KENDRIYA VIDYALAYA SANGATHAN



PATNA REGION

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CLASS: X ARTIFICIAL INTELLIGENCE (417)

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UNIT 1 Communication Skill:

Part 1: Communication & their types

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Part 1: Communication & their types

Communication

Communication is **the act of giving, receiving, and sharing information** -- in other words, talking or writing, and listening or reading. Good communicators listen carefully, speak or write clearly, and respect different opinions.

Communication is defined as the imparting or exchanging of information by speaking, writing, or using some other medium

Communication skills allow you to understand and be understood by others. These can include but are not limited to effectively communicating ideas to others, actively listening in conversations, giving, and receiving critical feedback and public speaking.

Communication skills involve listening, speaking, observing, and empathising. It is also helpful to understand the differences in how to communicate through face- to-face interactions, phone conversations, and digital communications like email and social media.

Communication helps people to know each other better. It helps in removing misunderstanding and certain meaning clarity of thought. Communication in any form written, oral, formal informal, visual, interpersonal, intrapersonal help in educating people and connecting them better.

Types of Communication -:

Communication can be categorized into four basic types:

- 1. Verbal Communication
- 2. Non Verbal Communication
- 3. Visual Communication
- 4. Written Communication

1. Verbal Communication -:

Verbal communication is the use of sounds and words to express yourself, especially in contrast to using gestures or mannerisms (non-verbal communication). Example-: Orally communicating.

2. Non-verbal Communication -:

Nonverbal communication refers to gestures, facial expressions, tone of voice, eye contact, (or lack thereof), body language, posture, and other ways people can communicate without using language.

3. Visual Communication -:

Visual communication is the transmission of information and ideas using symbols and imagery. Types of visual communication include animated GIFs, screenshots, videos, pie charts, infographics, and slide deck presentations. It also includes signs, graphic designs, films, typography, and countless other examples

4. Written Communication-:

A 'Written Communication' means the sending of messages, orders or instructions in writing through letters, circulars, manuals, reports, telegrams, office memos, bulletins, etc. It is a formal method of communication and is less flexible.

Part 2: Communication Cycle

Communication Cycle

Communication is one of the most vital elements of society. People need people, and to interact, it's essential they be able to convey messages and understand each other. The communication cycle expresses how the system of conveying and understanding messages operates.

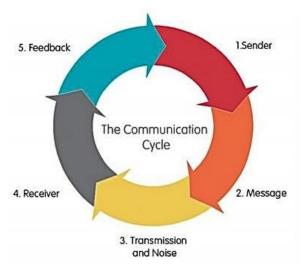
Sender: the person or entity originating the communication. **Message**: the information that the sender wishes to convey.

Encoding: how the sender chooses to bring the message into a form appropriate

forsendina.

Channel: the means by which the message is sent.

Receiver: the person or entity to whom the message is sent. **Decoding:** how the receiver interprets and understands the message. **Feedback**: the receiver's response to the message.



In the communication process, one person is a sender who convey message to another person or a group of persons) nose as the receiver. When the receiver gets the message,he acknowledges it and sends back a response. This leads to a cycle process known as the communication cycle. The cycle describe how can ideas, impression, or feeling is madeno to others full stopper communication cycle includes resource such as e-mail threads social media outlets, VoIP message outlets. In the communication process, one person is a sender who convey message to another person (or a group of persons) nose as the receiver. When the receiver gets the message, he acknowledges it and sends back a response. This leads to a cycle process known as the communication cycle.

Part 3: Feedback in Communication

Feedback in Communication

The term 'feedback' is taken from cybernetics, a branch of engineering concerned with self-regulating systems.

The observation of the receiver's response is called feedback. In other words, the part of the receiver's response communicated back to the sender is called feedback. Actually it is the amount of response of the receiver that reaches to the sender. It enables the senderto evaluate the effectiveness of the message.

In the communication process, feedback refers to a response from the receiver which givesthe communicator an idea of how the message is being received and whether it needs to be modified.

Feedback ensures that the message has been successfully conveyed and the communication is effectively successful.

Feedback is important in communication because it enables the sender to evaluate the effectiveness of its message. Without feedback, the communication process would be incomplete.

Importance of feedback in communication-:

- 1. It completes the whole process of communication and makes it continuous.
- 2. It sustains communication process.

- 3. It makes one know if one is really communication or making sense.
- 4. It is a basis for measuring the effectiveness of communication.
- 5. It is a good basis for planning on what next to be done especially statistical report.
- 6. Communication will be useless without feedback.
- 7. Feedback paves way for new idea generation.
- 8. It is a process of effective listening.
- 9. It serves as basis of problem-solving.
- 10. Can motivate.
- 11. It can improve performance.

"To be effective, feedback needs to be clear, purposeful, meaningful, and compatible withstudents' prior knowledge and to provide logical connections" (Hattie & Timperley, 2007,

p. 104). Task specific – feedback requires learning context and therefore needs to be taskspecific.

In order to be effective, feedback must be:

- Specific. Feedback must be concrete and relate to a specific, measurable performancegoal.
 - Timely
 - Appropriate
 - Focus on behaviour, not personality
 - Proactive
 - Given using descriptive language
 - Not given using judgmental language
 - Based on accurate and credible information.

Types of Feedback-:

Feedback can be various form and of various types. Let us discuss different types offeedback used in communication.

- 1. Formal and informal feedback
- 2. Descriptive and non-descriptive feedback
- 3. Specific and nonspecific

feedbackFormal and informal

feedback

Formal Feedback-:

A formal feedback follows a present format or structure using which the receiver friends feedback and sends it. Formal feedback covers many predefined points and has a specificblueprint. The receiver friends the feedback as per this blueprint and sends it. Formal feedback takes time to construct and hence, is not instant.

Examples:

"Congratulations on scoring with A Grade in your final test performance. You are

promoted to your next class."

"Please accept my

apologies."

Informal Feedback-:

Informal feedback, on the other hand, is spontaneously friendly and does not stick to a specific structure such as instant comments by the listener or audience. It does not take time to construct as it is immediately conveyed.

Examples:

"Good job! ", "Congratulations!" "Sorry"

2. Descriptive and non-descriptive feedback-:

Descriptive feedback:

A descriptive feedback on the contrary, provides meaningful information in a detailed, expressive manner that also contains some analysis or suggestion etc.

Examples

"All paragraphs should cover basically on Idea. Only one paragraph was as per this specification, other paragraphs convey multiple ideas and the information was also cohesively linked."

"In your article, the conclusion did not reiterate your observation and did not support the evidence your article talks about. You need to rewrite the conclusion by keeping this thingin mind."

Non-descriptive feedback-:

A non-descriptive feedback provides some specific information but does not give details descriptions. The feedback conveys meaningful specific response but does not come withdescriptive analysis or suggestions.

Examples

"I only like your second paragraph. Others needs improvement." "In your article, conclusion needs rework"

3. Specific and Non-specific Feedback:

Specific Feedback-:

The specific feedback talks about a thing, particularly without talking about a Generaloverview.

Example-:

"I like the way you described your grandfather's character. It makes me feel like I too knowhim".

"I like your portrayal of sibling rivalry, especially the part where you and your sister

were fighting. I fight with my brother too, so it made it sound real to me. your story seemed related at all points."

Non-specific Feedback-:

The Non-specific feedback, on the other hand, talks about the entire think while giving aGeneral overview. it does not particularly pinpoint is specific think/ feature.

Examples:

"I like your story. It is good."

"I like it your topic of sibling rivalry."

Part 4: Effective Communication

EFFECTIVE COMMUNICATION

Introduction:

Effective communication is a two way communication process where both parties haveright and convenience to express their messages opinions, facts and other informations.

Principles of Effective Communication:

Clarity:-

Message conveyed should be in easily understandable language.

Attention:-

The receiver should be fully attentive in a communication process.

Consistency:-

This principle implies that communication should always be consistent with the plannedobjective of message being conveyed

Adequacy:-

The information conveyed should be complete in all respects.

• Timelines:-

The message conveyed should be at the proper time.

Feedback:-

The communication must have feedback confirmation from the recipient whether themessages have been understood by the recipient

• Economy:-

The communication should take place in a way that costs optimally.

7Cs of Effective Communication

- Clear: While communicating one should be clear about what he / she say.
- Concise: Use simple words and say only what is needed.
- Concrete: Your arguments should be based on solid facts and opinions from

crediblesources and you should share reliable data to support your stand.

- Correct: It's essential that along with the factual information, the language and grammaryou use are correct.
- Coherent: Your words should make sense .Along with that it should related with the maintopic
 - Complete: Your message should be complete .It should have all the needed information
 - Courteous: Be respectful, honest and friendly throughout your communication

Part 5: Barriers in Communication

Barriers in communication

- Linguistic Barrier: Language at times can be a barrier to effective communication
- Physical Barrier: If the surroundings do not support proper communication, it can alsoact as a barrier to appropriate interaction.
 - Cultural Barrier: Cultural differences hinder us from communicating properly.
- Interpersonal Barriers: It refers to the situations when the intended message is receivedincorrectly due to many personal reasons.
- Organizational Barriers: In an organization if there is no clarity about the roles, structures, responsibilities, it will hinder effective communication among the members of the organization.

Measures to Overcome Barriers of communication

- Overcoming Lingual Factors: To overcome this one need to prepare appropriately.
 Oneshould carefully think about the language needs of the recipient.
- Overcoming Environmental Factors: Communicators should ensure that the message isdelivered in a distraction free environment.
- Overcoming Barrier of Cultural Influence: Preparation to be made keeping the culture of the people you are addressing.
 - Overcoming Interpersonal Barriers of Communication:
 - Overcoming Organizational Barriers of Communication

Part 6: Basic Writing Skills

WRITING SKILLS

Writing skills are an important part of communication. Good writing skills allow you to communicate your message with clarity and ease to a far larger audience

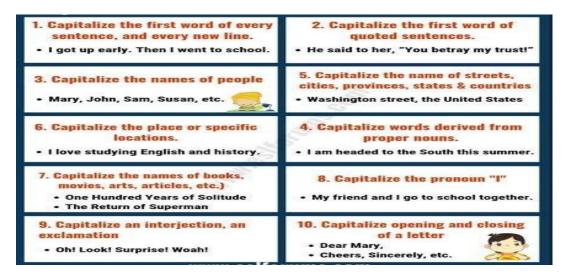
than throughface-to-face or telephone conversations.

Parts of speech:

- Noun: A noun is the name of a person, place, thing, or idea.
- Pronoun: A pronoun is used in place of a noun or noun phrase to avoid repetition.
- Verb: A verb shows an action or state of being. A verb shows what someone orsomething is doing.
- Adjective: An adjective describes, modifies, or gives more information about a noun orpronoun.
 - Article: A word that introduces a noun.
- Adverb: An adverb describes/modifies a verb, an adjective, or another adverb. It tellshow, where, when, how often or to what extent.
- Preposition: A preposition shows the relationship of a noun or pronoun to another word. They can indicate time, place, or relationship.
- Conjunction: A conjunction joins two words, ideas, phrases, or clauses together in asentence and shows how they are connected.
- Interjection: An interjection is a word or phrase that expresses a strong feeling oremotion. It is a short exclamation.

Capitalisation and Punctuation:

These are important while writing sentences as they help readers understand and interpret the message.





Sentences:

A group of words that makes complete sense is called a sentence. The sentence must contain the subject and a predicate.

Kinds of Sentences:

There are four kinds of sentences:

- Assertive or declarative sentence or Statement
- 2. Integrative sentence (a Question)
- 3. Imperative sentence (a Command)
- 4. Exclamatory sentence (an Exclamation)

Parts of a sentence-:

Every complete sentence contains two parts---

- 1. Subject
- 2. Predicate.

Subject-:

A subject is a word or group up of words which conveys the name of the person or thinkthat we are asking about.

Predicate-:

On the other hand, It is the part of the sentence which contains a verb, and state

somethingabout the subject.

Active and Passive voice

The object of the active sentence becomes the subject of the verb in the passive voice.

Active Voice Passive Voice Active voice is a grammar term used to classify A verb is in the passive voice when the subject of the sentences in which the subject of the sentence is the sentence is acted on by the verb one actively performing the action of the verb Examples Examples He helped me. I was helped by His. Mr. john teaches poor people. Poor people are taught by Mr. John. Let us throw the ball far away. Let the ball be thrown by us far away. They ate the food in the Morning. The food was eaten by them in the Morning. the Nurse was examining him. He was being examined by the Nurse. the Headmaster is teaching the class. ☐ The class is being taught by the Headmaster. They will have finished their work by twelve. ☐ Their work will have been finished them by Twelve ☐ How can they give up the struggle ☐ How can the struggle be given up by them. I saw them at the police station yesterday. they were seen at the police station by me yesterday. we shall play a Hockey match tomorrow. A hockey match will be played by us tomorrow. he was planting new trees in the home garden. New trees were being planted by him in the home garden

CHECK POINT:

- Q1. Which of the following is NOT an element of communication within the communication process cycle?
- A) Channel
- B) Receiver
- C) Sender
- D) Time
- Q2. You need to apply for leave at work? Which method of communication will youuse?
- A) e-mail
- B) Poster
- C) Newsletter
- **D)** Blog
- Q3 Which of the following is an example of oral communication?
- A) Newspapers
- B) Letters

- C) Phone call
- D) E-mail

Q4 Which of these are examples of negative feedback?

- A) I hate to tell you this but your drawing skill is poor.
- B) You can surely improve your drawing
- **C)** These are good drawings but you can do better.
- D) None of the above

Q5. What are the types of words we should use for verbal communication?

- A) Acronyms
- B) Simple
- C) Technical
- D) Jargons

Q6. Which of the following is an effective components of good feedback?

- A) Detailed and time consuming
- B) Indirect
- C) Specific
- D) Opinion-based

Q 7 Which of these are examples of positive feedback?

- A) Excellent, your work has improved
- B) I noticed your dedication towards the project.
- C) You are always doing it the wrong way.
- D) All of the above

Q8 Which of the following statement is true about communication?

- A) 50% of our communication is non-verbal
- B) 20% communication is done using body movements, face, arms, etc
- C) 5% communication is done using voice, tone, pauses, etc.
- D) 7% communication is done using words

Q9 Which of these is NOT an appropriate non-verbal communication at work?

- A) Keeping hands in pockets while talking
- B) Talking at moderate speed
- **C)** Sitting straight
- D) Tilting head a bit to listen

Q10 Which of these is a positive (good) facial expression?

- A) Frowning while concentrating
- B) Maintaining eye contact
- C) Smiling continuously
- D) Rolling up your eyes

Q. How can cultural differences be a barrier to effective communication? Ans:

People sometimes make stereotypical assumptions about others based on their cultural background, this leads to difference in opinions and can be a major barrier to effective communication. It helps us in converting our strength into an exceptional talent. **OR**

Cultural barriers is when people of different cultures are unable to understand each other's customs, resulting in inconveniences and difficulties, which leads to barriers in effective communication.

UNIT 2:

SELF-MANAGEMENT SKILLS - II

Self-Management Skills

Self-management, which is also referred to as 'self-control' or 'self-regulation', is the ability to regulate one's emotions, thoughts, and behavior effectively in different situations. This includes motivating oneself, and setting and working towards personal and academic goals.

Domains of Self-Management Skills

- i. Stress Management
- ii. Self-Awareness Strength and Weakness Analysis
- iii. Self-Motivation
- iv. Self-Regulation Goal Setting
- v. Self-Regulation Time Management



Session 1: Stress Management

We all face many ups and downs in life. Every individual has different lifestyle and each lifestyle has its own responsibilities. Everyone has to shoulder the responsibilities and face the challenge of life. This sometimes creates a situation of stress when we are not able to handle the situation as per our requirements or choice.

Stress

In our lives, when we encounter a situation that challenges us, our body and mind react in certain way as a response. This response sometimes helps us get past those events and come out as victors but sometimes this response affects us adversely. This is called stress.

There can be two types of stress - good stress and bad stress.

Good Stress

Good stress helps us to go about our daily task and achieve those hard-to-reach goals. This stress called eustress, helps us learn new things, adapt to change an engage in creative thinking. Everyone experiences good stress on a daily basis. Another form of good stress that enable us to survive in times of trauma. This stress makes us aware of danger and enables us to escape when we need to.

Bad Stress

Bad stress refers to a stress that is ongoing and does not lower down. When one can't stop worrying and is unable to do the required thing in normal way, it is bad stress. Bad stress is overwhelming and prevent one's daily routines also. Bad stress is a negative form of stress and it hinders your progress. It even affects body's immune systems and causes emotional distress too.

Stress Management Techniques

Most common and useful stress management techniques are –

- **Physical Exercise:** Physical exercise can be a key method for bringing you out from stress. Physical exercise not only promotes overall fitness, but also helps you to manage emotional stress and tension as well. Being fit and healthy also increase your ability to deal with stress as it arises.
- **Healthy Diet and Lifestyle:** Healthy eating and physical activities increase the mind and body power in multitude of ways and lower the stress.
- Yoga: Yoga is bringing together the mind, body and spirit. The controlled breathing, mediation, physical asanas and stretching relax us and provide relief from stress and increase productivity.

- **Meditation:** Meditation is one of the most popular techniques to achieve physical and mental relaxation. The meditative state is one in which there is a deep focusing upon the innermost core of one's being. It is practised for 15-20 min in the morning and evenings and is easy to learn.
- Taking Breaks and Good Sleep: Taking break from regular routine is a useful technique of lowering stress, especially if the stress is being caused by work or routine. Small break help in relax and unwind. Sleep is also very important for relaxing and recharging brain, so that it is ready to function again the next day.

Tips for Students for Managing Stress

Students are one of the most common victims of stress. Practical stress management can help students to deal with their stress level and become more productive, competent and efficient. Here are a few tips for managing stress –

- Manage time
- Do some exercise and get some air
- Stay positive
- Organize your academic life
- Stop postponing work or task
- Take one step at a time
- Spent time with friend
- Do something which you like

Independent Working

An <u>independent</u> worker usually means someone who does not need to be led by anyone at every step. The people who work independently know that they have to take initiative and act accordingly.

Important things about independent working are:

- Taking initiative rather than waiting to do so
- Take full responsibility of the work
- Ready to do unsupervised work, do not required constant supervision.
- Learning to work at a pace that you can sustain
- Capable of completing the work within stipulated time and budget and that too as per stated objectives and deliverables.

Advantage and Disadvantages of Independent Work

Advantage:

- You can work at your own pace not depending on someone else.
- You can concentrate easier and work easier.
- You get the whole credit for the work you do since you are working alone.
- You get to make your own decisions.

Disadvantage:

- You have to motivate yourself.
- You are the sole person responsible for the job. If you fail, it is your fault.
- You can get bored working all by yourself. There is no one to talk to, share ideas with or ger help from.

• When you are working alone, if you get sick or need to take days off, the work will be delayed because there will no anyone to continue it for you.

Characteristics for Independent Working

- Self awareness
- Self motivation
- Self regulation

Session 2: Self-Awareness

Self-awareness is the ability to see ourselves clearly and objectively through reflection and introspection. If we are self-aware then we can identify our strength and weaknesses. Self-awareness will help you in converting our weakness into strength and strength into an exceptional talent.

Strength and Weakness Analysis

Understanding who we are, what we like or dislike, what are our beliefs, what are our opinions, what is our background, what we do well and what we do not do well are important. It will help us as then only we can actually measure our strengths and weaknesses.

Techniques for Identifying Strengths and Weaknesses:

- > Finding Strength (or abilities)
 - Think of anything that you are always successful at.
 - Think about what others like in you.
 - Take out time and think about what you do well.
 - Find what makes you happy and you do with perfection.
 - Find what you enjoy doing and do it well.

➤ Finding Weaknesses

- Find those areas where you struggle and the things you find difficult to do.
- Listen to the feedback given by others for you.
- Be open to feedback and accept your weaknesses without feeling ashamed.
- Motivate yourself and note the area of improvement.

Types of Self – awareness

- Internal self-awareness is about focusing on your inner values. The emotions, values, goals, aspirations, everything which we posses in our inner feelings. Any self-aware person can introspect the inner values. This makes them aware of their behaviours and emotions. One can even manage their feeling and control them if they are aware of what bother them.
- External self-awareness deals with our feelings and behaviours with others. It is the ability to look at others. This awareness helps you decide what others think about you. If you can judge whether a person is happy with you or not, then you have better external self-awareness.

Session 3: Self – Motivation

Self-motivation is the force inside us that drives us to do things. Self-motivation is what forces us to achieve our goals, feel happy and improve our quality of life. It is our ability to so the things that need to be done without others or something influencing us. Self-motivation is our internal drive to achieve, produce, develop, and keep moving forward. When we think we are ready to quit something, or we just do not know how to start, your self-motivation is what pushes on.

Types of Motivation:

- **Intrinsic motivation:** This is the force that leads us to achieve a goal because of personal satisfaction or desire. Examples are:
 - Setting up our own business.
 - Participating in a competition.
- Extrinsic motivation: This is the driving force that drives us to achieve your goal, such as:
 - Money
 - Prize

Session 4: Self-Regulation (Goal Setting)

Self-regulation is concerned with how you control and manage yourself your emotions, your inner resources, and abilities. It also includes your ability to manage your impulses.

Goals Setting:

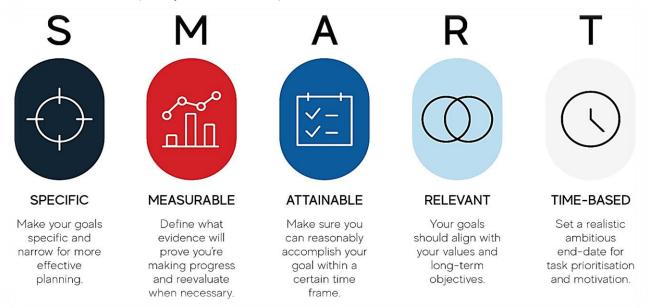
Goals are those dreams that you want to achieve in life but these dreams have a deadline to get them, i.e. saving pocket money to buy a favourite mobile phone by a particular date.

Goal setting is the process of planning and taking active step to achieve the desired outcome. Setting goal is not enough, rather goals should so chosen that it should be achievable.

SMART Goals:

SMART is an acronym used for goal setting. To make sure that the chosen goals are clear and reachable, they should be SMART, i.e.

- Specific (simple and sensible)
- Measurable (meaningful)
- Achievable (attainable)
- Relevant (reasonable, realistic and resourced, result-based)
- Time bound (timely, time-sensitive)



Session 5: Self – Regulation (Time Management)

Producing expected results in a timely manner determines the success of our effort. Time management is an extremely important self-management skill that makes an individual more productive. Time management helps you to accomplish your goals and reduce work-related stress. "Time management" is the process of organizing and planning how to divide your time between specific activities.

Significance of Time Management:

- It improves performance.
- It delivers better work quality.
- Timely delivery. Brings more efficiency.
- Reduce Stress.

Multiple Choice Questions (1 Marks):

Q1. Stress is identified as a condition in which a person is		
A) Tensed	C) Both of these	
B) Worried	D) None of these	
Q2 refers to human efforts for maintain	ning healthy body and mind.	
A) Stress Management	C) Self-Regulation	
B) Self-Motivation	D) None of these	
Q3. Issues related to health of an individual can lead to low	self-esteem and cause	stress.
A) Financial	C) Mental	
B) Emotional	D) Physical	
Q4. Stress management prevents	·	
A) Psychological disorders	C) Both of the above	
B) Behavioural problems	D) None of the above.	
Q5. Self-Reliance means		
A) Ability to work independently	C) Both of these	
B) Complete the task effectively	D) None of these	
Q6. The feeling of self-awareness enhances our		
A) Self-confidence	C) Self-Regulation	
B) Self-monitoring	D) All of the above	
Q7. Which of the following is not a kind of self-awareness?		
A) Knowing your Strength	C) Knowing your relatives	
B) Knowing your flaws	D) Knowing your weakness	
Q8 is not a step for effective time man	agement.	
A) Priorities	C) Track	
B) Controls	D) Postponing things	
Q9. What is one common time management mistake?		
A) Procrastination	C) Taking Breaks	
B) Manage Distractions	D) Scheduling Task	
Q10. What does the 'S' in SMART goals stand for?		
A) Smart		
B) Strategy		
C) Stupid		
D) Specific		

Answers:

Q1. C) Q2. A) Q3. D) Q4. C) Q5. C) Q6. A) Q7. C) Q8. D) Q9. A) Q10. D)

Very Short Answer Questions (2 Marks):

- Q1. What is stress?
- Q2. What are some commons signs and symptoms of stress?
- Q3. What is self-motivation?
- Q4. What are types of self-motivation?
- Q5. What is time management?

Short Answer Questions (3 Marks):

- Q1. What are some common signs and symptoms of Stress?
- Q2. Why is time management so important?
- Q3. What are the consequences of poot time management?
- Q4. How does exercise or physical activity affect our brain, mind and body?
- Q5. What questions should one ask while setting a specific goal?

Long Answer Questions (4 Marks):

- Q1. What is S.M.A.R.T goal setting? Explain each letter meaning in S.M.A.R.T.
- Q2. Discuss the four steps of effective time management.
- Q3. What is self-motivation? What are types of self-motivation? How can one stay self-motivated?

Unit 3: ICT Skills

Topic: Information and Communication Technology

Sub-Topics:

- **✓** Basic Computer Operations
- **✓** Performing Basic File Operations
- ✓ Computer Care & Maintenance
- ✓ Computer Security & Privacy

Basic Computer Operations

Hardware and Software:

A computer system consists of two main parts:-

- **1. Hardware** The physical parts that we can see and touch are called hardware. It is the machinery of a computer. These are the keyboard, monitor, CPU, etc.
- 2. Software: The part which cannot be seen but it makes hardware to work. Example: Windows, MS office etc. Operating System (OS) is the software that starts working as soon as we switch on a computer. It displays the desktop on the monitor. Some of the most commonly used operating systems for laptops and desktop are Ubuntu, Microsoft Windows and Mac OS. An operating system is a software that serves as an interface between the user and computer.

Functions of an Operating System:

- **Memory Management** Keeps track of the primary memory, i.e. what part of it is in use by whom, what part is not in use, etc. and allocates the memory when a process or program requests it.
- **Processor Management** Allocates the processor (CPU) to a process and deallocates the processor when it is no longer required.
- **Device Management** Keeps track of all the devices. This is also called I/O controller that decides which process gets the device, when, and for how much time.
- File Management Allocates and de-allocates the resources and decides who gets the resources.
- **Security** Prevents unauthorized access to programs and data by means of passwords and other similar techniques.
- Job Accounting Keeps track of time and resources used by various jobs and/or users.
- Control Over System Performance Records delays between the request for a service and from the system.
- **Interaction with the Operators** Interaction may take place via the console of the computer in the form of instructions. The Operating System acknowledges the same, does the corresponding action, and informs the operation by a display screen.
- Error-detecting Aids Production of dumps, traces, error messages, and other debugging and error-detecting methods.
- Coordination Between Other Software and Users Coordination and assignment of compilers, interpreters, assemblers, and other software to the various users of the computer systems.

Types of Operating System:

• Single-User, Single Task Operating System:

These operating systems work on single task & single user at a time.E.g. DOS

• Single-User, Multi-Task Operating System:

These operating systems works on more than one task and process them concurrently at a time. E.g. windows 95 or later version of windows

• Multiuser Operating System:

In these OS, multiple users are allowed to access the same data or information at a time via a network. E.g. Unix,Linux,Windows7.

• Multiprocessing Operating System:

Here, a single process runs on two or more processors. All the processing and their management takes place in a parallel way, hence this OS are also called as Parallel Processing. E.g. Linux, UNIX and Windows 7.

• Embedded Operating System:

These are embedded in a device, which is located in ROM.E.g. OS of microwaves, washing machine.

• Distributed Operating System:

In these OS, the computers work in co-operation with each other

Components of a Windows Desktop:

- 1) Desktop: The first screen that appears on the monitor is called desktop.
- 2) Wallpaper: A picture for the desktop background is called wallpaper.

- 3) Icons: Small pictures on the desktop are called icons.
- 4) Taskbar: The long bar at the bottom of the desktop is called taskbar. The main components of Taskbar are: Start button, Active applications, Notification Area, Date/Time icon

Some of the commonly used icons are:

- 1) Computer: It displays all storage areas of the computer. Through the Computer icon, you can access all drives, files and folders on the computer.
- 2) Recycle Bin: Files and folders deleted by the user are stored in the Recycle Bin. From Recycle Bin, you can retrieve files or folders deleted by mistake.

Starting a Computer:

To start a computer, press the Power button on the CPU. This will start the operating system and display the desktop on the monitor. Basic Functions performed when a computer starts a computer automatically runs a basic program called BIOS (Basic Input/Output System) as soon as it is switched on or the power button is pushed on. The BIOS first does a self-test. If the self-test shows that the system is fine, the BIOS will load the Operating System.

Login and Logout

When you login to the computer with your login-ID and password (as shown in Figure 3.5), the computer knows that you are an authorised person and allows you to work on the applications in the computer.

• Shutting Down a Computer

You can shut down the windows computer clicking Star button at the bottom left corner and then click Shut Down. When you click Shut down, the Operating System will close all the applications and turn off the computer.

• Using the Keyboard

A keyboard is an input device used to type text, numbers and commands into the computer.

Function Keys: Keys labelled from F1 to F12 are function keys. You use them to perform specific functions.

Other keys are:

- (a) Control keys: Keys, such as Control (CTRL), SHIFT, SPACEBAR, ALT, CAPS LOCK and TAB, are special control keys
- (b) Enter key: The label on this key can be either ENTER or RETURN, depending on the brand of computer that you are using. You use the ENTER or the RETURN key to move the cursor to the beginning of a new line.
- (c) Punctuation keys: Punctuation keys include keys for punctuation marks, such as colon (:), semicolon (;), question mark (?), single quotation marks (''), and double quotation marks ("').
- (d) Navigation keys: Keys, such as the arrow keys, HOME, END, PAGE UP, and PAGE DOWN are navigation keys.
- (e) Command keys: Keys, such as INSERT (INS), DELETE (DEL), and BACKSPACE are command keys. When the INSERT key is turned ON, it helps you overwrite characters to the right of the cursor
- (f) Windows key: Pressing this key opens the Start menu.

Using a Mouse

It is a small device that you can use to move, select and open items on your computer screen.

Roll Over or Hover: Some actions can be done by simply rolling over or hovering over an item. When you bring the mouse over a file in File Explorer, it will show the details of that file.

Point and Click: As you move the mouse on your desk, a pointer moves correspondingly on your screen. When you click a particular file, it gets selected.

Drag and Drop: To move an item, you need to click it, and then holding the mouse button down, move the item to a new location. After you move the item to the new location, you release the mouse button. This is called drag and drop.

Double-click: Double-clicking means to quickly click the left mouse button twice. When we double-click on a file, it will open the file.

Performing Basic File Operations

Files and Folders

A folder is a location where a group of files can be stored. Everything you store on your computer is stored in the form of a file. File system is a way in which you give name to a file, store it and retrieve it. Files can be separately placed into groups, called folders/directories All information stored in a computer is kept in files. Each file is given a file name and has a file name extension that identifies the file type. Example: .txt, .jpg, .mp3.

Creating a folder:

The steps to create a new folder are:

- ❖ Double-click the Computer icon.
- Select the drive in which you want to create a new folder.
- Click New Folder on the toolbar.
- ❖ Type a name for the folder & Press Enter key.

Or

- * Right-click anywhere in the blank area of the right column. A shortcut menu appears.
- Select New Folder from the shortcut menu.
- ❖ Type a name for the folder & Press Enter key.

Creating a file:

Steps to create new file are:

- * Right-click anywhere in the blank area.
- ❖ In the Shortcut menu, click New and select the type of file you want to create.

Renaming folders and files:

- * Right-click the file or the folder.
- From the shortcut menu, select Rename option.
- ❖ Type the new name or edit the existing name and press the Enter key.

Or

- Select the file/folder and press function key F2.
- ❖ Type the new name or edit the existing name and press the Enter key.

Deleting files or folders:

- Click the file or the folder.
- Press the Delete key from the keyboard.

Or

❖ Right-click and select Delete option from the Shortcut menu

Copying Files and folders:

Method 1:

Right-click the file or the folder you want to copy.

- Select Copy option from the Shortcut menu.
- Select the drive or the folder where you want to make a copy of the selected file or folder.
- * Right-click and select Paste option from the Shortcut menu

Method 2: Drag & Drop Method

To copy a file or a folder, hold down the Ctrl key while copying (by dragging and dropping) it to the new location.

Method 3: Using Keyboard

- Select the file or the folder.
- ❖ Press Ctrl + C to copy the file or the folder.
- Open the destination folder.
- ightharpoonup Press Ctrl + V to paste the copied file.

Moving Files and folders:

Method 1: Shortcut menu

- Right-click the file or the folder you want to copy.
- Select Cut option from the Shortcut menu.
- Select the drive or the folder where you want to move the selected file or folder.
- * Right-click and select Paste option from the Shortcut menu.

Method 2: Drag and Drop method

To move a file or a folder, select the file and drag it to a new location.

Method 3: Using Keyboard

- Select the file or the folder.
- ❖ Press Ctrl + X to cut the file or the folder.
- Open the destination folder.
- ightharpoonup Press Ctrl + V to paste the copied file.

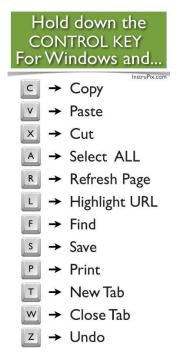
Permanently Deleting Files:

- * Right-click the Recycle Bin icon
- Click Empty Recycle Bin.

Restore Files/Folder from Recycle Bin:

* Right-click the file, and then click Restore Or Select the file and click Restore this item.

Basic Shortcut Keys:



Computer Care and Maintenance

Computer systems require maintenance so that the system works efficiently. Poor maintenance may lead to system failure. Regular care and maintenance may help you detect any issues at an early stage and keep it functioning well. Computer virus can cause damage to the working of the computer. If anti-virus is installed in the computer, and is updated and run periodically, then any loss of data can be prevented. Both internal and external parts of the computer system should be taken care of.

- Keep the computer dust free.
- Do not eat or drink while working on the computer.
- To keep the keyboard clean, make sure your hands are clean before using it.
- CDs and DVDs should be handled carefully so that they do not get damaged.
- Keep keyboard covered when not in use.

General precautions to be taken while cleaning the computer components are:

- Always Power Off the computer system before cleaning.
- Never spray cleaning fluid directly on the component of the computer.
- Do not allow the cleaning liquid to drip near the circuit board
- Regular maintenance of the computer system is very important.

Some of the maintenance activities are:

- Run anti-virus periodically.
- A regular disk defragmentation should be done to remove all unnecessary information that slows down the computer
- Take regular backup of the data on your computer.
- System should be upgraded like increasing RAM, storage space.
- Temporary internet files should be deleted from time to time.

Basic Tips for Taking Care of Devices

- Keyboard: You can clean a keyboard with a soft brush
- Screen: You can wipe the screen with a soft cloth to remove any finger marks.
- Handle devices carefully: Handle and move your laptop carefully and avoid dropping or banging it against a hard surface.
- Keep the computer cool: If a computer, laptop or mobile device gets overheated, the internal parts can be damaged. The CPU has an internal fan to keep it cool. We should make sure the fan is functioning.
- Do not overcharge your battery: Sometimes we keep a device plugged in for charging even after it is fully charged. This reduces the battery life. Always unplug the device once it is charged 100%.
- Always plug in devices carefully: Any device being connected to a laptop or computer such as a USB drive or headphones, should be done gently. It should not be forced into the port.
- Do not run too many programs at a time: When too many programs are running at the same time, the computer can become slow and even crash.

Prepare a Maintenance Schedule

(a) Daily Maintenance

- i. Clean up your e-mail inbox
- ii. Download e-mail attachments and save in proper folders

(b) Weekly Maintenance

- i. Clean your keyboard
- ii. Clean your monitor

- iii. Dust CPU and printer iv. Backup your data to an external drive
- (c) Monthly Maintenance
- i. Transfer photographs to computer and delete from drive
- ii. Organise photos into folders or albums
- iii. Clean up 'Download' folder
- iv. Uninstall unused programs and apps
- v. Run disk-cleaner software
- vi. Run full system virus scan
- (d) Yearly/Annual Maintenance
- (i) Clean up contacts list on social media accounts
- (ii) Clean up e-mail contact list
- (iii) Update your operating system
- (iv) Check for expiry of anti-virus software and renew

Backup Your Data

Backing up data means to save the information present on your computer on another device, such as CD/DVD drives. Data can be recovered from here in case the computer stops working completely. Computers can crash, humans can make mistakes and natural disasters, such as floods can happen.

Scanning and Cleaning Viruses

Sometimes computer viruses can enter a computer from such attacks we can install anti-virus software. This will prevent any viruses from entering and will also clean any viruses that may enter our system before they affect the data. Increasing Computer Performance If we have been using a computer for a long time, we have a lot of unnecessary files and data, such as temporary files and images. When they use too much hard-disk space, the performance of the computer goes down. It is important that we keep cleaning by removing any extra files.

Removing SPAM from your Computer

Sometimes we get emails from companies who are advertising a product or trying to attract you to their website. Such mails are called SPAM. We should never respond to SPAM and delete it on a regular basis.

Computer Security and Privacy

A computer virus is a software program that attaches itself to other programs and alters their behaviour. VIRUS is an acronym for Vital Information Resource Under Seize. A virus may get attached to e-mail messages and spread from one computer to another. To prevent our computer from virus, we should install anti-virus software, run it periodically and keep it updated. examples of antivirus software are McAfee Virus Scan, Norton Antivirus, Microsoft Security essentials, and Quick Heal.

A computer can get infected with virus in any of the following ways:

- Infected files
- Infected pen drives
- Infected CD-ROMs/DVD-ROMs
- Through infected file attachment of e-mails

A computer virus cannot do the following:

- It cannot infect files on CD or DVD, if they are closed for writing.
- It cannot infect computer hardware like, keyboard, mouse, etc.

Common signs of a virus attack are:

- Computer runs very slow
- There is change in the file size
- Computer often stops responding

- There is an increase in number of files (unusual)
- Unusual error message appears on the screen
- Computer restarts on its own

Threats to Computer:

Threats are the ways in which personal information can be leaked from a computer without our knowledge.

- (a) Theft: Theft means stealing of information or hardware. These may be of three types:
- Physical: Where a person may steal your desktop computer or laptop.
- Identity: Where a hacker steals your personal information and assumes your identity. Using this false identity, the hacker can gain access to your account information or perform illegal activity.
- Software Piracy: This is stealing of software and includes using or distributing unlicensed and unauthorised copies of a computer program or software.
- (b) Virus: Viruses are computer programs that can damage the data and software programs or steal the information stored on a computer. Major types of viruses are Worms and Trojan Horse. Worms are viruses that replicate themselves and spread to all files once they Information and Communication Technology Skills 81 attack a computer. This makes it very difficult to remove them. A Trojan Horse disguises itself i.e., it appears to be a useful software program but once it reaches a computer it starts behaving like a virus and destroying data.
- (c) Online Predator: Online predators are people who trap you into inappropriate relationships. They may be older people posing to be your age, bullying you into doing illegal activities online and sometimes face to face.
- (d) Internet Scams: Sometimes you may receive very attractive offers saying you have won huge money in a lottery and that you can claim the prize by depositing a certain amount of money. When you deposit the money using credit card or online banking, you not only lose the deposit money but your card/account information may be misused later.

The following points should be kept in mind to prevent virus infection

- Keep anti-virus software updated.
- Scan all the files that you download from the Internet
- Do not open e-mails of an unknown person/sender
- Don't allow any untrustworthy person to use your system.

Protecting your Data

- (a) Use passwords to login to your computer: Use passwords that are difficult to guess. Passwords are difficult to hack if they are a mix of small (For example 'a b c d') and capital letters (For example, 'H J E R'), numbers (For example '8 7 6 5') and special characters (For example, '% $^{#}$ \$'). This would prevent unauthorised people from using your computer.
- (b) Install Anti-virus and Firewall: Anti-viruses and Firewall monitor the data coming in and out of a computer and prevent and viruses from entering. Anti-viruses can also detect and clean viruses that may have entered a computer.
- (c) Encrypt Data: This is usually done by banks and companies in which important customer information is stored. They can encrypt their entire hard disk using the encrypting feature in Windows (Bitlocker). This would force users to use a decryption password (or key) before starting the computer thus preventing unauthorised usage.
- (d) Secure sites: Give details of your credit card or bank account only on secure sites. See in the address bar of the browser. If the site address starts with https://and a lock symbol, then it is safe to give your credit card and bank details.

Temporary Files:

Temporary files are created when you are running computer programs. Microsoft Windows and Windows programs often create a .TMP file as a temporary file. Temporary files are also created by web browsers to store your web browser history. These temp files take up a large amount of disk space so should be removed to clear space.

Firewall:

Computer firewall could be a programmable device or a software or a network security system that monitors and controls incoming and outgoing network traffic based on user-defined security rules.

Cookies:

Cookies are small files which are stored on a user's computer when you visit a website on the internet. These files typically contain information about your visit to the webpage or record your login information. This may not always be bad. For example, if you are exploring an online shopping website, most of the online retailers use cookies to keep track of the items in a user's shopping cart, otherwise, your shopping cart would be reset to zero every time you click on a new link on the website.

<u>MCQs</u>	
1. The concept of ICT refers to	
A) storing digital information.	
B) recording digital information.	
C) sending digital information	
D) All of the above	
2. Deleted files and folders are stored in	
A) Recycle bin	
B) My Computer	
C) Control Panel	
D) None of the above	
3. Which icon allows the user to access all drives, files, and folders on the co	mputer.
A) Recycle Bin	
B) Computer	
C) Application	
D) Start button	
4.The first screen that appears on monitor after loading OS is called	
A) Icons	
B) Desktop	
C) Wallpaper	
D) None of the above	
5. Software piracy refers to	
A) Stealing software and distributing the unlicensed copies	
B) Opensource software	
C) Gain access to a website and perform illegal activity	
D) Selling software online with a proper license key	
6. Choose the strong password out of the following:	
A) 12345	
B) Aprfd@2024	
C) hello123	

- 7. Rakesh received an email and was informed about the lottery for winning a huge amount. This type of activity is considered as............
- A) Trojan Horse

D) password

- B) Online Predator
- C) Internet Scams
- D) Encryption
- 8. Which of the following trap small children into inappropriate relations?
- A) Online predators

- B) Worms
- C) Trojan Horse
- D) Anti-Virus

9. DOS stands for

- A) Disk Operating System
- B) Dot Operating System
- C) Disk Open System
- D) Disk Operating Secure

10. Regular maintenance of the system includes

- A) installing updates of the software
- B) check the security of the system
- C) taking backups of important files and documents
- D) All of the above

11. Which of the following functions is not performed using a mouse?

- A) Turn on
- B) Hover
- C) Right-click
- D) Drag and Drop

12. Which one of the following shortcut keys is used to paste a file?

- A) Ctrl + c
- B) Ctrl + p
- C) Ctrl + v
- D) Ctrl + x

13. What happens if you leave a device plugged in even after it is charged 100%?

- A) It can break.
- B) It can stop functioning.
- C) It can overheat.
- D) Data can get corrupt.

14. Which option is not required to keep a device cool?

- A) Keep the device unplugged when in use.
- B) Do not cover a laptop with a blanket.
- C) Make sure the computer's CPU fan is working.
- D) Avoid leaving the device in the sun.

15. What should a strong password consist of?

- A) Only letters
- B) Numbers and special characters
- C) Name of a person
- D) Letters, numbers and special characters

Very Short Answer Questions (2 Marks)

- 1. What is the function of the ENTER key?
- 2. Differentiate between hardware and software?
- 3. Differentiate between Multi user operating system and Multiprocessing operating system?
- 4. What a computer virus cannot do?
- 5. How can you restore a file from recycle bin?

- 6. What are navigation keys?
- 7. Who are online predators?
- 8. What are temporary files?
- 9. Why should we never respond to SPAM?
- 10. What is the purpose behind keeping backup of data?

Short Answer Questions (3 Marks)

- 1. How will you prevent others from using your computer?
- 2. How is a computer file system similar to our physical file system in a school?
- 3. Explain how to clean a computer on a daily basis.
- 4. Explain how the Trojan Horse virus works.
- 5. What can a hacker do with your identity?

Long Answer Questions (4 Marks)

- 1. List the various ways you can use to protect your data.
- 2. What are the ways to prevent virus infection?
- 3. What are the General precautions to be taken while cleaning the computer components?
- 4. Write any four functions of an Operating System?
- 5. Explain the components of a Windows Desktop?

UNIT - IV ENTREPRENEURIAL SKILLS- II

UNIT 4: ENTREPRENEURIAL SKILLS- II

LEARNING OUTCOMES	THEORY	PRACTICAL		
List the characteristics of successful entrepreneur	Entrepreneurship and society Qualities and functions of an entrepreneur Role and importance of an entrepreneur Myth about entrepreneurship	Writing a note on entrepreneurship as career option Collecting success stories of first generation and local entrepreneurs Listing the entrepreneurial qualities – analysi of strength and weaknesses Group discussion of self-qualities that studen feel are needed to become successful entrepreneur		
	Entrepreneurship as a career option	Collect information and related data for a business Make a plan in team for setting up a business		

Topics & sub-topics

Topics	Sub-topics
Session 1: Entrepreneurship and Society	
Session 2: Qualities and Functions of an Entrepreneur	 Qualities of an Entrepreneur Functions of an Entrepreneur
Session 3: Myths about Entrepreneurship	Discussion on different misconceptions
Session 4: Entrepreneurship as a Career Option	

Key points from the chapter

- Today, the topic of entrepreneurship is widely discussed, particularly in India. Entrepreneurship is a form of self-employment in which an individual operates a business to meet customer needs while alsolooking for methods to improve the operation in order to increase earnings.
- Markets are where entrepreneurs operate their firms. Both buyers and sellers of goods and services canbe found in the market. Everyone benefits when people buy and sell from one another because everyoneinvolved makes money. This is how businesspeople contribute to the development of their communities and society.
- Qualities of an entrepreneur are: Confident, Patient and Creative
- There are certain misconceptions about entrepreneurs: (a) The misconception is that every business ideaneeds to be unique or special. (b) The misconception we have is that a person needs a lot of money to start a business. (c) A misconception we have is that only a person

Multiple Choice Questions (MCQs)

QNo	Questions
1	Which statement is wrong for successful entrepreneurs? (a) They do not believe in themselves and their abilities. (b) They are creative and think differently about business ideas. (c) They take responsibility for their actions. (d) They are confident.
2	Anis a person who is self – employed, is willing to take a calculated risk and brings in a new idea to start a business. (a) Software Engineer (b) Entrepreneur (c) Civil Engineer (d) Mechanical Engineer
3	What do entrepreneurs do when she/he runs their business? (a) Fulfill Customer Needs (b) Use Local Materials (c) Create Jobs (d) All of the above
4	There may be losses at times but even then an entrepreneur should stayand continue to work hard towards their goal. (a) Negatively (b) Positively (c) Both (a) and (b) (d) None of the above
5	Experimenting with many ideas is a quality related to (a) Perseverance (b) Confidence (c) Creativity (d) Trial and error

6.	Susheela decides to sell her company tyres in Sri Lanka. It does not sell and she has a loss. She apologizes to the people who work for her. She says she will plan better next time. She
7.	Rehnuma has two people who work for her. Every day, she spends one hour with them to learn about what they've done that day. (a) Creates a new product (b) Divides income (c) Manages the business (d) None of the above
8.	are people who work for a person or an organization and get paid for that. (a) Self Employed (b) Wage employed (c) Both of the above (d) None of the above
9.	The money used to start a business is called
	Capital (a) Business Money (b) Start Up (c) None of the above
10.	Which of the following are misconceptions about Entrepreneur. (a) Entrepreneur are born, not made (b) A person having a big business is an entrepreneur. (c) A person needs a lot of money to start a business. (d) All of the above
11.	Which of the following is a disadvantage of entrepreneurship as a career? (a) Uncertainty (b) Independence (c) Ambition fulfillment (d) None of the above
12.	The decision-making function of an entrepreneur includes: (a) Hard Work (b) Risk bearing (c) Utilisation of financial resources (d) All of the above
13.	'An entrepreneur has to get the work done through other.' Which characteristic of the entrepreneur does this statement depict? (a) Motivator (b) Organiser (c) Innovator (d) All of the above

14.	Ravi's customer comes to his store and starts shouting at him. He does not get angry. He listens to what his customer is saying. He is
15.	When many entrepreneurs sell mobile phones in a market, the prices of phones increase.(True/False) (a) False (b) True
16.	Which of these is not a business activity? (a) Service (b) Manufacturing (c) Creativity (d) Merchandising
17.	Amul (White revolution in India) is an example of which of these business enterprises (a) Sole proprietorship (b) Partnership (c) Cooperative society (d) Joint stock company
18.	Hybrid is a type of business/company which (a) Provides products with no physical form
	(b) Is a buy and sell business(c) Is a mixed type of business(d) None of these
19	Which one of these is not a step to start a business? (a) Business idea (b) Getting money and material (c) Understanding customer needs (d) Trade services
20	Mary buys bulbs for her business from Noida. She learns that bulbs are cheaper in Faridabad. So, she decides to start buying bulbs from there. Select the correct business activity. (a) Makes decisions (b) Divides income (c) Takes risk (d) Makes new product
21	Besant deals in groceries. In his business he should always be : a) Arrogant b) Polite c) Greedy d) profitable

22	If two partners start a business, and one only invests in business, then that partner is called:
	a) Sleeping partner
	b) Idle partner
	c) Inactive partner
	d) Dormant partner

Answers to MCQs

1. (a)	2. (b)	3. (d)	4. (a)	5. (c)	6. (a)	7. (c)	8. (b)
9. (a)	10. (d)	11. (a)	12. (c)	13. (a)	14. (c)	15. (a)	16. (c)
17 (c)	18 (c)	19 (d)	20 (a)	21 (b)	22 (a)		

Very Short Answer Questions (2 Marks)

QNo	Questions
1	Give some advantages of entrepreneurship as a career.
2	What is wage employment?
3	What are the different ideas entrepreneurs add?
4	What is self employment?
5	Write against the option, if the business idea is of self-employment or wage employment. (a) Cooking in a restaurant (b) Owning a clothing business (c) Having a dosa selling stall
6	Name the term used for a false belief or opinion about something.

Answer to Very Short Answer Questions (2 Marks)

QNo	Answers
1	Advantages of entrepreneurship are Independence, ambition fulfillment, excitement, freedom,
	wealth creation and status.
2	Wage management is based on work grades and performance parameters. Wage management's goal is to take reward and give high performance standards in the business.
	The wage management does not take too much risk but entrepreneurs have to take risks.
3	New ideas with which an entrepreneur adds varieties of product, new services, cost reduction ideas, or new marketing techniques.

4	Self Employment – An entrepreneur is a self-employed individual who runs a business to meet a need by experimenting with new ideas. i. Enter – When an entrepreneur first starts business, they are simply getting their feet wet in the business world. ii. Survive – There are a lot of entrepreneurs around nowadays. In a competitive market, the entrepreneur must remain competitive. iii. Grow – An entrepreneur considers growing his or her business once it has reached a certain level of stability.
5	(a) Wage Employment(b) Self Employment(c) Self Employment
6	Myth or Misconception term used for a false belief or opinion about something.

Short Answer Questions (3 Marks)

QNo	Questions
1	Do you think an entrepreneur is innovative by nature? Discuss.
2	What is the difference between a misconception and reality? Give an example. Ans. The difference between misconception and reality are:
3	What are the misconceptions of Entrepreneurship?
4	Write the positive impact of Entrepreneurship on society.
5	How entrepreneurship contributes to a country's economy?
6	Entrepreneurs act as "Agents of change". Explain the statement.
7.	What adverse impact is created by entrepreneurship on society?

Answer to Short Answer Questions (3 Marks)

QNo	Answers
1	An innovative entrepreneur is a person who discovers totally new things. An innovative owner is a person who creates innovative products and services. An innovative entrepreneur is a person who innovates the business processes in his business. An innovative person is a person who is not afraid to take a risk.
2	Misconception: A myth, or a misconception, is a false belief or opinion about something. For example, if we think tall people run faster than short people, we have a misconception. It is not
	true. The truth is that short people can also run fast. Reality : Reality means the things which actually exist. It may happen that it appears or nor. You may have unnoticed it but in actuality it exists. In other words, reality is all the things which have real existence irrespective of appearance or not.

3	 Misconceptions of Entrepreneurship are – It is a common misconception that every company idea must be unique or exceptional. A person needs a lot of money to start a business. Entrepreneurs are born, not made. A person having a big business is an entrepreneur.
4	Entrepreneurship has some positive impacts on society. These are: • Accentuates Economic Growth • Fosters Creativity • Stimulates Innovation and Efficiency • Creates Jobs and Employment Opportunities • Solves the problems of the society • Encourages welfare of the society
5	Entrepreneurship contributes to the country's economy are: (i) Entrepreneurship creates wealth (ii) Contribute to the growth of the overall economy by stimulating the growth of related business. (iii) Regional Development. (iv) GDP and Per capita income. (v) Exports
6	Entrepreneurs act as 'Agents of Change' as they identify opportunities, solve problems, offer effective solutions, establish enterprises, set up industries, and bring positive change for the economy.
7.	Adverse impacts created by entrepreneurship on society are (a) Environmental degradation, (b) Trade imbalance, (c) Labour exploitation etc.

Long Answer Questions (4 Marks)

QNo	Questions					
1	List the ways in which an entrepreneur affects a society. Ans. The ways in which an entrepreneur affects a society are:					
2	What do entrepreneurs do when they run their business?					
3	Discuss the importance of entrepreneurship ?					
4	Write the Pros and Cons of being an entrepreneur.					

QNo	Answers
1	Fulfill Customer Needs: Entrepreneurs find out what people want. Then, they use their creativity to come up with a business idea that will meet that demand. Use Local Materials: Entrepreneurs use the material and people available around them, to make products at low cost. Help Society: They make profits through activities that benefit society. Some entrepreneurs work towards saving the environment, some give money to build schools and hospitals. This way, the people and area around them becomes better. Create Jobs: With the growth of a business, entrepreneurs look for more people to help them. They buy more material, and from more people. The also hire more people to work for them. Sharing of Wealth: As entrepreneurs grow their business, the people working for them and in related businesses also grow. Lower Price of Products: As more entrepreneurs sell the same product, the price of the product goes down. For example, when more mobile phones were getting sold in India, the cost of the phone became lesser.
2	Fulfill Customer Needs – A product or service that people want is referred to as demand. Entrepreneurs discover what people desire. Then students use their imaginations to come up with a business plan to address that demand.
	Use Local Materials – Entrepreneurs produce low-cost items by using the materials and people available to them.
	Help Society – Entrepreneurs have a good interaction with the general public. They gain moneyby doing things that help society. Some business people donate money to create schools and clinics, while others work to save the environment.
	Create Jobs – They buy more material, and from more people. They also hire more people to work for them. In this way, more people have jobs.
	Sharing of Wealth — Wealth means having enough money to live a comfortable life. As entrepreneurs grow their business.
	Lower Price of Products – The price of a product decreases when more entrepreneurs sell the same thing. In India, for example, as more mobile phones were sold, the cost of the phone decreased.
3	Ans. If we go through the business history of India, we come across many names who have emerged as successful entrepreneurs, like Tatas, Birlas, Dalmia, Modi, Ambani etc. These business houses started as small scale enterprises and have made their name in the list of industrialists of world fame. The success of small enterprises and their growth to leading industrial houses can be attributed to entrepreneurs themselves. Thus, it is important to understandthe success story of such entrepreneurs. There are definitely some common personal characteristics in entrepreneurs. The entrepreneur is in essence an institution which comprises of all people required to perform various functions. The task of such people is to innovate, adjust orcombine various factors of production, and expand on account of change in demand and market conditions. They must acknowledge the opportunities and must also be in a position to make

opportunities out of a given situation. (i) It give Freedom: An entrepreneur is himself a boss or owner and he can take all the decisions independently. (ii) It can be Exciting: Entrepreneurship can be very exciting with many entrepreneurs considering their ventures highly enjoyable. Every day will be filled with new opportunities to challenge your determination, skills and abilities. (iii) It Allows to Set your own Earnings: The principal focus of entrepreneurship is wealth creation and improved livelihood by means of making available goods and services.

Entrepreneurial ventures generate new wealth. New and improved products, services or technology from entrepreneurs, enable new markets to be developed and new wealth to be created. (iv) If offers Flexibility: As an entrepreneur you can schedule your work hours around other commitments, including quality time you would spend with your family. (v) Status: Success in entrepreneurship brings a considerable fame and prestige within the society. (vi) It offers Ambition-fulfillment: Through entrepreneurship one can fulfill his ambitions into original products or services.

4 PROS:

- Freedom: There's no denying that one of the best parts of being an entrepreneur is the complete freedom you have to do your own thing. No more bosses to report to, or managers peering over your shoulder now you've gone from the bottom all the way to the top. You are the boss.
- > Flexibility: Many people are excited to work for themselves because it means they can work when they want and where they want. Your commute could be as simple as walking to the couch or taking a stroll to the local coffee shop.
- ➤ Control: Many budding entrepreneurs value control. Getting your own venture off the ground requires heavy lifting but at the end of the day, it's your dream and you are in control of making it happen. Having influence over the direction of the company is one of the most exciting parts of being an entrepreneur.
- ➤ Profits: Instead of making others richer, now your profits can slide right into your own pocket. This means each business success becomes your success, and as your business grows, so does your potential income. This can be incredibly motivating for many new entrepreneurs on the path to success.

CONS:

- Responsibility: Not only is the future of your business in your hands but so is your next paycheck. Moving away from a salaried job to an unstable income is hard. There is great sacrifice that comes from starting your own business, and while the pay-off may be worth it, carrying the weight of responsibility can be difficult at first.
- ➤ Risk: As the business owner, you will take on much of the risk associated with starting a new venture. This means, instead of your employer taking the fall, you're often risking your savings, time and effort to get your business off the ground.
- ➤ Workload: It takes serious hustle to get a new business up and running, and for the most part, you'll be doing all the grunt work especially in the early stages. All the heavy lifting can be hard for one person to manage. While it can be an exciting time, full of possibility, it can also be exhausting.
- Limitations: The idea of running your own business can be very different to the reality. From late nights to lonely weekends, being an entrepreneur is not without its challenges. You can also find it quite limiting in the early stages, without the funding of a big name or well established business behind you.

Scoring Tips for the Chapter

- Try to answer pointwise to the best extent possible.
- ❖ 1 MCQ and 1 Two-mark question are likely to be asked from this unit.
- ❖ Employability Skills NCERT book must be read thoroughly by the students.

<u>UNIT - V</u> GREEN SKILLS - II

Topics & sub-topics

Topics	Sub-Topics		
Session 1 Sustainable Development	Sustainable development		
	Importance of sustainable development		
	Dimensions of sustainable development		
	Problems related to sustainable development		
	Sustainable development goals		
	• Measures taken for implementing SDGs in India		
Session 2: Our role in sustainable	Our role towards sustainable development		
development	Sustainable cities and communities		
_	Measures for overcoming challenges in		
	sustainable development		

SUSTAINABLE DEVELOPMENT

Sustainable development means meeting today's needs without harming future generations' ability to meet their own needs. It balances economic growth, environmental protection, and social equality, ensuring resources are used responsibly and fairly so that both people and the planet can thrive now and in the future.

4 R'S AND 1 U OF SUSTAINABILITY

The 4 R's of sustainability are Reduce, Reuse, Recycle, and Recover.

Reduce involves cutting down on waste and resource use to minimize environmental impact.

Reuse means using items again to extend their life and avoid waste.

Recycle refers to processing materials to make new products, reducing the need for raw materials.

Recover involves reclaiming valuable materials from waste.

Upcycle (the 1 U) enhances the value of items by creatively repurposing them into higher-quality products, promoting sustainability and reducing waste.

IMPORTANCE OF SUSTAINABLE DEVELOPMENT

Future Preservation: Ensures that resources and the environment are preserved for future generations.

Environmental Protection: Reduces pollution, conserves natural resources, and combats climate change.

Economic Balance: Promotes economic growth while preventing resource depletion and environmental damage.

Social Equity: Ensures fair access to resources and opportunities, supporting social justice and equality.

Informed Actions: Encourages students to adopt responsible behaviors and make informed decisions for a sustainable future.

Global Awareness: Helps students understand global challenges and their role in creating a more sustainable world.

PROBLEMS RELATED TO SUSTAINABLE DEVELOPMENT

Resource Depletion: Overuse of natural resources like water, minerals, and forests.

Pollution: Air, water, and soil pollution impacting health and ecosystems.

Climate Change: Rising temperatures and extreme weather due to greenhouse gas emissions.

Loss of Biodiversity: Habitat destruction leading to species extinction.

Inequality: Unequal access to resources and opportunities affecting social equity.

Key points from the chapter

All facets of our lives are influenced by the environment around us, and all of our daily actions have an impact on the environment as well.

- Environmental contamination has risen over time as a result of economic progress. For instance, the advent of high input agriculture has allowed us to produce more food through the use of fertilizers, pesticides, and hybrid crops. But it has caused the destruction of the soil and the environment. We must arrange the use of resources in a sustainable way so that both we and our children and grandchildren can benefit from the healthy environment.
- Sustainable development ensures the balance between economic progress, environmental protection, and social well-being while meeting the requirements of the present without sacrificing the capacity of future generations.
- Three major problems related to sustainable development are: Food, water and fuel
- The Sustainable Development Goals (SDGs) are a global call to action to eradicate poverty, safeguard the environment, and guarantee that everyone lives in peace and prosperity. The 2030 Agenda for Sustainable Development, which consists of the Sustainable Development Goals (SDGs), was introduced during the United Nations Sustainable Development Summit in New York in September 2015.
- The 17 SDGs were created with the intention of addressing significant issues that affect businesses, governments, and society.
- Natural resource use has increased as a result of population growth and development. We require more food, energy, and water as the population increases. The nutrients in the soil are depleted as we grow more crops, thus making the soil worthless. Similar to this, if we keep using fossil fuels like coal, oil, and natural gas, we will soon run out of these resources.
- We all have to play a very significant role in preserving our resources.

Multiple Choice Questions (MCQs)

1.	Which organization has made the Sustainable Development Goals.				
	(a) United Nations	(b) League of Nations			
	(c) UNICEF	(d) World Health Organisation			
2.	Which of the following is a key principle of sustainable development?				
	(a) Environmental degradation is acceptable for short-term economic gains				

	(b) Conservation of natural resources for fu	(b) Conservation of natural resources for future generations				
	(c) Overexploitation of resources to enhance	e current living	standards			
	(d) Ignoring social equity in development processes					
3.	What is the primary goal of green skills?					
	(a) To increase industrial output					
	(b) To reduce environmental impact					
	(c) To enhance personal wealth					
	(d) To improve technology for military use					
4.	Choose the option which defines sustaina		nt.			
	(a) Taking care of future generations	-				
	(b) Taking care of only ourselves					
	(c) Taking care of ourselves and the future	generations				
	(d) Well-being of all					
5.	In which year SDGs were launched at th	e United Nation	is?			
	(a) 2015 (b) 2013	(c) 2016	(d) 2017			
6.	"Efforts are made to increase the solar po	ower generation	so that our electricity needs			
	are met and at the same time we do not	pollute the env	rironment or use up natural			
	resources". Which SDG can you relate th	nis statement to	?			
	(a) Life on land					
	(b) Clean water and sanitation					
	(c) Affordable and clean energy					
	(d) Reduced inequalities					
7.	is caused when natural	or a man-mad	de disturbance disrupts the			
	natural balance of an ecosystem.					
	(a) Pollution	(b) Damage				
	(c) Natural disaster	(d) Ecological	Imbalance			
8.	Which of the following is not a sustainable development goal according to the United					
	Nations?					
	(a) Reduced inequalities	(b) Population				
	(c) Gender equality	(d) Clean wate	er and sanitation			
9.	What are the problems related to sustainable development?					
	(a) Large population	(b) Poverty				
	(c) Lack of awareness	(d) All of ther				
10.			vable source?			
	(a) Solar energy	(b) Wood				
	(c) Coals	(d) Petrol				
11.		Which of the following is NOT considered a renewable energy source?				
	(a)Solar power	(b)Wind power				
	(c) Natural gas	(d) Hydropow	rer			
12.			ter?			
	(a) Leaving the tap running while brushing					
	(b)Using a dishwasher for washing small lo	oads				
	(c) Collecting rainwater for garden use					
	(d)Taking long showers					
13.	1 0		nt?			
	(a) It has no impact on sustainable develope	ment				

(b)It raises awareness about environmental issues and promotes sustainable practice. (c) It focuses only on economic growth	tices							
(c) It focuses only on economic growth								
(·) - · - · · · · · · · · · · · · · · ·	(c) It focuses only on economic growth							
(d) It encourages resource wastage	(d) It encourages resource wastage							
14. What is the purpose of the United Nations Sustainable Development Goals	(SDGs)?							
(a) To create more environmental problems	(a) To create more environmental problems							
(b) To address global challenges such as poverty, inequality, and climate challenges such as poverty.	inge, and							
ensure prosperity for all								
(c)To increase global conflicts								
(d)To promote unchecked industrial growth								
15. What leads to soil erosion?								
(a) Growing trees (b) Cutting of trees (c) Lighting bulb (d) Playing on grow	(a) Growing trees (b) Cutting of trees (c) Lighting bulb (d) Playing on ground							
16. Our environment can be protected by which of the following:								
(a) Solar Power Plants (b) Waste Water Treatment Plants (c) Electric vehicles	(a) Solar Power Plants (b) Waste Water Treatment Plants (c) Electric vehicles							
(d) All of the above	(d) All of the above							
17. How many sustainable development goals are given by the United Nations?	How many sustainable development goals are given by the United Nations? (a)							
18 (b) 17 (c) 15 (d) 20								
18 is the affordable and clean energy.	is the affordable and clean energy.							
(a) Solar Energy (b) Energy from fossil fuels (c) Both of them (d) None	of them							
19. Which increases consumption of natural resources?	Which increases consumption of natural resources? (a)							
Development of all sectors (b) Increasing Population								
(c) None of them (d) Both a and b								
20. What are the problems related to sustainable development?	What are the problems related to sustainable development?							
(a) Large population (b) Poverty (c) Lack of awareness (d) All of t	nem							

Answers to Multiple Choice Questions (MCQs)

1-a	2-b	3-b	4-c	5-a	6-c	7-d	8-b	9-d	10-a
11-c	12-c	13-b	14-b	15-b	16-d	17-b	18-a	19-d	20-d

Very Short Answer Questions (2 Marks)

Q.no	Questions
1.	What is the meaning of sustainable development?
2.	Describe two benefits of recycling.
3.	Why do you think the United Nations has made the 17 Sustainable Development
	Goals
4.	List some ways in which we can use resources sensibly.

5.	Name some of the eco-friendly fuel alternatives.
6.	Define Social sustainability
7.	Explain the importance of education on sustainable development.
8.	What are the core skills required by a person who wants to contribute towards the
	environment?
9.	What is the role of waste management in achieving sustainable development?

Answer to Very Short Answer Questions (2 Marks)

Q.no	Answers
1.	Sustainable development is the development that satisfies the needs of the present
	without compromising the capacity of future generations, guaranteeing the balance
	between economic growth, care for the environment and social well-being.
2.	Recycling conserves natural resources by reprocessing materials like paper, glass,
	and metals into new products, reducing the need for raw materials. It also decreases
	the amount of waste sent to landfills, which helps lower landfill overflow and reduces
	pollution from waste decomposition.
3.	The Sustainable Development Goals (SDGs) aim to transform our world. They are a
	call to action to end poverty and inequality, protect the planet, and ensure that all
	people enjoy health, justice and prosperity.
4.	We can become responsible for our own environment by
	1. reusing paper, glass, plastic, water, etc.
	2. taking cloth bags to market carrying fruits and vegetables.
5	3. donate things we do not use such as clothes, books, furniture, food, etc.
6.	Solar energy and biogas Social sustainability is the ability of a social system, such as a country, family or
0.	organization to function at a defined level of social well-being and harmony.
7	Education is the most important factors for sustainable development. Children who
/.	have gone to school will be able to do jobs so that they can take care of themselves
	and their families. Education helps us become aware of our role as a responsible
	citizen. We should 1. use the facilities present in our areas. 2. take our friends to
	school. 3. help friends study. 4. stop friends from dropping out of school.
8.	The core skills required by a person who wants to contribute towards the environment
	include environmental awareness and willingness to learn about sustainable
	development.
9.	Renewable energy sources like solar or wind power contribute to sustainable
	development by providing clean, sustainable energy that reduces greenhouse gas
	emissions and reliance on fossil fuels. This helps combat climate change and
	promotes environmental sustainability.
10	Effective waste management plays a crucial role in sustainable development by
	reducing pollution, conserving resources through recycling, and minimizing the
	impact on landfills. Proper waste management supports environmental protection and
	helps maintain a healthy ecosystem.

Short Answer Questions (3 Marks)

Q.no	Questions
1.	The most significant environment problems are related to which type of resources?
2.	Write any three challenges to sustainable development.
3.	How one can save forest from being cut?
4.	What should be done to make efficient use of electricity?
5.	Describe some of the ways to create sustainable cities.
6.	Mention some of the ways to reduce inequality in society.
7.	Name some of the ways in which we can contribute to quality education.

Answer to Short Answer Questions (3 Marks)

Q.no	Answers
1.	The most significant environmental problems are associated with resources that are
	renewable such as air and water. They have a finite capacity to assimilate emissions
	and wastes but if pollution exceeds this capacity ecosystem will deteriorate rapidly
	at a huge pace.
2.	Three challenges to sustainable development are
	(i) Rise in population level would lead to severe environmental degradation in the
	future.
	(ii) Poor management of natural resources combined with growing economic
	activities will continue to pose serious challenges to environment.
	(iii) Due to rise in income, the demands for improvement in environmental quality
	will increase as well as the resources available for investment but it is not mandatory
	in some cases as problems are observed to get worse as income rise.
3.	Save and recycle paper to protect trees from being cut. Do not buy products obtained
	from wild animals such as leather, fur and ivory. Collect honey without completely
	removing the beehives.
4.	To make efficient use of electricity are as follows
	(i) Don't waste electricity. Turn off lights and unplug appliances when not in use.
	(ii) Select clean, renewable energy sources like solar lights.
	(iii) Avoid cars or do car-pools and use cycles or public transport.
5.	Some of the ways to create sustainable cities are: a. Save energy by switching off
	lights and fans when not in use. b. Use natural light as much as possible. c. Use
	energy efficient lights (LED bulbs) and appliances.
6.	To reduce inequalities we can
	a. be helpful to one another.
	b. be friendly with everyone.
	c. include everyone while working or playing. d. help others by including everyone whether they are small or big, girl or boy,
7.	belong to any class or caste. We can contribute to quality education in following ways
/•	we can contribute to quanty education in following ways

a. use the facilities present in our areas.
b. take our friends to school.
c. help friends study.
d. stop friends from dropping out of school.

Long Answer Questions (4 Marks)

Q.no	Questions
1.	Mention the main principles of sustainable development.
2.	How can we become responsible about our own environment?
3.	List the 17 SDGs included in agenda 2030 for Sustainable development.
4.	Describe any four major problems associated with sustainable development.

Answer to Long Answer Questions (4 Marks)

Q.no	Answers
1.	Main principles of sustainable development are
	(i) Respect and care for all forms of life.
	(ii) Improving the quality of human life.
	(iii) Minimising the depletion of natural resources.
	(iv) Conserving the Earth's vitality and diversity.
	(v) Enabling communities to care for their own environment.
	(vi) Changing personal attitude and practices towards the environment.
2.	we can become responsible about our own environment by adopting following
	methods:
	a. reusing paper, glass, plastic, water, etc.
	b. taking cloth bags to market carrying fruits and vegetables.
	c. donate things we do not use such as clothes, books, furniture, food, etc.
	d. Buy and eat seasonal fruits and vegetables from local growers.
	e. Repair leaking taps and pipes to avoid wasting water.
	f. Sort and treat garbage before disposing
3.	The 17 SDGs included in agenda 2030 for Sustainable development are
	A. No poverty
	B. Zero hunger (No hunger)
	C. Good health and well-being
	D. Quality education
	E. Gender equality
	F. Clean water and sanitation
	G. Affordable and clean energy
	H. Decent work and economic growth
	I. Industry, Innovation and Infrastructure
	J. Reduced inequality
	K. Sustainable cities and communities
	L. Responsible consumption and production

- M. Climate action
- N. Life below water
- O. Life on land
- P. Peace, justice and strong institutions
- Q. Partnership for the goals
- 4. Four problems associated with sustained development are as follows
 - (i) The concept of sustainable development is subject to criticism. What, exactly, is to be sustained in a sustainable development? Any positive rate of exploitation of a non-renewable
 - resource will eventually lead to exhaustion of Earth's final stock.
 - (ii) Turning the concept of sustainability into policy raises questions about how to assess the well being of present and future generations. The issue is more complicated because our children do not just inherit environmental pollution and resource depletion, but also enjoy the fruits of our
 - labour, in the forms of education, skills, and knowledge (i.e. human capital), as well as physical capital.
 - (iii) Poor management of natural resources, combined with growing economic activities, will continue to pose serious challenges to environment. The problem arises because people, institutions and governments have failed to evolve mechanism and policies to strike a balance between development and conservation of resources and preservation of environment.
 - (iv) The commonly held view that greater economic activity necessarily hurts the environment, is based on static assumptions about technology, tastes and environmental investments. In reality, the relationships between inputs and outputs and the overall effects of economic activities on the environment, are continually changing.

Scoring Tips for the Chapter

- Try to answer pointwise to the best extent possible.
- Provide clear, concise answers to the questions.
- 1 MCQ and 1 Two-mark question are likely to be asked from this unit.
- Employability Skills NCERT book must be read thoroughly by the students.