all the books should be properly arranged on the shelves.

Manual System

The manual system of conducting an inventory control involves the following components and steps:



Shelf List

The library has shelf list, which is a file of cards or slips containing a record for each book or documents in the collection. It has the following information which helps in its identification:

- Call No.
- Title
- First author
- Brief description of the item
- Copy number
- Edition number

The shelf list is arranged in the exact sequence of call number as books are arranged on the shelves.

Matching

Two staff are required to match the shelf list with the books in the shelves. If an item which is checked is in proper physical state, it is ticked with a pencil. If any item is not found on the shelf, the shelf list is marked with pencil- a slip or card may be inserted or clipped for further review at a later stage. During the matching activity, if any item is found to be damaged or needs to be repaired, the same is noted and recorded for further decision making (whether the item needs to be repaired or mended or weeded out).

Automated System

The automated inventory control system works by scanning barcode labels pasted on the items. The automated system of inventory control involves the following components and steps:

Barcode Labels



A bar code is machine readable information on a scan able, visual surface. It is read by using a special scanner that reads the information directly from it. The barcode label contains the information about the object to which it is attached. The label is a series of parallel black bars and white spaces of varying width. These black bars and white space represent information like title, author of the book etc. Now a days, all libraries have barcode labels on the collections.



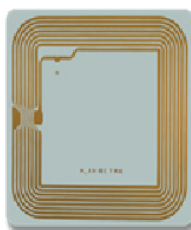
Barcode Scanners

A barcode scanner is a device which is used to read the barcode. A mobile barcode scanner, also known as data reader, can store up to more than 2000 accession numbers in its memory. After scanning, the data can be transferred to a computer and saved as a microsoft doc or excel documents. The subsequent downloads can be appended to the same file. The data can be sorted into a sequence and irregularities will be shown as losses.

The sorted data can be matched with the database of the library through the module of integrated library management software. A report of missing books can easily be generated through the stock verification module of library management software. If the books have been missing since long, they can be written off and data updated accordingly.

RFID (Radio Frequency Identification)

Now a days, some of the libraries are using RFID technology for inventory control procedures. It is a combination of radio frequency-based technology and microchip technology. The items have RFID tags in place of barcode labels. An RFID tag is an important component of RFID system. It stores information relating to the specific item to which it has been fixed. It holds data about identification for a document, proof of ownership, original storage location, loan status, and other bibliographical details of the document. It is very thin and can be put between the pages and the reader remains unaware of it. The information contained on microchips in the tags is read using radio frequency technology.



RFID Tag

Source:<http://www.rfid-library.com/images/picture-transponder.png>

With the help of portable hand held reader cum scanner, a library staff may examine a particular stack and determine if items are either missing or out of place. This work can be done without the need to remove the items from the shelf. It helps in detecting gaps and books which have been shelved at the wrong places.

6.3 Preservation and Conservation

Libraries are collecting institutions which are entrusted with the responsibility of caring and preserving a wide array of information resources like clay tablets, papyrus, pal leaves, books, maps, photographs and sophisticated data storage media. These information resources are made up of materials which are organic in nature and thus not permanent.



They are subject to deterioration and decay as they age. Libraries face the daunting task of preserving these vestiges of the past and present and making it accessible for the posterity. This is done by following proper preservation plans which ensure long term availability of the collections. The preservation of analog and digital collections is very basic to the mission of any library. ■

The word preservation has been derived from “preserve”, which means to keep safe from harm, injury, physical or chemical change. In fact it is a rubric term used in libraries to describe everything which is done in connection with protecting items like books, maps, CDs etc. Some examples of preservation activities are good housekeeping, controlled temperature and relative humidity, instructions on care and handling, an emergency response plan, collection security, activities of reformatting, repair and binding. (Pilette, 2007).

It can be defined as the activity of protecting something from loss or danger; a process which saves substances from decay. It is a branch of library and information science concerned with maintaining or restoring or ensuring access to artifacts, documents and records. The primary goal of preservation is to prolong the existence of cultural properties (Driedger and Mika, 2010).

Advantages of Preservation Activities

- Facilitation of access to knowledge and information resources.
- Ensuring longevity of use of the information resources.
- Restoration of mutilated book.
- Reduction in costs related to reacquiring.
- Enhancement of journal and periodicals archiving.
- Maximizing of library spaces.

Libraries have the following different categories of materials which may need different procedures for conservation and preservation:

- **Research Material:** Material of permanent, enduring value.
- **Circulating Collection:** Material like books, text books which are charged out to the students.
- **Reference Material:** These are used within the four walls of the library; the binding of reference books is very vulnerable to damage.
- **Ephemeral Material:** Material which is withdrawn very soon or superseded a reformatted.
- **Digital Assets:** These are electronic objects which have been created digitally or they may have been digitized from a non-digital original source like word processing documents, databases, websites etc.

The practice of preservation should be initiated right at the stage of procuring an item. Libraries should not wait for an item to deteriorate from use, misuse or age.



Each item's value to the collection should be considered at the time of acquisition and preservation plans should be made at that time. The preservation of library materials and implementation of guidelines implies that the activities are the responsibilities of every department in the library. The treatment library materials receive throughout the library will directly affect their lives. Preservation requires establishing a balance between the amount of protection an item requires and the use it receives. Preservation activities should encourage co-operation at all levels within the library and users. Programs should encompass general and special collections and include material in all formats. It should be an integral element in the administrative plan of the library. ■

General Policies of Preservation

The libraries for preserving collections need to follow some general policies which are listed below:

- Maintaining a disaster preparedness plan.
- Monitoring library practices for adherence to established preservation practices.
- Educating library staff and users in appropriate preservation practices through workshops and displays.
- Monitoring the condition of the collection through surveys and identifying areas in need of preservation treatment.
- Identifying opportunities for grants and financial assistance.

Conservation

Conservation has been derived from the word conserve which means to maintain in being or continuous existence, to preserve unimpaired. It can be defined as treatment procedures or specific policies that slow damage or deterioration but do not diminish value or information contained within the artifact. Libraries have policies and procedures for

- Commercial binding of books and journals.
- Treatment of special or rare items.
- Repair of circulating and non-circulating items.

All these library policies and procedures aim at conserving the collections for posterity.

Preservation and Conservation

The very act of acquiring materials and organizing them for use in libraries constitute preservation. When an individual item receives physical treatment, it is considered restoration. Restoration of work was originally done by artists and craftsmen. Gradually, the term of "restoration" gave way to the term "conservation" which denotes a more scientific application to treatment of individual items. These activities of preservation and conservation are undertaken for the care and maintenance of the library collections to prevent damage and to extend useable life of the items.



Thus, the terms of preservation and conservation have lot of overlapping. The basic objective of preservation and conservation programmes of libraries is to ensure long term access to the physical and intellectual contents of the collections. But it can be said that preservation usually refers to the overall management and care of collections of items while conservation is the treatment of individual items or collection of items. Preservation deals with environmental causes of deterioration, decay and strategies for improvement. While conservation also focuses on how to treat and contain the damage and deterioration. Besides, conservation aims at protecting the analog items of the libraries.

For example, if fungus can damage books, then a preservation administrator would ensure that the books are kept in a place with appropriate environment conditions. Of course, the conservators also, are interested in the environmental conditions, they may also evaluate the effects of fungus on paper (books) and how that damage could be treated on particular object. The causes of deterioration, damage and their treatment are important causes of conservation. (Cloonan, 2011).

Importance of Conservation Work in Libraries

It very well that inspite of advance digital technologies, all books needed will not be available in digital form in the foreseeable future. The physical books are made of paper, board and cloth will be constantly demanded and used by the students. Through the constant use the books will get worn out and require repair and maintenance in order to ensure their long life (longevity) and availability for future generations. Besides, print book collection will continue to dominate in certain subject areas.

Library professionals are also aware that many books are not readily replaceable and that when they can be replaced, the cost to do so often far outweighs the cost of maintaining the collections locally. Conservation entails repair and maintenance. It is more cost effective to perform a minor repair, such as tightening a books hinge, than it is to wait until the textbook rips out of the cover and requires binding. Likewise, it is more cost effective to bind the paperback after a couple of uses than it is to wait until the book is falling apart and beyond repair, which would require the purchase and processing of a replacement which may no longer be available.

Guidelines for Conservation in Libraries

Library items should be conserved on the basis of their inherent characteristics like their long term value to the collection, their condition, previous and projected use, and availability of placement, their intrinsic or artifactual value. First, an item is identified which needs treatment and then what kind of treatment or action is required is decided upon. If an item needs treatment for conservation or not, this can be decided during the process of acquisition, cataloguing and processing. For example new material with loose or vulnerable binding but with long term value of the collection should be rebound. All personnel who regularly handle library material should be trained to identify damaged, vulnerable items for conservation.

For circulating items, cost is the primary element in treatment selection. The cost of repair, restoration, withdrawal, replacement, returning to the stacks must be considered.



Routine repair and rebinding procedures are designed to reduce the time an item is unavailable for use. Batch processing is used whenever it is possible, as it helps to save time and money. ■

Through the use of preventive conservation practices damage to library material can be limited. Damage tends to grow worse with time and handling, so it is important to promptly identify and treat damaged items before they become unusable. Material which is returned through the circulation or Inter Library Loan should be checked and treated before it is sent to the stacks. Items vulnerable to vandalism should be identified and monitored or shelved in secure areas. If an item has got damaged due to water, the item should be withdrawn to protect the other collection and catalog should be updated.

Material which is beyond repair and has reached the end of its physical usefulness must be evaluated by library staff.

Audiovisual materials are often at high risk of damage due to the inherent instability of the recording media and obsolescence of technology at high pace. Audiovisual material may need to be cleaned, rehoused and digitized.

The pages of books become very brittle with time and even careful and slight use causes more deterioration and damage. But safe storage makes access impossible. Since the aim of preservation or conservation is to ensure access, the repair of damaged book is very essential. There are other options available too like procuring a new copy of the damaged book, sending the damaged book for commercial binding, reformatting the book etc. Each option involves cost in terms of staff time and material. The damaged book which need to be repaired may be identified either by staff or users of the library.

The following activities are involved in repairing the damaged documents of the library:



<http://www.blackswanbooks.com/images/book-repair-lg-2.jpg>

- **Pamphlet Binding :** It protects pamphlets and other small books from getting lost or damaged on the shelves or while they are used by the readers. Both paper bound books and pamphlets under 1/4" thickness are treated in this manner.
- **Reinforced Covering :** The paper bound books where the cover has some artifactual or intellectual significance to the whole book are stiffened from the inside.
- **Spine Repairing or Replacing Spines:** It is the most common repair needed on library books. The damaged cloth on the spine is removed and new cloth is added



in its place. If possible, the original spine is re-used or remounted on the new, in order to preserve the title on the spine of the volume. ■

- **Leather Binding Repairing :** The deteriorated leather bindings of books are often repaired with toned tissue rather than new leather. These repairs can include board attachment, spine repair, and general leather consolidation.

Reformatting refers to the practice of creating copies of an object in another type of data storage device like digitization. Digitization is a reformatting strategy for preservation.

Digitization

Digitization is the conversion of analog information (text, photographs etc.) to digital form. In the digital format, information is organized into discrete units of data called bits and can be read by computers.

Benefits of Digitization

- It provides access to the collections and reduces handling of originals.
- It adds value to the collections by providing different functionalities like zooming indexing, nonlinear searching. These features allow users to examine minutely details and take outputs as per requirements.
- It facilitates access by an unlimited number of users simultaneously with internet connectivity.
- It enhances the use of the collection by extending access to wider audiences irrespective of time and location.
- Digitization can help in preserving and maintaining audio and video formats and can facilitate access and use of a wide range of formats through a single interface.

The various steps involved in digitization are as under:

- Decision making
- Getting administrative and financial approval for funds
- Selection of collections
- Getting equipment-scanners, computers etc.
- Transcribing, marking up, indexing
- Creating metadata
- Quality control
- Processing images
- Mounting it on the Web
- Preserving and maintaining archival material.

But there are certain issues which need to be kept in mind while digitizing the items in libraries, some of them are listed as below:



- Standards and guidelines for producing and maintaining digital files for long term accessibility and usability are still in the developing stage which are not very clear and robust. ■
- Current copyright laws impose restrictions on what can be digitized or otherwise. Libraries can only digitize content for which they hold copyright or which is in the public domain.

Digital Preservation

Digital preservation is the management and maintenance of digital objects (the files or groups of files) which has information in digital form) so that they can be accessed and used by future generations. It is important to start thinking about digital reservation early in the life cycle of digital objects because while traditional objects may last relatively unharmed for decades untouched, it is not the case with digital objects which have significantly shorter life. Therefore, it is prudent to plan and devise methods for preserving the digital objects immediately after they are created.

Need for Digital Preservation

The digital information is fragile in nature and is vulnerable to loss because of the following reasons:

Technological Obsolescence

Due to rapid advances in the technologies, the software programmes are very quickly superseded by the newer ones and fall out of use. This phenomenon is known as technological obsolescence. Once the newer technologies become accepted as per norm, it can become very difficult to use any digital object which exists in older format. There is case of functional obsolescence in hardware due to up gradation of software. For example, Microsoft Office 2007 will not function on a 80486 processor based personal computer. Obsolescence may also occur with the media in which the digital information is stored. It is very rare now-a-days to find a computer with 3.5" or 5 ¼ "floppy drive. These media may contain crucial information which may be impossible to retrieve.

Media Degradation

The various storage media like floppy discs, magnetic tapes, optic disc do not last forever. They degrade with time. As a result the important digital information which is contained in them is vulnerable to loss and difficult to retrieve after some years of use. That is why concerted efforts need to be taken by the libraries to preserve digital resources held by them.

The following strategies may be adopted for preserving the digital data:

Backing Up Data: It involves making exact copies or duplicates, it does not solve the problem of obsolescence issue, still it is necessary to avoid loss of data due to failure of hardware.



Refreshing: It means copying a digital document from an older storage media to a newer one. It should be done periodically. ■

Migration: It refers to all activities undertaken to copy or convert data from older to newer computer technology while preserving the integrity of the data and the ability of the users to access it. For example, the transfer of a magnetic tape recording to digital form or transfer of a text file from word 3.0 to word 5.0 to Word 2001. The process of migration has a high probability of corruption in the conversion process.

Emulation: It is the practice of creating software for modern computers which can imitate a previous version of software or hardware which is no longer accessible. In this process, the original bit stream (the information which is contained in the file) is saved and used.

Training for Staff and User Education

Preservation of the collection requires the co-operation of everyone who works in the library. The staff who handles thousands of books daily also contribute immensely to the preservation of library materials. All the new employees who join libraries should be made aware of the preservation plans of the library. The user education programs should be regularly held in which the users should be encouraged, advised to respect safeguard their library items. It has been observed that the users often damage and mutilate library items out of ignorance, disrespect for the library, dissatisfaction with collections and services or lack of maturity. These tendencies can be curbed through education, logical policies, clear, well worded warnings posted at different places and user education programs. The users should be prosecuted for vandalism, mutilation.

6.4 Commercial Binding

Binding is the most commonly used method for protecting and extending shelf life of books and periodicals in the libraries. Libraries may bind/rebind one or more of the following:

- Books with paper backs
- Books with hard covers which are worn out or have got damaged due to constant handling and use by the staff and students.
- Loose issues of a journal title into a single hard cover volume.
- Hardcover serial volume may be rebound if they get damaged or worn out due to constant use.

Libraries have a bindery section which does minor repair and binding work inhouse. But when binding has to be done on a large scale for damaged books or sets of loose issues they have to be bound in volumes which are big in number. The work is assigned to an outside agency which is known as commercial binding. It is an integral part of maintenance work. The bindery is an outside vendor-library staff must ensure the quality workmanship, appropriate leaf attachment, other sound preservation practices



for commercial bound items. The library's requirements in these areas are written into binding contract and regularly monitored with the vendor and through inspections of binding shipments. Library staff sends worn out, damaged materials for commercial binding when in house repair does not serve the purpose. Material sent for commercial binding are charged out on the OPAC to alert the users to the unavailability of the items. Library staff must be familiar with the procedures and trade language to make judicious judgments and decisions. ■

The following steps are followed for getting the books and journals bound:

- **Identifying Items (Books and Periodicals):**

The books and journals which need to be bound have to be identified Instructions regarding binding schedule and binding requirements for books and periodicals should be maintained in check –in file, a bindery file. Automated systems contain a “Binding Information File” which serves as master files of pertinent binding data.

- **Preparing Binding Shipments**

The books or issues of periodicals are pulled from the shelves. These are checked for completeness and collated. The items or issues to be bound as a physical volume are tied together. A binding ticket is printed or written in duplicate (one copy for the bindery, the other copy for the library) containing the instructions for bindery. This includes the title, an ID number, account number, date sent, type of binding, binding style, buckram color, lettering color, spine information (i.e. title, volume, date), special instruction, if any.

- **Bindery Pick Up**

Normally commercial binderies pick up and deliver binding shipments on a pre-decided schedule. The automated systems help in the following procedures of binding:

- Record keeping of items sent and received
- Billing
- Printing binding slips

But much of the labour involved like carrying items from the shelves, making bundles, ensuring that work has been done as per the specifications, accessioning, shelving, when the bound items arrive that cannot be eliminated by automation. Other aspects like selecting, negotiating terms with a bindery, deciding whether to sign a contract or agreement, standards of acceptable workmanship and service, the budget allocation for binding, keeping track of expenditure, finalizing what type of binding is most appropriate for books and periodicals involve informed decision making. Further, the following has to be ensured too:

- The binding should be as non-damaging to the text block as possible and should not shorten its useful life.



- Bound volumes should open easily to a 180 position to facilitate non damaging photocopying.
- Bound volumes should stay open when resting face-up on a flat surface so that the readers have both hands free to take notes easily.
- Good open ability and minimal intervention, durability and low cost should be the goals of library binding.

6.5 Weeding

Weeds are unwanted plants which grow with other plants in a cultivated area. They give tough competition to crops and plants for space, nutrients, water and light. So they are removed regularly for proper growth of plants and crops, in other words it implies, removing a thing, especially from a group or collection which is not suitable or good enough. In the library world, weeding refers to removing items – books, journals and other material from the collection, as one removes weeds from a cultivated land. It is culling outdated and no longer useful material from the collection. A good collection development plan must include weeding. The process of weeding is a key part of assessing the collection.

Purpose

The purpose of weeding is to ensure a quality collection which is current, in good physical condition, supports the curriculum and personal interest of the students. It aims at creating an organized, uncluttered learning environment which is visually appealing. It brightens the overall collection by removing dull and worn out books and communicates to the students that libraries are places for lifelong learning. It also saves time in locating and finding material.

It helps to keep collection relevant, accurate and useful, it facilitates more effective use of space in the libraries. The users are overwhelmed by the information explosion. There are various reasons behind it. More and more research studies are being undertaken. The fast rate of publishing produces a big number of new publications in the form of books and journals. The new information generated renders the previous prevalent information old and obsolete. Libraries cannot be expanded to accommodate the new books and journals which are required for the users every year. The solution lies in weeding items which are old and not required. The analogy is that you will not see the beautiful blossoming flowers, if you don't weed your garden on a regular basis, similarly, the good items will remain unnoticed or will be overshadowed by the preponderance of old, worn, outdated, inappropriate items, if weeding is not done on a regular basis. In other words, the justification of weeding is to build, develop and maintain a collection which is vital, relevant and useful for the user community.



Criteria for Weeding

The following criteria must be kept in mind while weeding items from the collection: ■

- Worn out, ragged items
- Poorly, bound or poorly printed edition
- Items are dirty
- Books with yellowed, brittle, torn, missing pages
- Items which have not been circulated since last five years
- Duplicate copies no longer needed
- Material on hot topics which was very popular some five years ago , but no longer has any relevance
- More books on a single subject
- Material that is no longer important
- Poor content
- Outdated and obsolete information
- Trivial subject
- Mediocre writing style
- Inaccurate and false information
- Superseded edition
- Books which have biased and racist term
- Periodicals: few periodicals which are not used after 5 years of publication
- Contain information which is inaccessible because they lack TOC, adequate index and searching capabilities.

Procedure for Weeding Out

Ideally the staff who are involved in collection development should also be involved in weeding out work. In academic libraries, the teachers are involved in the collection development. So their involvement and judgment in weeding out is very important.

A list of books to be weeded out, as per the criteria adopted, is prepared and circulated among the teachers for their feedback. Once they agree, the list is placed before Library Advisory Committee, which gives final approval after thorough discussions.

The books are removed from the collection and the Accession Register and OPAC are updated. If the teachers do not agree, then the books are not weeded out.

In public libraries, the Chief Librarian and the Board of Management may decide on the books which have to be weeded out.

6.6 Shelf Preparation

Shelf preparation is also referred to as physical processing. The different library items or material like books, periodicals, CDs, maps etc. need to be physically processed before they are shelved or arranged on stacks for circulation and use. The various activities which are undertaken before the material or items are sent to shelves are as under:

- Inspecting the item in order to ensure that it is in proper condition, not damaged or torn. In case it is torn or damaged, the vendor is asked to replace it with a new one.
- Pasting barcode labels, library labels, book pockets, due date slips, putting book cards, putting stamp of the library (it shows that the books belongs to the library) on all the three edges, confidential page and the last page of the book.
- Adding covers to the books or reinforcement if the book is paperback.

JAWAHARLAL NEHRU UNIVERSITY LIBRARY

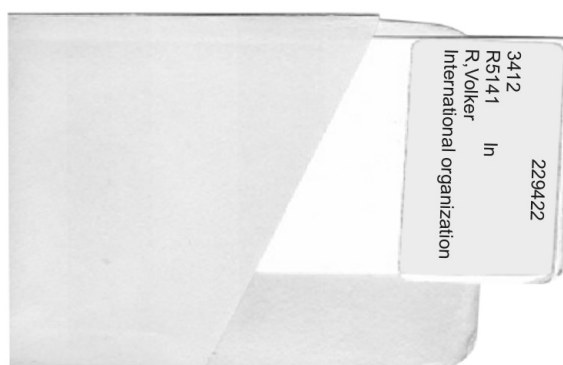
Acc. No. ————

Class No ————

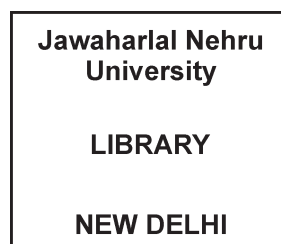
Date of Release ————

This book should be returned on or before the date stamped below:

Sample of the due date slip which is pasted on the book



Sample of book pocket with book card is shown above (Title of the book is International Organization: polity, politics and policies written by Volker Rittberger and Bernhard Zangl)



Sample of Library Label



Sample of the Barcode Label

Need for Shelf Preparation

Proper shelf preparation helps the users in locating books and other materials and speeds the procedures followed by circulation and shelving personnel. Spine, barcode labels, library stamp, check out slips. All these identify and track library materials and ensure efficient circulation among the users, staff and shelves. Shelf preparation prolongs the shelf life of the library material.

6.7 Stacks Maintenance

Maintaining stacks in an orderly condition which protects the physical well being of library materials and facilitates access by users. Well maintained stacks convey the message to the users that the collections are valuable, useful and worthy of respect. They provide easy access which in turn leads to satisfactions and inspires respect for library among the users. Appropriate shelving locations, adequate spacing between shelves, good use of book ends, cleanliness on a regular basis, all these contribute to sustain the integrity of binding and paper. Maintaining proper call numbers, help users locate required items. The availability of step stools eases the retrieval of material from high shelves and thus reduces the hazards of falling items. The staff of stacks maintenance is responsible for



all shelving, floor pick –ups for most circulating items. Unshelved items are retrieved from the circulation area and floors by shelving personnel who sort and reshelv all items according to a plan that minimizes the time books are off the shelves. ■

6.8 Maintenance of Computers, Peripherals, OPAC Online Databases

The library has many computers and peripherals for staff and users .Their proper details are required to be maintained. New technologies and changing applications require continuous decision making and planning in order to ensure that computers have the appropriate capabilities to meet the purpose for which they are intended. A detailed list of all computers, peripherals, hardware, software, online resources is maintained for accountability and future planning. The details about purchase and warranty of equipment help in claiming compensation if a computer or any other item is defective. Maintenance records provide a means for assessing the productivity of equipment and their cost effectiveness. Records about the broken, damaged, replaced items need to be maintained for further purchase, justification and tracing further need estimates.

A detailed list of online resources accessible through the campus wide network or stand alone workstation is maintained. This is essential in order:

- To ensure regular updates.
- Diagnose difficulties/problems in case some online resource is not accessible.
- The libraries have to maintain OPAC (Online Public Access Catalogue), create, update MARC records, ensure that the database is error free, create bar code labels, make the items ready for circulation and use.

The regular upkeep and maintenance work is very important for providing quality services to the users. Libraries by investing in maintenance activities can continue to serve the users for longer periods of time.



Students Using Computers in the JNU Library



Visually Challenged Students using Computers in the JNU Library

Summary:

The maintenance of any system is very essential in order to keep it functional and ensure its existence and optimum use for which it is intended. Maintenance work in libraries aims at keeping the physical and computing infrastructure in a good working condition and prevents their decline. Inventory control is all about ascertaining the physical availability of the items which have been procured and recorded in the stock register. Inventory refers to the material or items in the stock or collection. Weeding refers to removing items outdated material from the collection.

Exercise:

1. What do you understand by maintenance work and list various activities of maintenance works.
2. List the different activities which are undertaken to keep the library in good working condition.
3. What is inventory control? Why is it done in the libraries? Mention different steps in inventory control.
4. Enumerate the advantages of digitization.
5. Explain the importance of weeding in the libraries.
6. Discuss the concept of stacks maintenance.
7. How are computers and their peripherals maintained in libraries.



Practical

- (a) Please visit the library of your school to find out the following:
 - i. Procedure adopted by it for stock verification.
 - ii. How books and magazines are arranged in the stacks.
 - iii. How theft and damage of the material is prevented.
- (b) Please visit any college library in your vicinity to find out the following:
 - i. Policies and procedures adopted by it to preserve the collections.
 - ii. Their weeding out procedures.
 - iii. Policies for binding journals and books.
- (c) Please visit any college library in your vicinity to find out how the staff repairs the damaged books in-house.

Glossary

Digital Preservation: It is the active management of digital content over time to ensure uninterrupted access and use by the future generations.

Conservation: It refers to treatment or repair of damaged, mutilated items to restore them to a usable state. It also involves treatment of individual items to slow or prevent their decay, damage and decline.

Preservation: It refers to the overall management and care of collections of items. It involves protection of cultural property through activities which minimize chemical and physical deterioration and damage that prevents loss of information content. <http://www.conservation-us.org/about-conservation/definitions#.Ur1HG9IW2s4>.

Commercial Binding: It is a method of ensuring protection and preservation of paper back books and journals in libraries.

Shelf Preparation: It is the preparation of newly procured, bound library material and involves activities like pasting of barcode labels, library labels, due date slips, book pockets, stamping etc.

Questions:

A. Fill in the blanks:

- i. Complete physical verification on every year is for the collection having less than equal to _____ volumes including back volumes of journals.
- ii. _____ helps in ascertaining that whatever has been procured is physically available in library.
- iii. _____ is a file of cards or slips containing a record for each book or document in the collection.
- iv. The barcode label is a series of parallel _____ and white spaces of varying width.




- v. The word preservation has been derived from word _____.
- vi. The word conservation has been derived from word _____.
- vii. The purpose of _____ is to ensure a quality collection which is current and in good physical condition.
- viii. Shelf preparation is also referred to as _____.
- ix. The regular _____ is very important for providing quality services to the users.
- x. _____ is the management and maintenance of digital objects so that they can be access and used by future generation.

B. Multiple choice questions:

Tick the correct answers:

- (a) Inventory control is also known as
 - (i) Stock verification
 - (ii) Budget control
 - (iii) Technical process
 - (iv) None of the above
- (b) Complete physical verification at 3 year internal if the collection is
 - (i) Less than equal to 20,000 volume
 - (ii) More than 20,000 but less than 50,000
 - (iii) More than 50,000 but less than 1,00,000
 - (iv) More than 1,00,000
- (c) Shelf list Contains information of
 - (i) Call no.
 - (ii) Title
 - (iii) Brief description of the item
 - (iv) All of the above
- (d) RFID stands for
 - (i) Radio Frequency Identification
 - (ii) Read Frequency Identification
 - (iii) Radio Frequency Identity
 - (iv) None of the above
- (e) Conservation of materials covers
 - (i) Cause of deterioration

- 
- (ii) Damage
 - (iii) Their treatment
 - (iv) All of the above
- (f) In the digital format, information is organized into discrete unit of data called
- (i) Bits
 - (ii) Pits
 - (iii) Fall
 - (iv) None of the above
- (g) All activities undertaken to copy or convert data from older to newer computer technology while preserving the integrity of the data and the ability of the users to access it is
- (i) Migration
 - (ii) Emulation
 - (iii) Refracting
 - (iv) None of the above
- (h) Digitization is the conversion of _____ information to digital form.
- (i) Analog
 - (ii) Photograph
 - (iii) Multimedia
 - (iv) None of the above

C. Short Answer Questions:

- (i) What are the rules for physical verification decided by the Government of India.
- (ii) List out the factors responsible for inventory control.
- (iii) What is shelf list? What information does it contain?
- (iv) How RFID helps in inventory control?
- (v) What is preservation?
- (vi) What are advantages of preservation activities?
- (vii) What are the general policies of preservation?
- (viii) What is conservation?
- (ix) What is the importance of conservation work in libraries?
- (x) Differentiate between preservation and conservation.
- (xi) What are the various steps involved in digitization?



- (xii) What is migration?
- (xiii) What is emulation?
- (xiv) What is binding?
- (xv) What are the steps followed in binding of documents?
- (xvi) What is weeding process?
- (xvii) What procedure is followed for weeding out?
- (xviii) What is physical processing?
- (xix) What is the need for maintenance of computers and e-resources in the library?

D. Check list for Assessment Activity

Use the following checklist to see if you have met all the requirements for Assessment Activity:

PART - A:

- (i) Explain the reasons for application of inventory control in libraries.
- (ii) Explain the different steps involved in conducting an inventory control.
- (iii) Explain the preservation in libraries and its advantages.
- (iv) Explain conservation and its importance.

PART - B:

- (i) Explain the guidelines for conservation in libraries
- (ii) Explain the need for digital preservation.
- (iii) Explain weeding process and its purpose.
- (iv) Explain shelf preparation.
- (v) What is barcode labels.

PART - C:

Performance Standards:

The performance standards may include, but not limited to:

Performance Standards	Yes	No
Able to explain inventory control and reasons for following it in the libraries.		
Able to explain different steps involved in conducting an inventory control.		
Able to explain preservation its advantages and policies for it.		
Able to explain conservation and its importance.		



<p>Able to explain guidelines for conservation.</p> <p>Able to explain digitization, its benefits and various steps involved in digitization.</p> <p>Able to explain digital preservation and its need.</p> <p>Able to explain binding process and steps followed for binding of documents.</p> <p>Able to explain weeding and its importance.</p> <p>Able to explain the criteria for weeding and its procedure.</p> <p>Able to explain shelf preparation.</p> <p>Able to explain stack maintenance and maintenance of computers and online resources.</p>		
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CENTRAL BOARD OF SECONDARY EDUCATION

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