31

Office Equipments and Machines

31.1 Introduction

Equipments and machines have become an essential part of a modern office. A large number of appliances and machines are used for speedy, accurate and efficient performance of office activities. With fast technological development, there is mechanisation in office operations resulting in increase of efficiency.

In the previous lesson you have studied systems of filing and indexing. In this lesson you will study the importance and objectives of mechanisation of office, various types of office equipments, machines and their uses.

31.2 Objectives

After studying this lesson you will be able to:

- recall the importance of using office equipments and machines,
- explain the objectives of office mechanisation and describe its advantages and disadvantages,
- identify various types of office equipments and machines,
- describe the main features and uses of typewriter, duplicator, accounting machines, computer, mail room equipments, telephone, teleprints, fax and E-mail.
31.3 Importance and Objectives of Office Mechanisation

Importance:

Efficiency in the office is just as important as efficiency in the factory. Office machines and appliances are all such equipments which save time and labour in office work. Now-a-days machines are very popular in offices because of the following reasons:

- The use of machines save time and labour of office assistants. For example, calculations which human beings may need hours to perform are carried out in seconds with a computer.
- The machines eliminate boredom and fatigue which are harmful for health.
- The operational cost of office is reduced as use of machine eliminates wastage of labour.
- Use of machines has added to accuracy in office work. Cross checking is possible with the help of machines. Paper work is usually neat, clean and uniform in appearance.
- Use of machines in office is the indicator of modernisation.
- When office worker uses same machine for longer time, he develops special skill which is helpful in office work.

Objectives of Office Mechanisation

Mechanisation of office refers to use of machines and equipments in office. These days machines and equipments are widely used in offices. Mechanisation in the office has the following objectives :

(i) Saving of time : Machines turn out more work than what is manually possible. They work faster and thus there is considerable saving of time.

(ii) Saving of labour : Office machines are labour saving devices. Large volume of work can be handled by fewer employees and thus there is saving of labour.

(iii) Increasing accuracy : One of the objectives of using machines is accuracy of work especially in accounting, computation and calculations. They minimise clerical errors.

(iv) Reduction of monotony : The repetitive nature of office work is generally monotonous and cause boredom. Human labour can be spared of these effects when machines are used.
Reduction of chances of fraud: Machines like cash Register etc. put a check on frauds and misappropriation.

Improving quality of work: Written work produced with the help of machines is usually neat, clean and uniform in appearance.

Ensuring better control: Mechanisation of office enables the management to exercise more effective control over activities. For example, use of Time Recorder at the factory gate ensures better control over attendance.

Improving goodwill: The use of machines results in better service to the customers and public. This enhances the prestige of the organisation.

Advantages and Disadvantages of Mechanisation

There are a number of advantages and disadvantages of office mechanisation.

Advantages:

The benefits of using office machines and equipments are as follows:

1. **Reduction in operating costs**: Office machines are labour saving devices. They save manual effort and increase productivity and thus lead to overall reduction in operating costs.

2. **Higher efficiency**: The speed of work is greatly increased. This results in higher efficiency on account of saving in time. Written matter is generally neat and legible.

3. **Greater accuracy**: Mechanisation ensures accuracy of work, prevents clerical errors and provides for automatic checking.

4. **Relieves monotony**: The monotony of all routine work is reduced with the help of machines. This gives considerable satisfaction to office staff.

5. **Effective control**: Mechanisation enables management to exercise more effective control over office activities. For example, data can be analysed by computers promptly to check the quickly of work done.

6. **Better service**: The use of machines results in improvement of office services and activities. For example, the invoices, statements and other documents are prepared in legible form and distributed and despatched more promptly. This enhances the popularity of the organisation.
Disadvantages:

There are certain limitations associated with mechanisation of office services. These limitations are outlined below:

1. **Heavy investment**: Many office machines like computer require huge initial investment. Generally, it may not be possible to make the maximum use of a costly machine. An idle machine is as wasteful as idle labour.

2. **High maintenance cost**: Machines require periodical repair, cleaning, oiling, and maintenance. This involves an additional cost for the organisation. Apart from this, running cost may also be very high, e.g., computers need air-conditioning and special attention. Breakdown of machine may cause considerable loss.

3. **Cost of skilled operators**: Special skills are required for operating machines and it is necessary to pay more for employees skilled and trained staff. Money also has to be spent on the training of the office staff.

4. **Problem of changing existing system**: Machines purchased for specialised jobs cannot be adopted to new systems. Machines make the existing system less flexible.

5. **Employees resistance**: Employees generally do not like installation of machines due to fear of unemployment and losing their jobs.

6. **Risk of obsolescence**: Some machines are liable to become obsolete in a relatively short period of time. The wastage is greater if the machine is comparatively expensive.

**Intext Question 31.1**

I. Fill in the blanks:

(a) One of the characteristics of a modern office is the increasing use of office .................

(b) The term ............... means replacement of manual work by machines.

(c) Office machines are ............... saving devices.

(d) Office machines minimise clerical ............... 

(e) Mechanisation of office work is often resisted by ............... 

II Which of the following statements are true and which are false?
(a) Machines can do the work of storage, analysis and interpretation of information within shortest possible time

(b) Office equipments help the management in keeping the employees busy and dissatisfied by providing repetitive work.

(c) Machines tend to make the existing system flexible

(d) Machine operations call for additional cost in the form of repair and maintenance.

(e) An idle machine is as wasteful as an idle labour.

31.4 Types of Office Machines

A wide variety of machines has come into use in modern offices. There are machines which give print-like impression and can write many times faster than the most expert penman. There are machines which can produce multiple copies of a document. Machines are available for accounting, calculating and counting cash. Electronic computers can read, store, analyse and interpret information quickly. In mail room, letters can be opened, sealed, folded, franked, weighed and addressed automatically with the help of mailing machines. Messages can be sent from one place to another within no time through teleprinter, fax and telephone.

Some important machines are discussed as under.

Typewriter

A typewriter is the most popular and commonly used machine in Government and private offices. Letters and documents can be typed accurately, neatly and in less time with desired number of copies. Machines are available in English, Hindi and other Indian languages. The typewriters are available in different sizes and shapes. The more important among them are as follows:

(1) **Standard office Typewriter** : This is a manually operated machine mainly used for typing letters, statements and reports. Standard typewriters of various makes such as Godrej, Fasit and Halda are available in the market.

(2) **Portable Typewriter** : This is a small light-weight machine specially meant for use by travelling agents, journalists and executives. The main advantage is portability and compactness.
(3) **Noiseless Typewriter**: Though this machine is not very popular, but being noiseless, it is considered to be better than noisy typewriter. A special type of bar is used to reduce the noise. It is most useful where the typists are required to work in the same room along with the executive and other office staff.

(4) **Electric Typewriter**: This machine is operated electrically by a typist. It is faster, less tiring and gives uniform impression. It is operated with very light touch on the keyboard. It improves the quality of work and reduces the fatigue. It is good for cutting stencils. This typewriter, though costlier, has became increasingly popular in big offices. These machines are dependent on power and require specialised servicing.

(5) **Automatic Typewriter**: This machine automatically types a standard proforma from a previously punched or stencilled ‘master’. These machines are capable of bilingual and documentary transcription. Thus, correspondence in a number of languages can be typed simply by changing to typing disks. These machines operate at a high speed. When the master is placed on the machine and it is switched on, the recorded matter is automatically typed at high speed. If necessary, non-standard matters like names and addresses etc. may be inserted at appropriate places by manual typing. It is particularly suitable when copies are to be prepared in large numbers.

(6) **Variable Type Machine**: This machine enables typing of a subject-matter with types of various sizes and styles. In this machine a round printing segment or block is fitted on the front side. The type faces may be interchanged easily according to need. This machine is suitable for preparing reports and copies of advertisements. It provides a range of type styles - big and small - to give the required emphasis.

**Duplicator**

Duplicating is a process whereby a number of copies are obtained with the help of a master copy. When multiple copies of a letter or document have to be prepared, it is necessary to make use of the duplicating machine. A duplicator can produce copies of a notice or report in quantities ranging from less than a hundred to thousands. A wide range of duplicators are available. The main types of duplicators are described below.

1. **Gelatine Duplicator**: This is one of the oldest duplicating machines. It contains gelatine tray on which the master copy, prepared and written with a special ink, is pressed. The copying paper is then pressed on the gelatine tray one after another with the help of a roller to obtain copies.
Only a limited number of copies say 20 to 25 can be prepared.

2. **Spirit Duplicator**: This machine is also known as a hectograph. This is an improvement over gelatine system. Spirit duplicators are used to reproduce drawings, handwritten and typewritten matter in a variety of colours. A 'mastersheet' is prepared on a special paper with a glossy surface. The mastersheet is inserted in the duplicator around the drum of the machine. Copy papers are fed into the duplicator, one after the other. The paper passes under a felt pad which dampens it with spirit before it comes into contact with the mastersheet on the drum. The drum is rotated. The pressure lever is adjusted to ensure that master and copy paper are pressed together. This process leaves a positive image on the copy paper. This method is simple, economical and several colours can be reproduced by using carbon of different colours. The main drawback is production of limited number of copies say 200 to 300 from each mastersheet.

3. **Stencil Duplicator**: The most commonly used method of duplicating in the office is the stencil duplicating process. It is also known as cyclostyle or mimeograph. It needs (a) stencil, (b) duplicating ink, (c) duplicating paper and (d) duplicating machine. Stencil paper is a fibrous tissue which is coated with a waxlike substance. The stencil is cut by the type face or stylus pushing aside the stencil coating to permit the ink to flow through the fibrous tissue. This stencil is inserted in the duplicator and fixed over the drum. The duplicating paper is fed in the machine manually or automatically by rotation of the drum. The paper receives the ink through the cuts in the stencil. Nearly 1000 to 5000 copies can be prepared through this process.

The advantages of this process are: (1) Quality of reproduction is good. (2) The machine can be operated with speed i.e., 200 copies per minute can be prepared. (3) Stencils may be stored for future use. (4) Corrections on stencil can be made with the help of correcting fluid. (5) The process is considered economical.

There are some drawbacks also like: (1) The duplicating paper is not useful for making pen and ink entries. (2) It is very difficult to obtain copies in different colours. (3) It proves expensive if only a few copies are required. A small office cannot afford it.

4. **Offset duplicator**: It is a photographic process. The machine is capable of reproducing drawings, handwritten matter, typed illustrations etc. Multicolour work is also possible by a special process. The preparation of offset ‘master’ is the first stage.
The master is fixed to the cylinder. It is first brought into contact with
damping rollers and then inked by an ink roller which takes up the
inked image in reverse. The paper fed in the machine receives the positive
image and drops in the receiving tray.

The main **advantages** are: economy, quality reproduction, consistency,
speed and uniformity. Nearly 3000 to 5000 copies per hour can be
duplicated. The process suffers from certain **limitations**: The initial cost
is relatively higher. It requires specialised training for operation and
colours are not easily reproduced.

5. **Typeset Duplicator**: Individual pieces of type for each letter are set
up round the outside of a drum. The printing takes place usually by
means of an inked ribbon. It can be operated manually or with the help
of a motor. It can produce up to 3000 copies per hour. The machine is
quite expensive and particularly suitable for printing on cards. The process
of setting up the type is slow and laborious.

**Accounting Machines**

Every office has to provide accounting services to the organisation. These
services may be provided manually or with the help of Accounting Machines.
The mechanisation of accounting is becoming increasingly important in large
organisations as they have to cope with a large amount of figure work. Accuracy
and speed are the main features of accounting machines and it enables analysis
of various types of figures for different purposes within minutes or even seconds.

Some of the more common types of accounting machines are:

1. **Adding Machines**
2. **Calculating Machines**
3. **Cash Registers**

1. **Adding Machines**

Various types of adding machines are available in the market. They can
be operated manually or electrically and they may be listing or non-
listing types. Listing machines provide printed record but non-listing
machines give the result. In a manually operated machine, keys are
depressed and the machine adds and prints when the crank at its side
is pulled. In electrically operated machine, the power bar takes the
place of crank. These machines may also perform other mathematical
operations like subtraction, multiplication and division. There are three
kinds of adding machines–ten key type, full keyboard type and half keyboard type.

Adding machines are used for several clerical operations e.g., listing of cheques and invoices, totalling payments by cheque or cash, preparing trial balance, talling wage payments, checking cash balances, preparing sales analysis and preparing cost-sheets.

2. **Calculating Machines:**

A calculating machine can perform a variety of functions: addition, subtraction, multiplication, division, percentages, square and cube roots etc. There are five types of calculating machines - (1) Printing, (2) key-driven, (3) Rotary, (4) Automatic and (5) Electronic calculator. A brief description of these calculators is given below.

The **printing calculator** provides printed details of the calculations made and the result of each calculation. The **key-driven calculator** is the full keyboard non-listing machine and can be manually or electrically operated. The **Rotary calculator** is primarily used for division and multiplication. Any composite number is added, multiplied, subtracted or divided by one rotation of a handle - clockwise or anti-clockwise action. The **Automatic calculator** is actually a rotary calculator but operates electrically. The operator has merely to press a button to set it in motion. The **Electronic calculators** are available with full-bank keyboards which perform calculations quickly by the use of electric transistors and impulses.

These machines contribute greatly to office efficiency by eliminating routine mental calculations. They also contribute to economy in staffing and can perform a variety of functions with speed and accuracy. Calculations become a pleasure instead of monotonous work. The main drawbacks are: the machines are expensive for small offices and they cause loss of mental ability.

3. **Book-Keeping Machines**

These machines enter information in accounting books and transfer amounts from one book to another through posting. Various types of posting machines are available e.g., full keyboard, ten keyboard, full keyboard with typewriter, ten keyboard with typewriter, analysis keyboard, automatic, etc. These machines are used for various functions such as: entering transactions in journal and cash book, posting them in ledger accounts, preparation of receipts and payments sheets, payrolls, ledger accounts and balance sheet.
The machines are fitted with programming devices which may be preset for a number of different jobs. The merits of these machines are: legibility and tidiness of entries, checking of accuracy, printing of balances, cumulative totalling and preparation of payroll, pay slip and personal record. The accounting machines are somewhat expensive and need skilled operators. They are also subject to frequent breakdowns.

**Cash Registers:**

These machines record on paper roll cash receipts. The customers in departmental stores need receipts and cash memos. The operator receives the amount, keeps it in shelves made below the machine and issues receipt or cash memo. The machine prints the amounts on rolled paper which is visible through a glass panel on the top of the machine. It automatically records cumulative total of receipts. At the close of the day, the owner or manager can open the machine lock to know the total sales. The amount kept in shelves can be checked with the cumulative total.

The merits of the equipment are: The record of cash receipts are neat, clean and accurate. There is no chance of arithmetical errors. Any time the total amount of sale can be known. The chances of fraud are eliminated. Duplicate copy of receipt is not needed. The main drawbacks are: Correction of errors is difficult and the receipts do not have complete details. Inspite of these demerits this machine is used widely in business houses and at collection counters of different organisations.

**COMPUTER**

These days the computer is the most commonly used machine in big offices. A computer is a machine that can perform a variety of operations such as: arithmetical calculations, comparison of data, storage of information, analysis of data and preparation of diagrams and charts. The main component of computer is the ‘memory’ unit. The input data and ‘programmes’ are fed and remain available for reproduction. With the help of Word Processing Programme one can compose letters, memos, reports etc. visible on screen, edit them, save them and print as often as needed. A document is given a file name and stored on disk or cassettes. You can produce an error-free document as per your requirement. You move shadow ‘editing cursor’ around the screen to correct mistakes, to insert, delete and move blocks of text from one place to another.

High speed, flexibility and accuracy are three main advantages of the computer. The main disadvantages are: high initial and operating cost, need of trained staff and serious disorder in case of breakdowns.
Intext Question 31.2

I. Fill in the blanks-

(a) The machine known as ........ is widely used in offices to prepare documents with carbon copies.

(b) Duplicating machine requires the use of ........ a waxcoated sheet of paper.

(c) Listing adding machine prints record but non-listing give the .......... 

(d) The main component of ........ is the memory unit.

(e) The machine known as ............... record cash receipts on paper roll.

II. Match the following -

<table>
<thead>
<tr>
<th>Term</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Portable Typewriter</td>
<td>(1) This is one of the oldest reprographic machine.</td>
</tr>
<tr>
<td>b. Gelatine Duplicator</td>
<td>(2) It can perform variety of functions-addition, subtraction, multiplication and division etc.</td>
</tr>
<tr>
<td>c. Offset Duplicator</td>
<td>(3) This is a small light weight machine specially meant for use by travelling agents.</td>
</tr>
<tr>
<td>d. Calculating Machine</td>
<td>(4) This machine enters information in accounting books.</td>
</tr>
<tr>
<td>e. Book-Keeping Machine</td>
<td>(5) The machine is capable of reproducing drawings, handwritten and typed illustrations with a photographic process.</td>
</tr>
</tbody>
</table>

31.5 Mail Room Equipments & Communication System

Mail Room Equipments

The mail room staff is always busy in repetitive duties concerning the inward and outward mail. In large organisations, the volume of mail is also large. So its handling becomes difficult and time consuming. It also
causes monotony and boredom. Use of various mechanical devices helps to reduce monotony and increase the efficiency of mailing operations.

Equipments and machines in mail room provide the following benefits:

i) increases the speed of operations
ii) saves time and improves efficiency and accuracy.
iii) eliminates wastage
iv) simplifies fixing of postage
v) avoids misuse of postage stamps
vi) speeds up the delivery of letters.

The following types of equipments and machines are used in the mail room:

**Letter Opener**

Letters may be opened by hand or by the letter opening machine. The machine is used when the number of mail received is very large. It operates manually or electrically at a great speed. It can open 100 to 500 letters per minute. It has a rotary knife which shaves off a very thin slice of the edge of envelopes. It does not damage the contents of the envelope.

**Folding Machine**

A machine of this type is of great service when letters are sent in large numbers. This machine is capable of folding papers to the size required for insertion in the envelopes. A folding machine can fold 5,000 to 20,000 sheets per hour. It is possible to fold, insert and make letters ready for mailing with this machine. The machine is to be adjusted as per the needs of foldings.

**Sealing Machine**

This machine is used to automatically moisten the flaps of envelopes and seal them properly. The machine is very useful in those offices where a large number of envelopes have to be sealed every day. Certain machines are designed to seal with wax. Another type of machine is available in which a strip is pasted on the flap. Hand operated sealing machines can seal about 150 envelopes a minute while electrically operated ones can operate at a speed of 25000 envelopes an hour.
Mailing Scale

In big business organisations large quantity of mail is sent every day. Postal stamps on mail are to be affixed as per postal rates which are prescribed according to weight. The Mailing Scale is used to weigh so that correct postage stamps can be affixed on them.

Numbering, Dating and Time Recording Machines

After opening the mail, letters are stamped with time and date of receipt. A serial number is given for numerical reference. An automatic numbering machine is popular for stamping serial numbers of letters received. The serial numbers automatically change in this machine. Dating machine is used for stamping date on mail. Four rubber rings with the impression of date, month and year rotate on wheels. Self-inking stamp pad is used for inking the impression. Time recording machine is used for recording the accurate time of arrival of letters. Assistants enter the opened letter into the machine and it prints the correct time on it accurately.

Addressing Machine

This machine is used to print addresses on envelopes, wrappers, parcels etc. to be sent frequently to a large number of regular customers. In Addressograph machine inked ribbon is used to print the addresses from plates. List of addresses once prepared can be repeatedly used any number of times. The address plates are stacked on a hopper fitted to the machine. The required plates are automatically selected and fed into the machine. These machines may be operated manually or electrically.

Franking Machine

This machine is used to make impressions of the required denomination of postage stamps on the outbound letters and envelopes. It is very popular in large offices where thousands of letters have to be stamped every day. The Franking Machine can be hired under a license from the Post-Office. Rent is charged for use of the machine. The letter to be stamped is inserted in the machine and a handle is operated. The machine marks the letter with the required denomination of the postage stamp. It stops when the total value of the postage is used up. It can be again re-set by the Post Office on further payment.

The benefits are: (1) It avoids errors in stamping, (2) eliminates wastage of stamps, (3) simplifies the counting of stamps, (4) avoids risk of misappropriation of postal stamps and (5) there is no need to go to Post Office every time. The limitations are: (1) It can be misused for private mail; (2) Franked letters cannot be posted but have to be handed
over at the Post Office; (3) There is no proof of posting the letters; (4) Errors in franking cannot be rectified.

Teleprinter

Teleprinters are machines which have typewriter-like keyboard and are connected to a control exchange through dialling. This service is also known as TELEX which provides a means of printed communication. Teleprinters are installed by the Telecommunication Department on request on rental basis. It consists of two machines to be places at two ends for transmission and reception of messages. They operate on electromagnetic principles. Any message typed on one machine is simultaneously typed at the receiving end by an automatic process. Each Telex subscriber is given a number. This device works at a very high speed.

The main advantages are: (1) The system is less costly and easy to operate; (2) It is very useful for news agencies; (3) It can be used between departments and branches of big organisations; (4) An ordinary typist can send messages with a little training.

Fax

The FAX service enables instant transmission of the facsimile of an entire document. It can send handwritten and printed matter as well as pictures, charts and diagrams to different locations within or outside the country.

The advantage of this service over TELEX is that it sends messages without the need for typing. This service is permitted on existing telephone lines on a dial-up basis. The FAX machine is to be procured and owned by the user and should be attached to the telephone lines.

Electronic Mail (E-mail)

This machine provides a system of mail without using the postal services. It is a new device for transmitting text or data directly from a computer or word processor. It is an international electronic communications network specially designed for use with automated text processing machines. It is known as TELEX. It is fifty times faster than telex or teleprinter. TELETEX can also be linked with telex so that the user can communicate with every terminal on the international telex network.

Internal and External Uses of Telephone

Now-a-days it is impossible to imagine the office without a telephone. It is the most convenient means of oral communication. It is widely used for internal as well as external communication. Telephone calls are
classified according to distance and area as local calls, trunk calls and overseas calls. The following types of internal and external services are available to telephone users:

(a) **Direct Link**: Under this system there is one telephone apparatus with a definite number. It is used as a means of external communication. As and when the specific number is dialled, the bell rings at the receiving end and communication can start with the lifting of the receiver.

(b) **Direct Link with Extension**: A telephone connection with one to three extensions can be provided by P & T Department. Both the main connection and extensions can be used for internal as well as external communication.

(c) **Private Branch Exchange (PBX) System**: Under this system the internal telephone extensions are brought together on a private switchboard. An operator helps in providing connection to various callers. All the internal and external calls are handled by the operator. This system has been quite popular in big organisations.

(d) **Private Automatic Branch Exchange (PABX) System**: Under this system there is no need for telephone operators because the system is automatic. The internal communication from one extension is possible by dialling the relevant internal phone number. However, external communications are sent through operator or by dialling a particular number say ‘zero’. Upto 50 lines can be provided under this system.

(e) **Electronic Private Automatic Branch Exchange (EPABX)**: It is an improvement over PABX by making it an electronic device for automatic telephone connections. Programming of telephone connections is possible. If the person called is not available in his seat, the connection will automatically shift to other extension as per the programme.

(f) **Intercom**: It is an automatic system of office intercommunications. It does not require an exchange. Multicore cable is used throughout the installation so that each telephone can be connected direct to every other. Under this system the message cannot be kept a secret. A third party can listen to the conversation in progress.

(g) **Local calls**: The calls which are made within the local limits of a telephone system are called local calls. Local calls upto a
certain limit are free and beyond that number of calls they are charged.

(h) **Subscriber’s Trunk Dialling (STD) calls** : STD services for outstation calls is now available mostly in all cities. Telephone subscribers with STD facility can directly dial any number in other cities. Every city is allotted a code number and dialling of the code number connects the city and after that the particular telephone number is to be dialled. The charge for STD calls vary according to duration of talk and distance.

(i) **International Subscriber’s Trunk Dialling (ISTD) calls** : On the pattern of STD calls, the telephonic talk with other countries is also possible through ISTD. All countries and cities have been allotted specific code numbers for that purpose.

(j) **Demand Calls** : In out-of-town calls to any place the telephone number is conveyed to the telephone operator in exchange for demanding calls. The operator connects with the number as and when the line is free.

(k) **Trunk Calls** : Trunk calls can be made through the Telephone Exchange for contacting people outside the local limits. On request the operator connects the number required. Now-a-days these are substituted by STD calls. Trunk calls may be ordinary calls, lighting calls, urgent calls, priority calls etc.

### Intext Questions 31.3

I. Use a single term for each of the following:

(a) A machine used for speedy stamping of large number of letters to be sent by post.

(b) A machine which can open 100 to 500 letters per minute.

(c) A machine which has typewriter like keyboard and is connected to a central exchange through dialling.

(d) This machine enables instant transmission of the facsimile of a document even to foreign countries.

(e) This is a new device for transmitting information directly from a computer.
II. Match the following-

<table>
<thead>
<tr>
<th>Term</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Trunk Call</td>
<td>(1) It is an automatic system of office inter-communication.</td>
</tr>
<tr>
<td>(b) STD</td>
<td>(2) Under this system the internal telephone extensions are brought together on a private switch board.</td>
</tr>
<tr>
<td>(c) Intercom</td>
<td>(3) The call is made for contacting people outside the local limits.</td>
</tr>
<tr>
<td>(d) PBX</td>
<td>(4) This machine is used to print addresses on envelopes.</td>
</tr>
<tr>
<td>(e) Addressing Machine</td>
<td>(5) Telephone subscribers can dial directly any number of calls to other cities.</td>
</tr>
</tbody>
</table>

31.6 WHAT YOU HAVE LEARNT

Mechanisation may be defined as replacement of manual labour by machine operation. It may include the use of different types of machines in office work. The importance, objectives and advantages are: (1) saving of labour cost (2) saving of time (3) accuracy (4) relieving monotony (5) improvement in quality (6) better control and (7) improvement in prestige for the organisation. The limitations are: heavy investment, high running cost, risk of obsolescence, need of skilled operators, employees resistance etc. Commonly used office machines are: typewriter, duplicator, accounting machines, computer, mail room equipments, teleprinter, fax and telephone.

Typewriters are widely used in offices. Standard office typewriters are used for office correspondence. Portable machines are meant for use by travelling agents. Electric typewriters have electrically operated keyboards. Automatic typewriters have a selective device. Variable type machines can type with letters of varied sizes and styles. Duplicators produce multiple copies of a letter. The main types of duplicators are: Gelatine, Spirit, Stencil, offset, and typeset. Office accounting services are handled by accounting, book-keeping machines and cash registers. Computer is an electronic machine which can perform all mathematical operation, record and store information and reproduce it at a very high speed.
Various machines are used in the mailing section to ensure speed and accuracy such as letter opener, folding, sealing machine, mailing scale, stamping, addressing and franking machine. Besides, there are some rapid communication system such as teleprinter, FAX, electronic mail and telephone. The internal and external telephone services available are: direct line, PBX, PABX, EPABX, intercom, local calls, STD, ISTD, demand calls and trunk calls etc.

### 31.7 Terminal Exercises

1. Name the machine: (a) In which cash receipt is recorded (b) which is used to make calculations (c) which is used for internal and external communication. (d) which is used for transmission of facsimile of a document.

2. What are the objectives of mechanising offices?

3. Name and explain various mechanical devices commonly used in the despatch section of an office.

4. What are Accounting Machines? Describe their uses in modern offices.

5. Name and describe, in brief, the various types of typewriters used in modern office.

6. Describe in brief the uses of any one of the following machines
   
   (a) Duplicating machine
   (b) Computer
   (c) Letter opener
   (d) STD

7. State the importance and use of following-
   
   (a) Franking machine
   (b) Teleprinter
   (c) E-mail
   (d) EPABX
31.8 Answers to Intext Questions

31.1
I.  (a) machines            (b) mechanisation
    (c) labour              (d) errors
    (e) employees
II. (a) T                  (b) F
    (c) F                  (d) T
    (e) T

31.2
I.  (a) typewriter         (b) stencil
    (c) result             (d) computer
    (e) cash register
II. (a) 2                 (b) 4
    (c) 1                 (d) 5
    (e) 3

31.3
I.  (a) Franking Machine   (b) Letter Opener
    (c) Teleprinter        (d) Fax
    (e) E-Mail
II. (a) 3                 (b) 5
    (c) 1                 (d) 2
    (e) 4
SENIOR SECONDARY COURSE

BUSINESS STUDIES

Students’ Assignment - 6

Maximum Marks : 50  
Time : 1½ hours

INSTRUCTIONS

- Answer all the questions on a separate sheet of paper.
- Give the following information on your answer sheet:
  - Name
  - Enrolment number
  - Subject
  - Assignment number
  - Address
- Get your assignment checked by the subject teacher at your study centre so that you get positive feedback about your performance.

Do not send your assignment to National Open School

1. Name any two basic functions and any two administrative functions of an office. (4)

2. “An office is to a business what the mainspring is to a watch”. In the light of this statement, explain briefly the importance of an office. (6)
3. Name any five departments/sections of an office and explain, in one sentence, their functions. (5)

4. What is location? Explain, in brief, the factors which determine the office location. (5)

5. Which of the filing methods would be suitable for:
   (i) a student,
   (ii) a small trade,
   (iii) an advocate, and
   (iv) a big business house, and why?

6. What is ‘indexing’? Distinguish between filing and indexing. (5)

7. You are the incharge of the correspondence section of a big business establishment. What routine will you follow in dealing with the inword mail? Explain, in brief. (6)

8. What facilities are available in the post office for (i) sending mail and (ii) sending money from one place to another in the country? (4)

9. Explain, in brief, the uses of any two of the following machines:
   i) Computer,
   ii) Duplicating machine,
   iii) Franking Machine,
   iv) Teleprinter. (4)

10. Explain briefly the objectives of mechanising an office. (6)