

**Vocational Higher Secondary  
Education (VHSE)**

**SECOND YEAR**

**COMPUTERISED  
OFFICE MANAGEMENT**

*Reference Book*



Government of Kerala  
Department of Education

State Council of Educational Research and Training (SCERT),  
KERALA  
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**FOREWORD**

Dear Learners,

This book is intended to serve as a ready reference for learners of vocational higher secondary schools. It offers suggested guidelines for the transaction of the concepts highlighted in the course content. It is expected that the learners achieve significant learning outcomes at the end of the course as envisaged in the curriculum if it is followed properly.

In the context of the Right-based approach, quality education has to be ensured for all learners. The learner community of Vocational Higher Secondary Education in Kerala should be empowered by providing them with the best education that strengthens their competences to become innovative entrepreneurs who contribute to the knowledge society. The change of course names, modular approach adopted for the organisation of course content, work-based pedagogy and the outcome focused assessment approach paved the way for achieving the vision of Vocational Higher Secondary Education in Kerala. The revised curriculum helps to equip the learners with multiple skills matching technological advancements and to produce skilled workforce for meeting the demands of the emerging industries and service sectors with national and global orientation. The revised curriculum attempts to enhance knowledge, skills and attitudes by giving higher priority and space for the learners to make discussions in small groups, and activities requiring hands-on experience.

The SCERT appreciates the hard work and sincere co-operation of the contributors of this book that includes subject experts, industrialists and the teachers of Vocational Higher Secondary Schools. The development of this reference book has been a joint venture of the State Council of Educational Research and Training (SCERT) and the Directorate of Vocational Higher Secondary Education.

The SCERT welcomes constructive criticism and creative suggestions for the improvement of the book.

With regards,

**Dr. P.A. Fathima**  
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## ABOUT THE COURSE

In the present-day scenario Computerised Office Management (COM) professionals are essential for every business/service sector. Due to the technological advancement, people live in a culture governed by the demands of digital life. This digital life blurs and transforms old boundaries between work and home, public and private. It requires ever-increasing levels of technology, literacy and competency. Computer software tools and devices constantly evolve and upgrade, as well as the skills needed to use them are to be upgraded.

The Central and State Governments as well as public and private sectors are shifting from P-Governance to E-Governance. The government offices are changing from Paper office to Paperless office i.e., e-office. In this juncture, our mission is to develop "technology-savvy adults" who possess literacy and competency in Management and IT applications so that they are able to carry out any type of work assigned to them.

The course aims to generate awareness among the students on the working of modern offices. The course is intended to equip the students to assist the officers at the management level for administration. Through this course students can develop the skill to perform office work in a computerized environment and can also transform paper offices to paperless offices. It also brings out chances of starting self employment ventures in Desk Top Publishing, digitization in records management and other IT related establishments and wage employment.

Almost all organizations need an office. The nature of office work differs from organization to organization and from one officer to another. There are lots of employment opportunities related to office management. In modern days computers and other digital equipments are used in every sphere of office activity. A student who acquires COMPUTERISED OFFICE MANAGEMENT skill can find out plenty of chances in this area. The course is relevant in the present day employment scenario.

This course is designed to impart office management, office automation and IT skills together to a learner. As a result, such passed outs can be used as Multi-skilled/ Multi-tasking workforce.

The skills like data entry in English and Malayalam, desk top publishing, effective communication, handling office routine works, digitized records management, routine office accounting, front office management, telephone etiquette, basic presentation

skills, Reports/ minutes preparation using Dictaphone, etc. will be acquired by the learner on completion of this course.

The job roles identified for the passed outs are Computer Assistant, IT Desk Assistant, Confidential Assistant/ Secretaries to Officers, Data Entry Operator (English and Malayalam), Accounts Assistant, Receptionist, Records management, Front Assistant (for paper office as well as paperless office), self employment opportunities like Internet café entrepreneur, ITES entrepreneurs, Photo editors and designers, etc.

The above jobs are available in plenty in Government and Private sectors, BPO Companies, etc. Besides these opportunities, there are lots of self employment avenues.

### Major skills

Sl. No.	Module/ Code	Name of Module	Major skills	Sub skills
1.	MODULE 3	Communication and Publishing Art	<ul style="list-style-type: none"> <li>• Communication</li> </ul>	<ul style="list-style-type: none"> <li>• Handle DTP work in English and Malayalam</li> <li>• Documents designing</li> <li>• Letter drafting and Typing</li> <li>• Presentation</li> <li>• Speed typing</li> </ul>
2.	MODULE 4	Enterprise Resource Planning	<ol style="list-style-type: none"> <li>1. Operate Enterprise Resource Planning Software</li> <li>2. Computerised Typing (English &amp; Malayalam) - Higher</li> </ol>	<ul style="list-style-type: none"> <li>• Work in an ERP environment</li> <li>• Webpage designing</li> <li>• Blog creation</li> </ul>

## SYLLABUS

### MODULE III

#### COMMUNICATION AND PUBLISHING ART (340 PERIODS)

#### 3.1 OFFICE COMMUNICATION (40 Periods)

- 3.1.1 Introduction to communication
- 3.1.2 Meaning, definition and features of communication
- 3.1.3 Importance of communication
- 3.1.4 Communication process
- 3.1.5 Barriers to communication and measures to overcome it
- 3.1.6 Types of communication and its advantages and disadvantages  
- On the basis of source of origin, direction, way of expression and organisational structure
- 3.1.7 Communication methods, devices, their use, merits and demerits/limitations - Internet, e-mail, Video conferencing, Inmarsat, Telephone, Mobile phones, Voice Over Internet Protocol (VoIP), Interactive Voice Response System (IVRS), EPABX, Fax, eFax, Social Media
- 3.1.8 Telephone and e-mail etiquettes
- 3.1.9 Postal services - Ordinary letters, Registered letters, Speed post, Value Payable Parcel, Reply-Paid Service, Postage Prepaid Service, Insured Cover
- 3.1.10 Courier Service

#### 3.2 COMMUNICATION THROUGH LETTERS (60 Periods)

- 3.2.1 Meaning and importance of correspondence
- 3.2.2 Structure of a business letter
- 3.2.3 Layout of a letter
- 3.2.4 Types of business letters - Circular letter, Sales letter, enquiry letter, offers and quotations, Order letter, collection letter, form letters, application letters and bio-data

- 3.2.5 Types of Government letters – Official letter, Demi Official (D.O) letters
- 3.2.5 Inter Office Communications – Memo, Notice
- 3.2.6 Mail service – Inward and outward mail handling procedures

### **3.3 COMPUTERISED TYPING (English and Malayalam)**

**(100 periods)**

- 3.3.1 Typing practice to achieve a speed of 35 w.p.m in English and 25 w.p.m in Malayalam.
- 3.3.2 Typing hand written/ manuscript of letters, circular, etc.

### **3.4 DESKTOP PUBLISHING (ENGLISH & MALAYALAM)**

**(110 Periods)**

- 3.4.1 Pagemaker/Scribus - Application of Pagemaker/Scribus – Introducing Pagemaker/Scribus ‘Tools’ – Constructing a publication – Importing pictures and graphics – Editing text – Formatting text – Creating and importing styles – Creating master pages – Working with images, graphics and objects - Managing and printing a publication
- 3.4.2 Photoshop/GIMP - Components of Photoshop/GIMP window - Familiar with Photoshop/GIMP tool box - Familiar with palettes - understand image resolution - Formatting image - Understand file formats PSD, TIFF, JPEG and PDF - Working with selection tools - Drawing, painting and retouching tools - Explore colour picker dialog box - Familiar with retouching tools - Working with layers - Apply blend models - Use type masking and shape masking.
- 3.4.3 CoralDraw/Inkscape – Introduction – Tools – CoralDraw/Inkscape essentials – Working with text, object - Editing – Calendar Designing – Card Designing – Importing images – Exporting files

### **3.5 COMMUNICATION AT WORK PLACE**

**(30 Periods)**

- 3.5.1 Describing one’s job
- 3.5.2 Describing one’s work place (company)

- 3.5.3 Handling an angry customer
- 3.5.4 Directing a customer over phone
- 3.5.5 Preparing a daily and weekly work plan
- 3.5.6 Giving and receiving simple instructions
- 3.5.7 Enquiring about a job vacancy
- 3.5.8 Facing an interview
- 3.5.9 Effective communication techniques
- 3.5.10 Duties of Customer Service Representatives
- 3.5.11 Presenting a specific topic

#### **MODULE IV – ENTERPRISE RESOURCE PLANNING**

**(340 Periods)**

#### **4.1 ENTERPRISE RESOURCE PLANNING (ERP) (100 periods)**

- 4.1.1 Introduction to Enterprise Resource Planning
- 4.1.2 Meaning and definition of Enterprise Resource Planning
- 4.1.3 Need for ERP in business
- 4.1.4 Benefits and limitations of ERP
- 4.1.5 Components of ERP
- 4.1.6 ERP Packages – ERP and business – Functionalities of ERP Packages
- 4.1.7 Ideal ERP Modules – Internet enabled ERP systems
- 4.1.8 ERP software – Application of Ideal ERP Modules
- 4.1.9 ERP Implementation – Methodologies - Life cycle - Issues

#### **4.2 PAPERLESS OFFICE**

**(30 periods)**

- 4.2.1 Introduction to paperless office
- 4.2.2 Meaning and features of paperless office
- 4.2.3 How to set up a paperless office?
- 4.2.4 Merits and demerits of paperless office
- 4.2.5 Office in pocket

**4.3 E-GOVERNANCE (30 periods)**

- 4.3.1 Concept of e-governance
- 4.3.2 Meaning of E-governance and E-government
- 4.3.3 Objectives of E-Governance
- 4.3.4 Domains of E-Governance
- 4.3.5 Major E-governance projects of Government of Kerala
- 4.3.6 E-governance services to citizens
- 4.3.7 Benefits of E-governance - to the Government - to the citizens
- 4.3.8 M - Governance

**4.4 COMPUTERISED TYPING (English and Malayalam) (100 periods)**

- 4.4.1 Typing practice to achieve a speed of 45 w.p.m in English and 30 w.p.m in Malayalam.
- 4.4.2 Typing hand written manuscript of government order, proceedings, statements, etc.

**4.5 IT ENABLED SERVICES (20 periods)**

- 4.5.1 Introduction and meaning of ITES
- 4.5.2 Business Process Outsourcing
- 4.5.3 Blog - creation - writing - publication
- 4.5.4 Medical Transcription
- 4.5.5 Affiliate Marketing
- 4.5.6 Call Centres
- 4.5.7 Virtual Assistants
- 4.5.8 Freelance Journalism
- 4.5.9 Computerised Accounting

**4.6 WEB PAGE DESIGNING (40 Periods)**

- 4.6.1 Introduction to HTML
- 4.6.2 Starting with HTML - HTML Document - Headers tag, Body tag - Elements of HTML Document
- 4.6.3 HTML tags for text, images, videos, lines, tables, lists, layouts, styles, hyperlink

- 4.6.4 Cascade Style Sheet
- 4.6.5 Static and Dynamic websites - Advantages and disadvantages
- 4.6.5 Web Server and Domain Name
- 4.7 CYBER ETHICS (20 periods)**
- 4.7.1 Introduction to Cyber ethics
- 4.7.2 Meaning of Cyber ethics
- 4.7.3 Computer crimes
- 4.7.4 Cyber crimes/Internet crimes
- 4.7.5 Offences and penalties under Information Technology Act, 2000

### **Practical activities at the end of 3<sup>rd</sup> and 4<sup>th</sup> Module**

#### **I. Module 3 : Communication and Publishing Art**

1. Create e-mail account and send e-mails
2. Open an account in social media and manage it for office purpose
3. Send fax message
4. Prepare business letters, statements, etc.
5. Speed typing in English and Malayalam
6. Type handwritten letters, statements, etc.
7. Prepare a Pagemaker/Scribus file with two or more boxes.
8. Design and create visiting card
9. Design a brochure
10. Resizing photos with given size and resolution

#### **II. Module 4 : Enterprise Resource Planning**

1. Create a blog
2. Work in ERP Software -Data entry - Report generation
3. Speed typing in English and Malayalam
4. Typing various handwritten/manuscript letters, statements, government order, etc.
5. Design a Website
6. OJT
7. Field visit

## Module III

# COMMUNICATION AND PUBLISHING ART

### Overview

Communication plays a key role in the success of an organization. With the development of technologies, so many changes took place in the field of communication. To cope up with the situation, some additions are given on the Unit 'Office Communication' with latest technologies. There are drastic changes in handling the correspondence in an office, but some conventional practices still exist. The module is properly blended with old and new communication technologies which are necessary to perform the office effectively.

As a student of Computerised Office Management he/she should possess skill in handling the office situations efficiently. To acquire such skills this module is enriched with opportunities for development of communication skill, handling correspondence, skill in handling communication devices and using DTP softwares for publishing work etc.

### Unit No. 3.1 - Office Communication

#### About the Unit

Communication plays a pivotal role in the success of an organization. It acts as a basis of co-ordination and helps in smooth working of an enterprise. Decisions are made on the basis of proper communication which leads to managerial efficiency. The personnel in an office should know and familiarize with different aspects of communication. They should also acquire the skill to manage the communication system in the organization in most effective manner.

#### Learning Outcomes

The learner,

- Describes communication
- Explains meaning, definition and features of communication
- Summarises importance of communication
- Identifies communication process
- Detects and overcome barriers to communication
- Identifies the communication methods

- Gets acquainted with different communication devices
- Follows telephone and e-mail etiquettes
- Identifies and explain services offered by postal department
- Explains courier service

### **Unit in detail**

#### **3.1.1 Introduction to communication**

The term “communication” is derived from Latin word ‘COMMUNIS’, which means common. Communication is any means by which a thought is transferred from one person to another. It involves receiving information and giving information. Efficiency of managerial decisions depends on effective communication.

#### **3.1.2 Meaning and definition of communication**

##### **Meaning**

To communicate means to pass an information. Information is usually passed on by means of spoken words, by telephone, by post, or messenger service. The process of conveying information from one person to another through any of these or other means is called *communication*.

##### **Definition**

“Communication” may be defined as “*the process of passing information and understanding from one person to another.*” It is a process by which meaning or thoughts are exchanged between individuals through a mutually understood language or symbol.

The term *communication* has been defined as, “an exchange of facts, ideas, opinions or emotions by two or more persons.”

##### **Features**

The essential features of communication may be stated as follows:

1. Communication involves minimum two people.
2. Communication is a process. It involves a number of steps or elements.
3. It involves both information and understanding. Communication takes place when the receiver understands what the sender means to convey.
4. Communication occurs at many levels- both internally and externally.
5. There should be a feedback at the end of the process.

### 3.1.3 Importance of communication

The importance of communication may be explained as below:

1. *Aid to decision making:* Communication helps management in arriving at vital decisions. If the right type of information is not available at the proper time, it may not be possible for management to consider all the pros and cons before taking a decision.
2. *Aid to co-ordination:* In each organisation there are several departments or sections. Co-ordination between these departments or sections is a must for the efficient functioning of the enterprise.
3. *Good relations:* Communication improves the relationship between the superior and the subordinate as a result of flow of information and discussion between them.
4. *Builds Morale:* It is through communication that the superior can motivate the subordinates and build high morale among the employees.
5. *Development of managerial skills:* Communication is a learning process. Facts, information, ideas, etc enriches the knowledge of the executive.

#### Activity: Case study

ABC Ltd; decided to increase their sales target from Rs.1 lakh to Rs.2 lakhs after a market survey. They implemented the decision during the financial year 2014-15. After the first half of the Financial Year they realized that the target is below expectation. They reviewed the entire activities taken place upto the moment and concluded that there was absence of proper communication among departments. The Department Heads are instructed to achieve the goal at any cost by the end of the Financial Year.

Study the case and suggest suitable methods to solve the issue in the light of importance of communication.

### 3.1.4 Communication Process

Communication is sending and receiving information between two or more people. The person sending the message is referred to as the sender, while the person receiving the information is called the receiver. The information conveyed can include facts, ideas, concepts, opinions, beliefs, attitudes, instructions and even emotions. Following are the elements of communication process.

1. *Sender*: The person who intends to convey the message with the intention of passing information and ideas to others is known as sender or communicator.
2. *Message (Ideas)*: This is the subject matter of the communication. This may be an opinion, attitude, feelings, views, orders or suggestions.
3. *Encoding*: Since the subject matter of communication is theoretical and intangible, its further passing requires use of certain symbols such as words, actions or pictures etc. Conversion of subject matter into these symbols is the process of encoding.
4. *Communication Channel*: The person who is interested in communicating has to choose the channel for sending the required information, ideas etc. This information is transmitted to the receiver through certain channels which may be either formal or informal.
5. *Receiver*: Receiver is the person who receives the message or for whom the message is meant for. It is the receiver who tries to understand the message in the best possible manner in achieving the desired objectives.
6. *Decoding*: The person who receives the message or symbol from the communicator tries to convert the same in such a way so that he may extract its meaning to his complete understanding.
7. *Feedback*: Feedback is the process of ensuring that the receiver has received the message and understood in the same sense as sender meant it.

**Activity: Draw the communication process**

**3.1.5 Barriers of communication**

There are many barriers or difficulties in the way of a free flow of communication. They are as follows:

1. Defective system of transmission of messages.
2. Loss of message by transmission and poor retention of information.
3. Mis-interpretation of messages.
4. Evaluating communication prematurely.
5. Fear of consequences or a full and frank disclosure.
7. Lack of trust in oral communication.
8. Lack of attention to take note of instructions, notices, orders, or reports.
9. Failure to deliver important message due to carelessness or guilty consciousness.

### Measures to overcome the Barriers

The following are some of the measures which may be adopted by the management to overcome the barriers of communication.

1. Follow a simple organisation structure.
2. Managers and supervisors should develop a leadership style which inspires confidence in subordinate and encourages honest feed back.
3. The contents of communication should be adequate and complete.
4. The sentences used should be well-organised and the language must be simple and clear.
5. The medium and method of communication should be chosen carefully to suit the particular communication needs.
6. Careful processing of information to eliminate all unnecessary information will ensure that communication channels are not overloaded.
7. Follow better interpersonal relations in the organisation.

**Activity: List out any two barriers you have faced while communicating.**

#### Activity: Role play

Select five students. Give the first student a topic of five to six sentences and ask him to convey the topic to the second student and the second to third and so on. Then evaluate the original with the last one.

### 3.1.6 Types of communication

There are different types of communication.

On the basis of source of *means* employed, communication may be:

- a) **Oral or Verbal Communication:** It refers to messages sent or received verbally. It may be in the form of face to face interaction or through mechanical or electronic devices like telephone, loud-speaker, etc

#### Advantages

- i) It permits detailed explanation and clarification of doubts.
- ii) It can be transmitted quickly if the message is brief.
- iii) It is particularly useful at the operational level.

#### Disadvantages

- i) There is no evidence of communication.

- ii) It may be time consuming.
- iii) It may not be taken seriously by the receiver.
- iv) It may be difficult to act on it due to missing details.
- b) **Written communication:** Written communication may take the form of individually written letters, memoranda, reports, circulars, orders, invoices etc. They may be conveyed in many ways such as through messengers, by postal services, cables, telex, teleprinters etc.

### Advantages

- i) Written messages are more accurate and exact.
- ii) They provide detailed instructions.
- iii) They are formal, they carry greater weight than oral messages.
- iv) They serve as a permanent reference for the future.
- v) They have the widest possible coverage.
- vi) It is an ideal means of conveying plans and policies etc.

### Disadvantages

- i) It can become too formal.
- ii) It may encourage redtapism in the office.
- iii) It does not offer an opportunity for an immediate response.
- iv) It may be difficult to keep written communication up-to-date.
- v) Being formal it fails to convey the feelings of the person sending it.
- c) **Gestural communication:** Exchange of information through gestures often used to supplement verbal communication is called gestural communication. This is very useful and helpful to the subordinates. Example: A handshake with subordinate, a pat on his shoulder etc.

On the basis of relationships, communication may be;

- a) **Formal communication:** Formal communication is the official communication which takes place between persons serving at different levels in an organization. This type of communication strictly follows the 'unity of command principle'. Naturally, formal communication is extremely slow and time-consuming.

- b) **Informal communication:** Informal communication takes place between persons of the same group or of different groups, not on the basis of any formal authority, but on the basis of informal relations and mutual understanding. It is also known as “grape-vine” communication.

On the basis of the direction of message, communication may be;

- a) **Upward Communication:** Upward communication travels from the subordinates to superiors. It provides the response or the feedback as to how well the organization is functioning in any particular sphere. Upward communication usually consists of (i) ideas and suggestions for improvement, (ii) request for help, (iii) expression of attitudes etc .
- b) **Downward communication:** Downward communication travels from the superiors to the subordinates. Its primary purpose is to transmit information or instruct employees in the performance of their jobs. Important downward communication channels include written directives as instructions, face-to-face conversations, use of public address systems, notice boards, bulletins etc.
- c) **Horizontal communication:** Communication which takes place between persons on the same level of organisational hierarchy (Example: Superintendents of two sections of the same office) is called horizontal communication. It is also called lateral communication.
- d) **Diagonal Communication:** Communication may also take place diagonally between managers or supervisors of separate departments or between persons on different levels of hierarchy, cutting across departmental barriers.

On the basis of source of origin, communication may be:

- a) **Internal communication:** It refers to exchange of information and messages between persons and departments of the same organisation. Communication between the head office and the factory or other branch offices may also be included in this type.
- b) **External communication:** It refers to exchange of information or messages between a particular organisation or office and outside persons and organisations. Communication with customers and suppliers, other business organisations, Government departments and service institutions come within this category.

**Activity: Prepare a chart showing different types of communication.**

### **3.1.7 Communication methods, devices and its uses, merits and limitations**

#### **I Methods of oral communication**

##### **i. Face-to-face communication/Personal visit**

It is an example of oral communication and may be internal or external. This is the most natural and effective method of communication. Confidential matters can be conveyed through this method. Being the most economical communication method, it also provides immediate response and creates good personal relationship.

##### **Advantages**

- i) It is immediate and helps in projecting the urgency of the matter.
- ii) It is most suitable for confidential matters.
- iii) It is very flexible.
- iv) It provides an immediate response.
- v) It makes for a personal approach which helps to resolve misunderstandings.

##### **Limitations**

- i) It may be less accurate and being informal.
- ii) It is unsatisfactory when plan and policy decisions requiring lengthy explanations.
- iii) It is a time consuming method.
- iv) It is not suited where the same information is to be conveyed to different parts of the organisations.

##### **ii. Telephone**

The most commonly used device for oral communication in an office. It is easy to operate, cheap and a speedy method.

##### **iii. Smartphone/Mobile phone/Cellular phones**

Mobile phone is the most suitable method of communication for a person on move. It offers benefits like mobility, privacy, SMS, internet etc. It facilitates oral, written and visual communication.

##### **iv. Intercom**

An intercom (intercommunication device) is an internal oral communication system for use within an office building. It is an independent system. Modern intercom

devices can be connected to Public Address Systems, walkie talkies, telephones etc. and facilitates video calling.

### Advantages

- a) It may be installed as and when required without the sanction or permission of the Telephone Department.
- b) It is cheap to install and run.
- c) It is a time saving device.
- d) It cuts down inter office visiting.

#### v. EPABX (Electronic Private Automatic Branch Exchange System)

This system facilitates internal and external oral communication. In EPABX the communication is possible with several lines by using a single telephone connection. It is a better call servicing equipment than PABX and requires only very little space.

#### vi. Telephone Recording and Answering Machine

A telephone recording machine, when attached to a telephone, records the external incoming calls in the absence of the receiver himself. At the same time, a telephone answering set automatically answers an unattended telephone.

#### vii. Interactive Voice Response System (IVRS)

“Interactive Voice Response System or IVRS is phone technology that allows a computer to automatically detect voice and touch tones using a normal voice phone.” An IVR system (IVRS) accepts a combination of voice telephone input and touch-tone keypad selection and provides appropriate responses in the form of voice, fax, callback, e-mail and perhaps other media. The objective of IVRS is to cut down customer service costs by providing self service to customers and guiding them to the department, person or information that they need.

An IVR system consists of telephonic equipment, software applications, a *database* and a supporting *infrastructure*. Common IVR applications include Office call routing, Call center forwarding, Gas refill booking, and Info calls by mobile phone and DTH service providers.

### Advantages of IVRS

- It saves time and money by reducing employees.
- It works 24 x 7 to assist clients and have no lunch breaks, vacations or have sick days.

- It can make a small company seem bigger.
- It makes customers feel like someone is attending to their needs.
- It eliminates human errors like transferring a call to the wrong department.

### Disadvantages of IVRS

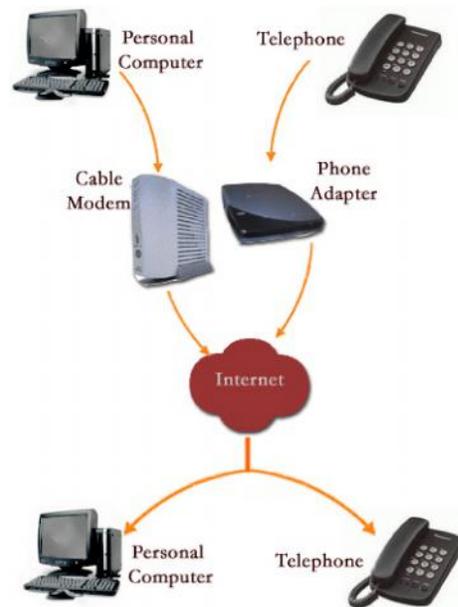
- Some people don't like talking to machines.
- It is difficult to understand the long menu by an ordinary client.
- Messages contain irrelevant information.
- Voice prompts that are hard to understand because the voice talent doesn't produce the words clearly or correctly.

### viii. Voice over Internet Protocol (VoIP)

Voice over Internet Protocol (VoIP), is a technology that allows to make voice calls using a broadband Internet connection instead of a regular (or analog) phone line. Some VoIP services may only allow calling other people using the same service, but others may allow calling anyone who has a telephone number - including local, long distance, mobile, and international numbers. Also, while some VoIP services only work over computer or a special VoIP phone, other services allow to use a traditional phone connected to a VoIP adapter.

### How VoIP/Internet Voice Works

VoIP services convert the caller voice into a digital signal that travels over the Internet. If the caller is calling a regular phone number, the signal is converted to a regular telephone signal before it reaches the destination. VoIP can allow making a call directly from a computer, a special VoIP phone, or a traditional phone connected to a special adapter. In addition, wireless "hot spots" in locations such as airports, parks, and cafes allow connecting to the Internet and may enable to use VoIP service wirelessly.



There are two major reasons to use VoIP.

- Lower Cost
- Increased functionality

### **Lower Cost**

1. In general phone service via VoIP costs less than equivalent service from traditional sources.
2. A single network is used to carry voice and data.
3. The "Free World Dialup" and "Skype services facilitate" "free" VoIP call.

### **Increased Functionality**

VoIP makes easy some things that are difficult or impossible with traditional phone networks.

- Incoming phone calls are automatically routed to the VoIP phone wherever it is plugged into the network.
- VoIP phone facilitates to receive call while on move provided it is connected to internet.
- Call center agents using VoIP phones to work easily from anywhere with a good Internet connection.

## **II Methods of written communication**

### **i. Messenger service**

The written communications such as letters, reports, memoranda, etc. are collected and delivered by messengers or office boys appointed for this purpose. They are also used for passing messages to other offices. In such case a 'Local Delivery Register' is used and it is signed by the receiver.

### **ii. Internal Office-Mail Service**

This method is in practice in several private and government offices. Under this system, each department maintain boxes labelled 'Mail In' and 'Mail Out' to deliver and collect messages by the messenger. They do this work in frequent intervals.

### **iii. Fax (Facsimile telegraphy)**

The electronic device used for transmission of documents, sketches, drawings etc. to distant places. Exact copy of the original can be transmitted by a Fax machine. It is connected with a Telephone connection. The matter to be send is inserted to the machine, upon switching, transmits the facsimile to the Fax machine at the other end and the copy is received at the receiver's machine.

**iv. eFax**

efax is an internet fax service for sending and receiving of fax documents in digital document rather than a traditional paper fax machine.

With eFax, receiving a fax is as easy as opening e.mail. People can receive an e.mail with a PDF or TIF attachment to an e.mail address specified. They may also access their faxes by logging into the eFax account anytime from anywhere around the world. eFax can be send via mobilephone, tablets, laptops, personal computers, etc. It is speedy, accurate and provide an evidence to both parties.

**v. Smartphone/Mobile phone/Tablet**

The Smartphone/Mobile phone/Tab have all the features that computers possess. These devices are working in Android, Microsoft, Apple or MAC OS. Therefore, they can be used for any office work while the executives are on move. The devices are handy too. An internet connected Smartphone/Mobile phone/Tab facilitates written as well as oral communication. A 3G/4G Smartphone/Mobile phone/Tab facilitates visual communication.

**vi. Internet**

Internet is a network of computers worldwide which allows its users to share information. It facilitates global communication. Internet has become the biggest domain of information. Wide variety of services are available through internet such as e-mail, File Transfer Protocol, multimedia, shopping opportunities, e-commerce, banking, VOIP etc. One can send and receive information through it and the information can be downloaded and stored. A telephone with internet facility, a MODEM (Modulator-Demodulator) and a personal computer or laptop is required to access internet connection. Wi-fi modem, net setter, etc. can also be used for availing internet connection.

**vii. E-mail**

Electronic mail or e-mail is fast, easy and less expensive way to communicate with other internet users. It is the most widely used application of internet. e-mail overcomes most of the problems of delays of getting a physical document from one place to another. It allows exchange of documents like attachments, such as pictures, photos, scanned images or other documents in any format.

**Uses of E-mail**

1. Using E-mail we can communicate with any part of the world instantaneously.

2. Office can save time and reduce costs by using e-mail file transfer facility.
3. Electronic forms can be widely used through e-mail.

**Activity : Create an e-mail account and send a message to your friend.**

### **viii. File Transfer Protocol (FTP)**

FTP is a software programme that allows users to transfer files stored in the directory of a computer that is connected to the internet. Using FTP one can upload and download file from the computer if one has the access permission on the computer.

### **III Staff Location System**

Devices used in staff location system.

1. *Public Address System*: It is the simplest and the most effective method of staff location. Under this system, a loudspeaker is used to requesting the attention of the person sought. Such systems are often used by the railways, airlines offices etc. The main drawback of this system is that it is noisy and disturbs others.
2. *Bells and Buzzers*: In our offices, bells and buzzers are used very commonly. They may be used to call a messenger or a subordinate. The actual communication takes place later. This system makes offices too noisy.
3. *Lighted signals*: Lighted signals are installed to attract the attention of a particular individual at a given moment. Each person on the call list has a code number. Wherever a particular individual is required, his code number is lighted on the signal and a buzzer is operated. This system creates noise in office.

### **IV Other modern communication methods**

#### **i. INMARSAT (Portable World Phone Office)**

The most modern communication device. It is a combination of digital camera, laptop, cell phone, fax and audio visual software. It facilitates communication with people all over the world while travelling, expeditions, etc.

#### **ii. Video conferencing**

Video conferencing is a service on the internet that allows people to communicate each other and carry on conversation via the computer with one or more people with audio and video. It enables direct face-to-face communication at any distance. It has the capability to let the participants see each other over video screen. Video conferencing system needs the following five components.

- Camera
- Visual display
- Audio system
- Compression
- User interface and control system

### iii. Social Media

This is a method of communication through internet facility which enables people with similar interest from all over the world to communicate and share information with each other. Some popular social media are:

#### a. Facebook

Facebook is a social network service where information can be shared within the group of socially connected people. Sharing of pictures and other details related to events, incidents and anything of a particular interest or significance. Following are some of the features of facebook:

1. Friends - "Friending" someone is the act of sending another user a friend request on Facebook.
2. Timeline - Option to categorise the photos, videos, and posts of any given user.
3. Convey acceptance - Option to express feelings/write comments.
4. Messages, Notifications and inbox
5. Groups - Individual user can create group according to their taste. The three different levels of privacy settings in a group are
  - "Open" means the group, its members and their comments are visible to the public (which includes non-members) but they cannot interact without joining.
  - "Closed" means the group and its members are visible to the public but their comments are not visible until the user has joined the group.
  - "Secret" means that nothing can be viewed by the public unless a member specifically invites another user to join the group.

#### Uses of facebook

1. Sharing of information with group members and the public
2. Used as a market place where you can publish things for sale or for other advertisements.
3. As a place for blogging

**b. Whatsapp Messenger**

This application is used to communicate with multiple people or friends via text messages or perform real-time conversation (chat). Users can also create chat groups, share photos, videos, music, files, etc. Sending messages and files for WhatsApp Messenger is extremely fast and has no problems for delivery. It works on any platform Android, Microsoft, Apple, etc.

*Features of WhatsApp Messenger*

**Blue ticks:** One blue tick show the message is send and two ticks indicates the message is read.

**Security:** WhatsApp provides end-to-end encryption which makes impossible to any other to read the user's messages.

**Group Chat Updates:** Group Chat allows you to chat with Up to 100 Members at once.

**Video Calling:** WhatsApp's 4.0.0 provides video calling facility.

**c. Twitter**

Twitter is an online social networking service that enables users to send and read short 140-character messages called "tweets". Registered users can read and post tweets, but unregistered users can only read them. To send a tweet to someone, type the person's username in the format "@username" (without quotes). Enter the username at the beginning of the tweet to send an @reply, or enter it within the tweet to send a mention. Direct messages are ideal if you want to say something to a follower privately.

The common terms and their abbreviations used in twitter are:

1. *Tweet:* A 140-character message.
2. *Retweet (RT):* Re-sharing or giving credit to someone else's tweet.
3. *Feed:* The stream of tweets on homepage. It's comprised of updates from users one follow.
4. *Handle:* Your username.
5. *Mention (@):* A way to refer another user by his username in a tweet (e.g. @mashable).
6. *Direct Message (DM):* A private, 140-character message between two people. You may only DM a user who follows you.

7. *Hashtag (#)*: A way to denote a topic of conversation or participate in a larger linked discussion (e.g. #AmericanIdol, #Obama). Hashtag allows to find tweets based on topics. You can also click on a hashtag to see all the tweets that mention it in real time - even from people you don't follow.

**Activity: A debate on the impact of social media among youth.**

### 3.1.8 Telephone and e-mail etiquettes

#### Telephone etiquettes

Telephone manners are very important. It is the voice that is often the first or only impression a person receives of the speaker and of the organisation represented by him/her.

##### *Tips for telephone talking*

1. Welcome the speaker with greetings (Good morning Sir, good evening sir, etc.)
2. Introduce yourself.
3. Speak slowly and clearly
4. Let your voice communicate that you are interested in the caller.
5. Get to the point of the call.
6. Turn off the background noise, if any.
7. End the conversation with 'Thank you' or 'Good bye'.

##### *Tips for placing a call*

1. Introduce yourself.
2. If the receiver is busy, ask for the convenient time of call.
3. If you have several points to be discussed, prepare a list before calling.
4. Try to answer the telephone by the second or third ring.
5. If the call is to be transferred, politely ask, who is calling and do not let them wait for a long time.
6. Keep a writing pad and pen near you to note down any message from the caller.

#### E-mail etiquettes

It is important that whether for business or personal use one should follow the basics of email etiquette. This topic covers the top tips for email etiquette that everyone

needs to be aware of and follow. By doing so we will be able to maintain good relationship with other people. The important e-mail etiquettes are:

*1. Don't Write in All CAPITALS*

Writing in all capitals can convey that the sender is shouting in his message, and nobody likes to be yelled at. Consider other ways to convey the importance of the message. Using all capitals can be annoying and trigger an unintended response.

*2. BCC Recipients or Use a Mail Merge*

When sending a mail, some people place all the email addresses in the To: field. If the recipient list is large, all the address will display in the field. Some recipients may not want their email address published for everyone to see. This can be avoided by using the BCC field or a program like Outlook to do a mail merge that sends a unique message to each person on the list.

*3. Don't Request Delivery and Read Receipts*

This will almost always annoy the recipient before he or she has even read the message. Besides, it usually does not work anyway since the recipient could have blocked that function, or his/her software might not support it. If you want to know whether an email was received, it is better to ask the recipient directly.

*4. Take Care with Abbreviation and Emoticons*

Save abbreviations like ASA (as soon as) or IDK (I don't know) for text messages among friends. Avoid abbreviations in business/official e-mail. And while emoticons are fun, they just aren't professional and don't know how the recipient will take them. Just like abbreviations, readers may not know what they mean. It's better to spell it out and write what you mean.

*5. Don't Use Email to Discuss Confidential Information*

Email messages are easy to copy, print and forward therefore it is not suitable for sending confidential information.

6. It should be complete in all respect such as address, salutation, subject, greetings, closing, signature, etc.

7. Reread before sending, spell check and do not demand an immediate response.

### **3.1.9 Postal services**

Written communication can be send through post office. A number of postal services are provided by Postal department.

**i. Ordinary post**

For this normal postage charges are charged by the post office. The sender of the letter affixes postal stamp after weighing them.

**ii. Registered post**

A receipt regarding the despatch of valuable documents is given by the post office. Special care is given to the parcel. The receipt is used as a proof.

**iii. Registered with acknowledgement due**

While sending registered post a card with name and address of the sender and the receiver is attached with. This card will be returned to the sender by the post office which can be used as evidence.

**iv. VPP**

Value Payable Parcel is the system in which one can order and receive the article through the post office. The value of the article is recovered by the post office and a fee is charged by them as service charge.

**v. Insured cover**

Valuable articles can be send through the post office under insured cover. Post office is liable for any loss or damage to the article send.

**vi. Reply paid service**

It is a method used to collect the feedback of products, orders from customers etc. The addressee has to pay the postal charges only at the time of receiving the covers.

**vii. Speed post**

Speed post facility is available in post office which offers the speedy delivery of the mail. An extra amount is charged for this service.

**viii. Postage Prepaid Service**

When a large number of letters, etc., are to be posted by an office, it may do so without pasting postage stamps on them. Under this system, the total amount of the postage is paid to the post office in cash, and the post office marks the stamp "Postage Prepaid" on each article so posted.

**Activity: Visit nearby post office and prepare a report on the postal services.**

**3.1.10 Courier services**

It is a kind of service provided by private agencies to transfer letters and parcels from one place to another. Most courier services guarantee delivery within the country

in 24 hours and delivers documents and small packets at local levels on the same day. They offer document deliveries using air, rail and road services. Several international couriers are operating their business in our country. It is a government approved parallel system to the Postal Department.

**List of items in Portfolio**

Assessment Activities	Portfolio (Expected)
General discussion	Participation
Case study	Notes in activity log
Draw communication process	Drawing
Presentation of selected topics	Communication skill
Prepare chart	Chart
E-mail account creation	E-mail account

**Sample TE questions**

1. Response or reaction of communication is \_\_\_\_\_.
2. Suggestion from a superior is an example of \_\_\_\_\_ communication.  
(Upward, Downward or Horizontal)
3. Communication is a two way process. Explain.
4. Immediate response is one of the advantages of face-to-face communication. Mention any two other advantages.
5. Name the devices used for transmitting sketches, drawings etc.
6. Valuable articles are send through post office under \_\_\_\_\_.  
(VPP, Certificate of posting, insured cover, reply paid services)
7. Mobile phone has revolutionized modern business. Write your opinion.
8. \_\_\_\_\_ enable direct face-to-face communication at any distance.
9. Name the postal service which facilitates the speedy delivery of mail.
10. Expand  
a. MODEM      b. www      c. E-mail      d. EPABX      e. FTP
11. Communicating and sharing of information on social media has become a new trend. Discuss its merits and demerits.

12. Prepare a report on your visit to a post office mentioning the different services available there.
13. There are certain hindrances in the free flow of communication . Discuss such hindrances you noticed while communicating with your friend.
14. Informal communication is also known as \_\_\_\_\_.
15. Write notes on different applications of internet.
16. The purchase manager of Bata Shoe Co. wants to discuss a matter with the different branch managers located at different places at a time. Suggest the communication which is most suitable and time saving. Also mention the merits of that system.
17. Observe the following carefully. Then classify these communications on the basis of the direction of message.
  - a. A strike notice given by the workers to the Managing Director.
  - b. Instructions given by the Supervisor to the workers.
  - c. Communication between the Finance Manager and Purchase Manager.
  - d. A sales report submitted by the Salesman to the Sales Manager.
18. The following are the two situations that interuupt the flow of communication.
  - a. Lack of interest
  - b. Defective mediaSuggest solutions to overcome these barriers.
19. Classify the following as oral communication devices and written communication devices and prepare short notes on them.
  - a. IVRS
  - b. Telefax
  - c. EPABX
20. Point out any two problems that can be happened while conveying an oral message through a messenger.
21. Write brief notes on how we can use what's app and facebook for the benefit of the society.

## **Unit No. 3.2 - COMMUNICATION THROUGH LETTERS**

### **About the Unit**

Office job starts with the arrival of correspondence. Most of the office jobs are related with the preparation of letters and other correspondence in one or other way. Though some of the conventional methods of correspondence became outdated, still the basic elements are relevant. The office personnel should have proper knowledge about preparation of correspondence. This unit enables the learner to draft correspondence in accordance with the different office situations.

### **Learning outcomes**

The learner;

- Explains the meaning and importance of letters.
- Identifies the structure of a business letter.
- Selects appropriate layout of a letter.
- Identifies, explain and prepare different business letters, offers, quotations and bio-data.
- Identifies, explain and prepare different government letters.
- Identifies and draft inter office communications.
- Classifies, record and distribute inward and outward mails.

### **Unit in detail**

#### **Communication through letters**

##### **3.2.1. Meaning and importance of correspondence**

#### **Meaning**

The communication of information by letters is referred to as correspondence. It means communication in writing as between individuals and institutions on matters of common interest. It is an effective medium to send long messages with low costs.

#### **Importance**

Communication is as important to business as respiration to human life. It develops and sustains business activities. The importances of correspondence are the following:

1. It conveys messages effectively.
2. It opens up and maintains business relationships.
3. It helps to initiate, conduct and conclude business transactions.
4. It creates goodwill for the business.



*The number and date*

A number is given to each letter for its identification. It is given as a code number. The date line contains the month, the day of the month, and the year. It is usually written on the top right side of the letter below the heading. Its placement depends on the style of the letter. The date may be written as: April 18, 2016.

*The Inside Address*

The inside address consists of the name and complete address of the person or firm to whom the letter is written. The usual layout of the address is:

M/s Ganguly Associates  
P.B. No. 57, West Coast Road,  
Howrah

*Hints:*

- When letters are addressed to individuals the appropriate titles such as Mr., Miss, Mrs. or Shri/Smt, should always be used before the name.
- The title Messrs (Abbreviation of Messieurs) or M/s is used before the firms and the names of companies with personal names.
- Where a firm consists of ladies only the word Mesdames (Mmes) should be used.
- The firms or companies having impersonal names the title Messrs are not used.
- In writing to Limited companies, local authorities, professional bodies, co-operative societies, Charitable institutions etc. it is usual to address an official such as Secretary, General Manager, Managing Director etc

*The Salutation*

Salutation is used as a means of greeting. The customary forms of salutations are:

<b>Addressee</b>	<b>Salutation</b>
A Government employee	- Sir,
An individual in his name or designation	- Dear Sir,
A lady	- Madam,
A company	- Messrs,
A group of people	- Gentlemen,
Editor of a news paper	- Sir,

*Subject and reference*

Subject and reference is written below to the salutation. Subject is written in brief, which shows the contents of the letter in brief. It is helpful for the officers to find out the subject matter of the letter at a glance. Reference is used to indicate the follow up of the earlier correspondence. It points out the need for reference of the past communication.

*The body of the letter*

This part is the message or content of the letter. It is the most important part of the letter. This part should be carefully written. It consists of three sections:

1. Introductory paragraph
2. The main theme
3. The closing paragraph

*The complimentary close*

The complimentary close indicates the end of a letter. Commonly used closings are Yours faithfully, Yours truly, Yours very truly, Yours sincerely, Yours respectfully.

*The Signature*

Every letter should bear the writer's signature. It is put immediately after the complimentary close. Even if it is typed in computer, the signature should be written in ink. It is a good practice to type the name or designation of the writer below the signature. Now digital signatures are used for putting signature in some offices.

*Enclosures*

If any document is attached with the letter, it should be mentioned as 'Encl' at the bottom of the letter.

*The Post script*

If the writer wants to add something more to the letter, after it has been completed, it may be shown as Post-Script (P.S.). A post script should not be used unless it is highly essential and whenever it is used it should be attested by the writer's signature.

**Structure of a business letter**

**Heading**

Lr. No Date  
 Inside Address  
 Salutation  
     Sub:  
     Ref:  
 Body of the letter

Complimentary close  
 Signature

Encl.  
 P.S.

**Activity: Collect various types of letters, make an album & identify parts of the letter.**

**3.2.3 Layout of a letter**

- Layout of a letter indicates the over-all arrangement and appearance of the different parts of a letter.
- A good layout makes the letter attractive.
- There are two types of layouts
  1. The Block form of layout - All lines begin close to the left margin.
  2. The Indented form of layout - Paragraph form which gives a balanced appearance.

BLOCK LAYOUT	INDENTED LAYOUT
Heading	Heading
Lr. No. & date	Lr. No. <span style="float: right;">Date: .....</span>
Inside Address	Inside Address
Salutation	Salutation
Sub:	Sub:
Ref:	Ref:
Body of the letter	(Body of the letter)
Complimentary close	Complimentary close
Signature	Signature
Encl:	Encl:
P.S:	P.S:

**Activity: Observe the types of letters collected and identify the block form layout and indented form layout.**

**Activity: Write the following inside addresses in Block form and indented form.**

- a. The Manager, Ciba Cosmetic Products, North Extension-2, New Delhi.
- b. The Proprietor, Thomas & Sons, Main Road, Quilon.
- c. Kumar Chand & Company, Dealers in Electrical Goods, Film Institute Marg, Pune.

### 3.2.3 Types of business letter

- **Circular letter** - A circular is a printed announcement or letter sent to a number of people. When some information or fact is to be communicated to a number of persons a circular may be issued. Business Circulars are generally used to announce the establishment of a new business, introduction of a new product, change in the price of any product, change in the terms and conditions of supply, change of address on shifting of premises etc.

**Activity: Draft an invitation letter as a wholesale stockist inviting his retail dealers for a Dealers meeting on next week.**

- **Sales letter** - A sales letter is a sales call in writing. The object of a sales letter is to inform the customer of the company's products or services and to persuade him to buy them. It should contain a clear description of the goods and their uses, the reasons why they should be preferred to other similar goods etc. A well written sales letter will definitely promote sales and create reputation for the concern.

**Activity: Draft a sales letter, outlining the advantages and special features of any product produced by VHSE students of your school.**

- **Follow up letter** - The letters written, one after the other, to remind the customer or to attract him towards the product or service, such letters are called Follow-up letters.
- **Letter of agency** - The producers/manufacturers of goods always distribute their products through agencies situated in different parts of the country. In such cases the parties interested to take agencies may apply to the manufacturer for an agencyship in a particular region.
- **Enquiry letter** - A letter of enquiry is a letter written by a person or a business concern to another for the purpose of seeking information about business matters. It is used to enquire about the price of goods, quality, quantity, mode of supply, terms of payment etc before making agreement for business relations.

- **Offers & Quotations** - An offer is a proposal from one person to another showing the willingness to sell specific goods or render services at a certain price and under certain terms and conditions. The offer made by a businessman without receiving an enquiry or request is called a voluntary offer. If an offer is made in response to an enquiry, it is called a quotation. An offer should contain the description or nature of goods, quality, quantity, price, terms & conditions of payment, mode of delivery, time & place of delivery, the period for which the offer is valid etc.

**Activity: Draft an offer enclosing quotation for handloom curtain material on behalf of "Excellent Weaving Company, Vikas Nagar, Palakkad "to" Nice Furnishing company, Grant Road, Mumbai.'-**

- **Order letter** - Order letter is prepared to place order to the supplier if the quotation is acceptable. An order letter should contain the name of the firm, reference number, date, To address, reference to quotation, description of goods, price, method of payment etc. Large business concerns have printed order forms which are serially numbered, suitably ruled and bound up in book form.
- **Collection letters** - It is a letter written by a seller or a creditor requesting the debtor to make the payment of overdue accounts. In this letter the sender will insist or pressurise the customer for clearing the payment. So these letters are also called dunning letters. A collection letter is sent for achieving the following purposes.
  - i. to persuade the debtor to make the payment.
  - ii. to maintain cordial relation and goodwill with the debtors.
  - iii. to suggest convenient methods of payment in case the debtor faces any financial difficulty.

There are four stages in the collection of debt. In each stage a different letter will have to be used. These stages are:

1. Notification
  2. Reminder
  3. Persuasion
  4. Coercion and threat.
- **Application letter** - A letter sent for the purpose of securing a job or employment is called an application letter for employment. A letter of application is a type of sales letter. Here the applicant tries to sell his services in the market for the best price available. So it is necessary to write letters of application suited to one's qualification, training, experience, skill and ability etc.

Application letters are prepared by persons seeking employment. It should contain the following:

1. Place & date of the letter
2. Name and address of the applicant
3. Name and address of the prospective employer
4. Salutation
5. Body of the letter
6. Complimentary close
7. Signature

#### A SAMPLE APPLICATION LETTER

From

Anup Sivan,  
Siva sadanam,  
Balussery P.O.  
Kozhikode.

To

The HR Manager,  
Modern Industries,  
Ernakulam.

Sir,

Sub: Application for the post of Accountant - reg:

With reference to your advertisement in The Indian Express Daily dated ....., I wish to apply for the post of Accountant in your institution.

I am a graduate in Commerce (B.Com) with Accounting and Costing as main subjects from Calicut University. Then I joined in Maheswara distributors, a marketing agency at Thrissur, as office clerk. I have successfully undergone the Tally course from C-DIT, as a part time student. I have sufficient experience in accounts or the last 2 years.

Now I am drawing a salary of Rs.15,000/- per month from my present employer. If you are interested with my bio-data, please give me a chance for a personal interview.

Expecting a favourable reply from you.

Yours faithfully,

Sd/-

Anup Sivan

Encl: Bio-data.

**Activity:** Collect classified advertisement columns of different newspapers. Select one or two "situation vacant" or "Wanted" advertisements and prepare Application letters for it.

- Bio data - (personal data sheet, Curriculum Vitae, Resume)

Bio-data is a separate sheet used for giving the required information about the applicant in a systematic and brief manner. It is attached with the letter of application.

A FORMAT OF RESUME											
RESUME											
Name	.....										
Address	.....										
Place	.....										
Phone No.	.....										
E-mail	.....										
Academic qualification	.....										
Technical skills	.....										
Areas of interest	.....										
Personal Profile	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Date of Birth</td> <td>.....</td> </tr> <tr> <td>Sex</td> <td>.....</td> </tr> <tr> <td>Father's Name</td> <td>.....</td> </tr> <tr> <td>Nationality</td> <td>.....</td> </tr> <tr> <td>Marital status</td> <td>.....</td> </tr> </table>	Date of Birth	.....	Sex	.....	Father's Name	.....	Nationality	.....	Marital status	.....
Date of Birth	.....										
Sex	.....										
Father's Name	.....										
Nationality	.....										
Marital status	.....										
References	.....										

**Activity:** Prepare a bio-data in the above format with imaginary details.

- **Form letters** - A form letter is a standardized letter used by an enterprise to answer all correspondence of a similar and recurring nature and which is used to give the same information to a number of correspondents. These are commonly used for inviting members to a committee meeting, debt collection, price enquiries, reminders, interviews, appointment letters, ordering of materials etc.

### 3.2.5 Types of Government letters

- **Official letters** - Letters relating to Government or semi-governmental administration are referred to as Official letters. The salutation used in an official letter is Sir/Madam and subscription is Yours faithfully.

FORMAT OF AN OFFICIAL LETTER	
	Office of the .....
	.....
No. ....	Date: .....
From	
	.....
	.....
To	
	.....
	.....
	.....
Sir,	
Sub:	
Ref:	
BODY OF THE LETTER	
	Complimentary close,
	Signature

- **Demi-Official letters (DO Letters)** - The D.O letter is an official letter but it is addressed in the personal name of the Officer. It is written in the form and style of a personal letter. It is prepared to invite the attention of an officer of equal rank or immediate lower rank. The salutation is, therefore Dear Mr. ...., and subscription is Yours sincerely or Yours truly.

**Activity:** Draft an official letter on behalf of the Principal of your school seeking permission for a field visit to 2<sup>nd</sup> year Computerised Office Management students in the nearby Post Office.

**Activity:** Draft an official letter on behalf of Principal to obtain permission to conduct On-the-job-Training in the Panchayath Office/Municipal office.

### 3.2.6 Inter office communications

Inter Office Communication or Inter Office Memo, commonly known as IOM, is used to communicate between departments of an organisation. It is also used by organisations having a number of branches in different places. Internal letters or memos are common both in Government offices and in business organisations. Official memos are either sent out by the head of the office or department heads to his subordinates or to other departments for conveying information. There is no prescribed format for an IOM and no need of salutation or subscription.

### 3.2.7 Mail service - Inward mail and outward mail handling procedures

**Inward mail** - All mail received in the office is known as inward mail. They include ordinary letters, registered and insured letters, sample packets, book packets etc.

#### Inward mail handling procedures

The incoming mail passes through the following different stages:

- i. *Receiving the incoming mail*: In small offices, mail is received by the chief executive or his secretary or receptionist. But in big offices, having a separate mailing department, a clerk is entrusted with the responsibility of receiving the incoming mail. The person who receives the incoming mail signs and acknowledges the receipts for registered mail, parcels or letters delivered by the Assistants/Messengers of other offices etc.
- ii. *Sorting the mail*: After the mail has been received in the mailing department, it should be sorted out before it is opened. Business letters should be separated from personal letters of the employees. Letters marked 'confidential' or addressed to department or officials by name or designation should be sent immediately unopened to the departments or officials concerned. Business letters should be sorted out into three groups:
  - a. Registered and unregistered letters or mail
  - b. Sealed and unsealed envelopes; and
  - c. Confidential and urgent letters and other official letters.
- iii. *Opening the mail*: The envelopes may be opened with the help of a mail opening device. They must be opened in the presence of some responsible official so as to avoid theft of any document. Registered letters and letters marked important or immediate are opened so that they are properly attended to.

The opening mail is not complete unless the contents of the envelopes are emptied carefully and examined. It has to be seen that no papers are left inside the envelope. When necessary the envelope is pinned with its contents as an evidence of the date and time of receipt indicated by the post mark.

- iv. *Scrutiny of contents*: The contents of the envelopes have to be scrutinized to find out the purpose of the correspondence, departments concerned and enclosures, if any. If there are enclosures, they have to be checked with the covering letter to verify whether they are in order and the noting should be initialed by the opening clerk.
- v. *Date-stamping*: After checking the letter by the mail clerk, it is stamped with the date of receipt and the time. The stamping may be done with the help of 'Date, 'Numbering' and 'Time recording machines'.
- vi. *Recording*: All incoming letters are recorded in a register called Inward Correspondence Register or Inward Mail Register or Letters Received Book.

#### FORMAT OF INWARD MAIL REGISTER

Sl. No.	Date	Sender's Name & Address	Subject	Contents	Department referred	Date of Reply	Remarks

- vii. *Sorting and distribution*: After recording the details of letters in the Inward Register, they are sorted out department-wise. This is done after verifying that all enclosures mentioned are securely attached with the letters. Separate baskets may be used for sorting out the letters of each department. After this the letters are delivered to the concerned departments and the initials of the receiving clerks may be obtained on the register as a receipt.
- viii. *Follow-up*: After receiving the letters, it is the duty of the departmental heads to take necessary action and send suitable replies.

**Activity:** Following is the data available from the mail section of Akshaya Manufacturers, Kottayam-36. Enter the data in appropriate column of the Inward mail register.

- A registered letter from Canara Bank, to the accounts section informing the dishonour of cheque No. 05467 received on 5.8.2008.
- On 8.8.2008 received a letter from Sales Tax Department regarding sales tax return submission.
- On 4.8.2008 received a letter from Subhas Associates, Calcutta, a business enquiry .
- On 8.8.2008, letter from South India Marketers, Erode an order worth Rs.10,00,000/-.
- On 10.8.2008 letter from Mr. Mukesh, a customer complaining on the services of the company.

**Outward mail** - All mail sends out are known as outward mail or outgoing mail.

#### **Outward mail handling procedures**

1. *Preparation of letters*: The preparation of letters involve drafting and typing of letters. The drafting of outgoing letters will be done sometimes by the departmental heads or the secretary and sometimes by the office assistants.
2. *Signature on letters*: After being typed, letters are put up before the executive for the signature. Before a letter is signed the person signing it must read the contents thoroughly and correct the typing mistakes and other errors. The letters of less important are signed by junior officials.
3. *Referencing*: Outgoing letters are marked with a reference number for future reference. This is known as referencing. The reference number is some code words used for identifying the department, the file number, subject of the letter and the year. Referencing helps filing and afterwards to find out the copy of the correspondence easily for any further action on the same.
4. *Despatching*: The last step in the outward mail is to despatch it to its destination. Despatching involves a number of operations. They are:
  - i. *Collection of mail* - When the outgoing mails are ready for sending out, they are collected by the mail department for despatching.
  - ii. *Folding letters* - Folding a business letter properly is not a difficult process, but care should be taken to see that the creases are straight and that they are made without detracting from the neatness of the letter. Where large number of letters of identical size are to be folded the use of folding machine is made.

- iii. *Preparation of envelopes and writing address* - After folding the letter it should be inserted in the envelope in such a way that it will be in a normal reading position when it is removed from the envelope and unfolded. Addresses on the envelopes are written very legibly and correctly. To eliminate wrong addressing, window envelopes are used.
- iv. *Sealing* - After inserting letters into envelopes, the next step is sealing the envelope with adhesive. Book post, Registered, V.P.P. and insured articles should be sealed according to postal rules.
- v. *Sorting and Stamping the envelopes* - In small offices stamping is done by hand and in big offices it may be done by franking machines. Before stamping, the mail should be sorted out according to the following categories: a) Articles to be sent by messenger b) Article to be sent by post. Articles to be sent through messenger need not be stamped. Articles are again divided into ordinary post, book post, registered articles, speed post etc. To avoid under-stamping or over-stamping the envelop should be weighed carefully and the correct postage determined.
- vi. *Recording in outward mail register or post book* - Before sending out the letters for posting, they may be entered in an outward mail register or despatch register which provides columns for entering the date, serial number, name and address of the addressee, subject, enclosures etc.

#### FORMAT OF OUTWARD MAIL REGISTER

Sl. No.	Date	Contents of Letters	Name & address of the receiver (To Address)	Name of Dept. or persons sending the letters	Postage stamp used	Remarks

- vii. *Posting* - posting and delivery of letters is the final step in the whole procedure of despatching letters. Ordinary letters will be posted in the post box, but special delivery letters such as those sent by registered post must be sent to the post office through the office messenger. The letters addressed to local addresses are generally sent through local delivery peons especially when they are urgent. Such letters are recorded in a book known as Peon Book.

**Activity:** 1. Draw the format of Inward mail register which is seen during office visit.

2. Outline the various stages for handling inward mail.

**Activity:** 1. Draw the format of Outward mail register.

2. Outline the various stages for handling outward mail.

**List of items in Portfolio**

Assessment Activities	Portfolio (Expected)
General discussion	Participation
Collection of letters	Album
Draw specimen of inward and outward mail registers	Inward and Outward mail register
Preparation of letters	Letters

**Sample TE questions**

1. Communication of information through letters is known as .....
2. A partner, Anup, goes out of your firm 'Mohan Brewery Company' on account of differences of opinion with other partners. He takes away his share of capital, Rs. One Lakh which is fifty percent of the total capital of the firm. Draft necessary letter from the firm to inform the customers.
3. Prepare a bio-data for the following advertisement using imaginary details.  
Name of Post - Office Assistant  
Experience - 2 years  
Qualification - B.com
4. You are appointed as the mail room supervisor of Messrs Jaiker & company. Draft a suitable procedure to handle inward mail correspondence.
5. Write a letter from Sankar Brothers, Textile dealers, Trivandrum, to M/s Chand Cotton Mills, Bombay requesting for appointment as sole distributor of their products.
6. Messrs Jos Brothers, one of your old customers has been in arrears to you for some months and has not replied to your letters. Write a tactful letter suggesting payment by installments if he is in financial difficulty.
7. Mr. K. Seetharam, Kochi, writes your firm for quotations for "five office chairs in steel frames". Send him a marked catalogue, recommend two styles, and state your terms.

8. Draft a letter informing the customers about a change of address of New Era Flour Mills Ltd., Kozhikode, from Beach Road, Kozhikode -1 to Kallai Road, Kozhikode-2. The new buildings are more commodious and the location enjoys better transport facilities. All business will be done as before.
9. As a book seller you are interested in the purchase of 10,000 copies of "Oxford Dictionary". Write a letter to Messrs Excell Publishers, Station Road, Chennai, asking for price and terms.
10. Draft a sales letter describing a 4G mobile phone with other advantages.
11. Select the most suitable complimentary close used in a DO letter.  
a. Yours faithfully b. Yours truly c. Yours sincerely d. Yours obediently
12. Mr. Mahesh, the Managing Director of M/s. Sangeeth Electricals, Bangalore wants to inform the retailers about the new stock and special discount for three months on account of Jubilee celebrations of the company. Help him to draft such a letter.
13. Office works starts with the receipt of a letter. Timely arrival of mail is necessary for effective functioning of an office. Suggest some methods you can adopt in your office for early and timely arrival of the mail in your office.

### **Unit No. 3.3 - Computerised Typing (English and Malayalam)**

#### **About the Unit**

This unit is aimed to upgrade the typing skill in English and Malayalam to 35 wpm and 25 wpm respectively. Another objective is to familiarize with handwritten documents. Handwritten letters, statement, reports, etc. are often typing in offices. Therefore, the learner must have enough skill in handling such documents.

#### **Learning outcomes**

The learner;

- Acquires a speed of 35 wpm in English and 25 wpm in Malayalam.
  - Types handwritten/manuscript letters, Government orders, statements etc.
1. Sample passage for speed practice. (Time - 10 minutes)

Cricket is a game of skill and strategy played between two teams of 11 players. Each team takes its turn to bat while the other team bowls and fields. Each turn is called an innings. At any given time there are two batsmen: one striking (facing the bowler) and one non-striking. They stand at opposite ends of the pitch in front of the wickets (or stumps). The pitch is an area of play 22 yards long.

The striking batsman uses the bat to prevent a bowled ball hitting the wicket, and if possible hits the ball away from fielders, giving both batsmen time to score runs. To score a run for their team, the batsmen run past each other to the other ends of the pitch, swapping places. Hitting the ball to, or over the boundary of the playing field pitch, swapping places. Hitting the ball to, or over the boundary of the playing field earns multiple numbers of runs ('fours' and 'sixes').

The main ways the opposing team dismisses the batsmen, putting them 'out' and stopping them scoring runs are by: bowling them (hitting their wicket with a bowled ball) catching a ball the batsman has hit, on the full (without letting it bounce) leg before wicket (the ball hits the pad directly in front of the stumps) running them out - putting down their wicket while no part of a batsman's body or bat is behind a line (the crease) at the end of the pitch stumping them - the batsman moves outside their crease and misses the ball, and the wicket keeper removes the bails while holding the ball and before the bat is re-grounded.

Each innings continues until either 10 batsmen have been dismissed or the batting side declares the innings finished. At the end of the game, the team with the most runs wins.

2. Sample passage for speed practice. (Time - 10 minutes)

### **Cricket and crisis**

Years' War. This was largely due to shortage of players and lack of investment. But the game survived and the "Hambleton Era" proper began in the mid - 1760s.

Cricket faced another major crisis at the beginning of A Game of Cricket at The Royal Academy Club in Marylebone Fields, now Regent's Park, depiction by unknown artist, c. 1790-1799. Cricket faced its first real crisis during the 18<sup>th</sup> century when major matches virtually ceased during the Seven the 19<sup>th</sup> century when a cessation of major matches occurred during the culminating period of Napoleonic Wars. Again, the causes were shortage of players and lack of investment. But, as in the 1760s, the game survived and a slow recovery began in 1815. On 17 June 1815, on the eve of the Battle of Waterloo British soldiers played a cricket match in the Bois de la Cambre park in Brussels. Ever since the park area where that match took place has been called La Pelouse des Anglais (the Englishmen's lawn). MCC was itself the centre of controversy in the Regency period, largely on account of the enmity between Lord Frederick Beauclerk and George Osbaldeston. In 1817, their intrigues and jealousies exploded into a match-fixing scandal with the top player William Lambert being banned from playing at Lord's Cricket Ground for life. Gambling scandals in cricket have been going on since the 17<sup>th</sup> century. In the 1820s, cricket faced a major crisis of its own making as the campaign to allow round arm bowling gathered pace.

The game also underwent a fundamental change of organisation with the formation for the first time of county clubs. All the modern county clubs, starting with Sussex in 1839, were founded during the 19<sup>th</sup> century. The growth of cricket in the mid and late 19<sup>th</sup> century was assisted by the development of the railway network. For the first time, teams from a long distance apart could play one other without a prohibitively time-consuming journey.

**SAMPLE PASSAGE FOR MALAYALAM SPEED PRACTICE No. 1**

കേരം തിങ്ങിയ കേരളത്തെ കരിച് വാചാലരാകാൻ സാഹിത്യകാരന്മാർക്ക് വാക്കാ കളിലു. എന്നാൽ ഇന്നത്തെ കേരളത്തിന്റെ ദാരുവസ്ഥ വിവരിക്കാൻ സാക്ഷാൽ കാമാ രനാശാൻ പോലാം മടിക്കാം. സംസ്കാരത്തെ പാസിക്കുകൾ കൊണ്ടുള്ള ച യിൽ സംസ്കരിച്ചാ കൊണ്ട് ഇരിക്കുന്ന അധാനികതയിൽ റീ ചാർജ്ജ് കൗണ്ടർ താറ ക്കാമോ എന്ന് വെപാളപെടുന്ന കണകളുമായി മലയാളികളാണ്.

വിദേശമദ്രഷ്ടാപാകളുടെ പടി വാതിൽക്കൽ കോഴി കാവാനതിനാമസ് തെ ഹാജരാകണം എന്ന നിർബന്ധം ഉള്ളവരായി മാറി നമ്മൾ. മലാസ് ചമ്മന്തിയ ചെറുപയർ പാഴാക്കും ചാട പപടവാം കാടി രാചിയോടെ പാവില കോടി കണ കാടിചിരുന്ന കാലം കേരളത്തിന്റെ ചരിത്ര പാസ്തകങ്ങളിൽ സ്ഥാനം പിടി നമ്മുടെ ദേശീയ ഭക്ഷണമായ പൊരോടയാം ചിക്കനാം തീൻ മേശയിൽ അ സോടെ ഇടം പിടിച്ചു. ഒരാ തരത്തിൽ പറഞ്ഞാൽ ഫാസ് ഫാഡിന്റെ അരങ്ങേ ത്തോടെ കേരള സംസ്കാരം തന്നെ മാറി. അങ്ങനെ മലാസ് ബഡ് പ്രഷറി ഷാഗറിനും കൊളസ്ട്രോളിനുമൊക്കെ അടിമകളായി മാറി. ഈ അടിമത്തം അറ സാനിപ്പിക്കാനെന്നോണം ഒടാവിലൊരാ ഹാർട് അറാക്കും. പിറന്നു വീണ നാ മാതൽ രാചിയോടെ നുകരുന്നത് വർണ്ണ പാനീയങ്ങളാണ്. പല പേരില് നാടിൽസാ കളാം സ്നാക്സാം കേരളത്തിലെ കാഞ്ഞ കാഞ്ഞ കടകളിൽ പോലാം ലഭിക്കു ന്നു.

മാൻപൊക്കെ ഈ നാടിനെക്കാറിച് ചിന്തിക്കാമ്പോൾ മനസിൽ ഓടി വരുന്ന ചില ഓർമകളാണ്. നാലാ കാടിയ കവല. ചായക്കട. വായനശാലകൾ. കാവാകൾ. അങ്ങി നെ... എന്നാൽ ഇന്നു ചായകടയ്ക്കാപകരം കാനൻ ഷോപിംഗ് മാളകൾ. വായശാലകൾക്ക് പകരം ഇൻറർനെറ്റ് കഫേകൾ. കാവാകൾക്ക് പകരം വാടർ തീം പാർക്കു കളാം ഒക്കെയായി മലയാളികൾതന്നെ മലയാളിത്വത്തെ ഇന്നു ഇഞ്ചിഞ്ചായി കൊല പെടാത്തിക്കൊണ്ടിരിക്കുകയാണ്.

**SAMPLE PASSAGE FOR MALAYALAM SPEED PRACTICE No. 2**

നർത്തനകലക്ക് സ്വന്തം ഭാഷ്യം ചമച് ലോക പ്രശസ്തനായ ഇന്ത്യൻ നർത്തകിമാ രിൽ പ്രശസ്തയാണ് ശനിയാഴ്ച അന്തരിച്ച ചന്ദ്രലേഖ. നിയമം പഠിക്കുന്നതി ചെന്നെയിൽ ഹത്തിയ ചന്ദ്രലേഖയെ പ്രമാഖ ഭരതനാട്യം അധ്യാപകനായിരുന്ന കാഞ്ചിപാരം ഹലപപിള്ളയാണ് കാസിക്കൽ നൃത്തവേദിയിലേക്ക് കൊണ്ടാവറ ത്. അതിൽ അവഗാഹം നേടിയ അവർ ഹരതനാട്യമസിയാതെ വൈദഗ്ധ്യ പ്രതിഭയും മേളിച്ച പ്രകടനങ്ങളിലൂടെ അസ്വാദകരാടെ സ്നേഹാദരങ്ങൾ നേട ഭരതനാട്യത്തിന്റെ പരമ്പരാഗത പഥത്തിലൂടെയുള്ള സഞ്ചാരം ചന്ദ്രലേഖയെപോ ലൊരാ പ്രതിഭയെ ദിശാമാറത്തിന് പ്രേരിപ്പിച്ചതിൽ അത്ഭുതമില്ല. ഹരതനാട്യ നൃത്തവേദിയിൽ നിന്നു പിൻവാങ്ങി നിന്ന അവർ തിരിച്ചെത്തിയതാ പാതിയ കലാ സങ്കല്പങ്ങളും അശയങ്ങളുമായാണ്. നൃത്ത സംവിധായിക എന്ന നിലയി

യ്ക്കുള്ള അവരടെ പരീക്ഷണങ്ങൾ വിപവാത്മകമെന്നു വിശേഷിപ്പിക്കപ്പെടാ. താൻ പരിചയിച്ച നന്ത്ര വിശേഷങ്ങൾക്ക് അവയുടെ അന്തസ്ത്ര നഷ്ടപ്പെടാതെ തന്നെ കാലത്തിനനുസരിച്ച് സൗന്ദര്യമകവാം വൈകാരികവായ മാണം നൽകാനാണ് അവർ ശ്രമിച്ചത്.

ഭരതനാടം ഒരു ചരിതാതീത കലാരൂപത്തിൻ്റെ അവശിഷ്ടം മാത്രമായി കാണു നാഗഹിക്കാന്നിലെന്ന് പ്രഖ്യാപിച്ച ചന്ദ്രലേഖ ഒട്ടേറെ പാതിയ നന്ത്രശില്പങ്ങൾക്ക് രൂപം നൽകുകയാണ്ടായി. അയോധനകലയാം യോഗയാമെലാം നന്ത്രവാമാ ഔചിതപർവം സമന്വയിപ്പിക്കാൻ അവർക്ക് കഴിഞ്ഞു. നന്ത്ര ഗവേഷക. ഫത്താകാരി. ഡിസൈനർ താടങ്ങിയ നിലകളിലാം ചന്ദ്രലേഖ തിളങ്ങി. അവരെ സംബന്ധിച്ചിടത്തോളം കലയാടേത് സാമാഹിക ജീവിതത്തിൽ നിന്ന് അകന്നോ ളയർന്നോ നിൽക്കുന്ന ഒരപെട ലോകമായിരുന്നില

**EXERCISES FOR MANUSCRIPT PRACTICE**

- Note: 1. Special attention should be given to accuracy and neatness of execution.
- 2. Abbreviations should be amplified, spelling mistakes corrected and figures punctuated wherever necessary.

Qn No: 1 Type the following SH Neatly and ruled up.  
 Statement showing Paddy Yield in the District  
 in KERALA during - 1999

Sl No.		September Harvest (9n.M.T)	January Harvest (9n.M.T)	Total	Name of Dist
1	Thiruv	1315	2330	4045	
2	Polelshel	8218	5213	3005	
3	Malappuram				
4	Wayned	1013	2313	3330	Sted
5	Kozhikode	910	1025	1935	
6	Kannur	1415	4510	3095	
		1230	<del>260</del> 2050	3280	Dist

Q. No. 2

Type the following letter in proper form.

D.O. LV. No. SES/658/833/93 Dt: 17.8.1998

By P.K.P. Menon, Supdt. in Charge  
 South Circle Irrigation, Supra addressed to  
 Mr. E.O. Thomas, Executive Engineer, Athikkave  
 Irrigation Project, Kollam.

Dear Mr. Thomas

I am glad to note that the executed /  
~~sent~~ bund alongside of the River Athikkave  
 at the appropriate time. This matter has brought  
 to the notice of the Chief Engineer and he has  
 pleased to sanction additional sum for  
 the completion of the remaining work. I hope you  
 would do what is necessary for the completion  
 of the said work. // Looking forward to hear  
 from you on this matter.

Yours sincerely,  
 DP

Qn NO.3

Type the following display with  
Ornamental borders.

Wanted all caps.

all caps // Little flower hospital needs public  
Relations officer  
(Graduate with computer knowledge, good  
communication skills and related ~~part~~  
experience in hospitals preferred.

CCRS with experience in 'C' Arms  
Radiographer All caps

Discharge Summary clerks // caps.  
(Graduate with medical ~~experience~~  
transcription)

Salary negotiable  
apply with cv within 7 days to  
Chief Executive Officer  
Little flower hospital (P) Ltd, Pattom PO  
Kochi. ph no. 0471-2815538

Qn. No. 4 Type the following GO in proper form of ~~2~~ 2 copies

Capl. Govt of Kerala - Hd. Sect - Gen. Edn. - Inded  
 fixtures 1st fl 1989-90 - Temp. Bldgs - orders  
 issued 1 ~~2~~ Gen. Edn. (J) Dept // call Cap

GO (Rt) No. 216/85 / Gen. Edn dt. 21.1.1995

Order / Cap

Govt. is pleased to order th. new class divns  
 will be allowed if otherwise admissible certificate  
 stress provided, for the yr. '89-90 and 90-91  
 delay in temporary bldg ~~for the year~~

In respect of these bldgs. is produced. // This  
 year 1989-90 is subject to the conditions that new Temp.  
 bldgs. will be allowed only after meeting converting  
 existing Temp. bldgs. into Permanent / Semi-permt. Bldgs.  
 i.e

Copy order of / Journal.  
 Some price / Cap  
 Secy. to Govt.

To The Dir. of Pub. Instrs. Tm

Recd: - Circled No. H2/10112/89 dt. 11.12.89  
 from The DPI, Tm.

(forwarded / by order)  
 S.O

xx

List of items in Portfolio

Assessment Activities	Portfolio (Expected)
Speed test (English & Malayalam)	Soft/hard copy of the typed matter
Preparation of hand written/manuscript letters, statements, GO, etc.	Soft/hard copy of the letters, statements, GO, etc. typed.

## Unit No. 3.4 - Desktop Publishing (English & Malayalam)

### About the Unit

Desktop publishing (DTP) is the creation of documents using page layout skills. DTP software can generate layouts and produce typographic quality text and images comparable to traditional typography and printing. This technology allows individuals, businesses, and other organizations to self-publish a wide range of printed matter. When used skilfully, desktop publishing allows the user to produce a wide variety of materials, from menus to magazines and books, without the expense of commercial printing. Those who are skilled in Malayalam DTP works have good demand in the DTP sector.

### Learning outcomes

The learner;

- Uses Pagemaker/Scribus for publishing a document
- Works in Photoshop/GIMP
- Applies CoralDraw/Inkscape tools for designing

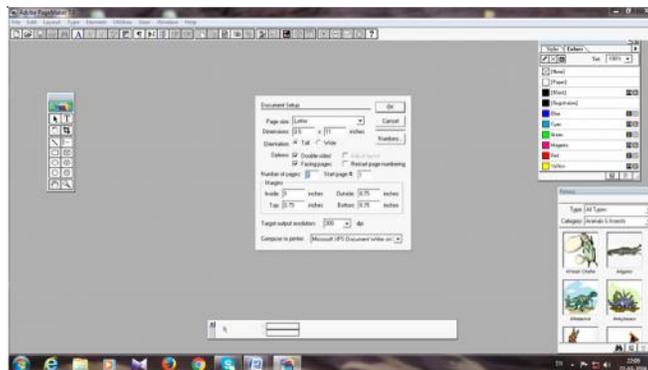
### Unit in detail

#### 3.4.1 Pagemaker/Scribus

##### Application of Pagemaker/Scribus

Adobe Pagemaker/Scribus is a desktop publishing software program that allows to view entire pages of a publication such as reports, pamphlet, booklet, etc. Besides publication, it is used for designing visiting card, brochures, calendar, invitation cards, etc. Pagemaker/Scribus facilitates to format a document's layout, control various design details such as fonts, graphics, etc. prior to printing.

##### Starting with Pagemaker/Scribus



Familiarise tools

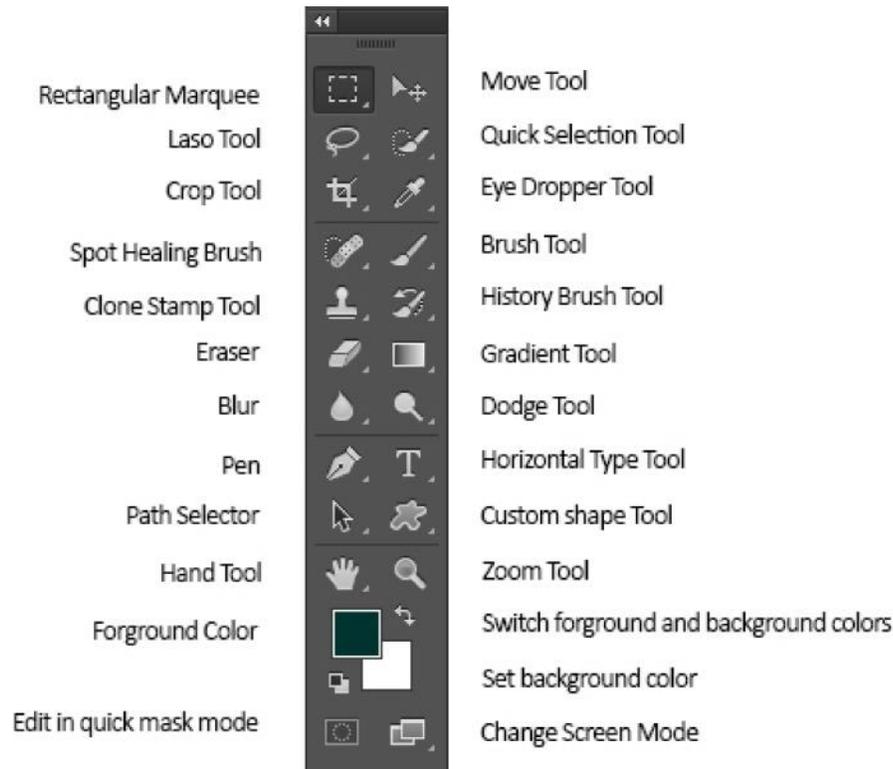
## Page Maker Tools

Tool	Toolbox	Cursor	Use
Pointer Tool			Used to select items, text, or a location. Once an item has been selected, it can be resized, moved, copied or deleted.
Text tool			Enables text entry and editing.
Rotating tool			Rotates text, drawings, or graphics.
Cropping tool			Allows custom trimming of graphics.
Line tool			Draws straight lines at any angle. See <b>Elements, Lines</b> for options.
Constrained line tool			Draws horizontal, vertical, and 45 degree lines. See <b>Elements, Line</b> for options.
Rectangle tool			Draws rectangles. To draw squares, hold the <b>SHIFT</b> key before clicking and dragging.
Rectangle frame tool			Creates rectangular placeholders for text and graphics. To create square placeholders, hold down the <b>SHIFT</b> key before clicking and dragging.
Ellipse tool			Draws ellipses. To draw circles, hold down the <b>SHIFT</b> key before clicking and dragging.

- Open Pagemaker/Scribus window
- Creating new document
- Formatting - Font, Size, Colour, Alignment etc.
- Add page numbers
- Add bullets and numbers automatically
- Numbering style
- Page size views
- Columns and Gutters
- Master pages, story editor, spell check, find and replace, import and export etc.
- Insertion option
- Opening, moving, resizing text book
- Saving document
- Printing documents

### 3.4.2 Photoshop/GIMP

- Open Photoshop/GIMP window
- Familiar with Photoshop/GIMP tool
- Familiar with palettes
- Understand image resolution



- Formatting image
- File formats PSD, TIFF, JPEG and PDF
- Drawing painting and retouching tools
- Image size and resizing image
- Filter tools and its various use
- Sharpen the image
- Colour picker dialog box
- Text s on photos and its effects
- Working with layers, layer properties
- Apply blend models
- Use type masking and shape masking
- Prepare visiting cards, Notice, Brochure etc
- Save Photoshop/GIMP worked image
- Print the saved data

### 3.4.3 Coral Draw

- Open coral draw with specified page size

- Familiarize tools - Pick tool, Shape tool (f10), Crop tool, Zoom tool, Freehand tool (f5), Smart fill tool, Rectangle tool, Ellipse tool, Polygon tool, Basic shapes tool, Text tool, Table tool, Parallel dimension tool, Connector tool, Blend tool, Color eye dropper tool, Outline pen tool, Fill tool
- Working with images
- Patterns and textures
- Working with shapes
- Colours and fills
- Image rasterisation and editing
- Import and Export files
- Page setup and designing
- Using styles and templates
- Working with text, formatting text, text attributes
- Designing different page layouts, column, layout, working layers, special effects to objects
- Preparation of visiting cards, logo design, invitation card and brochure.

## **PRACTICAL ACTIVITIES**

### **PAGEMAKER/SCRIBUS - Phase-I**

Prepare sample text notice pages with two boxes in a page. Page number and sub point bullets are essential. Headings are bold and large in size. Also satisfy the following features.

- o Various alignment
- o Different font
- o Various types of bullets

### **PAGEMAKER/SCRIBUS - Phase-II**

Prepare text book page with following features.

- o At least 3 boxes in a page
- o Page border and page number
- o Various size and fonts for Heading and sub heading
- o Insert picture and flowcharts on pages
- o Various alignments and bullets
- o Also use spell check, find and replace features
- o Save and print the text page

### **PHOTOSHOP/GIMP - Phase - I**

Set a Photo in to 50 x 56 pixels, maximum size is 50 kb. Use the following feature.

- o Select image more than 300 resolution
- o Colour balancing
- o Level adjusting
- o Hue Saturation
- o Sharpen the image
- o Clarify with smudge and other tools

### **PHOTOSHOP/GIMP - Phase - II**

Prepare a brochure with following feature.

- o Page dimension 12 x 8 inch
- o Use multiple images
- o Use the layer property tools maximum
- o Filter tools such as hue saturation, sharpen, blur etc
- o Shadow highlights, level adjusting
- o Insert texts (Malayalam also) with effects
- o Colouring the texts and make more attractive

### **CORAL DRAW - Phase - I**

Design visiting card for sales executive of Alpha Pharmacy, Alappuzha with the following features.

- o Card dimension is 80mm x 40mm
- o Must include a photo
- o Attractive colours and design
- o Different patterns and textures
- o At least one Vector image
- o Set the card in A3 paper

### **CORAL DRAW - Phase - II**

Design a logo for an IT company with the following features.

- o Logo master size in 15cm x 15cm
- o Develop with various shapes and artistic design
- o Short name or full name of the firm must include
- o Attractive colours and effects

- o Resize the designed logo for various printings such as cards, brochures, notices, letter pads etc.
- o Set the logo in A3 paper without losing the resolution of image, at least 15 logos in a sheet.
- o Practice the following:

**MONSOON SERVICE CAMP & EXCHANGE MELA**  
 Place: Service Center  
 Date: 24, 25, 26 Time: 9 am - 6 pm

സഫ്റ്റ് ബുക്ക്  
 ഓപ്പൺ ബുക്ക്  
**Free Helmet & Accessories Worth Rs: 1000**

100% പ്രമി സർവ്വീസ്  
 (സമയാസമയത്ത്  
 ഓൺകാൾ സർവ്വീസ്  
 വാഷിങ് ഉൾപ്പെടെ)

10 % ഡിസ്കൗണ്ട്  
 (ഓഫറുകളുടെ ഒന്നിനേക്കാൾ  
 പാർട്ടിക്യൂ അക്സസ്സറികൾക്കും)  
 10 % ഡിസ്കൗണ്ട്  
 Yamalube ന്

**READY DELIVERY**  
 RayZRR & SALUTE RX 100

Powered by  
 ഇൻഡസ്ട്രീസ് പ്രൈവറ്റ് ലിമിറ്റഡ്  
 പള്ളമുക്ക്, കൊല്ലം

**HDFC BANK**  
 We understand your world

**National Institute of Technology Calicut**  
 NIT Campus P.O., Calicut, Kerala 673601, India

**TENDER NOTICE**  
 Ref. No. S4/11236/CSED/CCC/EQPTS/PLAN/2015-16/4707

Sealed Tenders are invited from the Manufactures/ Authorized Resellers/ Service Providers for providing Desktop computer (under buy back) in the Central Computer Centre in campus of the Institute. The Tender will be processed under **Two bid system**. Tender Notices will appear in our Web Site. Tender details are as follows:

Last date for sale of tender form	10.30 AM	On 24/Jun/2016
Last date for Submission of tenders	11:00 AM	On 24/Jun/2016
Tender Opening Date	11:30 AM	On 24/Jun/2016

Kindly visit the URL [www.nitc.ac.in](http://www.nitc.ac.in) for tender schedule, Specification & other details Tel : 0495 2286115, 2286116 Email : [purchase@nitc.ac.in](mailto:purchase@nitc.ac.in)

DIRECTOR

**SUPPLYCO**  
**THE KERALA STATE CIVIL SUPPLIES CORPORATION LIMITED**  
 MAVELI BHAVAN, GANDHI NAGAR, KOCHI-682020.  
 PH:0484-2207937, 9446088875. Website: [www.supplycokerala.com](http://www.supplycokerala.com)  
 CIN-U52209KL1974SGC002615

TBP-4/11599/16 **TENDER NOTICE** Dated: 23.05.16  
 (ONLY THROUGH ELECTRONIC TENDERING SYSTEM)

The Kerala State Civil Supplies Corporation invites tender for the supply of packaged Free Flow & Crystal salt in Sabari Brand through e-tender, which will be accepted up to 2 pm on **07/06/2016**. Tender Form and Terms & Conditions may be downloaded from the website [www.tenderwizard.com/KSCSC](http://www.tenderwizard.com/KSCSC) For additional details, please contact at the above address. Only suppliers possessing digital signatures will be permitted to participate in the e-tender.

Sd/-  
 Manager (BPI)

### List of items in Portfolio

Assessment Activities	Portfolio (Expected)
Group discussion	Participation in discussion
Designing notice (Pagemaker/scribus)	Notice
Designing brochure (Photoshop/GIMP)	Brochure
Designing calendar, cards (Coral draw/Inkscape)	Calendar, Visiting card

### Sample TE questions

1. Extension of a Pagemaker/file is \_\_\_\_\_ (.pmd).
2. In Pagemaker/Scribus recent files can be opened through \_\_\_\_\_ (Recent publication).
3. Duplicate layer in Photoshop/GIMP is in \_\_\_\_\_ menu (image).
4. We can use Gradient tool with \_\_\_\_\_ (Photoshop).
5. It is possible to rasterise a \_\_\_\_\_ in Photoshop/GIMP (Layer).
6. Threading is related with \_\_\_\_\_ (text).
7. \_\_\_\_\_ is supported by CorelDraw (Vector graphics).
8. You can insert a picture in Pagemaker/Scribus using \_\_\_\_\_ (Picture palette).
9. Wire Frame view is related with \_\_\_\_\_ (Coral Draw).
10. \_\_\_\_\_ tool is used to smoothen images in Photoshop/GIMP (Smudge).
11. What is cloning?
12. What is the merit of a PDF document?
13. Write the uses of any four filter option in Photoshop/GIMP.
14. What are Layers?
15. Write the uses of any five tools in Corel Draw.
16. Write difference between 'Save' and 'Save as'.
17. In Pagemaker/Scribus how you can create frames?
18. What are the different views in Corel Draw?
19. What is cropping?
20. Describe any three tools in Pagemaker/Scribus.

## Unit No. 3.5 - Communication at Work Place

### About the Unit

In the workplace, the learners will meet a variety of communication styles. They may need to understand how language can mean different things to different people. They need to know how to communicate directly and to clarify expectations. The unit contains classroom exercises to enhance the communication skill of the learners. The exercises and situations given are likely to face by an employee in the work place. There is a special section introducing the student to specific skills for facing an interview.

### Learning outcomes

The learner;

- Develops communication skill
- Acquires self confidence
- Enriches vocabulary
- Engages in conversations
- Practices and make sentences

### Unit in detail

The following topics are to be transacted with suitable situations. Some examples are given below.

#### 3.5.1 Describing one's job

**Activity:** Mr. Suresh of Best Coats describing his job: "I am a Customer Service Representative, working for Best Coats, it's a manufacturing firm. My office is at Kalamassery, and I have been working there for 2 years and 3 months. My working hours are from 09:00 am to 05:00 pm".

**Activity:** Write down your own answers with imaginary names and firms about a job.

#### 3.5.2 Describing one's work place (Company)

**Activity:**

- KSFCE
- Kerala's largest chitty company in the Government sector.
  - Offers financial services like chitty, chitty loan, personal loan, vehicle loan etc.
  - One of the most trustful institution.
  - Providing employment to around 20,000 people.

Assume the learners are employees of KSFE and prepare a note with the above hints and present it.

### 3.5.3 Handling an angry customer

**Activity:** "A customer purchased a new Laptop from a well-known computer manufacturer. A few months later, the laptop malfunctions and the customer wants the company to replace the laptop or provide service that's free of charge.

The company responds that it is not responsible and that it would not replace the Laptop as it showed signs of some parts being short circuited because of water. The customer informs the company that water has never been spilt on the Laptop; however, all of the customers' calls to the company's customer service department were met with one negative excuse after another. As a result of this, the customer has become very angry." How will you deal such a situation? Assume that you are working in such an institution.

### 3.5.4 Directing a customer over phone

Help a customer who needs to operate a product over phone.

Practice the following topics as classroom activities as group work.

#### 3.5.5 Preparing a daily and weekly work plan

#### 3.5.6 Giving and receiving simple instructions

#### 3.5.7 Enquiring about job vacancy

#### 3.5.8 Facing an interview

#### 3.5.9 Effective communication techniques

#### 3.5.10 Duties of Customer Service Representatives

#### 3.5.11 Presenting a specific topic

Sample topics: 1. Impact of social media among youth.

2. Make in India

3. Digital India

### List of items in Portfolio

Assessment Activities	Portfolio (Expected)
General discussion	Participation in discussion
Observation and Presentation	Communication skill

**Sample TE questions**

1. Mention any two steps to handle an angry customer.
2. Being the Secretary of Mr. Anil Takur, Managing Director of Takur Industries, chart his programme for the next Monday.
3. In an interview you are asked to say few words about you. Write five sentences.
4. Write a conversation with a customer who is intended to buy your company's product.
5. Help your friend in describing his job.

**Extended Activities**

Extended activities includes visits to the actual work sites, interaction with experts working in the field, working in the PTC of the school and serving the public with what the students learned from the class/practical room.

**List of practicals**

1. Speed practice (English & Malayalam)
2. Typing handwritten/manuscript letters, statements, government order and circular.
3. Creating e-mail account
4. Send e-mails with and without attachments
5. File Zipping
6. Downloading and saving attachments to e-mail.
7. DTP work (English & Malayalam). Product expected are visiting card, invitation card, brochure, leaflets, catalogue, logo, etc.
8. Preparing various letters, bio-data, etc.
9. Send and receive fax messages
10. Handling EPABX system

## MODULE IV

### ENTERPRISE RESOURCE PLANNING (ERP)

#### Overview

Globalisation and explosion of the Internet has tremendous impact on every sphere of business. Managing business is a herculean task unless information is provided as and when required. Here comes the importance of implementing novel technologies in business to integrate the whole activities of it. Therefore, Enterprise Resource Planning, a new Information Technology based system is implemented in several business enterprises. Enterprise Resource Planning (ERP) integrates all important business areas such as accounting, finance, production, sales and distribution, human resource management, etc. This module contains the basic concepts and techniques of Enterprise Resource Planning. ERP system alone can produce a result if the concepts like paperless office, e-governance and IT Enabled Services stay separately. As such these concepts are also dealt with in this module.

#### Unit No. 4.1 ENTERPRISE RESOURCE PLANNING (ERP)

##### About the unit

Enterprise Resource Planning is a complete solution to the problems of a business. The business environment is becoming increasingly complex with functional departments requiring more and more inter-functional data flow for decision making, timely and efficient procurement of product parts, management of inventory, accounting and human resources. These can be overcome by implementing a well designed ERP system which can integrate the above issues in a single platform. Business firms irrespective of their size - small, medium or large - have started to implement their own or vendor supplied ERP Solution softwares. Acquiring knowledge in ERP will be an added advantage to any person.

##### Learning outcomes

The learner;

- Describes ERP
- Explains meaning and definition of ERP
- Identifies need of ERP in business
- Summarises benefits and limitations of ERP

- Sorts out components of ERP
- Describes ERP package
- Identifies ERP Modules
- Works in an ERP software
- Explains ERP implementation methodologies, life cycle and issues

## Unit in detail

### 4.1.1 Introduction to Enterprise Resource Planning

Enterprise Resource Planning (ERP) is a business process management software that allows an organization to use a system of integrated applications to manage the business and automate many back office functions related to technology, services and human resources. ERP software integrates all facets of an operation, including product planning, development, manufacturing, sales and marketing.

ERP software is considered an enterprise application as it is designed to be used for larger businesses and often requires dedicated teams to customize and analyze the data and to handle upgrades and deployment. In contrast, Small business ERP applications are lightweight business management software solutions, customized for specific needs of a particular industry.

### 4.1.2 Meaning and definition of Enterprise Resource Planning

"The Enterprise" can be described as a huge range of business operations in any market, any region and any field of commerce. Enterprise Resource Planning (ERP) is an enterprise wide system that integrates all areas and levels of an organization. An ERP is the total business package that allows up-to-date reports to be produced at the press of a computer button.

American Production and Inventory Control Society has defined ERP systems as "a method for the effective planning and controlling of all the resources needed to take, make, ship and account for customer orders in a manufacturing, distribution or service company."

According to Kumar & Van Hillsgersberg, "ERP systems are configurable information systems packages that integrate information and information-based processes within and across functional areas in an organization."

### 4.1.3 Need for ERP in business

The major reasons for implementing ERP are:

### **1. Integrate Financial Information**

The ERP system integrates all activities related to finance such as revenue of finance department, contribution of sales department and other departments. Therefore, the management can take financial performance report at any point of time.

### **2. Integrate customer order Information**

ERP system can integrate the information of a customer whenever he start business with them. By having this information in one software system companies can keep track of orders more easily, and coordinate manufacturing, inventory and shipping among many different locations at the same time.

### **3. Uniformity in Manufacturing Processes**

ERP systems come with standard methods for automating some of the steps of a manufacturing process. Standardising those processes and using a single, integrated computer system can save time and increase productivity.

### **4. Minimum inventory**

ERP helps the manufacturing process flow more smoothly and it improves visibility of the order fulfilment process inside the company. This can lead to minimise inventories of raw materials and finished goods.

### **5. Easy and Standardised HR information**

Most ERP systems were designed to provide standardized human resource information. These are more beneficial especially in companies with multiple business units.

#### **4.1.4 Benefits and limitations of ERP**

The benefits of implementing an ERP system are endless. First and most important, all ERP systems are focused on the customer and end results. This means better products and services produced and delivered quickly.

#### **Advantages of ERP Software**

ERP Software through proper implementation will definitely be advantageous to any company. The basic advantages are listed below.

- a. It helps businesses improve internal processes.
- b. It integrates systems from different functional areas, making business operations more efficient.
- c. Some ERP systems can automate parts of the manufacturing process, which allows organizations to introduce standards that increase productivity, save time and reduce staffing requirements.

- d. Increased visibility of the order fulfillment process from beginning to end helps reduce work-in-progress inventory and finished goods inventory.
- e. ERP software can be used to manage employee information across multiple business units, making it easier to track years of service and eligibility for benefits and services.
- f. Many businesses can purchase ERP software packages tailored to the specific needs of their industry.
- g. Data to support Key Performance Indicators (KPIs) are easily accessible.

### Disadvantages of ERP Software

ERP Software even though advantageous has some disadvantages as well. The disadvantages of ERP software are given below.

- a. They are expensive. Deployment at a mid-market company can cost thousands of rupees whereas an implementation at a large corporation can cost more.
- b. Training employees to use the new system can be an enormous undertaking and require considerable resources.
- c. They may require a huge amount of time and work to implement; and take from 1-3 years to complete on-site implementation.

#### 4.1.5 Components of ERP

Essential components of ERP system are:

##### 1. Database:

This is the area where the information is stored for different departments. Examples of databases are Oracle, SQL Server, MySQL (open source), PostgreSQL (open source), etc. Database components include one or more tables for the data, a query language that retrieves specific data elements, and forms for entering or displaying data. Additional components include reporting tools and customized page views of data. Relational databases have a schema that defines the relationship between tables and may include components that automate routine tasks.

##### 2. Web server:

Basically a web server is the software that receives your request to access a web page. It runs a few security checks on your HTTP request and takes you to the web page. Depending on the page you have requested, the page may ask the server to run a few extra modules while generating the document to serve you. It then serves you the document you requested. Apache is the most widely used web server software (open source).

### 3. Application server:

Application Server Frameworks contain a comprehensive service layer model. An application server acts as a set of components accessible to the software developer through an Application Programming Interface (API) defined by the platform itself. For Web applications, these components are usually performed in the same running environment as their web server(s), and their main job is to support the construction of dynamic pages. However, many application servers target much more than just Web page generation: they implement services like clustering, fail-over, and load-balancing, so developers can focus on implementing the business logic.

### 4. Firewall:

Firewalls can be either hardware or software but the ideal firewall configuration will consist of both. In addition to limiting access to your computer and network, a firewall is also useful for allowing remote access to a private network through secure authentication certificates and logins.

### 5. Backup Server:

A backup server is a type of server that enables the backup of data, files, applications and/or databases on a specialized in-house or remote server. It combines hardware and software technologies that provide backup storage and retrieval services to connected computers, servers or related devices.

#### 4.1.6 ERP Packages - ERP and business - Functionalities of ERP Packages

##### ERP Packages

Enterprise Resource Planning softwares were developed during 1990's to overcome the difficulties in MRPI & II. In MRP for every area there is a package. However, ERP integrates all areas of the business.

Some examples of ERP solution providers are:

- i. Oracle
- ii. SAP
- iii. Infor
- iv. Epicor
- v. QAD

In addition to that free/open softwares are available which can be customised according to the need.

##### ERP and business

Business enterprises had faced a lot of issues in every area of operation before the implementation of ERP. Each department concentrates on their own individual work.

To co-ordinate the activities of other departments in the organization seems to be much difficult. Individual departments lay idle till related departments complete their work. In an ERP system, the activities of all departments are integrated. Therefore, when a customer order is entered, people of different departments see the same information and can update it. When one department finishes with the order it is automatically routed via the ERP system to the next department. To find out where the order is at any point, they need only log in to the ERP system and track it down. The order process moves like a bolt of lightning through the organization, and customers get their orders faster and with fewer errors than before. ERP can apply that same magic to the other major business processes, such as employee benefits or financial reporting.

With ERP, the customer service representatives are no longer just typists entering someone's name into a computer and hitting the return key. The ERP screen makes them businesspeople. It flickers with the customer's credit rating from the finance department and the product inventory levels from the warehouse. Will the customer pay on time? Will it be able to ship the order on time? These are decisions that customer service representatives have never had to make before, and the answers affect the customer and every other department in the enterprise. But it's not just the customer service representatives who have to wake up. People in the warehouse who used to keep inventory in their heads or on scraps of paper now need to put that information online. If they don't, customer service representatives will see low inventory levels on their screens and tell customers that their requested item is not in stock. Accountability, responsibility and communication have never been tested like this before.

ERP system improves the ways employees take orders, manufacture goods, ship them and bill for them. The business need to change employee's attitude before installation otherwise it won't fetch any value.

### **Functionalities of ERP Packages**

Enterprise Resource Planning systems are software systems for business management, containing modules supporting functional areas such as planning, manufacturing, sales, marketing, distribution, accounting, human resource management, etc. The architecture of the software is useful for a smooth integration of modules, providing flow of information between all functions within the enterprise in a consistently visible manner.

A common ERP system covers the following functional areas. In many ERP systems these are called and grouped together as ERP modules:

- *Manufacturing*: Some of the functions include; engineering, capacity, workflow management, quality control, bills of material, manufacturing process, etc.
- *Financials*: Accounts payable, accounts receivable, fixed assets, general ledger and cash management, etc.
- *Human Resources*: Benefits, training, payroll, time and attendance, etc.
- *Supply Chain Management*: Inventory, supply chain planning, supplier scheduling, claim processing, order entry, purchasing, etc.
- *Projects*: Costing, billing, activity management, time and expense, etc.
- *Customer relationship management*: Sales and marketing, commissions, service, customer contact, call center support - CRM systems are not always considered part of ERP systems but rather Business Support systems (BSS).
- *Data services*: Various "self-service" interfaces for customers, suppliers and employees.

#### 4.1.7 Ideal ERP Modules - Internet enabled ERP systems

The common modules integrated in ERP software are given below.

- Accounting Module
- Human Resource Management Module
- Payroll Module
- Customer Relationship Management Module
- Sales and Distribution Management Module

#### Internet enabled ERP systems

The ERP systems designed to integrate enterprise functions within the four walls of the enterprise have introduced software solutions with a Web-interface essentially extending to internet enabled CRM, SCM and other Internet business models.

#### 4.1.8 ERP software - Application of Ideal Modules

There are so many ERP Softwares available in the market. Proprietary and open source ERP Softwares are available which can be customized by small and medium enterprises according to their need. Application modules of an ideal ERP Software are:

1. Financial Accounting
2. Key performance index



3. Purchase Management
4. Shipping and Delivery
5. Engineering
6. Mould Management
7. Human Resource Management
8. Production Management
9. Inventory Management
10. Quality Management
11. Production Planning
12. Sales and Distribution

#### **4.1.9 ERP implementation - Methodologies - Life cycle - Issues**

Implementation of ERP is a time consuming process. It may take six months to 24 months to complete installation depending on size of the enterprise. The objectives of implementing ERP are:

1. Integration of entire activities of the firm
2. Fixing the target
3. Well designed communication system
4. Make employees aware of the changing needs

Before the implementation of ERP, the enterprise should select a hardware supplier and a consultant for it. They should also be aware of the time required for implementation.

##### **ERP implementation methodologies**

1. The Big Bang - Enterprise withdraw their existing system and install a single ERP system as a whole.
2. Modular implementation - Installing one ERP Module at a time and integrate all modules at the final stage.
3. Process oriented implementation or Slam-dunk - Wherein ERP is implemented for selected process only. Suitable for small enterprises.

##### **ERP implementation life cycle**

Implementation of ERP to a great extent depends on factors like the nature of business operation, its size, the type of software going to be used etc. The normal steps involved in implementation of an ERP are as follows:

### **1. Project planning**

A well defined plan should be drafted before we actually start with the implementation process. A project plan normally should relate to the following; Time Schedules, The roles and responsibilities of staff, The course of action, Control technique etc.

### **2. Gap analysis**

Gap analysis is the process through which we can find out the gap now existing in the organisation in matters of process automation. To solve the gap problem, it is highly necessary to evaluate our requirements and be extremely careful in the package selection process, and make what the software can and can't do.

### **3. Business Process Re-engineering - BPR**

Business Process Reengineering brings out deficiencies of the existing system and attempts to maximise productivity through restructuring and re-organising the human resources as well as divisions and departments in the organisation.

### **4. Installation and configuration**

The golden rule of ERP implementation is to synchronise the existing company practices with the ERP packages rather than changing the source code and customising it to suit the company. The task of configuration of ERP system should be assigned only to experienced staff in different functional areas.

### **5. Project Team Training**

An intensive training will help the staff of implementation team to implement the system more effectively to cater the requirement of end users. Training should be given to employees who have interest in technology and show willingness to have a change in the existing system.

### **6. Data requirements mapping**

For an ERP to be successful, it has to capture sufficient information from end-users or to exchange necessary information with other applications. Data requirements reflect details of business requirements. A data requirement is depending on ERP modules to be implemented.

### **7. System Testing**

The software is tested to ensure that it performs properly from both a technical and functional business standpoint. The validity of an output can be determined with the help of sample data.

### **8. Go Live and Support**

Everything is configured and tested, bugs are removed, reports are ok, the system becomes 'live' to perform business operations.

## 9. End user training

End users have to handle the system in future to get the maximum benefit out of it and hence it is necessary to identify the employees who are going to use new system and they should be provided with sufficient training to handle any contingencies.

## 10. Post Implementation

There is a need for using and evaluating the system after it is installed and is in operation. It also includes updating the system to make improvements. A formal post-implementation audit is also done.

### Issues in ERP implementation

As ERP is a huge project, the implementation may invite certain issues. The key areas of where issues expected are:

1. Planning and project management - The companies IT staff and the appropriate business managers must be given the time and clear responsibility to understand and evaluate the project's scope, costs, and time line. It is important to assign the planning responsibilities to staff members who not only good grasp of technology, but who also understand the company's business requirements and processes.
2. Integration - Companies always underestimate the time and cost necessary for enterprise software integration. Mergers and acquisitions also create difficult integration challenges because the merged companies may use different ERP packages.
3. False Data - When data is combined from multiple systems for analysis or as a result of integration projects, more work can be involved to clean it up and convert it.
4. Testing - Before implementing the ERP system, it should be tested using actual data of the enterprise. These testing should be performed by employees who supposed to operate this system.
5. Documentation - Documenting the system is crucial so that future employees can make sense of the software and business process logic the system cover. Documentation also needed to help future workers deal with the inevitable updates, extensions and integration projects that occur as company evolves.

**List of items in Portfolio**

<b>Assessment Activities</b>	<b>Portfolio (Expected)</b>
General discussion	Participation in discussion
General discussion	Participation in discussion
Assignment	Internalising idea
Generation of reports	Reports

**Sample TE questions**

1. What is meant by ERP?
2. What are the components of ERP?
3. ERP is the acronym of \_\_\_\_\_.
4. Do you think that ERP is essential for an enterprise? Give reasons.
5. Discuss the important benefits of ERP?
6. Are there any limitations for ERP? List out it.
7. What do you mean by integration of ERP Module?
8. The method of installing a single ERP system in the entire firm is \_\_\_\_\_.
9. Process oriented implementation is also known as \_\_\_\_\_.
10. List out the components of ERP.

## **Unit No. 4.2 - Paperless Office**

### **About the unit**

It is a concept derived during 1970s. The idea is to reduce the amount of paper usage to the minimum. The aim of this concept is to increase efficiency, save environment, reduce the amount of paper usage, reduce cost and to save the storage space. With the developments in technological field, a giant leap happened in achieving the concept. As it is an environment friendly concept, it need considerable attention of all concerned. The unit contain topics relevant to transact the paperless office concept.

### **Learning outcomes**

The learner;

- Identifies paperless office
- Explains meaning and features of paperless office
- Set ups a paperless office
- Outlines merits and demerits of paperless office
- Describes office in pocket

### **Unit in detail**

#### **4.2.1 Introduction to paperless office**

Most of the office works are paper based. The increase in number of customers and the volume of work lead to enormous expenses on account of paper, storage space and time. These problems can be tackled easily by implementing Information Technology based applications such as ERP Package, E-Governance, Local and Wide Area Network. With the help of online services one can avail the office services even without reaching the office. A paperless office ensures efficiency in their operations as well as provide an environment friendly atmosphere.

#### **4.2.2 Meaning and features of paperless office**

A paperless office is a work environment in which the use of paper is eliminated or greatly reduced. This is done by converting documents and other papers into digital forms. Going paper less can save money, boost productivity, save space, and make personal information more secure.

Software supporting an electronic office should be totally accessible and reliable to everybody. Managers can have desktop on to workstations which can be used for electronic mail, finding information from large central data base and typing text while producing reports.

### **Features of paperless office**

- ERP system integrates all activities of entire enterprise.

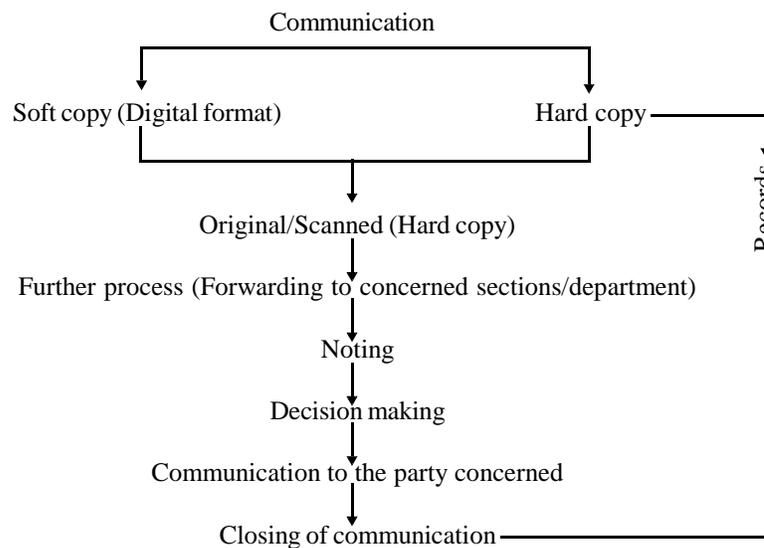
- LAN system enables the workstations linked to other personal computers at distant places.
- Word processing technology replaces typewriters to personal computers.
- Microfilming and computer filing reduce paper records.
- FAX system will replace dispatch section.
- Dictating machines and computer printers are used for inward communication.
- Printing can be replaced by Desk top publishing system.
- Files can be transferred using File Transfer Protocol technology.
- The automatic answering devices will reduce the workload of reception counter.

#### 4.2.3 How to set up a paperless office?

To become a paperless office an existing office should have a well planned project. The facilities required are summarised as:

- A well designed ERP package should be implemented.
- Internet connection is a must.
- Personal computers with MS Office or Linux Operating System
- Digitalising facilities like scanner
- Microfilming device
- All systems should be connected in LAN
- Communication system should include Fax machine, email, Telephone recording and answering set, EPABX system, Video conferencing system and social media (WhatsApp, Face Book, Twitter)

#### Working procedure of a paperless office



#### 4.2.4 Merits and demerits of paperless office

##### Merits

1. Lower operating cost
2. Faster and accessible information sharing
3. Reduced time
4. Creating new opportunities
5. Boost productivity
6. Help environment
7. Elimination of unwanted procedures

##### Demerits/Limitations

1. Both the receiver and sender requires electronic apparatus
2. Storage of documents in computers and microfilming have some limitations.
3. Technological difficulties.
4. Government regulations and business policies may slow down the processes.

#### 4.2.5 Office in pocket

Today one can do office work without a formal site or building for office work. It is possible with the help of a smartphone/tablet/personal digital assistant/laptop installed with the Office Suit software and internet connection. The hindrances of time, place, etc. can be covered through using the above devices along with us. One can do most of the office work like attending calls, communication, mail checking, sending mail, report preparation, etc. with the help of these devices.

##### List of items in Portfolio

Assessment Activities	Portfolio (Expected)
General discussion	Participation in discussion
Group discussion	Participation in discussion
Field visit	Report on field visit
OJT	OJT Report

##### Sample TE questions

1. Prepare a report on how to make an office paperless.
2. Mention the merits and limitation of paperless office.

3. "With smart devices in the hands of office managers, they can bring offices in their pocket." Write your opinion.
4. What are the features of paperless office?
5. Name the devices that support the concept of 'Office in Pocket'.
6. Reduction in the use of paper in an office brings an environment friendly situation. Bring out your opinion.

## Unit No.4.3 - E-Governance

### About the unit

E-Governance has become an essential part of any firm in globalisation process. Increasing demands of clearness in administration, rapid information transfer, more competent performance and improved public service has pushed organisations to choose electronic means for success in business. Organisations can give better performance through innovative use of information technology and e-governance. As such, this unit deals with meaning and objective of e-governance, major e-governance projects, advantages and disadvantages of e-governance, etc.

### Learning outcomes

The learner;

- Identifies e-governance
- Distinguishes e-governance and e-government
- Identifies domains of e-governance
- Lists out major e-governance projects
- Lists out e-governance services
- Outlines benefits of e-governance
- Explains M-Governance

### Unit in detail

#### 4.3.1 Concept of e-governance

It is the application of information and communication technology (ICT) for delivering government services, exchange of information, integration of various standalone systems and services between government to customer (G2C), Government to Business (G2B) and Government to Government (G2G).

#### 4.3.2 Meaning of E-governance and E-government

##### E-Governance

- E- Governance means Electronic Governance. It has become an essential part of any firm in globalization process.
- E-Governance is the good usage of information and communication technologies to transform and enhance the efficiency, effectiveness, transparency and accountability of information within government , between government agencies at national, state , municipal and local levels, citizen and business and to authorize citizens through access and use of information.

## E-Government

- E-Government is the use of the ICT's in public administration- combined with organisational change and new skills to improve public services and democratic processes and to strengthen support to public.

### 4.3.3 Objectives of E-Governance

The strategic objective of e-governance is to support and simplify governance for all parties - government, citizens and businesses. The use of ICTs can connect all three parties and support processes and activities. In other words, e-governance uses electronic means to support and stimulate good governance. Therefore the objectives of e-governance are similar to the objectives of good governance. Good governance can be seen as an exercise of authority to better the management of a country at all levels.

### 4.3.4 Domains of E-Governance

There are three domains in e-governance viz. Government to Citizen, Government to Business and Government to Government.

#### Government to citizen

The goal of Government to Customer (G2C) e-Governance is to offer a variety of ICT services to citizens in an efficient and economical manner, and to strengthen the relationship between government and citizens using technology.

#### Government to business

Government-to-Business (G2B) is the online non-commercial interaction between local and central government and the commercial business sector with the purpose of providing businesses information and advice on e-business 'best practices'.

#### Government to government

G2G means extending government services to different types of government such as Union Government, State Government, Local self government, etc. Many of the policies, plans and schemes are implemented by co-ordinating the activities of two or more governments. E-governance helps to co-ordinate these activities electronically.

### 4.3.5 Major E-governance projects of Government of Kerala

#### Sutharya Keralam

AKSHAYA

SPARK

SWEET  
 KISSAN  
 SWAN  
 FRIENDS  
 IDEAS  
 MESSAGE  
 E - KRISHI

#### 4.3.6 E-governance services to citizens

Sl. No.	Name of Programme	Services offered
1.	Sutharya Keralam	Complaint and grievance handling directly by the Chief Minister of Kerala.
2.	AKSHAYA	Bridge Digital Divide, Public Delivery Services, Creation of Employment, E-literacy.
3.	SPARK	G2E Web based Personal Administration for service, Salary, IT and Account Matters.
4.	SWEET	All Information and services relating to Kerala University Examination.
5.	KISSAN	Agriculture Information System.
6.	SWAN (State)	Integration of various District Headquarters with Capital.
7.	FRIENDS	Single window schemes or Taxes and other utility projects. It integrated departments like Revenue, Motor vehicles, Civil supplies, Local bodies, Universities, Electricity, Water & Telephones.
8.	IDEAS	File Tracking System for Government Offices.
9.	MESSAGE	Internet based application for the citizen services.
10.	E-Krishi	Enables the farmers with access to information on market demand, prices, good agricultural practices and quality agricultural inputs supported by a technology enabled robust transaction platform that facilitates all their offline activities.
11	YES @ Kerala	Provides soft skills and technical skills training to students from various colleges in the state.

### **4.3.7 Benefits of E-governance - to the Government - to the citizens**

#### **Benefits to the Government**

##### **Advantages**

It brings efficiency in office work.

It increases the transparency and accountability of informational exchange.

It enhances the effectiveness of information.

It ensures speed in service delivery.

It helps to track files.

It minimises visit to Government offices by the citizen.

##### **Disadvantages**

This system loses the personal interaction.

Officials blame on the service providers for any delay in services.

Lack of computer literacy of the users.

Fear of citizens on cyber security and misuse of data.

Software errors.

#### **Benefits to the citizens**

Key benefits of E-Government for citizens include convenience, improved quality of customer service, and access to more, higher quality information.

- Convenience-E-Government brings public services to citizens on their schedule and their venue.
- Improved Customer Service - E-Government allows better customer service.
- Increased access to information - E-Government improves the accessibility of government information to citizens allowing it to become an important resource in making the decisions that affect daily life.

### **4.3.8 M - Governance**

#### **Introduction**

M-Governance or Mobile Governance means the utilization of all kinds of wireless and mobile technology services, applications and devices for Governance. M-governance is a sub-domain of e-governance. It ensures that electronic services are available to people via mobile technologies using devices such as mobile phones,

personal digital assistants and Tablets. Mobile services are also cheaper as well as accessible in most of the rural areas in India. Due to the huge subscription base, increased accessibility and adaptability of mobile phones, governments are promoting and using them in delivering the e-Governance services. The three channels of mobile communication (Voice, Signalling and Data) and a wide range of technologies (Voice Applications, Applications using signalling channel and data service (mobile based Applications) are being used for M-Governance.

### **Objectives of M-Governance**

- i. To provide fast and easy access of public services to citizens through mobile devices.
- ii. To facilitate mobile banking to customers in remote areas.
- iii. To bridge the Digital Divide in the country.
- iv. To prove that ICT projects can bring in economic returns even to the Government and can generate surplus by way of revenue sharing agreement with the mobile operators.
- v. To utilise all kinds of wireless and mobile technology services, applications and devices for improving benefits for citizens, businesses and all Government departments

### **M-Governance in India**

Government of India aims to utilise the massive reach of mobile phones and harness the potential of mobile applications to enable easy and round-the-clock access to public services, especially in the rural areas and to create unique infrastructure as well as application development ecosystem for m-Governance in the country. A strategy and its implementation to leverage available wireless and new media technology platforms, mobile phone devices and applications for delivery of public information and services to citizens and businesses. India's Ministry of Communication and Information Technology as well as Department of Electronics and Information Technology (DeitY) have announced plans for all its department and agencies to develop and deploy mobile applications to provide all their services through mobile devices.

### **One Web Approach**

"One Web" means making, as far as possible, the same information and services available to users, irrespective of the device or the browser they are using. This

implies that all Government Web sites should be compliant with mobile devices to enable users of such devices to access the same information and services (to the extent possible) as available, say, over the internet through computers.

### Benefits of M-Governance

- Cost Saving
- Proficiency
- Transformation/modernization of public sector organizations
- Added convenience and flexibility
- Better services to the citizens
- Access
- Easy interaction

### Major M-Governance projects in Kerala

- M-Governance SMS Alerts for Kerala Public Service Commission
- SSLC, VHSE & HSE results on mobile as SMS
- Chief Electoral Offices website for verification of voter's list
- Out Bound Dialing Facility for KISSAN KERALA project
- Computerized Call Centre for Commercial Taxes Department
- Cash deposit, withdrawal and balance alert SMS by Banks
- Information Services for Motor Vehicles Department
- Audio-Guide for Kerala Tourism

### List of items in Portfolio

Assessment Activities	Portfolio (Expected)
Group discussion	Participation in discussion
General discussion	Participation in discussion
Field visit	Field visit report
Seminar	Report

### Sample TE questions

1. List out various e-governance projects in Kerala.
2. Government services are easily accessible to the general public through e-governance'. Justify the statement with examples.

3. E-governance has potential to bring changes or transform government institutions. What is your opinion?
4. Compare e-governance and e-government.
5. Identify the various domains of e-governance.
6. What are the advantages of M-Governance?
7. What is meant by M-Governance?

## Unit No.4.4 - Computerised Typing (English & Malayalam)

### Introduction

This unit is aimed to upgrade the typing skill in English and Malayalam to 45 wpm and 30 wpm respectively. Another objective is to familiarize with handwritten documents. Handwritten letters, statement, reports, etc. are often typed in offices. Therefore, the learner must have enough skill in handling such documents.

### Learning outcomes

The learner;

- Acquires a speed of 45 wpm in English and 30 wpm in Malayalam.
- Types hand written/manuscript letters, Government orders, statements, etc.

### 1. Sample passage for practicing speed (Time: 10 minutes)

Early electronic computers such as Colossus made use of punched tape, a long strip of paper on which data was represented by a series of holes, a technology now obsolete. Electronic data storage, which is used in modern computers, dates from World War II, when a form of delay line memory was developed to remove the clutter from radar signals, the first practical application of which was the mercury delay line. The first random-access digital storage device was the Williams tube, based on a standard cathode ray tube but the information stored in it and delay line memory was volatile in that it had to be continuously refreshed, and thus was lost once power was removed. The earliest form of non-volatile computer storage was the magnetic drum, invented in 1932 and used in the Ferranti Mark 1, the world's first commercially available general-purpose electronic computer.

IBM introduced the first hard disk drive in 1956, as a component of their 305 RAMAC computer system. Most digital data today is still stored magnetically on hard disks, or optically on media such as CD-ROMs. Until 2002 most information was stored on analog devices, but that year digital storage capacity exceeded analog for the first time. As of 2007 almost 94% of the data stored worldwide was held digitally: 52% on hard disks, 28% on optical devices and 11% on digital magnetic tape. It has been estimated that the worldwide capacity to store information on electronic devices grew from less than 3 exabytes in 1986 to 295 exabytes in 2007 doubling roughly every 3 years. The relational database model introduced a programming-language independent Structured Query Language (SQL), based on relational algebra.

The terms "data" and "information" are not synonymous. Anything stored is data, but it only becomes information when it is organized and presented meaningfully. Most of the world's digital data is unstructured, and stored in a variety of different physical formats. within a single organization. Data warehouses began to be developed in the 1980s to integrate these disparate stores. They typically contain data extracted from various sources, including external sources such as the Internet, organized in such a way as to facilitate decision support systems.

## **2. Sample passage for practicing speed (Time: 10 minutes)**

Our scientific and economic progress is due largely to the vision of one man, Jawaharlal Nehru. He had the capacity to see the plant in the seed, to visualize tomorrow and the day after tomorrow and the day after in today, to plan a bright future through right action in the present. He was often criticized as a dreamer, but, in retrospect, most people concede that he did call the nation to great tasks and teach it to think of basic matters first. His stress on scientific education, and higher technological training was correct and far-seeing. As a result, today we have the scientific foundation's enduring growth. We have also the world's third largest stock of scientists and technologies and have acquired the technological where withal to solve our economic problems, the competence to build, run and deign a whole range of large and small industries and the capacity to modernize our agriculture. But we have not learnt to make the most of our technologists and have still to find right approaches to problems of administering scientific institutions so that talent is given due opportunity and directed to major national goals.

Nor is our administrative apparatus imbued with proper understanding of the fast-changing technological needs of developing society. For years I have spoken of the importance of involving scientists in the great task of taking science to the villages, and of devising machines and methods which span the old and new and reduce the farmer's strain and housewife's drudgery. We must initiate a new national movement to make intensive use of locally available materials in each region. What have our architects done to find ways of using local materials.

Traditions and designs, to houses which suit our climatic conditions and meet the occupational and social patterns of given region? Have those interested in handicrafts done anything to introduce new uses for the vast variety of our plants and other materials, to mention only few items. Technological skill is growing in quantity and quality but many small tasks are neglected. Our emphasis should be on training young persons to employ themselves usefully, developing their talents as well as mental attitude of self-help.

**List of items in Portfolio**

<b>Assessment Activities</b>	<b>Portfolio (Expected)</b>
Speed test (English & Malayalam)	Soft/hard copy of the typed matter
Preparation of hand written/manuscript letters, statements, GO, etc.	Soft/hard copy of the letters, statements, GO, etc. typed.

## Unit No. 4.5 - IT Enabled Services

This unit describes development of Information Technology and how it influenced the functioning of traditional as well as new generation offices. It is also an attempt to familiarise the seamless employment opportunities of ITES industry viz. Business Process Outsourcing, Call centre, Computerised Accounting, Medical Transcription, Blogging, etc. to the learners.

### Learning outcomes

The learner;

- Identifies various ITES.
- Creates and publishes a blog.

### Unit in detail

#### 4.5.1 Introduction and meaning of ITES

##### Introduction

"Information technology (IT) is a branch of engineering dealing with the use of computers and telecommunications equipment to store, recover, transmit and control data". Today's world is the world of information and telecommunication. The modern world will be incomplete without Information Technology and its various uses. Every day new technology and inventions are being made in the area of information, processing and travelling, agriculture, health, education, commerce, etc. IT has become a part and parcel of our daily lives through the use of PC's, Internet, cell phones, faxes, etc. Shopping, banking, travelling, education, entertainment, public sector, private sector, almost everywhere IT is playing its various roles very smoothly.

One of the biggest advantages of IT has been the creation of a whole new field of opportunities for skilled people leading to new and interesting jobs; hardware and software developers, computer programmers, web designers, system analysts, call centre executives, etc. These opportunities are collectively known as IT Enabled Services (ITES).

##### Meaning

Information Technology-Enabled Services (ITES) means services delivered over telecom networks (phone) or the Internet (e-mail or chat) to millions of customers of different companies across the world.

ITES supports various fields such as banking and finance, telecommunications, insurance, health, etc. It covers the complete area of business operations which

exploit information technology for improving the efficiency of an organisation. It is also called web enabled services or remote services or Tele-working.

Some sample IT enabled services are:

- Business Process outsourcing
- Call centres
- Medical Transcription
- Blog creation and publication
- Affiliate Marketing
- Virtual Assistants
- Freelance journalism
- Computerised Accounting
- E-tuition

#### **4.5.2 Business Process Outsourcing**

Business Process outsourcing or BPO is a system of getting a business task accomplished through an outside agency. It involves entrusting an unimportant task or business process with some other party. Outsourcing of some work improves the quality of service. It brings an opportunity to business authorities to concentrate on their key areas. Major outsourcing service areas are Financial services, Advertising services, Courier services, Customer support services, etc.

#### **Advantages of BPO**

- It helps the business to concentrate on areas in which it has core competency.
- Better quality of services can be obtained.
- It can avail expert service at a lower cost than that of running separate departments for that particular function.
- It reduces labour problem because outsourcing requires lesser number of employees.

#### **Additional information**

Knowledge Process Outsourcing is the outsourcing of core business activities, that are important and forms a primary part of a company's chain of activities. KPO services include all kinds of research and information gathering, e.g. intellectual property research for patent applications; equity research, business and market research, etc.

### 4.5.3 Blog - creation - writing - publication

Blog is an IT enabled free social media wherein a person can write on any interested subject and publish it in the web. Recently, "multi-author blogs" (MABs) have developed, with posts written by large numbers of authors and professionally edited. The website 'www.Bloggers.com' provides free blog service to anybody who has an email account. The account holder writes contents and publishes it. Those who have internet access can read the blog and comment on it.

A blog generates income to the blogger, if the blog gets a large number of hits. The online advertising companies will approach the blogger to post their advertisement in the blog for payment. They will execute a contract with the blogger and will get an income until the readers left the blog or the agreement exhaust.

There are many different types of blogs like Personal blog, Collaborative blogs or Group blogs, Microblogging, Corporate or organisational blogs. They differ not only in the type of content, but also in the way that content is delivered or written.

Activity: How to create a blog in Blogger.com.

1. Navigate to [www.blogger.com](http://www.blogger.com) using your web browser of choice.
2. Sign in using your Google Account to get started.
3. If you do not have a Google Account, click "Get Started" to create one.
4. Enter a "Display Name" to be used to sign your blog posts and click "Continue".
5. Click "Create Your Blog Now".
6. Select a "Blog title" and an available URL for your blog. You can check if the URL you are considering is available by clicking "Check Availability"(if it is unavailable try adding more letters and don't use things like hyphens, under scores, colons etc).
7. Enter the word verification and click continue.
8. Choose a starter template, which will act as the basic design/layout of your blog.
9. Click "Start Blogging"
10. You can create new blog posts, edit posts, and edit pages from under the "Posting" tab.
11. The title of your post goes in the text box next to "Title".
12. The body of your post will get entered into the "Compose" text editor, where you will also be able to access basic text editor functions such as font size, text color, the ability to insert links.

13. You can also use the "Edit HTML" tab to insert your post in HTML format, if you prefer.
14. The "Post Options" section located underneath the "Compose" text editor will allow you to enable reader comments, HTML settings, and post the time and date.
15. You can now either select "Save Now" to save your post, "Preview" to preview your post before publishing to your blog, or "Publish Post" to publish your post directly to your newly created blog.
16. If you wish to change the design of your blog from the starter template you selected when initially creating your blog, you can do so under the "Design" tab.
17. From within the "Design Tab" you will be able to edit Page Elements, HTML, and change your template with Temple Designer.
18. If you want to adjust other settings such as who is able to view, contribute to, or comment on your blog etc, click the "Settings" tab.
19. You can adjust publishing, comments, archiving, permissions, and all other settings from within the sub-tabs located under the main "Settings" tab.
20. You can add new authors that are able to contribute to and edit your blog by clicking the "Settings" tab> "Permissions" sub-tab, and selecting "Add Authors".

#### **4.5.4 Medical Transcription**

Medical transcription is a part of the health care industry that renders and edits doctor dictated reports, procedures, and notes in an electronic format in order to create files representing the treatment history of patients. An individual who performs medical transcription is known as Medical Transcriptionist (M.T) or a Medical Language Specialist (MLS).

#### **Additional information**

##### **How medical transcription works**

- Health practitioners dictate what they have done after performing procedures on patients and MT's transcribe the oral dictation and edit reports that have gone through speech recognition software.
- Medical transcription can be performed by MT's who are employees in a hospital or who work at home as telecommuting employees for the hospital or who work as an independent contractor for an outsourced service.
- MT requires the correct spelling of all terms and words; and hence occasionally corrects errors in dictated medical terminology.

- MT also edits the transcribed documents, print and returns the completed documents on time.

#### **4.5.5 Affiliate Marketing**

Affiliate Marketing is performance based marketing. It benefits one or more of the affiliates. The industry has four core players viz., 1. The merchant 2. Net work 3. The publisher 4. The customer. Now the market attained the complexity of secondary tier of players including Affiliate Management Agencies, super affiliates and specialized thirty party vendors.

#### **4.5.6 Call Centres**

Call center is a service center that has good telecom facilities, trained consultants, access to the Internet and other online information set-up to provide information and support to a customer. They are offices used for the purpose of receiving and transmitting a large volume of customer focused telephone calls that are handled by trained customer service representatives. The telephone calls may be "inbound" (customers call-in for getting information about a product) or "outbound" (customer service representatives call customers to sell some product or to provide information about some service).

#### **Additional information**

A typical call center functions as follows:

- A customer uses a toll-free number (there is no cost when this number is dialed) that is connected to a customer support center.
- When a call reaches the call center, the customer is answered by a trained customer service representative, who has access to a wide database of information, and is trained on the product/service being offered.
- The technology created, by the IT experts, to support the Call center makes sure that the customer service representatives have the latest information available, so that the highest standards of customer service are delivered.
- With the increase in world-wide connectivity, it does not matter if the call center is located in the city of the customer or anywhere else in the world.

#### **4.5.7 Virtual Assistants**

- A Virtual Assistant (VA) or a Virtual Office Assistant may be an individual or a Company engaged in self-employment to provide professional, administrative, technical, or creative assistance to clients remotely from a home office.

- Virtual assistants come from a variety of business backgrounds, but most have several years experience earned in the real (non-virtual) business world.
- A VA in an organization includes Executive assistant, Office manager/supervisor, secretary, legal assistant, para -legal, legal secretary, real estate assistant etc.
- The general VAs are sometimes called an online administrative assistant, online personal virtual assistant or on -line sales assistant etc..

#### 4.5.8 Freelance Journalism

Journalism is 'the occupation of reporting, writing, editing, photographing, or broadcasting news or of conducting any news organization as a business.' A freelance journalist also does the same thing that a Journalist does. The only difference is that he is not a permanent employee of any publication. He can work on any area as he likes. There is no restriction or control from any part. The benefits to the freelancers are that they can:

- choose who they work for
- what they write about
- how often they write
- where they work from
- when they write

#### 4.5.9 Computerised Accounting

Accounting works performed with the help of accounting software is known as computerised accounting. Any person who has an accounting background and experience in accounting package can undertake this type of online work. Foreign companies usually outsource their accounting works to Asian countries (India/China) where skilled labour is available at a lesser cost. Examples of such softwares are Tally, Quick Book, Peech Tree, etc.

#### List of items in Portfolio

Assessment Activities	Portfolio (Expected)
Group discussion	Participation in discussion
Creating blog	Blog
Seminar	Report

#### Sample TE questions

1. Name few IT Enabled Services.
2. Name the services offered by ITES as part of customer relation management.

3. "Outsourcing provides large number of employment opportunities". Comment this statement.
4. Help M/s Sangeeth Electricals to select the areas of work which they can complete with the help of outsourcing agencies.
5. "BPO is a system of getting task accomplished through an outside agency". Based on this statement explain the advantages of BPO services.
6. Conduct a seminar in the class based on the IT Enabled Services.
7. BPO services reduce unemployment. Do you agree?
8. List out some business where Call Centre is essential.
9. Mention the types of blog.
10. An individual who performs medical transcription is known as \_\_\_\_\_.

## Unit No. 4.6 - Web Page Designing

### Introduction

The term web design is normally used to describe the design process relating to the front-end (client side) design of a website. Web design encompasses many different skills and disciplines in the production and maintenance of websites. The different areas of web design include web graphic design; interface design; authoring, including standardised code and proprietary software; user experience design; and search engine optimization. The web site created should be hosted using internet hosting service to access it via the World Wide Web.

### Learning outcomes

The learner;

- Explain HTML and WWW
- Create HTML document
- Use HTML tags
- Distinguish static and dynamic website
- Identify webserver and domain name

### Unit in detail

#### 4.6.1 Introduction to HTML

Hyper Text Markup Language (HTML) is a scripting language used to generate web pages. The World Wide Web (WWW) or web page is a way of presenting information over internet. HTML has a set of instructions as any other programming language. These instructions are interpreted by a browser into computer's understandable form. Instructions in HTML are generally called HTML Tags. HTML tags are the hidden keywords within a web page that define how the browser must format and display the content. They are given in angular brackets (<>). The opening tag is denoted as <HTML> and closing tag is </HTML>. HTML programs are written using any of the text editor Notepad, WordPad, Kompozer, Eclipse, etc.

The World Wide Web is a global information medium which users can read and write via computers connected to the Internet. The term is often mistakenly used as a synonym for the Internet itself, but the Web is a service that operates over the Internet, just as e-mail also does.

## 4.6.2 Starting with HTML - HTML Document - Headers tag, Body tag - Elements of HTML Document

### Starting with HTML (Practical in Lab)

Go to 'Start' 'Click on 'Notepad' 'Open a new document' Save it as '.txt' file 'Type HTML tags Save As '.html' file 'Open the .html file from the file menu.

The file saved with the file extension '.html' is a HTML document. When a command is given save both the files.

#### *Headers tag*

```
<html>
<h1>
GOVERNMENT OF KERALA
</h1>
```

Note: According to size of header, there are six headers from <h1> to <h6>.

#### *Body tag*

```
<html>
<body>
DEPARTMENT OF VHSE
</body>
</html>
```

#### *Elements of HTML Document*

HTML documents imply a structure of nested HTML elements. These are indicated in the document by HTML tags, enclosed in angle brackets thus: <p>. In the simple, general case, the extent of an element is indicated by a pair of tags: a "start tag" <p> and "end tag" </p>. The text content of the element, if any, is placed between these tags. Tags may also enclose further tag markup between the start and end, including a mixture of tags and text. This indicates further (nested) elements, as children of the parent element. The start tag may also include attributes within the tag. The general form of an HTML element is therefore: <tag attribute1="value1" attribute2="value2">content</tag>.

In simple, the main instruction in the tag is called 'Element' and the options are called 'Attributes'.

For example: <body bgcolor="red">, here 'body' is element and 'bgcolor' is attribute.

### 4.6.3 HTML tags for text, images, videos, lines, tables, layouts, styles, hyperlink

`<p>` Tag 'P' for 'paragraph'. Use - Paragraph separation and space between lines.  
`<p align="left">` for left alignment of text, like this right, centre and justify can be used.

`<br>` for line break

`<centre>` for centralize text or image

`<b>` for bold

`<u>` for underline

`<i>` for italics

`<font>` tag - to specify name of font, size and color. The attribute 'FACE' is used for giving name of font. For example, `<font face="Arial">`

`<marquee>` tag - to scroll text or image.

`<img>` tag - to insert an image. Attribute 'SRC' is used to specify the path and name of image file.

`<a href="">` tag - to give a hyperlink from the site. Attribute 'HREF' is used to specify the link.

Activity:

- Open 'Notepad' 'create a new file' save it
- Save As the file as an HTML document
- Provide Headers tag, Body tag

Activity:

- HTML documents, Inserting texts, images, Hyperlinks, Back ground and colour controls
- Different HTML tags, table layouts and presentation  
 Tables are defined with the `<table>` tag.  
 Tables are divided into table rows with the `<tr>` tag.  
 Table rows are divided into table data with the `<td>` tag.  
 A table row can also be divided into table headings with the `<th>` tag.  
 Table data `<td>` are the data containers of the table.

Activity:

- Ordered and unordered list  
 An ordered list starts with the `<ol>` tag. Each list item starts with the `<li>` tag.  
 An unordered list starts with the `<ul>` tag. Each list item starts with the `<li>` tag.

Activity:

- Creating simple webpage
- Formatting text, aligning the text changing text colour, size and font
- Adding background image
- Working with hyperlink

#### 4.6.4 Cascade Style Sheet

CSS stands for Cascading Style Sheets. CSS describes how HTML elements are to be displayed on screen, paper, or in other media. CSS saves a lot of work. It can control the layout of multiple web pages all at once. CSS is used to define styles for a web page, including the design, layout and variations in display for different devices and screen sizes.

HTML was NEVER intended to contain tags for formatting a web page. HTML was created to describe the content of a web page, like:

```
<h1>This is a heading</h1>
```

```
<p>This is a paragraph.</p>
```

When tags like <font>, and color attributes were added to the HTML 3.2 specification, it started a nightmare for web developers. Development of large websites, where fonts and color information were added to every single page, became a long and expensive process. To solve this problem, the World Wide Web Consortium (W3C) created CSS. CSS removed the style formatting from the HTML page!

#### 4.6.5 Static and Dynamic websites - Advantages and disadvantages

Websites that only use HTML and CSS are called static websites, and websites with scripting are called dynamic websites.

##### Static website

A website looks basic and is for a smaller company, and simply delivers information without any bells and whistles; it could be a static website. Static websites can only really be updated by someone with knowledge of website development. Static websites are the cheapest to develop and host, and many smaller companies still use these to get a web presence.

##### Advantages of static websites

- Quick to develop
- Cheap to develop
- Cheap to host

### **Disadvantages of static websites**

- Requires web development expertise to update site
- Site not as useful for the user
- Content can get stagnant

### **Dynamic website**

Dynamic sites on the other hand can be more expensive to develop initially, but the advantages are numerous. At a basic level, a dynamic website can give the website owner the ability to simply update and add new content to the site. Dynamic features of a site are only limited by imagination. Some examples of dynamic website features could be: content management system, e-commerce system, bulletin/ discussion boards, intranet or extranet facilities, ability for clients or users to upload documents, ability for administrators or users to create content or add information to a site (dynamic publishing).

### **Advantages of dynamic websites**

- Much more functional website
- Much easier to update
- New content brings people back to the site and helps in the search engines
- Can work as a system to allow staff or users to collaborate

### **Disadvantages of dynamic websites**

- Slower/more expensive to develop
- Hosting costs a little more

#### **4.6.6 Web server and Domain Name**

A web server is a program that uses HTTP (Hyper Text Transfer Protocol) to serve the files that form web pages to users, in response to their requests, which are forwarded by their computers' HTTP clients. When a website is hosted, it will be stored in a webserver. Hosting means publishing the website over internet so that it can be viewed by people worldwide. In order to host the website we need two things:

- A domain name (a web address like whois.net), it should be unique
- Hosting (a service that connects web site to the internet)

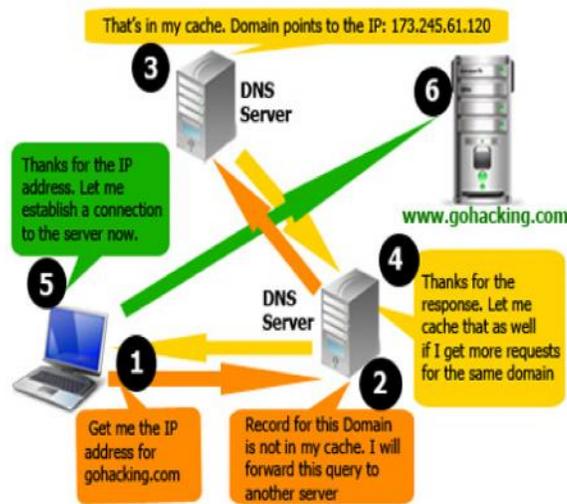
Many service providers are there to host web sites known as web hosts. They charge a nominal amount for their service. A domain name and hosting will cost around Rs. 200 - Rs.300 a month. The domain names provided are stored in the database of Internet Corporation for Assigned Names and Numbers (ICANN).

Some other website's provide free space but we have to follow so many instructions from them. Therefore, owning our own domain name looks far more professional than having our site on someone else's domain (like google.freewebsite.com ). When a user inputs the domain name the web page will be displayed using DNS server. The domain name is connected with IP address of the web server using address record. Domain names usually end with .com, .org, .in, .edu or .net. There's one rule that always applies to domain names: If you like it, go for it.

### Additional information

#### How Domain Name Servers Work

If you've ever used the Internet, it's a good bet that you've used the Domain Name System, or DNS, even without realizing it. DNS is a protocol within the set of standards for how computers exchange data on the Internet and on many private networks, known as the TCP/IP protocol suite. Its basic job is to turn a user-friendly domain name like "howstuffworks.com" into an



Internet Protocol (IP) address like 70.42.251.42 that computers use to identify each other on the network. It's like your computer's GPS for the Internet.

Computers and other network devices on the Internet use an IP address to route your request to the site you're trying to reach. This is similar to dialing a phone number to connect to the person you're trying to call. Thanks to DNS, though, you don't have to keep your own address book of IP addresses. Instead, you just connect through a domain name server, also called a DNS server or name server, which manages a massive database that maps domain names to IP addresses.

### List of items in Portfolio

Assessment Activities	Portfolio (Expected)
General discussion	Participation in discussion
Creating web page	Web site

### Sample TE questions

1. HTML tag is a command to create \_\_\_\_\_.
2. \_\_\_\_\_ Tag is used to scroll text or image.
3. Elements and \_\_\_\_\_ are the parts of a HTML tag.
4. <H1> to <H6> are used for \_\_\_\_\_.
5. Name the text editor for writing HTML program.
6. Write HTML tags for creating body colour 'purple'.
7. What is mean by a Domain name?
8. Script HTML tags for creating a website for your school. Follow the instructions given below.
  - A. Heading should be name of your school.
  - B. Insert a picture of your school.
  - C. Scroll an announcement at any direction.
  - D. Give a link to the website [www.keralavhse.gov.in](http://www.keralavhse.gov.in)
9. What is www?
10. What is element of HTML document? Explain with an example.

## Unit No.4.7 - Cyber Ethics

### Introduction

Cyber ethics are the manners to be followed by a netizen. Most of the netizens are committing cyber crimes due to ignorance and it is increasing day by day. Therefore, it is necessary to make them aware of the prose and cones of wrongdoing. This unit deals with the computer crimes, cyber crimes and punishment and penalties for it.

### Learning outcomes

The learner;

- Explains cyber ethics.
- Describes meaning of cyber crime.
- Identifies computer crimes.
- Identifies cyber crimes.
- Understands punishment and penalties for cyber crimes.

### Unit in detail

#### 4.7.1 Introduction to Cyber ethics

Cyber ethics is the study of ethics pertaining to computers, encompassing user behavior and what computers are programmed to do, and how this affects individuals and society. It is the ethics applied to the online environment. Although cyber ethics has become an important topic for elementary school children, high school students, college and university students, and those in the workplace in recent years, the treatment of what is and is not cyber-ethical behavior varies from place to place.

#### 4.7.2 Meaning of Cyber ethics

Cyber ethics refers to the code of responsible behavior on the Internet. These are the Do's and Don'ts in the cyber world. Cyber ethics means do not do something in cyber space that you would consider wrong or illegal in everyday life.

Responsible behaviour on the Internet in many ways aligns with acceptable behaviour in everyday life, but the consequences can be significantly different. For example, verbal gossiping is generally limited to the immediate audience (those within earshot) and may well be forgotten the next day. However, gossiping on the Internet can reach a far wider audience. The "words" are not forgotten the next day, but may live on the Internet for days, months or years and cause tremendous harm. Computers, browsers, and Internet service providers may keep logs of their activities which can be used to identify illegal or inappropriate behaviour.

## Additional information

### Responsible behaviours

- Do not use rude or offensive language.
- Don't be a bully on the Internet.
- Do not call people names, lie about them, send embarrassing pictures of them, or do anything else to try to hurt them.
- Do not copy information from the Internet and claim it as yours. That is called plagiarism.
- Adhere to copyright restrictions when downloading material including software, games, movies, or music from the Internet.
- Do not break into someone else's computer.
- Do not use someone else's password.
- Do not attempt to infect or in any way try to make someone else's computer unusable.

### 4.7.3 Computer crimes

Computer crime describes a very broad category of offenses. Some of them are the same as non-computer offenses, such as larceny or fraud, except that a computer or the Internet is used in the commission of the crime. Others, like many forms of hacking, are uniquely related to computers. Read on to find out what kinds of activities are considered computer crimes.

### Examples of Computer Crimes

- Improperly accessing a computer, system, or network;
- Modifying, damaging, using, disclosing, copying, or taking programs or data;
- Introducing a virus or other contaminant into a computer system;
- Using a computer in a scheme to defraud;
- Interfering with someone else's computer access or use;
- Using encryption in aid of a crime;
- Falsifying e-mail source information; and
- Stealing an information service from a provider.

### 4.7.4 Cyber crimes

Cyber crime is a crime committed by any intelligent computer professional/s in the cyber space using computer, mobile phone, tablets, personal digital assistant and internet as a tool or target or both. It is defined as "Crime against individual or an organization by means of a computer." Any person who commits an illegal act with a guilty intention or commits a crime is called an offender or a cyber criminal. They may be children, adolescent, crackers, hackers, cheaters or even psychic persons.

Based on the nature of crime committed, cyber crimes are classified into the following category.

1. Classification based on role of computer in cyber crime
2. Classification based on perpetrators of the cyber crime
3. Classification based on victims of cyber crime

*Following are some examples of cyber crime:*

1. **Identity theft** - It means the theft of another person's identifying information.
2. **SMS Spoofing** - Spoofing is a blockage through spam. Spam is the unwanted uninvited SMS or e-mails.
3. **Cyber stalking** - It means to threat others with internet, sms, email, etc.
4. **Hacking** - Whoever with the intent to cause or knowing that he is likely to cause wrongful loss or damage to the public or any person destroys or deletes or alters any information residing in a computer resource or diminishes its value or utility or affects its injuriously by any means, commits hack.
5. **Cracking** - Breaking into a computer with criminal intent to damage, destroy computer data and information is cracking.
6. **Malicious programs** - A malicious program is made to cause harm to its victims (individual, economy, society or national security). It contains Virus, Worm, Logic Bomb, Trojen Horse and Hoax.
7. **Computer fraud** - The term computer fraud denotes a sub-class of economic crimes that are being carried out by the help of computer network and internet in cyber space. Example: Credit/debit card fraud, fraud through e-mail or internet, etc.
8. **Intellectual property right infringement** - It refers to the crime in the areas of computer software piracy, infringement of copyrights, trademarks, etc.
9. **Cyber terrorism** - Cyber terrorism means unlawful attacks and threats of attack against the computer, networks, and the information stored therein. Cyber terrorist attacks on the internet of many academic, government and intelligence officials sites, etc.
10. **Cyber squatting** - The term refers to registering, trafficking in, or using a domain name with bad-faith intent to profit from the goodwill of a trademark belonging to someone else.

#### **4.7.5 Offences and penalties under Information Technology Act, 2000**

The introduction of the internet has brought tremendous changes in our lives. Though it has many advantages, it has been misused by many people and developed many

crimes. These increased offences led to the need of law for protection. In order to keep in pace with the changing generation, the Indian Parliament passed the law - Information Technology Act 2000.

The following table shows the offence and penalties against all the mentioned sections of the I.T. Act - 2000.

Section	Offence	Punishment
65	Tampering with Computer Source Code	Imprisonment up to 3 years or fine up to Rs 2 lakhs
66	Computer Related Offences	Imprisonment up to 3 years or fine up to Rs 5 lakhs
66-A	Sending offensive messages through Communication service, etc.	Imprisonment up to 3 years and fine
66-B	Dishonestly receiving stolen computer resource or communication device	Imprisonment up to 3 years and/or fine up to Rs. 1 lakh
66-C	Identity Theft	Imprisonment of either description up to 3 years and/or fine up to Rs. 1 lakh
66-D	Cheating by Personation by using computer resource	Imprisonment of either description up to 3 years and /or fine up to Rs. 1 lakh
66-E	Violation of Privacy	Imprisonment up to 3 years and /or fine up to Rs. 2 lakh
66-F	Cyber Terrorism	Imprisonment extend to imprisonment for Life
67	Publishing or transmitting obscene material in electronic form	On first Conviction, imprisonment up to 3 years and/or fine up to Rs. 5 lakh On Subsequent Conviction imprisonment up to 5 years and/or fine up to Rs. 10 lakh
67-A	Publishing or transmitting of material containing sexually explicit act, etc... in electronic form	On first Conviction imprisonment up to 5 years and/or fine up to Rs. 10 lakh On Subsequent Conviction imprisonment up to 7 years and/or fine up to Rs. 10 lakh

67-B	Publishing or transmitting of material depicting children in sexually explicit act etc., in electronic form	On first Conviction imprisonment of either description up to 5 years and/or fine up to Rs. 10 lakh On Subsequent Conviction imprisonment of either description up to 7 years and/or fine up to Rs. 10 lakh
67-C	Intermediary intentionally or knowingly contravening the directions about Preservation and retention of information	Imprisonment up to 3 years and fine
68	Failure to comply with the directions given by Controller	Imprisonment up to 2 years and/or fine up to Rs. 1 lakh
69	Failure to assist the agency referred to in sub section (3) in regard interception or monitoring or decryption of any information through any computer resource	Imprisonment up to 7 years and fine
69-A	Failure of the intermediary to comply with the direction issued for blocking for public access of any information through any computer resource	Imprisonment up to 7 years and fine
69-B	Intermediary who intentionally or knowingly contravenes the provisions of sub-section (2) in regard monitor and collect traffic data or information through any computer resource for cybersecurity	Imprisonment up to 3 years and fine
70	Any person who secures access or attempts to secure access to the protected system in contravention of provision of Sec. 70	Imprisonment of either description up to 10 years and fine
70-B	Indian Computer Emergency Response Team to serve as national agency for incident response. Any service provider, intermediaries, data centres, etc., who fails to prove the information called for or comply with the direction issued by the ICERT.	Imprisonment up to 1 year and/or fine up to Rs. 1 lakh

71	Misrepresentation to the Controller to the Certifying Authority	Imprisonment up to 2 years and/ or fine up to Rs. 1 lakh.
72	Breach of Confidentiality and privacy	Imprisonment up to 2 years and/or fine up to Rs. 1 lakh.
72-A	Disclosure of information in breach of lawful contract	Imprisonment up to 3 years and/or fine up to Rs. 5 lakh.
73	Publishing electronic Signature Certificate false in certain particulars	Imprisonment up to 2 years and/or fine up to Rs. 1 lakh
74	Publication for fraudulent purpose	Imprisonment up to 2 years and/or fine up to Rs. 1 lakh

### List of items in Portfolio

Assessment Activities	Portfolio (Expected)
General discussion	Participation in discussion
Group discussion	Participation in discussion
Collection of news	Album

### Sample TE Questions

1. What is meant by cyber ethics?
2. What is computer crime?
3. List out any five cyber crimes.
4. Write two examples for malicious program.
5. 'Mr.Biju stole the personal information of his colleague.' Identify the cyber crime.
6. \_\_\_\_\_ is a blocking through spam.

### Extended Activities

Extended activities includes visits to the actual work sites, interaction with experts working in the field, working in the PTC of the school and serving the public with what the students learned from the class/practical room.

### List of practicals

1. Practice with ERP system
2. Generate reports from ERP software
3. Speed practice (English & Malayalam)
4. Typing handwritten/manuscript letters, statements, government order and circular.
5. Blog creation
6. Practicing HTML tags
7. Assigning attributes to tags
8. Web page designing

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