AI

Class 9

Indian Software Development Association
TAMIL NADU

COMMUNICATION SKILLS

1) Elements of Communications?

- Communication starts with sender
- Sender sends a Message
- A Channel is used to transfer the message
- Message is received by the receiver
- Receiver replies to the sender

2) Methods of Communication?
- Face-to-face informal
- Communication
- e-mail
- Notices/Posters
- Business Meetings

3) Type of Verbal Communication?

Interpersonal Communication - This form of communication takes place between two individuals and is thus a one-on-one conversation. Ex: Two friends discussing homework.

Written Communication - This form of communication involves writing words. It can be letters, circulars, reports, manuals, SMS

Small Group Communication - when there are more than two people involved. *Examples* 1. Press conferences 2. Board meetings 3. Team meetings

Public Communication - when one individual addresses a large gathering. Ex: Public speeches.

4) Difference between Verbal and Non-Verbal Communication and Visual Communication?

Verbal –

- Verbal communication includes sounds, words, language, and speech.
- Speaking is one of the most effective and commonly used way of communicating.

Non – Verbal –

- Non-verbal communication is the expression of messages.
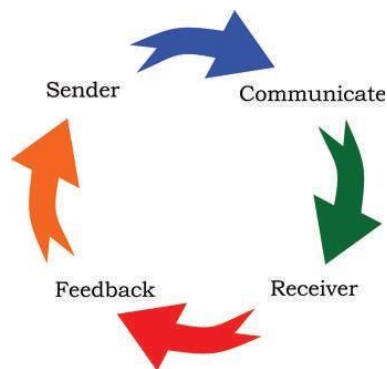- It is an exchange of information without using any spoken or written word.

Visual Communication –
- Communication which involves through images or pictures.
- You do not need to know any particular language for understanding it

5) Types of Non-verbal Communication?
- **Facial Expressions** - Happiness, Sadness, Anger, Surprise, Fear
- **Posture** - a straight body posture shows confidence
- **Body Language** - body movements
- **Touch** - a handshake to display confidence
- **Space** - Space is the physical distance between two people.
- **Eye Contact** - paying attention to the person
- **Paralanguage** - How we speak affects our communication and includes the tone, speed and volume of our voice. For example, talking fast may show happiness.

6) *Communication Cycle?*

7) Importance of Feedback?

Feedback:
- Response given by the receiver to the sender.
- It can have a long-term effect in managing and achieving goals **Importance of Feedback**
- It validates effective listening
- It motivates
- It is always there
- It boosts learning

8) 7 C's of Communication?

Clear, Concise, Concrete, Correct, Coherent, Complete, Courteous.

9) Barriers to Effective Communication?

Physical Barriers – It is a barrier that happens the way of expressing the messages from sender to receiver. For example, text messages are often less effective than face-to-face communication.

Linguistic(Language) Barriers - The inability to communicate using a language is known as language barrier.

Organisational Barriers - organisational structure can be a barrier to free flow of communication. Rules and regulations, procedures, policies of an organization can be a barrier.

Interpersonal Barriers - It is also very difficult to communicate with someone who is not willing to talk or express their feelings and views. Ex: Stage Fear.

Cultural Barriers - different cultures are unable to understand each other's customs.

10) Ways to Overcome Barriers to Effective Communication

• Use simple language
• Do not form assumptions on culture, religion or geography
• Try to communicate in person as much as possible
• Use visuals
• Take help of a translator to overcome differences in language
• Be respectful of other's opinions

GREEN SKILLS

1) What is Sustainable Development?
   • Sustainable development is the development that satisfies the needs of future generations.
   • The balance between economic growth, care for the environment and social well-being.

2) Problems Related to Sustainable Development

Three major problems related to sustainable development are:
(a) Food
(b) Water
(c) Fuel

3) SDG GOALS:

4) Our Role towards Sustainable Development?

Here are some basic ways in which people can help
towards Sustainable Development Goals.
Quality Education –

- Education helps us become aware of our role as a responsible citizen.
- Children who have gone to school will be able to do jobs so that they can take care of themselves and their families

Clean Water and Sanitation –
- steps by promoting awareness to keep water sources clean.
- We must make efforts to make India free of open by building toilets

Affordable and Clean Energy –
- Using solar power i.e., power generated using the sun does not cause pollution.

- our electricity needs are met and at the same time we do not pollute the environment

Decent Work and Economic Growth – •

work hard and contribute to society
- learn and develop skills

Reduced Inequalities – • Be

helpful to one another.
- Be friendly with everyone.

Sustainable Cities and Communities –
- Save energy by switching off lights and fans when not in use.
- Use natural light as much as possible.
- Use energy efficient lights (LED bulbs) and appliances.

Responsible Consumers and Producers –
- Reusing paper, glass, plastic, water, etc.
- Taking cloth bags to market carrying fruits and vegetables.

Protect Life Below Water –
- Plastic is found in the seas, which is killing marine life
- Protecting marine life, saving our oceans from pollution is necessary to preserve the marine life.

Protect Life on Land –
- Cutting of trees is leading to soil erosion.
- Planting more tree to replace the ones that we have cut

UNIT – 2 SELF MANAGEMENT SKILLS

CLASSWORK NOTES

1. WHAT IS **STRESS**?

- Stress can be understood as a reaction that people have toward excessive pressures triggered by the demand placed upon them.
- Stress can be defined as our emotional, mental, physical and social reaction to any threats. . These demands or threats are called stressors.

TYPES OF STRESS:

- **GOOD STRESS OR POSTIVE STRESS** – It is the type of stress you feel when you're excited. ex: the nervousness that you feel before giving a presentation.
- **BAD STRESS OR NEGATIVE STRESS** - Bad stress, or distress, can lead to anxiety, confusion, poor concentration and decreased performance.

2). WHAT ARE ALL THE SIGNS OF STRESS?

PHYSICAL SIGNS OF STRESS- Refers to the changes in the physical personality of an individual. Ex- Headaches, Nervousness.

MENTAL SIGNS OF STRESS- Refers to the changes in the mentality of an individual. Ex- lack of concentration, drop in performance.

EMOTIONAL SIGNS OF STRESS- Refers to the changes in the emotions of an individual. Ex – sadness.

3) STRESS MANAGEMENT TECHNIQUES?

It is used to control and reduce stress.

TECHNIQUES:

Deep Breathing, Muscle relaxation, Meditation, Going on vacations, Taking nature walks, Yoga or exercise, Spending time on social network.

4) EMOTIONAL INTELLIGENCE DEFINE?

- Emotional intelligence is the ability to recognise, regulate and evaluate your emotions to reduce stress.
- Some elements of emotional intelligence are self-motivation, selfawareness, social awareness and self-regulation.

5) WHAT IS SELF-AWARENESS AND ITS TYPES and ADAPTABILITY?

SELF AWARENESS is the capacity of a person to examine his/her own thoughts or feelings. A person can know about his/her personality defects and can overcome it.

ADAPTABILITY – Prepare yourself for new changes and adapt for it.

TYPES:

PUBLIC SELF AWARENESS and PRIVATE SELF AWARENESS.

6) WHAT IS SELF-MOTIVATION?

- It is the ability of doing things without the influence of others.
- They easily find reasons to complete a task.

Types of self – motivation –

INTRINSIC MOTIVATION(LOVE) – It is also called as internal motivation. Performs tasks based on internal satisfaction. Ex: study for ourself and not for others sake.

EXTRINSIC MOTIVATION(REWARD) – It is also called as external motivation. Performs task to attain a certain kind of reward that may be in terms of money, good marks in an exam.

7) WHAT IS SELF – REGULATION?

- It is the ability to watch and manage our emotions, thoughts and behaviour.
- One can learn how to improve self –regulation skills by understanding the functions of emotions.

8) HOW TO MAINTAIN OUR TIME EFFECTIVELY OR TIPS FOR STUDENTS?

- Creating a list of all the tasks
- Making proper plans to complete all tasks
- Following the plans strictly
- Breaking large tasks into small parts and fix on deadlines.
- Reducing time wastage as much as possible.

9) GOAL SETTING AND ITS TYPES?

1) Goal setting is a process of finding any task or activity that to complete it within a particular time frame.

2) It is based on living style, requirements and values.

- Specific
- Measurable
- Achievable
- Relevant
- Time-bound

10) DEFINE MEDITATION?

It is stress-reducing technique, where one has to try to get rid of his/her own thoughts to eliminate stress.

11) Name some of the skills you must master to succeed in life?

- Self-awareness
- Responsibility
- Time Management
- Adaptability - Stay current with best practices and read up on new information always. Prepare yourself for new changes.

12)Discuss about the ABC of stress management?

A: Adversity or the stressful event

B: Beliefs or the way you respond to the event

C: Consequences or actions and outcomes of the event

12) Three Steps to Manage Stress?

Step 1: Be aware that you are stressed

Step 2: Identify what is causing you stress

Step 3: Apply stress management methods

13) What are all Abilities to Work Independently?

Becoming self-aware, self-monitoring and self-correcting.

Knowing what you need to do.

Taking the initiative rather than being told what to do.

Recognising your mistakes and not blaming others.

Having the ability and the will to learn continuously.

14) Difference between Interests and Abilities (Strengths)

Interests

- Things that you like to do in your free time that make you happy.
- Things you want to learn or would like to do in the future.

Abilities

- Natural capacity.
- Enable you to perform a particular job.

15) SMART ?

- Specific – Clear Goal
- Measureable - A measureable goal answers
- Achievable - Breaking down big goals into smaller parts will make the goal achievable.
- Realistic - A realistic goal would be something that we want to achieve
- Time bound - A SMART goal should have a timeframe by when the goal needs to be achieved.

16) Four Steps for Effective Time Management?

-
- Organise
- Pritortise
- Control
- Track

Unit – 3 ICT
NOTES FOR CLASSWORK

1) WHAT IS CUI AND GUI? <u>CUI</u>

* character user interface.

*The user sends commands and instructions to the computer in character form. It contains only lines and characters.

* Example – PC-DOS, MS-DOS, UNIX. <u>**GUI**</u>

*Graphical user interface.

*The user interacts with figures and graphs on the screen. Those are called menu or buttons.

*It is interactive and user friendly.

*Example – Windows XP, Windows Vista, Windows 7, Windows 7,8, 10,11.

2) NAME SOME INPUT DEVICES AND OUTPUT DEVICES?

Input devices

Keyboard

Mouse

LightPen

TrackBall

Scanner

Joystick

Output devices

Monitor

Printers

Headphone

Speaker

Projector

3) WHAT IS RAM AND ROM?

RAM- Random access memory.

It is a primary memory.

It a volatile memory.(which is also called temporary memory).

It holds the data until the system's power is there.   It has a high storage capacity.

ROM – Read Only Memory.

It is a primary memory.

It is a non – volatile memory (which is also called as permanent memory).

It holds the data even the system's power is not there.   It has a low storage capacity.

4)WHAT ARE THE FUNCTIONS OF OPERATING SYSTEM?

Device Management

Process Management

Memory Management

Security Management

File Management

User Interface

5) TYPES OF OPERATING SYSTEM?

BATCH OPERATING SYSTEM

A batch operating system is a type of operating system that allows multiple users to use it at the same time, without direct communication between them.

TIME SHARING OS

Time-sharing is a method of allowing multiple individuals at different terminals to access the same computer system simultaneously.

NETWORK OS

Network operating system(NOS) is software that connects multiple devices and computers on the network and allows them to share resources on the network.

REAL TIME OS

There are two groups of OS Hard Real-time OS, Soft Real – time OS.

This OS complete a task on time.

It reacts to inputs and respond to them quickly.

It has well defined constraints.

6) WHAT IS A FILE AND FOLDERS?

FILE –

- A FILE is a collection of data that stores the data, informations, settings or commands.
- All information stored in a computer is kept in **files**.

FOLDER –

- A folder is a group of files that are stored together on a computer.
- All the files are stored in folder

7) HOW TO CREATE A FOLDER?

STEP – 1 Identify the location were we are going to save the file. STEP

– 2 Right click- New Folder   (or)   New group--New Folder

STEP – 3 Give a name for the folder --and press enter key.

8) RENAMING FILE AND FOLDER?

STEP – 1 Right click -Rename

STEP – 2 Enter the new name --- press enter key---- File or Folder gets renamed.

9) HOW TO HAVE A REGULAR MAINTENANCE OF COMPUTERS?

The outside area of a computer must be kept clean.
The unwanted software and applications must be removed as it occupies a lot of memory space.
It is necessary to take a back up of data if something goes wrong.
An antivirus software should be updated to keep the computer free from virus and worms.

10) WHAT IS DATA SECURITY?

It is a process of ensuring the safety of data from unauthorised users.
It is a confidential information of computer data.
Some security measures – Antivirus Software, Username and Password, Encryption, Firewall.

11) WHAT IS FIREWALL?

It is a hardware and software of computer system which is designed for the incoming and outgoing network traffic.
A firewall is software or firmware that prevents unauthorized access to a network.

12) WHAT IS ANTIVIRUS SOFTWARE?

It is used to identify, prevent and take action against malicious programs such as viruses and worms.
It is used to protect the computer system from virus attack.
You can easily purchase a antivirus from market or download a free version from company's website.
Example – McAfee, Total Security, Quick Heal.

13) HOW TO START AND SHUT DOWN A COMPUTER?

START THE COMPUTER

Switch on the electricity button.
Switch on CPU button.
Switch on Monitor power button.
Login to the computer

SHUT DOWN A COMPUTER

Click on the Start button --☐ Click on the Shut down button or Turn off button.

14) WHAT IS VIRUS?

A virus is a harmfull program which affects the informations or datas in the computer system.

A virus spreads between system to system and affects the data.

A computer virus is a type of malware that spreads between computers and damages data and software.

15) WHAT IS SPYWARE?

It is a program which infects and collects informations of the computer without the owner's knowledge.

It is transmitted through internet by websites, webpages or emails.

It steals the data of the computer.

A spyware steals the personal informations of a person in a computer.

Example – Keylogger

16) WHAT IS ONLINE PREDATOR?

These are the people who trap you into inappropriate relationships.

They may be older people but they will come with an identity as a young aged person.

They will force you to do illegal activity in online.

17) WHAT IS SOFTWARE PIRACY?

It is stealing of software.

It is distributing the unlicensed and unauthorised copies of computer program or software.

18) WHAT IS HARDWARE AND SOFTWARE?

HARDWARE –

Computer hardware includes the physical parts of a computer.

The parts which we can touch and feel it.

EXAMPLE – MONITOR, CPU, KEYBOARD, MOUSE

SOFTWARE –

Software is a set of instructions, data or programs used to operate computers and execute specific tasks.

The components which we cannot touch and feel it.

EXAMPLE – GOOGLE DRIVE, MS OFFICE, SKYPE, GOOGLE CHROME.

19) DEFINE THE TERMS?

FUNCTION KEYS – F1 TO F12.
CONTROL KEYS – CTRL, SHIFT, SPACEBAR, ALT, CAPS LOCK, TAB.
ENTER KEY – Moves the cursor to the beginning of a new line.
PUNCTUATION KEYS – COLOR(:), SEMICOLON(;), QUESTION MARK(?)
SINGLE QUOTATION MARKS(' ') , DOUBLE QUOTATION MARKS(" ").
NAVIGATION KEYS – HOME, END, PAGEUP, PAGE DOWN, ARROW KEYS.

20) DIFFERENT MOUSE ACTIONS?

ROLL OVER OR HOVER

When you bring the mouse over a file in file explorer, it will show the details of that file.

POINT AND CLICK

The mouse allows you to select and item on the screen. when you click a particular file, it gets selected.

DRAG AND DROP

To move an item to a particular location by holding the mouse button is called as drag and releasing the item to that location is called as drop.

DOUBLE - CLICK

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

21) WHAT IS TROJAN HORSE and worms?

TROJAN HORSE appears to be a useful software program but once it reaches a computer it starts behaving like a virus and destroys data.
WORMS are viruses that are spread to all the files once they attack a computer which makes it very difficult to remove them.

22) WHAT ARE SPAM MAILS?

Spam are the unwanted or unsolicited bulk emails usually sent by advertising companies. These mails are automatically stored in SPAM folder. We should not open such mails and it should be deleted it on a regular basis.

23) Personal information can be lost or leaked in two ways?

We are not careful in giving out personal information over the Internet. For example, we share our account details and password on unsecure sites.
A person gets unauthorised access to our computer. This can happen in the office if we leave are computer without logging out.

24) Threats to Computer

Theft: stealing of information or hardware.
Identity: Where a hacker steals your personal information and assumes your identity.
Software Piracy: This is stealing of software
Virus: Viruses are computer programs that can damage the data and software programs.
Worms: These are viruses that replicate themselves and spread to all files once they attack a computer.
Trojan Horse: it appears to be a useful software program but once it reaches a computer it starts behaving like a virus and destroying data.
Online Predator: Online predators are people who trap you into inappropriate relationships.

Internet Scams: Sometimes you may receive very attractive offers saying you have won a huge money in a lottery.

25) Protecting your Data?

To protect our data from theft and viruses we can take the following measures:

(a) Use passwords to login to your computer b) Install Anti-virus and Firewall
Encrypt Data
Secure sites