BLOCK 3 FILING, INDEXING AND PUBLISHING

BLOCK 3 FILING, INDEXING AND PUBLISHING

This is the third block of the course "Office Management and Secretarial Practices". This block is structured to cover the fundamentals and preliminary aspects of filing, indexing & publishing. The block on the theme "Filing, Indexing & Publishing" comprises of three units, the detail of which is mentioned below:

Unit 7: Discusses the meaning and importance of filing and the essentials of a good filing system. It also distinguishes between centralized and decentralized filing. It makes the learners understand the concept of paperless office methods of filing. The later part of the unit also discusses the steps of filing procedure.

Unit 8: Makes the learners aware about Indexing. It explains how to ensure that filed papers are located easily and quickly whenever they are needed and how to add to the efficiency of the filing method and ensures speed in finding the files that consequently result in savings in time, labor and the resultant economy.

Unit 9: Explains the meaning of publishing and publishing platforms including digital publishing platform, social media platform and content publishing platform. It discusses the concept of publishing annual reports, and publishing forms used in office. The later part of the unit deals with animated publishing in a multimedia format.

UNIT 7 FILING OF DOCUMENTS

Structure

- 7.0 Objectives
- 7.1 Introduction
- 7.2 Meaning and Importance of Filing
- 7.3 Essentials of Good Filing System
- 7.4 Office Filing Procedure
- 7.5 Centralized v/s Decentralized filing
 - 7.5.1 Centralisation
 - 7.5.2 Decentralization
 - 7.5.3 Centralized v/s Decentralized Filing
- 7.6 System of Classification
- 7.7 Concept of Paperless Office Methods of Filing
- 7.8 Steps of Filing Procedure
- 7.9 Digitalization and Retrieval of Records
- 7.10 Weeding of Old Records
- 7.11 Let Us Sum Up
- 7.12 Keywords
- 7.13 Terminal Questions

7.0 OBJECTIVES

After studying this unit, you should be able to:

- understand the meaning and importance of filing;
- discuss the essentials of a good filing system;
- understand the concept of Office Filing Procedure;
- distinguish between Centralized and Decentralized Filing;
- know about the system of classification;
- understand the concept of paperless office methods of filing; and
- discuss the steps of Filing Procedure

7.1 INTRODUCTION

While talking about filing let's go into the depth of the concept and understand "What is a file used for?". If we try to know the reason behind this question it is well versed that "A file is a container in a computer system for storing information". In a computer there are three types of files;

application files, data files, and system files. Files used in computers are similar in features to that of paper documents used in library and office files.

7.2 MEANING AND IMPORTANCE OF FILING

Filing refers to storing documents in a secure place and being able to locate them quickly and conveniently. This way the documents are less likely to tear, become misplaced, or get dirty. It is a central record-keeping mechanism of any organization. It aids you in being more systematic, organised, transparent and efficient.

In the age of paperless offices, you may think you need to convert all your physical records to electronic data that eventually rests on a variety of offline and online networks. Whether it is on the advice of your technology vendors, or due to newer mandates introduced in federal, state or industry-specific legislations, you may transfer vast amounts of personal, financial and business information onto the cloud. Many businesses have already shifted to the paperless office, or close to it. With online cloud-based storage systems, and digital transactions replacing cash, paperless may be the new normal. Even government agencies are getting onboard. The IRS now accepts digital images or paper copies of scanned items including:

- Cash receipts
- Bank statements
- Cancelled cheque
- Credit card statements

7.3 ESSENTIALS OF A GOOD FILING SYSTEM

The following are the chief characteristics of a good filing system:

- 1. **Simplicity:** The system should be simple so that the employees concerned may operate it without any difficulty.
- **2. Accessibility:** The system should enable files to be easily located and papers to be inserted in files without disturbing the arrangement.
- **3.** Compactness: The filing section should occupy reasonable space in view of the cost implication of large space.
- **4. Economy:** The cost of installation and operation of the system should be proportional to the benefits derived from it.
- **5. Flexibility:** The system should be capable of expansion as the activities of the organization expand.
- **6. Safety:** The records should be safe and available whenever they are needed. There should not be any danger regarding insects, rain and mishandling.

- **7. Retention:** There should be a well-defined policy of retaining or discarding the papers and records. Material no long required must be discarded periodically.
- **8.** Classification: Most suitable method of classification should be adopted. Too many miscellaneous files and bulky files must be avoided.

7.4 OFFICE FILING PROCEDURE

Office Filing Procedure is a set of clearly defined and followed by organisations practices in filing documents and important papers. In general, these are instructions to all the employees regarding actions are to be taken in case of certain situations. Office Filing Procedures can include Employee Job Descriptions, Workplace Etiquette, as well as Certain Confidentiality Protocols. Filing procedure consists of a series of steps to be taken for the preservation and use of paper in an office. But filing procedure varies from organization to organization, according to the volume and complexity of the records and the service requirements. A carefully designed filing procedure is, however, essential for all organizations.

7.5 CENTRALIZED V/S DECENTRALIZED FILING

7.5.1 Centralization

In a centralized organization, the decision-making powers are retained in the head office, and all other offices receive commands from the main office. The executives and specialists who make critical decisions are based in the head office. For example: Apple is an example of a business with a centralized management structure. Within Apple, much of the decision-making responsibility lies with the Chief Executive Officer (CEO) Tim Cook, who assumed the leadership role within Apple following the death of Steve Jobs.

Advantages of Centralized Filing

- There is no duplication of filing arrangements.
- There is better utilization of storage space.
- Easy location of documents and records are possible.
- There is full utilization of storage space available.

7.5.2 Decentralization

A decentralized network offers a wide range of benefits over the more conventional centralized network, including increased system reliability, scale, and privacy. Examples of decentralized businesses are Hotels, Supermarket, Dress showrooms, etc.



Disadvantages of Decentralization:

- Difficulty in coordination
- Wastage of resources
- Larger interest of the enterprise is neglected
- Delay in decision making
- Lack of qualified managers
- Certain activities in decentralization are not possible

7.5.3 Centralized v/s Decentralized Filing

Files in a centralized records center are controlled exclusively by the entire records department, while files in a decentralized records center are controlled by the end user who creates the files. Unlike a centralized records center, where the files are controlled exclusively by the records department, a decentralized location is controlled by the end user who creates the file.

Check Your Progress A

1.	What is a Filing system?
	THE DEADLE'S
2.	What does simplicity mean in a good filing system?
3.	How does centralization differ from decentralization?

Give an example of decentralized business.	Filing of Documents

7.6 SYSTEM OF CLASSIFICATION

A file classification scheme (also known as a file plan) is a tool that allows for classifying, accessing and retrieving records. It is presented as a hierarchical structure of classification levels and is based on the business activities that generate records in a specific organizational business setting. There are three sorts of filing and classification systems: alphabetical, numeric, and alphanumeric. Depending on the information being filed and classified, each of these filing systems offers advantages and disadvantages. You can also divide each form of file system into subgroups. The most logical, practical, and flexible sort of system for the information involved is used in an effective filing classification system. The following are some of the classification methods:

Alphabetical Topical Filing Systems

4.

Alphabetical topical systems organise information by topic and then file the topic labels alphabetically. This system does not keep related subjects together. When dealing with small amounts of data, this type of method usually works best. A "dictionary" system is a term used to describe this type of file and classification system. When filing personal names, last names are utilised as the primary sorter, with first names used only if the last names are identical.

Alphabetical Encyclopedia Filing Systems

Information is first broken down by main category in a "encyclopaedia" file and classification system, with sub-categories organised alphabetically. This type of filing system is very beneficial for dealing with vast amounts of data since it eliminates the need for users to remember the name of a certain file in order to locate it. Instead, users can seek for a generic category and then search within it for the precise file they require.

Alphabetical Geographic Filing Systems

The alphabetical geographic filing system is a subset of the encyclopaedia filing and classification system. The key categories are divided by locations

in a geographic system. From countries to cities to field offices, you can use any size or type of location. In this type of system, the users begin by selecting the relevant geographic area for their search, then search alphabetically within that topic to get the precise information they are looking for.

Straight Numeric Filing Systems

Straight numeric filing and classification system starts with labeling the first file as number one and each file is labelled with a subsequent number It is very simple to use. However, the usage of this system is limited, because this type of system frequently requires an index to assist users in finding the files they want, and the files which involve high-activity might become congested around the same numeric area.

Duplex Numeric Filing Systems

Files are labelled with numeric labels in duplex numeric filing systems, which require several sets of numbers. This type of file system is capable of dealing with massive amounts of information. The different sets of numbers can correlate to broad categories and subcategories, similar to how an encyclopaedia files and classifies information. One disadvantage of such a system is that understanding what each cluster of numbers refers to necessitates the use of an index. The Dewey Decimal system, which is used by most libraries to catalogue their collections, is an example of a duplex numeric system.

Chronological Filing Systems

Chronological filing systems are a subtype of numeric filing systems in which files are organised by date. Typically, files are organised by year, month, and then day. This is how most correspondence files, such as email lists, are organised, with the most recent data listed first.

Alphanumeric Filing Systems

In alphanumeric filing systems, Information is classified by category in an encyclopedic system utilising both numbers and letters to represent categories. When both letters and numbers are used, a far larger range of categories is available than when only numbers are used. As a result, the alphanumeric Library of Congress filing and classification system allows for a wider range of categories than the Dewey Decimal system, which is confined to ten major categories.

7.7 CONCEPT OF PAPERLESS OFFICE METHODS OF FILING

An effective office filing system is crucial for any business that handles invoices, receipts, and other records, whether on paper or digitally. Even for businesses that don't deal with much paperwork, staying organized and efficient will help keep operations running smoothly. Office filing systems

come in all forms, from the simple cabinet drawer, to complex assortments of digital servers. In order to create a system that works for you, it's important to know which files are more important, who needs the access, and how they can be retrieved easily and efficiently.

Going paperless is digitally storing and arranging all relevant papers and data, rather than physically placing them in a filing cabinet. This not only reduces a significant amount of paper clutter, but it also allows consumers to securely access all of their information directly from their smartphone.

There are various methods of filing by

- Subject or Category.
- Alphabetical order.
- Numbers or Numerical order.
- Places or Geographical order.
- Dates or Chronological order.

7.8 STEPS OF FILING PROCEDURE

The common steps for filing followed in all organizations are given below:

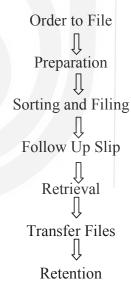


Figure 7.1: Steps of Filing Procedure

Order to File

All documents need not be filed because all papers are not equally important. Hence, a responsible officer should decide whether the record in question is to be preserved or not. Therefore, no document should be filed unless the concerned official orders it to be filed. He should write the order, sign it and put the date. Only such documents should be filed. All unnecessary documents, therefore, shall not get accumulated in the folders.



• Preparation

In preparing the record filing, the record clerk should read the paper and ascertain its filing classification. All related papers should also be attached to the main record. Ruth L.Moore house suggests that they should be stapled in the top left hand corner. The papers should be then punched if they are to be fastened in files or folders. The record should be marked or indexed for classification with a color pencil or by encircling key words or numbers on the record. If necessary, a cross-reference should also be made on the record.

• Sorting and Filing

After coding, indexing and cross-referencing, the papers should be carefully filed in the correct classification. If necessary, the folders should be removed and opened flat and the latest record should be placed on the top. Chronological order is an accepted practice, because this would help the staff to locate the document easily in case of future reference.

Follow Up Slip

Some documents — for instance purchase orders, bills for payments etc. require follow up action. The concerned executive should note the follow up instructions. The filing clerk should then prepare a follow up slip and should attach it to the relevant paper on files. An extra copy of such paper may be kept in the follow up file as a reminder so that the filing clerk can send the required paper to the concerned officer on the specified date.

Retrieval

Whenever any file needed by the executive for any reference, it should be removed from the cabinet only when a written requisition is sent by him. On receipt of the requisition, the filing clerk should prepare an "Out guide" or out card. A notation should be made on the out card as to the date of withdrawal, the name of the person who has withdrawn the file and the approximate date by which it should be returned. The out card is put in the place of the file on the document in the folder, which is removed till the file, or the paper is returned back. The records should be periodically verified say once in two weeks or once in a month and a list of overdue records or files is prepared. Requests should also be sent to the concerned officials who are keeping the file to return them.

Transfer Files

The documents are kept in the file for some time according to the rotation policy of the organization. After their active life is over, they may not be frequently needed. When the life of a document is permanently over and will no longer be required, it can be destroyed. However, certain documents may be alive but they may not be frequently

required. Such files or folders or documents can be transferred and stored in a clean dust proof manner.

Retention

Some documents due to their legal requirements or active use should be retained for a long period. The management should therefore lay down a definite policy of records retention and destruction.

7.9 DIGITALIZATION AND RETRIEVAL OF RECORDS

Digitizing (also known as digital imaging or scanning) is defined as the process of converting any hard- copy, or non-digital record into digital format. This includes digitizing text, photographs, maps, microfilm; converting analogue voice recordings to digital media, etc. If digitization is a conversion of data and processes, digitalization is a transformation. More than just making existing data digital, digitalization embraces the ability of digital technology to collect data, establish trends and make better business decisions. There are various advantages to digitalization including increased efficiency, increased productivity, lower operational costs, improved customer experience, higher agility, enhanced employee morale, improved communication, increased transparency, improved competitive advantage, and faster decision making.

Benefits of Digitized Records for Organizations

- No transcription errors.
- Enhanced Digital Workflow processes.
- Better accessibility to information.
- Faster record retrieval through title tags and meta-description.
- Single source of truth for any litigation, audit or compliance support.
- Strategic move for Big Data handling.

7.10 WEEDING OF OLD RECORDS

Weeding is the act of removing unnecessary files from the active records. The result is significant savings in storage space and faster and more efficient retrieval of information for research purposes. If a record is required in connection with the disposal of another record, the former will not be weeded out until after all the issues raised on the latter have been finally decided, even though the retention period marked on the former may have expired in the meantime.

During the drive each and every file/register/document and other records lying for three years and above may be examined and reviewed and its life span be decided. All files/documents/records, which have become obsolete, should be weeded out as per Procedure laid down.

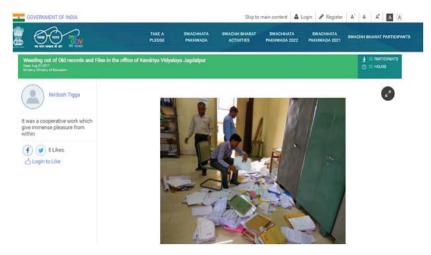


Figure 7.2: Weeding of Old Record https://swachhbharat.mygov.in/challenge/weeding-out-old-records-and-files-office-kendriyavidyalaya-jagdalpur-0

The maintenance, preservation and retirement of records is one of the important functions of the office. The periodic weeding out of records is important to prevent unmanageable growth of old records which occupies precious office space.

Check Your Progress B

Ι.	what is a chronological filing system?
	THE DEADLE'S
	IINIIV/EDQIFV
2.	What do you mean by retention?
3.	Define digitization.

Filing	of	Documents

4.	What do you mean by Retrieval?	riing of Documer

7.11 LET US SUM UP

Filing means keeping documents in a safe place and being able to find them easily and quickly. A filing system is the central record-keeping system for an organization. It helps you to be organized, systematic, efficient and transparent.

The following are the chief characteristics of a good filing system: Simplicity, Accessibility, Compactness, Economy, Flexibility, Safety and Retention.

Office Filing Procedure is a set of clearly defined and pan-organization followed practices in filing documents and important papers. In general, these are instructions to all the employees on what actions are to be taken in case of certain situations, likely or unlikely. Office Filing Procedures can include Employee Job Descriptions, Workplace Etiquette, as well as Certain Confidentiality Protocols.

In a centralized organization, the decision-making powers are retained in the head office, and all other offices receive commands from the main office. The executives and specialists who make critical decisions are based in the head office. A decentralized network offers a wide range of benefits over the more conventional centralized network, including increased system reliability, scale, and privacy. Files in a centralized records center are controlled exclusively by the entire records department, while files in a decentralized records center are controlled by the end user who creates the files.

A file classification scheme (also known as a file plan) is a tool that allows for classifying, titling, accessing and retrieving records. It is presented as a hierarchical structure of classification levels and is based on the business activities that generate records in a specific organizational business setting.

An effective office filing system is crucial for any business that handles invoices, receipts, and other records, whether on paper or digitally. Even for businesses that don't deal with much paperwork, staying organized and efficient will help keep operations running smoothly. There are various methods of filing: filing by subject/category, filing in alphabetical order, filing by numbers/numerical order, filing by places/geographical order and filing by dates/chronological order.

The common steps for filing found in all organizations are order to file, preparation, sorting and filing, follow up slip, retrieval, transfer files and retention.

Digitizing (also known as digital imaging or scanning) is defined as the process of converting any hard- copy, or non-digital record into digital format. This includes digitizing text, photographs, maps, microfilm; converting analogue voice recordings to digital media; etc. If digitization is a conversion of data and processes, digitalization is a transformation. There are various advantages to digitalization including increased efficiency, increased productivity, lower operational costs, improved customer experience, higher agility, enhanced employee morale, improved communication, increased transparency, improved competitive advantage, and faster decision making.

Weeding is the act of removing unnecessary files from the active records. The result is significant savings in storage space and faster and more efficient retrieval of information for research purposes.

7.12 KEYWORDS

Centralization: In a centralized organization, the decision-making powers are retained in the head office, and all other offices receive commands from the main office.

Decentralization: A decentralized network offers a wide range of benefits over the more conventional centralized network, including increased system reliability, scale, and privacy.

Digitizing: Digitizing (also known as digital imaging or scanning) is defined as the process of converting any hard- copy, or non-digital record into digital format.

File classification scheme: It is a tool that allows for classifying, titling, accessing and retrieving records.

Filing: It means keeping documents in a safe place and being able to find them easily and quickly.

Filing system: It is the central record-keeping system for an organization. It helps you to be organized, systematic, efficient and transparent.

Office Filing Procedure: It is a set of clearly defined and pan-organization followed practices in filing documents and important papers.

Weeding: It is the act of removing unnecessary files from the active records.

7.13 TERMINAL QUESTIONS

- 1. What are the chief characteristics of a good filing system?
- 2. What do you mean by Filing? Why is it important?
- 3. What is centralisation? What are its advantages?

- 4. What is decentralization? What are its advantages?
- 5. How is the alphabetical filing system different from the numerical filing system?
- 6. Write a short note on the filing classification system.
- 7. What are the various steps in filing?
- 8. What are the benefits of digitized records for organizations?

Note: These questions will help you to understand this unit better. Try to write answers for them. But do not submit your answers to the University for assessment. These are for your practice only.



UNIT 8 INDEXING DOCUMENTS

Structure

- 8.0 Objectives
- 8.1 Introduction
- 8.2 Meaning of Indexing
- 8.3 Significance of Indexing
- 8.4 Essentials of a Good Indexing System
- 8.5 Advantages of a Good Indexing System
- 8.6 Types of indexing
 - 8.6.1 Choice of a Suitable Index System
- 8.7 Impact of Indexing in Office Management
- 8.8 Indexing Data Structure
- 8.9 Indexing Websites at Search Engines
- 8.10 Let Us Sum Up
- 8.11 Keywords
- 8.12 Terminal Questions

8.0 OBJECTIVES

After studying this unit, you should be able to:

- discuss the meaning and significance of indexing;
- know the essentials and advantages of a good index system;
- know the types of indexing;
- understand the impact of indexing in office management;
- understand indexing data structure; and
- discuss indexing websites at search engines.

8.1 INTRODUCTION

Today, everything is done digitally. As the company expands and becomes more contingent on a paperless office system, It should be made sure that the greatest tools and processes are used. This includes two extremely important processes namely, filing and indexing. Indexing is something that should not be overlooked. If done correctly, it will save both time and money in the long run. This unit highlights the benefits of document indexing and its importance in Office Management.

8.2 MEANING OF INDEXING

Indexing is the act of describing or classifying, by index terms, or other symbols. Document indexing is the process of associating or tagging documents with different "search" terms. It is the technique of deciding the name, subject, or other subtitle under which the archives are to be recorded and filed. The process of indexing begins with an analysis of the subject of the document. Indexing helps in the speedy identification of records and archives in the documenting arrangement of the workplace. It does not just aid in the speedy area of the archive, yet additionally, helps in an orderly plan of a record in a document. In the cutting-edge office, indexing assumes a vital part in a documenting framework.

An index is not only essential to big offices but also obligatory to small offices too. When a large number of files are maintained, the necessity of maintaining an index is enlarged. Indexing plays out vital support in documenting capacity and filing function. The index is a demonstrative list utilized for finding a specific report in the documenting gear. Correspondingly, while recording an archive, the list helps the records assistant in following out where the specific paper should be documented. Essentially when countless records are kept up for a variety of purposes, the list is exceptionally significant. An index is something that demonstrates or calls attention to. Good indexing has the following qualities:

- **Simplicity:** It is an essential quality of indexing.
- **Economical:** Being economical is a characteristic of a good indexing system.
- **Flexibility:** Indexing improves the flexibility of the organization.
- Quick location: It should quickly locate required files, records, and documents.

8.3 SIGNIFICANCE OF INDEXING

In our previous unit, we had seen how important filing is. In this unit, we will learn that Indexing is an important aid to filing. Filing and indexing are so interconnected that filing without indexing is imperfect and indexing without filing does not subsist. The prime reason for Indexing is to work with documenting and to facilitate filing. An office gets a few reports every day. Indexing gives a reference rundown of records by names, subject, and date. The required records can be immediately distinguished for the appropriate recording of archives.

Record management conveys huge significance in any organization. Record management is worried about keeping records securely and giving them according to the necessity. Indexing is an instrument of record management that makes it conceivable to figure out the records effectively and rapidly.

Documenting without indexing is insignificant. In this regard, some significances of indexing are as below:

- **1. Easy location:** Indexing calls attention to the required records or documents and works with simple areas and facilitates easy location.
- **2. Saves time and efforts:** Indexing gives the prepared reference to the records and saves the time and endeavors of the workplace.
- **3. Efficiency:** Indexing assists with figuring out the records effectively and rapidly which upgrades the proficiency of the workplace.
- **4.** Cross-reference: A specific record can be kept up in two ways. Indexing works with tracking down such records through cross-reference.
- **5. Reduce cost:** Indexing assists with diminishing the expense of the office by saving time and exertion.

8.4 ESSENTIALS OF A GOOD INDEXING SYSTEM

The principle motivation and purpose for Indexing is to work with documenting and facilitate filing. An office gets a few documents and records on a day-to-day basis. Indexing gives a reference rundown of documents by names, subject and date. The required records can be immediately recognized for legitimate and proper recording of reports. To accomplish these targets objectives, a good system of indexing should have the below features:

- It should be easy to understand, comprehend and be simple;
- In terms of operations, it should be economical;
- It should allow for speed and efficiency;
- It should go well and hand in hand with the system of filing and recording in the organization or association; and
- To allow for expansion, it should be flexible when needed.

8.5 ADVANTAGES OF A GOOD INDEXING SYSTEM

A well-designed good system of indexing that goes well and fits with the filing methods gives the below benefits:

- 1. Easy location: Locating the necessary papers and documents can be easy. No additional time is required. Hence, referencing will not be a painful and tedious process.
- **2. Easy cross-referencing:** A good and well-designed system of indexing also make sure about easy cross-referencing and thus, saves worries and time.

- **3. Economy:** The cost shall be reduced and there's increased efficiency. Hence, a good and well-designed index ensures the economy in records keeping management.
- **4. Make filing easier:** The primary goal of indexing is to make filing easier. Every day, an office receives a large number of documents. Indexing creates a reference list of files based on their names, subjects, and dates. The necessary files can be quickly identified for proper document filing.
- **5. Increase efficiency:** Indexing helps to improve office efficiency. It saves time and effort when looking for documents. It brings smoothness and promptness in office operations. As a result, office employees' productivity improves and office costs are reduced.
- **Maintain privacy:** Another goal of indexing is to maintain privacy. Indexing helps to maintain the confidentiality of office matters. Without an index, it is difficult to locate office files and documents.
- 7. **Systematic filing:** Indexing helps in the development of a systematic filing system. Filing without indexing is incomplete. A filing system in a modern office cannot function without indexing.

Check Your Progress A:

1.	List the qualities of a good indexing system.
2.	"Indexing gives the prepared reference to the records and saves the time and endeavors of the workplace". Comment.
3.	"A filing system in a modern office cannot function without indexing." Comment

Filing, Indexi	ng and
Publishing	

4.	State the importance of indexing

8.6 TYPES OF INDEXING

Various types of indexes are used in different offices according to their requirements. The main types of indexes are:

- 1. Page Indexing: Page Index consists of a few pages for each alphabet, each with a tab displaying the letter. Each page begins with that letter and quotes the relevant reference, which is usually a number. This type of index is commonly used for minutes, customer and supplier ledgers etc. Page Index can be of two types:
- **Book Index:** A book index is also known as a bound index. In this, an alphabetical index is created in a bound book or register. Pages cannot be misplaced or rearranged because they are bound. Names are entered on each page in the order in which they first appear.
- Loose-leaf book index: A loose-leaf index is one in which pages are held by a device that allows the pages to be removed or additional pages inserted. The sheets of paper are fitted on metal hinges and screwed. When inserting a metal leaf or removing an old leaf, the book is unscrewed and the appropriate sheet is inserted or removed.
- 2. Loose or vertical card indexing: This method assigns separate cards of uniform size to each subject, customer, or document. These cards contain the names and other information to be indexed. These cards are vertically filed and have reference numbers at the top. The cards are filed in some sort of order, such as alphabetical, numerical, or any other appropriate method. They are placed in drawers or boxes of appropriate size. This system is widely used in banks, libraries, hospitals, and offices for a variety of purposes. This indexing type is highly flexible, economical and easy to understand.
- 3. Visible card indexing: Cards are laid flat in transparent covers in a shallow tray or a metal frame in this method. Each card is fitted into metal hinges so that its edge projects the width of one line beyond the edge of the next card. This allows to read one line on each card without having to turn the card. This index is extremely helpful to management in controlling the affairs of the office.

- 4. Strip indexing: This is a type of visible card indexing that is used when the entries are limited to a few lines (Names, addresses etc.). It is made up of a frame into which strips of stiff paper covered in clear plastic can be inserted. Each strip is dedicated to a single correspondent, file, or item. Frames with strips can be hung on the wall or placed on a rotary stand. The strip can be protected from exposure or damage with removable transparent, celluloid or plastic window sheets.
- 5. Wheel or rotary indexing: The wheel or rotary index is a modified form of visible card index. Cards are arranged around the circumference of a wheel, which can be portable or fixed in a cabinet or desk. Entries can be made on the card without removing it from the wheel. A single wheel can hold nearly 5,000 cards, and six wheels can be set up within easy reach of the clerk sitting at his desk. The capacity can be increased further by arranging larger diameter wheels without disturbing the other cards, and scanning the entire card without removing them.

8.6.1 Choice of a Suitable Index System

Not each of index is suitable for every organization. The choice of a suitable indexing system requires is based on the following factors;

- Volume of information;
- The frequency of withdrawals and insertions;
- Nature and number of entries made every day;
- Cost of the equipment;
- Space requirements and the availability of space; and
- The need for the use of signals.

8.7 IMPACT OF INDEXING IN OFFICE MANAGEMENT

Indexing means an arranged system through which the required documents and papers are easily located for the speedy disposal of urgent and/or ordinary matters. The various files are maintained for different departments on various topics. Therefore, an indicator (index) is necessary to locate the files. The goal of indexing is best accomplished when the right kind is decided to file framework. In any case, in different frameworks of grouping, it becomes fundamental to give an index to clients, providers, credit ratings, phone numbers, etc. The index is likewise expected for various types of registers, ledgers, and records. A good procedure and system of indexing, i.e., which works out positively for documenting strategies in the association, provides the following advantages:

• **Trouble-free site:** The necessary papers and records are found essentially with the assistance of their index.

- Easy Cross-Referencing: It guarantees simple cross-referring and thus saves time
- **Lower Costs:** The working expenses of the organization of the records are additionally low because of the better effectiveness of the records administration. Time is not wasted in finding the compulsory archives or papers.
- **Economy Results:** It guarantees speed and thus, the economy results because of the speed.

8.8 INDEXING DATA STRUCTURE

Indexing is a method for streamlining the exhibition of a database by limiting the number of disk accesses required when a question is handled. It is a data structure procedure that is utilized to find and access the information in a database. Indexes are made utilizing a couple of database sections or columns. Indexing is a data structure method to proficiently recover records from the database documents in light of certain traits on which the indexing has been finished. Indexing in database frameworks is like what we find in books. Indexing is characterized in view of its ordering credits.

8.9 INDEXING WEBSITES AT SEARCH ENGINES

Due to virtualization, the office is virtually available or rather we can say it is on the Website and APP. Website indexation is the process by which a search engine adds web content to its index. This is done by "crawling" web pages for keywords, metadata, and related signals that tell search engines if and where to rank content. Indexed websites should have a navigable, findable, and clearly understood content strategy. Website indexing requires downloading data from webpages and storing it in databases by search engines. It is done because the processed data need to display the most relevant results to their users. A website, blog, or new page can be indexed by search engines like google in less than an hour. Further, the sitemap also tells how often to look for changes and new pages on the site.

Check Your Progress B:

1.	What do you understand by indexing data structure?

Indexing	Document
IIIUCAIII2	Document

۷.	what is visible card indexing:
3.	Write a short note on website indexing?
4.	List the factors impacting the choice of a suitable indexing system.

8.10 LET US SUM UP

What is visible and indexing?

Today, everything is done digitally. As the company expands and becomes more contingent on a paperless office system, it should be made sure that the greatest tools and processes are used. This includes two extremely important processes namely, filing and indexing. Indexing is the act of describing or classifying, by index terms, or other symbols. Document indexing is the process of associating or tagging documents with different "search" terms. It is the technique of deciding the name, subject, or other subtitle under which the archives are to be recorded and filed. The process of indexing begins with an analysis of the subject of the document. Indexing helps in the speedy identification of records and archives in the documenting arrangement of the workplace. Good indexing has the qualities such as simplicity, economical, flexibility, and quick location.

Filing and indexing are so interconnected that filing without indexing is imperfect and indexing without filing does not subsist. The prime reason for Indexing is to work with documenting and to facilitate filing. An office gets a few reports every day. Indexing gives a reference rundown of records by names, subject, and date. The required records can be immediately distinguished for the appropriate recording of archives. Indexing provides

ease of location, saves time and efforts, promotes efficiency, and cross-referencing, and reduced costs.

The principle motivation and purpose for Indexing is to work with documenting and facilitate filing. An office gets a few documents and records on a day-to-day basis. Indexing gives a reference rundown of documents by names, subject, and date. The required records can be immediately recognized for legitimate and proper recording of reports. A well-designed good system of indexing that goes well and fits with the filing methods gives the various benefits such as easy location, easy cross-referencing, making filing easier, increase efficiency, maintaining the privacy and systematic filing, etc.

Various types of indexes are used in different offices according to their requirements. The main types of indexes are Page Indexing, Loose or vertical card indexing, Visible card indexing, Strip indexing and Wheel or rotary indexing. Indexing means an arranged system through which the required documents and papers are easily located for the speedy disposal of urgent and/or ordinary matters. The various files are maintained for different departments on various topics. A good procedure and system of indexing, i.e., which works out positively for documenting strategies in the association, provides various advantages such as trouble-free site, easy cross-referencing, lower costs, economy results, etc.

Indexing is a method for streamlining the exhibition of a database by limiting the number of disk accesses required when a question is handled. It is a data structure procedure that is utilized to find and access the information in a database. Indexes are made utilizing a couple of database sections or columns. Due to virtualization, the office is virtually available or rather we can say it is on the Website and APP. Website indexation is the process by which a search engine adds web content to its index. This is done by "crawling" web pages for keywords, metadata, and related signals that tell search engines if and where to rank content.

8.11 KEYWORDS

Indexing: Indexing is the technique and procedure of deciding the name, subject, or another subtitle under which the archives are to be recorded and filed.

Page Indexing: Page Index consists of a few pages for each alphabet, each with a tab displaying the letter.

Record management: It is concerned with keeping records safely and providing as per the requirement.

Strip indexing: This is a type of visible card indexing that is used when the entries are limited to a few lines (Names, addresses etc.).

Indexing Documents

Vertical card indexing: This method assigns separate cards of uniform size to each subject, customer, or document. These cards contain the names and other information to be indexed.

Website Indexing: Website indexing is the process of downloading data from web pages and storing it in databases by search engines.

Wheel or rotary indexing: The wheel or rotary index is a modified form of visible card index. Cards are arranged around the circumference of a wheel, which can be portable or fixed in a cabinet or desk.

8.12 TERMINAL QUESTIONS

What is the significance of indexing?

What are the essential qualities of indexing?

State the Advantages of a good indexing system.

State the significance of indexing in office management.

What is Indexing? Discuss the different types of indexing?

Note: These questions will help you to understand this unit better. Try to write answers for them. But do not submit your answers to the University for assessment. These are for your practice only.



UNIT 9 PUBLISHING DOCUMENTS

Structure

- 9.0 Objectives
- 9.1 Introduction
- 9.2 Meaning of Publishing
- 9.3 Publishing Platforms
 - 9.3.1 Digital Publishing Platform
 - 9.3.2 Social Media Platform
 - 9.3.3 Content Publishing Platform
- 9.4 Published Annual Reports
- 9.5 Portable Digital File (PDF)
- 9.6 Conversion of Document to Word/PDF/JPG
 - 9.6.1 JPG to Word
 - 9.6.2 Image to Doc
 - 9.6.3 DOCX to Word
- 9.7 Animated Publishing in a Multimedia Format
 - 9.7.1 Kindle Direct Publishing
 - 9.7.2 Microsoft Publisher
- 9.8 Let Us Sum Up
- 9.9 Keywords
- 9.10 Terminal Questions

9.0 OBJECTIVES

After studying this unit, you should be able to;

- understand the meaning of publishing and publishing platforms;
- know about the different types of publishing platforms;
- understand the benefits of PDF;
- understand the process of document conversion; and
- understand the concept of Multimedia format

9.1 INTRODUCTION

Technological advancement and user consumption is rapidly changing the world of publishing, and the most recent transformation is happening faster than before. The question is, what lies ahead, and is the publishing platform ready for it? The digital publishing platform is a collection of tools which makes it easier to publish lengthy texts and also the graphic-focused editions, e.g. albums or catalogs) in a digital format, that can be read on computers,

tablets, and smartphones. Publishers are at a difficult crossroads because they must provide material not just for their own needs, but also for "feeds" to an increasing number of publishing platforms. In many ways, these platforms are becoming the new product and delivery formats for publishers. Technology and user consumption are rapidly evolving. Many publishers are scrambling to figure out how to make their material available in a variety of digital forms, including Apple News, Facebook Instant Articles, Adobe DPS articles, and others.

9.2 MEANING OF PUBLISHING

In today's 24-hour culture, investors need to be able to get information quickly. Publishing is the act of providing information, software, music, literature and other forms of content to the general public free of cost or on sale. The term publishing has traditionally been used to describe the development and distribution of printed materials such as books, magazines, and newspapers. It means sharing your work with others. Now, there are three types of publishing in use around the world that you should become familiar with: traditional publishing, self-publishing and hybrid publishing.

9.3 PUBLISHING PLATFORMS

There is a well-known saying that "Your platform has nowhere to go but up with the right marketing strategy". Publishers are typically thought to have editorial judgment, whereas platforms do not. The Harvard Business Review, The New York Times, and The Atlantic are classic "publishers" in this regard, as they deliver highly-curated information and devote a significant amount of effort to its creation. Facebook, which owns Instagram, asserts that it is a platform, citing Instagram as an example of Platforms within the social networking umbrella. Facebook, on the other hand, is a publisher and is responsible for its content. The term "publishing platform" might refer to one of two things. The first, and by far the most popular, definition is the number of individuals an author can reach and persuade to buy their next book. The other is a collection of software and vendor partnerships put together by a would-be Pay to Publishing Company in order to allow authors to pay for their own book's publication.

9.3.1 Digital Publishing Platform

Digital publishing (also known as e-publishing or online publishing) is the process of publishing e-books, magazines, reports, white papers, and other long-form content on the web or on electronic carriers. Articles and flipbooks are both included in digital publishing. Both are perfectly viable ways for readers to consume their favorite publications, and digital publishers must adapt and offer their audience the format that best suits their needs. A digital publishing platform, in simple terms, is a programme that allows you to effortlessly publish your material digitally. Consumers in today's society

expect instant access to the things they require and enjoy. Digital media is also included in this. At the time when social media platforms like Facebook and Twitter were making their imprint on the internet, News platforms like Huffington Post were creating a new path. Publishers are currently struggling to stay relevant as they learn to adapt. If you publish in print media, you should be aware of the rapid changes that are affecting your sector. It's time to start looking for digital publishing platforms. We also know that digital publication can take many other forms, including online periodicals and e-books.

Websites, blogs, and social networking platforms are all examples of digital technology, as well as games, CDs, films, applications, and other downloadable materials – even a simple text message is a type of digital publication marketing. Digital publishing, on the other hand, enables the authors to create right content for the readers.

Advantages of Digital Publishing

- Cost-Effective
- Eases the Process of Book Creation
- Interactive Reading Experience
- Editing Is Possible Even After Publishing
- Analyze Distribution and User Behavior
- Wider Reach

Disadvantages of Digital Publishing

- It is not Free.
- Lack of Control.
- Boredom.
- Streamlined Publishing.
- Information can be wrong.
- It Requires Computing Equipment

Examples of digital publishing software

- Quark A Saas platform that allows digital publishing, content distribution and management.
- Kitaboo Digital Publishing Platform is a cloud-based digital publishing platform that helps in creation, publication, and distribution of interactive mobile-ready content.
- Joomag. An all –in one digital publishing platform to create, distribute, engage and measure interactive digital publications.
- Readz.



- Zmags.
- Mag Loft.
- YUDU.

9.3.2 Social Media Platform

According to the analysis by Kepios, there are more than 4.62 billion social media users worldwide in January 2022, accounting for 58.4 percent of the global population. In addition, the number of people using social media has increased dramatically in the last year, with 424 million additional users joining since this time last year. While the phrases "social media" and "social network" may appear to be synonymous, they are not. In essence, social media is a platform for disseminating information, whereas social networking is a platform for communication.

Various Types of Social Media

- Social Networking
- Photo Sharing
- Video Sharing
- Interactive Media
- Blogging/Community Building

Examples and functioning of Social Media Platforms

- YouTube: YouTube is also considered as a social media platform.
 Furthermore, it is the second most used search engine after Google.
 Every day, users watch a billion hours of video on YouTube, which is a video-sharing network.
- **Instagram:** Instagram has long been the home of bloggers, influencers, brands, small business owners, friends and everyone in between. It has over 1 billion monthly users.
- **Facebook**: Facebook is the most popular social networking platform, with over two billion monthly users.
- WhatsApp: WhatsApp Business allows firms to provide customer service and communicate updates about their purchases with their customers.

9.3.3 Content Publishing Platform

The heart of a modern tech stack is a content platform. It collects, organizes, and distributes content across a company's digital footprint. It features adaptable APIs that let companies create engaging experiences across markets and media.

Types of content

Blog Posts/Articles

- White Papers, eBooks, and Reports
- Podcasts
- Email Newsletter/Nurturing Campaigns
- Videos
- Thought Leadership or POVs
- Infographics

Check Your Progress A

1.	What is Publishing?
2.	Give examples of digital publishing software
	THE PEOPLE'S
3.	Give examples of various types of social media?
	ONIVERSIII
4.	Give three examples of social media platforms.

9.4 PUBLISHED ANNUAL REPORT

An annual report is a document that public companies are required to publish to their shareholders every year. It summaries their activities and financial position. The annual report is released at the end of the financial year. "Who writes yearly reports?" is now the question. Many publicly traded companies either prepare their annual reports in-house or outsource them to large accounting firms, professional writing agencies, and graphic artists who develop eye-catching brochures to accompany the reports. One can often find a company's annual reports on the company's website that contains information for investors.

- Financial figures, statements from the CEO and Board Chair, and major activities and accomplishments are often included in annual reports. Annual reports are designed to provide a true picture of an organization's activities over the course of a fiscal year.
- Annual reports are detailed publications that give readers information about a company's performance during the previous year. The reports include details such as financial information performance highlights, a letter from the CEO, and future aims and ambitions.

Components of Annual Reports

- Director's message to shareholders.
- Information on corporate governance. read more.
- Financial highlights.
- Management discussion and analysis.
- Shareholding pattern, management/board of directors' information.
- Detailed and audited financial statements.
- Statement of financial position.
- Income statement.

9.5 PORTABLE DIGITAL FILE (PDF)

The Portable Document Format, or PDF, is the first non-physical thing presented: it is a digital file format created by Adobe in 1993 and made available for free. While it was proprietary at the time, the fact that it was free meant that it could be used by anyone, regardless of which systems they possessed or whether they were compatible with one another. Adobe released the PDF specifications as an open standard in 2008, effectively making it a non-proprietary file format. PDF (Portable Document Format) is a file format that has captured all of the elements of a printed document as an electronic image that can be viewed, navigated, printed, or forwarded to others. PDF files are made with Adobe Acrobat, Acrobat Capture, or similar products.



Figure 9.1: Acrobat

Source: Acrobat

PDF is an open, standardized, and widely-competent digital document technology that has proven to be capable of bridging the gap between paper and electronic documents. Advanced information, authentication, semantic tagging, attachments, 3D, and other characteristics of PDF provide a strong foundation for future development of digital documents.

Portable Document Format (PDF) is an open file format for transferring electronic documents. PDF-encoded documents, forms, photos, and web pages can be viewed on any device, including smartphones and tablets. To support workflows that require these characteristics, the PDF specification additionally includes encryption and digital signatures, file attachments, and metadata.

Advantages of PDF

- Graphic Integrity: No matter what operating system, device, or software application is used to view a PDF, the content and layout remain the same.
- The PDF is now an open standard, maintained by the International Organization for Standardization (ISO). PDF documents can contain links and buttons, form fields, audio, video and business logic. They can be signed electronically and you can easily view PDF files on Windows or Mac OS.
- Multi-Dimensional
- Convenient
- Secure
- Compact

9.6 CONVERSION OF DOCUMENT TO WORD/PDF/JPG

Anyone may convert Word, Excel, PowerPoint...(doc, xls, ppt...), image formats like TIFF, JPG, HEIC, and many others to PDF, PDF/A, or Image with the Online Document Converter. The following are some of its benefits:

- There's no need to download anything; simply upload the file and choose your delivery option.
- The document will look precisely like the original, regardless of any device it is displayed on.
- The programme has an easy-to-use interface: simply drag and drop your files, choose an output format, and click Start.
- The output files will retain the original files' structure, page layout, text formatting, fonts, and hyperlinks after conversion.

9.6.1 JPG to Word

JPG is one of the most common and helpful formats for organizing and sharing pictures on the internet. People from all over the world choose this format for uploading and sharing photos on the web and social media. Its compact size is one of the reasons for its popularity. However, there is a drawback to this format: you cannot add or edit anything in it. It is also simple to duplicate a person's JPG file without his or her permission because it lacks security safeguards. Word, on the other hand, is the greatest and most secure document handling and sharing format. The teachers, researchers, students, bankers, or people from almost every other field of life prefer this format to transfer data from one device to another through the web. This format gives you the most flexibility when it comes to making modifications to your data.

9.6.2 Image to DOC

Converting JPEG to Word is a time-consuming operation, but you can save time by using our online JPG to Word converter. The steps below will show you how to utilize this jpg to doc converter without any difficulty. You can use this tool to upload your images by clicking the "Upload" button, or you can use the "From Dropbox" button to upload your JPG from your cloud storage drive. To begin the conversion process, click the "Convert to Word" button after you've uploaded your file.

9.6.3 DOCX to WORD

DOCX is an XML based word processing file developed by Microsoft. DOCX files are different from DOC files as DOCX files store data in separate compressed files and folders click the "choose files" button to select your Docx files. Clik the "Convest to word" button after uploading the file.



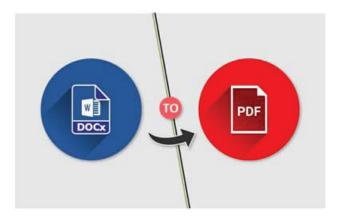


Figure 9.2: Converting Word Doc to PDF

9.7 ANIMATED PUBLISHING IN A MULTIMEDIA FORMAT

In our previous course BCOS-183: computer application in business we have learnt about Multimedia in Detail. In this unit we will go through the application aspects about Animated Publishing in a Multimedia Format. Multimedia refers to content that uses a combination of different content forms. This contrasts with media that use only computer displays such as text-only or traditional forms of printed or hand-produced material. Multimedia includes a combination of text, audio, still images, animation, video, or interactivity content forms. Multimedia is usually recorded and played, displayed, or accessed by information content processing devices, such as computerized and electronic devices, but can also be part of a live performance.

9.7.1 Kindle Direct Publishing

Amazon.com's e-book self-publishing platform is called Kindle Direct Publishing. Free self-publishing of eBooks, paperbacks, and hardback books is possible with KDP. We provide you with direct access to your book on Amazon as well as the ability to construct a product description page for it. In addition, Amazon's self-publishing tool, Kindle Direct Publishing, or KDP, allows authors to sell their books to Amazon's large audience without having to go through a traditional publishing house. Authors can generate ebooks and paperback books using KDP without incurring any upfront expenditures or placing inventory orders.



Figure 9.3: Amazon Kindle Source: Amazon

9.7.2 Microsoft Publisher

Microsoft Publisher is a Microsoft desktop publishing application that differs from Microsoft Word it focuses on page layout and design rather than text production and proofing. The ability of Publishers to combine text and images to create professional-looking flyers, brochures, handouts, and newsletters is one of its strongest features. Microsoft Publisher includes a built-in mail merge tool that allows you to deliver your publications to a large number of people with ease. You'll be able to send any document type you generate right from Microsoft Publisher, whether it's a PDF file or an HTML website.



Figure 9.4: Microsoft Publisher

Publisher 2017 is the most recent version in use, and it is included in the Office 2017 suite. The Microsoft Publisher tool allows you to create graphically rich and professional-looking publications. The Publisher is an application for desktop publishing. Publisher is a great application for making visually appealing, professional-looking publications without having to invest a lot of money or time in a complicated desktop publishing programme. Using Publisher on your PC you can:

- Print the layout content or publish online choosing a wide range of predesigned templates.
- Simple items such as greeting cards and labels can be made.
- Create difficult projects such as professional email newsletters, catalogs, and yearbooks.

Check Your Progress B

1.	What is a published annual report?

Filing,	Indexing	and
Publish	ning	

2.	What are the advantages of PDF?
3.	What are the benefits of an Online Document Converter?
4.	What do you mean by Multimedia format?

9.8 LET US SUM UP

The term publishing has traditionally been used to describe the development and distribution of printed materials such as books, magazines, and newspapers. It means sharing your work with others. Now, there are three types of publishing in use around the world that you should become familiar with: traditional publishing, self-publishing and hybrid publishing.

Digital publishing (also known as e-publishing or online publishing) is the process of publishing e-books, magazines, reports, white papers, and other long-form content on the web or on electronic carriers. Articles and flipbooks are both included in digital publishing. Both are perfectly viable ways for readers to consume their favorite publications, and digital publishers must adapt and offer their audience in the format that best suits their needs. Advantages of Digital Publishing include: cost-effective, eases the process of book creation, interactive reading experience, editing is possible even after publishing, analyze distribution and user behavior and wider reach. disadvantages of digital publishing include: It is not free, lack of control, boredom, the strains of device proliferation, streamlined publishing, information can be wrong and it requires computing equipment.

The phrases "social media" and "social network" may appear to be synonymous; they are not. In essence, social media is a platform for disseminating information, whereas social networking is a platform for communication. The heart of a modern tech stack is a content platform. It collects, organizes, and distributes content across a company's digital footprint. It features adaptable APIs that let companies create engaging experiences across markets and media.

An annual report is a document that public companies are required to publish to their shareholders every year. It summaries their activities and financial position. The annual report is released at the end of the financial year. Components of Annual Reports include: Director's message to shareholders, Information on corporate governance, Financial highlights, Management discussion and analysis, Shareholding pattern, management/board of directors' information, Detailed and audited financial statements, Statement of financial position and Income statement.

PDF is an open, standardized, and widely-competent digital document technology that has proven to be capable of bridging the gap between paper and electronic documents. Advanced information, authentication, semantic tagging, attachments, 3D, and other characteristics of PDF provide a strong foundation for future development of digital documents.

Multimedia refers to content that uses a combination of different content forms. This contrasts with media that use only rudimentary computer displays such as text-only or traditional forms of printed or hand-produced material. Multimedia includes a combination of text, audio, still images, animation, video, or interactivity content forms. Multimedia is usually recorded and played, displayed, or accessed by information content processing devices, such as computerized and electronic devices, but can also be part of a live performance.

9.9 KEYWORDS

Content Publishing Platform: It is a platform which collects, organises, and distributes content across a company's digital footprint

Digital Publishing: Digital publishing (also known as e-publishing or online publishing) is the process of publishing e-books, magazines, reports, white papers, and other long-form content on the web or on electronic carriers.

Microsoft Publisher: Microsoft desktop publishing application which has the ability to combine text and images to create professional-looking flyers, brochures, handouts, and newsletters is one of its strongest features

Publishing: Publishing is the act of providing information, software, music, literature and other forms of content to the general public free of cost or on sale.



PDF: The Portable Document Format, or PDF, is the first non-physical thing presented: it is a digital file format created by Adobe in 1993 and made available for free.

Social Media Platform: It is a platform for disseminating information, whereas social networking is a platform for communication.

9.10 TERMINAL QUESTIONS

- 1. Explain the concept of Digital Publishing Platform.
- 2. Write a short note on Microsoft Publisher.
- 3. What are publishing platforms?
- 4. What is a content publishing platform? What are various types of content?
- 5. Write a short note on Kindle Direct Publishing.
- 6. What are the various advantages and disadvantages of a Digital publishing platform?

Note: These questions will help you to understand this unit better. Try to write answers for them. But do not submit your answers to the University for assessment. These are for your practice only.

