

WINSMARTACADEMY

MOTTO: PERSONALISED TUTORING FOR LEADERS OF TOMORROW

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GST103 - COMPUTER FUNDAMENTALS SUMMARY

21st
Today computer is still confined the laboratory. False
Ais basically defined as a tool or machine used for processing data to give required information. Computer
is referred to facts about a person, object or place e.g. name, age, complexion, school, class and height Data
is referred to as processed data or a meaningful statement Information
The following are the methods of data processing Manual method Mechanical method Computer method
Themethod of data processing involves the use of chalk, wall, pen pencil and the like. Manual
The manual data processing operations entail considerable manual efforts
Themethod of data processing involves the use of machines such as typewriter, roneo machines, adding machines and the like. Mechanical
The mechanical operations are basicallyin nature. Routine

The computer method of carrying out data processing has the following major features

- Data can be steadily and continuously processed
- The operations are practically not noisy
- There is a store where data and instructions can be stored temporarily and permanently.

- Errors can be easily and neatly corrected
- Output reports are usually very neat, decent and can be produced in various forms
- Accuracy and reliability are highly enhanced

The following are the characteristics of a Computer

- Speed
- Accuracy
- Storage
- Automatic
- Reliability
- Flexibility

The computer system is made up of the hardware and Software
The computer system is made up of theand Hardware and software
The computer hardware comprises the input unit, processing unit and output unit
The input unit comprises those media through which data is fed into the computer. Examples include the keyboard, mouse, joystick, trackball, scanner etc.
All the electronic components in a PC are mounted on a piece of fiberglass called the Motherboard
A small battery powers a to keep track of the time when the PC is turned off. Clock
ROM is the acronym for Read Only Memory
When a computer is switched on and running a program,is used for purposes such as holding the program and its data RAM (Random Access Memory)
Fiberglass can conduct electricity. True
The earliest PCs were equipped with a CPU from Intel Corporation called the 8088
CPU stands for Central Processing Unit
CPU stands for Central Unit. Processing
The speed of a CPU is measured in

Megahertz (MHz)
The keys can be likened with the conventional typewriter keys. Alphanumeric
The keypad contains a set of keys required for typing or entering number digits 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 into the computer store. Numeric
When the key is pressed, the capital letters on the alphanumeric keys are activated. Shift
ALU is the acronym for Arithmetic and Logic Unit
The processing unit is made up of the Arithmetic and Logic Unit (ALU), control unit and
main memory
The main memory also known as the primary memory is made up of the Read Only Memory (ROM) and the Random Access Memory (RAM).
are the series of instructions that enable the computer to perform a task or group of tasks Computer software
Ais made up of group of instructions to perform a task. Program
Series of programs linked together make up a Software
Computer programs could be categorized into the following • system software • utility software • application programs
The different categories of personnel that operates the computer are called Computer users
Theranges from the building housing the other elements of the computing system namely the computer and the users, the furniture and auxiliary devices Computing environment
UPS stands for Uninterruptible Power Supply System
Most of today's computers are computers Digital

First Generation Electronic Computers took place between 1937 – 1953
The earliest attempt to build an electronic computer was by J. V. Atanasoff, a professor of physics and mathematics at Iowa State, in 1937
ENIAC is the acronym for Electronic Numerical Integrator and Computer
The first general purpose programmable electronic computer was the Electronic Numerical Integrator and Computer (ENIAC)
Electronic Numerical Integrator and Computer was built by J. Presper Eckert and John V. Mauchly
EDVAC was able to run orders of magnitude faster than ENIAC. True
By the 1950s programmers were using a symbolic notation known as assembly language
The first computer programs were written out in machine code
Eckert and Mauchly developed UNIVAC in 1952
UNIVAC was developed by Eckert and Mauchly
The Second Generation of computer was 1954 – 1962
The following high level programming languages were introduced during the Second Generation of computer • FORTRAN • ALGOL • COBOL
FORTRAN was developed in the year 1956
ALGOL was developed in the year 1958
COBOL was introduced in the yea 1959

Thegeneration of computer saw the first two supercomputers designed specifically
for numeric processing in scientific applications.
Second
The term is generally reserved for a machine that is an order of magnitude more
powerful than other machines of its era.
Supercomputer
Supercomputer
LARC stands for
Livermore Atomic Research Computer
· · · · · · · · · · · · · · · · · · ·
Third Generation was between
1963 – 1972
SSI stands for
Small-Scale Integration
MSI is the acronym for
Medium-Scale Integrated
In, Seymour Cray developed the CDC 6600
1964
Fourth Generation of computer was in
1972 – 1984
Eigh Consection of computer was in
Fifth Generation of computer was in 1984 – 1990
1984 – 1990
WAN stands for
Wide Area Network
Wide filed fietwork
LAN stands for
Local Area Network
There are types of electronic computers.
Three
The basic types of computer are Digital, Analog and
Hybrid
Classification of computer based on signal type
Digital Computer
Analog Computer
Hybrid Computer
represent its variable in the form of digits.
Digital Computer
counts the data it deals with whether representing numbers, letters or other symbols,
are converted into binary form on input to the computer.
Digital Computer

Computer measures rather than counts. Analog
hold data in the form of physical variables rather than numerical quantities Analog computers
A computer needs a conversion element which accepts analog inputs, and output digital value Hybrid Computer
Based on classification by purpose, computers are classified as either special purpose or
general purpose
Based on classification by purpose, computers are classified as eitheror general purpose special purpose
A computer is one that is designed to solve a restricted class of problems. special purpose
computers are computers designed to handle wide range of problems. General-Purpose
The classification of computers according to capacity • Microcomputers • Medium or Mini or Small Computers • Large Computer or Main Frames
Microcomputers are also known assingle board computers
are small size types that are battery-operated. Laptop Computers
is like laptop computers but smaller in size, although small but comprises all the components of a full system. Notebook Computer
TheComputers have memory capacity in the range 128K bytes to 256 Kbytes Mini
The often called number crunches have memory capacity of the order of 4 Kbytes and they are very expensive. Main Frame Computers
The Main Frame Computers is otherwise called number crunches

One of the biggest fears of having computers are Viruses
are created by programming or computers experts Viruses
is one of the greatest threats to computers and computer applications. Computer virus
Theis the main unit of a PC system unit
When a computer is switched on and running a program,is used for purposes such as holding the program and its data RAM (Random Access Memory)
The emits the computer's sound output. Speaker
The is the computer's most important single item. Microprocessor or Central Processing Unit (CPU)
The is the computer's main permanent storage unit, holding large amount of data and programs. hard disk
All the electronic components in a PC are mounted on a piece of fiberglass called the Motherboard
Fiberglass cannot conduct electricity True
Computers use disk to store Information
There aremain varieties of disks available. Four
The computerdevices are those devices which are attached to the system unit. Peripheral
The intelligent computer keyboard has four major divisions

- Function keys
- Alphanumeric keys
- Numeric keys
- Control keys

(a)	Return or Enter key
(b)	Escape key denoted by ESC
(c)	Control key denoted by CTRL
(d)	Alternate key denoted by ALT
(e)	Delete key denoted by DEL
(f)	Insert key denoted by INS
(g)	Backspace key
(h)	Shift key.
The Numlock	key activates the numeric keypad.
Neither N	NumLock nor CapLock affects the function keys.
	key is often used in most text mode to perform block operations like mass insertion and so on.
The Escape	key is used to cancel an operation in progress.
The Return	key is actually used to inform the computer the end of an input or command.
	_ key deletes the character at the cursor position when pressed and the remaining es to the left while the cursor remains at the same position.
	Key deletes the characters to the left of the cursor when pressed and all others to the right of the cursor are shifted one space to the left. ce
	is the longest key found on most keyboards and it erases characters at the cursor gives blank space when pressed.
The Tab	Key moves the cursor by five spaces to the right when pressed.
	is the primary input device for modern computers that feature operating systems aphical user interface

are used with game software and help the user more effectively control the actions of computer-simulated airplanes or arcade-style games. Joysticks
All modern PC operating systems rely on an pointer to select and execute commands. on-screen
A is simply an input device built to help the user control this on-screen pointer in as natural and efficient a manner as possible. Mouse
The on the computer screen mimics the movements of the mouse. Pointer
The pointer on the computer screen mimics the movements of the Mouse
The mouse controls the on-screen pointer and lets you select program icons, manipulate property sheets, and Access data
A is the computer component that lets you create copies of the information stored in your computer on paper. Printer
A printed material is often calledhard copy
There are three basic types of printers available for use with personal computers: • Laser printers • Inkjet printers • Dot-matrix printers
combine a magnetic roller with powdered ink called toner to transfer high-quality characters or images onto a page. Laser printers
printers have small nozzles that actually spray fast-drying ink onto the page to form characters or images. Inkjet
printers use a print head to strike an inked ribbon against paper, like a typewriter, creating characters out of a series of dots. Dot-matrix
The cheapest printers available in the market are printers Dot-matrix
The two most common monitor sizes are 15-inch and 17-inch

are peripheral devices used to digitize (convert to electronic format) artwork, photographs, text or other items from hard copy. Scanners
A works by dividing an image into microscopic rows and columns and measuring, like the film in a camera how much light reflects from each individual intersection of the rows and columns. Scanner
The following are types of scanners
Flatbed Scanners
Sheetfed Scanners
Hand Scanners
scanners look and behave a lot like a photocopier.
Flatbed
OCR stands for
Optical Character Recognition
scanners look and act more like fax machines. Sheetfed
Silecticu
A is a good choice for large volumes of text, but not for handling delicate original photographs.
sheetfed scanner
UPS is the acronym for Uninterruptible Power Supply System
A Computer is an machine.
Electronic The auxiliary equipment in a computing environment include
Air Conditioner
Voltage Stabilizer
 Line Voltage Transformer
 Uninterruptible Power Supply System (UPS)
The computer hardware are driven by the
Software
The physical components of the computer are called the hardware
A is a series of coded instructions showing the logical steps the computer follows to solve a given problem. Program

The computer software could be divided into two major groups: System Software and
Application Software
refers to the suits of programs that facilitates the optimal use of the hardware systems and or provide a suitable environment for the writing, editing, debugging, testing and running of User Programs. System Software
An is a program that acts as an interface between a user of a computer and the computer hardware. operating system
The purpose of an is to provide an environment in which a user may execute programs. operating system
The purpose of an operating system is to provide an environment in which a user may programs. execute
are programs written for direct execution on computer hardware in order to make the power of the computer fully and efficiently accessible to applications programmers and other computer users. Systems programs
The types of operating system include the following
Operating systems which handle airlines reservations, machine tool control, and monitoring of a nuclear power station are called Real time OS
Ais a system that allows more than one active user program (or part of user program) to be stored in main memory simultaneously multiprogramming operating system
A is a computer hardware configuration that includes more than one independent processing unit. multiprocessing system
A is one that appears to its users as a traditional uniprocessor system, even though it is actually composed of multiple processors. distributed operating system

An provides the environment within which programs are executed. operating system
A is the unit of work in a system Process
The operating system is responsible for the following activities in connection with processes managed. • The creation and deletion of both user and system processes • The suspension are resumption of processes • The provision of mechanisms for process synchronization • The provision of mechanisms for deadlock handling
 The operating system is responsible for the following activities in connection with memory management. Keep track of which parts of memory are currently being used and by whom. Decide which processes are to be loaded into memory when memory space becomes available. Allocate and deallocate memory space as needed
The operating system is responsible for the following activities in connection with disk management • Free space management • Storage allocation • Disk scheduling
 The I/O system consists of these A buffer caching system A general device driver code Drivers for specific hardware devices
A is a collection of related information defined by its creator. File
The operating system is responsible for the following activities in connection with file management: • The creation and deletion of files • The creation and deletion of directory • The support of primitives for manipulating files and directories • The mapping of files onto disk storage • Backup of files on stable (non volatile) storage
refers to a mechanism for controlling the access of programs, processes, or users to the resources defined by a computer controls to be imposed, together with some means of enforcement. Protection A is a collection of processors that do not share memory or a clock. distributed system

A provides the user with access to the various resources the system maintains. distributed system
The is the primary interface between the user and the rest of the system. command interpreter
A is a set of notations in which were express our instructions to the computer. programming language
is the initial program written in a language different from machine language is called the source program and its equivalent in machine language is called object program. Language Translator
Three examples of classes of language translators are Assemblers, Interpreters and Compilers.
An is a computer program that accepts a source program in assembly language program reads and translates the entire program into an equivalent program in machine language called the object Assembler
is a program that accepts program fin a source language, reads, translates and executes it, line by lone into machine language An Interpreter
A is a computer program that accepts a source program in one high-level language, reads and translates the entire user's program into an equivalent program in machine language, called the object program or object code. Compiler
The stages in compilation include • Lexical analysis • Syntax analysis • Semantic analysis • Code generation
 The utility software performs the following operations File Conversion File Copy Housekeeping Operations
is a set of programs designed to solve problems of a specific nature. Application software
A is used to create, edit, save and print reports. Word Processor
A Word Processor is used to, edit, save and print reports. create

A Word Processor is used to create,, save and print reports. edit
A Word Processor is used to create, edit, and print reports. save
A Word Processor is used to create, edit, save and reports. print
A Word Processor is used to create, edit, save and print reports.
A document can be printed as many times as possible. True
is an application mainly designed for numerical figures and reports Spreadsheet
are packages that enable you to bring out images, diagrams and pictures. Graphic Packages: These
Examples of Graphic Packages are PM, PM Plus, Graphic Writer, Photoshop
software for designing, setting up and subsequently managing a database. Database Packages
A is an organized collection of data that allows for modification taking care of different users view. Database
Examples are Dbase II, III, IV, FoxBASE, Rbase Data Perfect, Paradox III, Revelation Advanced and MS-Access.
are packages that can be used to solve statistical problems e.g. Stat graphical, SPSS (Statistical Packages for Social Scientists). Statistical Packages:
are packages that can be used to produce books and documents in standard form. Desktop Publishing
Examples are PageMaker, Ventura, Publishers, Paints Brush, Xerox Form Base, News Master II, Dbase Publisher.
are packages that contain a lot of games for children and adults. Game Packages:
Examples of Game Packages are Chess, Scrabble, Monopoly, Tune

Examples of Communication Poly Chit Chat, Data Soft.	ackages are Carbon	Plus, Data talk V	/3.3, Cross talk, SAGE
There are basic types of it	nstructions		
There are four basic types of ins	•		
An directs the compute specific location in the store. input instruction	er to accept data fron	n a specific input	device and store it in a
An tells the computer record it on the output medium. output instruction	to move a piece of da	ata from a compu	iter storage location and
 Machine language Assembly language High level symbolic lang Very high level symbolic A allows the programn computer system for which it was machine language program 	guage c language ner to take advantage	5	
A language is computer Machine	dependent.		
A machine language is Computer	dependent.		
A machine dependent	language	is	computer
Principles of good Programming	g It is generally accep	ted that a good	

The preparation of a computer program involves a set of procedure

• Readability

- Problem Definition
- Devising the method of solution
- Developing the method using suitable aids,
- Writing the instructions in a programming language
- Transcribing the instructions into "machine sensible" form
- Debugging the program
- Testing the program
- Documenting all the work involved in producing the program

A is a graphical representation of the major steps of work in process. Flowchart
A flowchart is a representation of the major steps of work in process. graphical
displays in separate boxes the essential steps of the program and shows by means of arrows the directions of information flow. Flowchart
A can be said to be a graphical representation of an algorithm, that is, it is visual picture which gives the steps of an algorithm and also the flow of control between the various steps. flowchart
 Guidelines for drawing flowcharts Each symbol denotes a type of operation Input, Output, Processing, Decision, Transfer or branch or Terminal. A note is written inside each symbol to indicate the specific function to be performed. Flowcharts are read from top to bottom. A sequence of operations is performed until a terminal symbol designates the end of the run or "branch" connector transfers cont rol.
An is a set of rules for carrying out calculation either by hand or a machine. Algorithm
are read from top to bottom Flowcharts Flowcharts are read from top to bottom
An is a finite step-by-step procedure to achieve a required result. Algorithm
An is a sequence of computational steps that transform the input into the output. Algorithm
An is a sequence of operations performed on data that have to be organized in data structures.

Algorithm
An is an abstraction of a program to be executed on a physical machine (model of computation) Algorithm
 An algorithm can be characterized by the following: A finite set or sequence of actions This sequence of actions has a unique initial action Each action in the sequence has unique successor The sequence terminates with either a solution or a statement that the problem is unresolved
is a program design aid that serves the function of a flowchart in expressing the detailed logic of a program. Pseudocode
is the use of computers to create, revise, and save documents for printing and future retrieval. Word processing
Information can be entered into the computer by using a Keyboard
You enter into the computer by using a keyboard. Information
You enter information into the computer by using a keyboard
enable you to change information easily without retyping entire documents. Word processors
For example, you can change margins, add and delete text, move paragraphs, and correct spelling errors. All revisions are made within the computer and are then saved on a disk and printed.
Word is a word processor. WYSIWYG (what-you-see-is-what-you-get)
To create a new document, click on the New Blank Document
Every document has a text area
A program provides facilities to edit documents and define their layout and enable them to be printed. word processing

•	vise and save documents for printing and future
retrieval. Word processing	
make it easier to align text precisely. Tabs	
Tab stops are preset at cm increments. 1.27	
By pressing the key, you can delete the insertion point. Backspace	ne character or space immediately to the left of
Word will suggest the complete word or ph feature is called AutoComplete	rase after you type the first few letters. This
Text files can be created and modified with the Editor	e aid of a special program called an
The Windows environment provides a tempora Clipboard When you cut or copy selected text, it is placed	
Clipboard	a on the
An is a program used to create text files Editor	or make changes to existing files.
Shortcut key combination	Formatting result
<ctrl> + B</ctrl>	Bold
<ctrl> + I</ctrl>	Italic
<Ctrl $>$ + U	Underline
Copying a text require processes. Four may be applied before typing a parag	raph or after the paragraph has been typed.
Paragraph alignment	
determines how text is positioned bet Paragraph alignment	ween the left and right indents.
There are alignment options. Four	
A comprises a grid of numbered rows Spreadsheet	and lettered column intersecting in cells.

A cell can contain either text or numbered values
A spreadsheet consists of information written in form Tabular
A series of data depicted horizontally is called a row
A series of data depicted vertically is called a column
has become a universal tool of any modern man (or woman). Computer
Computer has become a of any modern man (or woman). universal tool
, today is not defined only in terms of the ability to read and/or write but in addition, it includes the ability to use and communicate with the aid of computer. Literacy
In the sector, computers are being used to promote teaching and learning. education
In the education sector, are being used to promote teaching and learning. computers
In the education sector, computers are being used to promote and learning. teaching
In the education sector, computers are being used to promote teaching and learning
In the education sector, computers are being used to promote and teaching and learning
In the education sector, computers are being used to teaching and learning. promote
The field of provides the most fascinating application of computing system. education
When was computers introduced into the classroom? 1960s
The has revolutionized the services rendered by libraries to readers. computer

The computer has revolutionized the services rendered by to readers. libraries
The computer has revolutionized the services rendered by libraries to readers
using public terminals can go through a menu-driven programme to find specific books or periodicals, recall books on loans and also make requisition for short loan items. Readers
Readers using terminals can go through a menu-driven programme to find specific books or periodicals, recall books on loans and also make requisition for short loan items. public
A computer based on-line public access system manages a search for materials using indices such as author's name, book title, subject and classmark. catalogue
In the early days of computing, computers were originally meant to assist in and engineering applications. scientific
In the early days of computing, computers were originally meant to assist in scientific and applications. engineering
are becoming more complex and competitive thus increasing the need to produce and process more accurate and timely data both in quantity and quality. Corporate operations
is a work schedule which demands speed, accuracy, carefulness and honesty. Payroll preparation
Payroll preparation is a work schedule which demands speed, accuracy, carefulness and honesty
involves making references to a number of source documents which by their nature also require constant and periodic updating. Payroll preparation
Computer application in payroll preparation involves a number of procedures which include the following:

- (a) Updating the personal records of employees whenever new appointments, resignations, terminations, dismissals and other changes are made within a period of time.
- (b) Computing wages and salaries for each individual workers based on regular and overtime hours worked.
- (c) Making deductions for income tax and for other payments such as union dues and repayment of loans.
- (d) Preparation of pay advice slips and cheques to employees and banks.

department. (f) Preparation of summary report and analysis for management.
MIS stands for Management Information System
A involves a computerized system of data processing procedures which are integrated in an organisation to provide accurate, complete, concise, timely and effective data which management can use at various level of decision making for planning, organizing, directing, controlling and monitoring procedures. Management Information System
devices are used in the design of products while computer monitored quality control procedures are used in production process to detect items that fail to meet the approved quality standards and specifications. Computer Aided Designs (CAD)
CAD stands for
Computer Aided Designs
Computer is used in the publishing industry in the following ways: (a) Creative writing (b) Typesetting manuscript (c) Drawing illustrations. (d) Generating the table of contents and the index of a book automatically. (e) Generating the page size of a book and cut and paste illustrations automatically. (f) Processing images such as the scanning of pictures and recording them automatically in the computer store for future retrieval or printing. (g) Verification and validation of spellings. (h) Assisting the writer of an article to identify the words that have similar meaning. CNN stands for Cabled Network News Computers can assist government business in the following ways: (a) Planning (b) Decision marking (c) Policy formulating
(d) Monitoring and control of operations
allow a computer programmer to direct the activities of the computer. Programming languages
The tells the computer what to do such as add, subtract, multiply and divide. operation code
The tell the computer the data items involved in the operations. operands

Thein an instruction may consist of the actual data that the computer may use to perform an operation, or the storage address of data. operands
An instruction directs the computer to accept data from a specific input device and store it in a specific location in the store. input
An instruction tells the computer to move a piece of data from a computer storage location and record it on the output medium. output
All of the basic arithmetic operations can be performed by the computer. True
There are basic types of branch instructions two
There are two basic types of branch instructions namelyunconditional branch instruction and conditional branch instruction
An will cause the computer to branch to a statement regardless of the existing conditions. unconditional branch instruction or statement
A will cause the computer to branch to a statement only when certain conditions exist. conditional branch statement
directs the internal operations of the computer and applications software allows the programmer to use the computer to solve user made problems. System software
Computer programming languages can be classified into the following categories: (a) Machine language (b) Assembly language (c) High level symbolic language (d) Very high level symbolic language.
Each instruction in a machine language program consists of two parts namely: and operation code and operands
A allows the programmer to take advantage of all the features and capabilities of the computer system for which it was designed. machine language program
allows the programmer to remember the operations codes easily than when expressed strictly as binary numbers. Assembly (Low Level) Language

In, the operation code is expressed as a combination of letters rather than binary numbers, sometimes called mnemonics. assembly language
In assembly language, the operation code is expressed as a combination of letters rather than binary numbers, sometimes called mnemonics
The storage address or location of the operands is expressed as a symbol rather than the actual numeric address. True
Among the existing and popular high level programming languages are Fortran, Basic, Cobol, Pascal, Algol, Ada and $P1/1$.
The high level languages are generally described as Third Generation (computer) Language (3GL)
The very high level language generally described as the Fourth Generation (computer) Language (4GL)
A, by using a menu system for example, allows users to specify what they require, rather than describe the procedures by which these requirements are met. 4GL
A offers the user an English-like set of commands and simple control structures in which to specify general data processing or numerical operations.
A program is translated into a conventional high-level language such as Cobol, which is passed to a compiler
A 4GL is a non-procedural language. True
The arose partly in response to the applications backlog. 4GL
The 4GL arose partly in response to the applications backlog
Computer programming is both an art and a science. True
is the act of writing a program which a computer can execute to produce the desired result. Computer programming

A is a series of instructions assembled to enable the computer to carry out a specified procedure. program
A is the sequence of simple instructions into which a given problem is reduced and which is in a form the computer can understand, either directly or after interpretation. computer program
The programs designed to convert the general-purposes computer into a tool for a specific task or applications are called Application programs
The preparation of a computer program involves a set of procedure classified into major stages eight
The function of the is to convert the program statements into the binary code of the computer called the object code. translator
The function of the translator is to convert the program statements into the binary code of the computer called the object code
The purpose of testing is to determine whether a program consistently produces correct or expected results
The following are the advantages of program documentation (i) It provides all necessary information for anyone who comes in contact with the program. (ii) It helps the supervisor in determining the program's purpose, how long the program will be useful and future revision that may be necessary. (iii) It simplifies program maintenance (revision or updating) (iv) It provides information as to the use of the program to those unfamiliar with it. (v) It provides operating instructions to the computer operator.
A is a graphical representation of the major steps of work in process. Flowchart
displays in separate boxes the essential steps of the program and shows by means of arrows the directions of information flow. Flowchart
A can also be said to be a graphical representation of an algorithm, that is, it is visual picture which gives the steps of an algorithm and also the flow of control between the various steps. Flowchart
Flowcharts are drawn with the help of

The following are guidelines for drawing flowcharts (i) Each symbol denotes a type of operation Input, Output, Processing, Decision, Transfer or branch or Terminal. (ii) A note is written inside each symbol to indicate the specific function to be performed. (iii) Flowcharts are read from top to bottom. (iv) A sequence of operations is performed until a terminal symbol designates the end of the run or "branch" connector transfers control. _ is a program design aid that serves the function of a flowchart in expressing the detailed logic of a program. Pseudocode A series of structured words is used to express the major program functions. These structured words are the basis for writing programs using a technical term called structure programming ___ are used to analyze a problem. **Decision tables** Decision tables are used to analyze a____ problem are a simple yet powerful and unambiguous way of showing the actions to be taken when a given set of conditions occur. **Decision tables** ____ are prepared in conjunction with or in place of flowcharts. **Decision tables** _ section contains a list of all possible conditions which could apply in a particular problem. **Conditions stub** section contains the different combination of the conditions each combination being given a number termed a 'Rule': **Condition entry** section contains a list of the possible actions which could apply for any given combinations of conditions. **Action stub** section shows the actions to be taken for each combination of conditions. **Action entry** An interconnected set of two or more computers with data communication devices may be called a . computer network

LAN Stands for_____ Local Area Network

refers to a network set up in one building. Local Area Network
MAN stands for Metropolitan Area Network
refers to two LANs linked between two buildings in the same metropolis. Metropolitan Area Network
WAN is acronym for Wide Area Network
refers to LANs or MANs that are connected between cities. Wide Area Network
WWW is acronym for World Wide Web
refers to the linking up the world's LANs, MANs and WANs to form a web of networks that cover the earth. World Wide Web
When two or more computers are interconnected this is generally referred to as a network
Networks have become increasingly popular over the last decade. True
can be used to transfer information between computers, even if they use different operating systems. Networks
Acan be used to send data to remote storage devices and printers, without having to send all of the signals through an expensive mainframe computer. network
Generally, provide an inexpensive way to interconnect any number of systems and make communication and sharing of data quick and easy. networks
There are main categories of networks used in the industry two
There are two main categories of networks used in the industry which are LAN's (Local Area Network) and WAN's (Wide Area Network)
A is a network in which all signals run on a single set of cables, which is fully administered by the owner. LAN

There are typical network topologies (layouts). three
There are three typical network topologies (layouts). These arestar, ring and bus shapes
The shape is the outlying stations communicate through a central hub device. star
In a network, messages circulate the loop, passing from station to station like an of fashioned bucket brigade of fire fighters. ring
The is usually a high performance computer with a very large hard disk. File server
The is a mass storage device that all users can share. file server
is used to store all shared programs and data on the network. File server
are the computers on a network that users work on. Workstations
LANs or MANs that are connected between cities are known as WAN's
A only has a range of approximately one-kilometre. LAN
A LAN only has a range of approximately one-kilometre
transmits sounds, not the radio frequency signals that pulse around a LAN. Telephone
A prime example of is the Internet. WAN
A prime example of WAN is the Internet
The Internet is a global network of computers that are able to communicate with one another using a common language called HTML (Hypertext Mark-up Language)
HTML stands for Hypertext Mark-up Language

The gives you a graphical, easy-to-navigate interface for looking at documents on the
Internet.
World Wide Web
You can think of the as a big library. web
You can think of the web as a big library
are like the books, and web "pages" are like specific pages in the books. Web sites
can contain news, images, movies, sounds, and 3D worlds – just about anything. Pages
means following hyperlinks to pages and subjects you may never have heard about meeting new people, visiting new places, and learning about things from all over the world. Surfing
A collection of web pages is known as a web site
A is a software tool that you use to look at web pages. browser
You connect to other pages by clicking text or graphics that are called hyperlinks
Hyperlinks are underlined or bordered words and graphics that have web addresses also known as embedded in them. URL
URL stands for Universal Resource Locator
are underlined or bordered words and graphics that have web addresses (also known as URL – Universal Resource Locator) embedded in them. Hyperlinks
By clicking a, you jump to a particular page in a particular web site. hyperlink
You can easily identify a hyperlink. True
Hyperlink text is a different colour from the rest of the text in a web site. True

means following hyperlinks to different web pages. Surfing the web
A is the starting point for a web site. home page
Computer Network can be categorised into two: and wired network and wireless network
Computer Network can be categorised into two
The network makes use of radio waves to transmit data or information from one node to another. wireless
ISP stands for Internet Service Providers
The is a global network of interconnected computer networks. Internet
All home pages have what is called an Internet Address
URL stands for Universal Resource Locator
URL stands for Universal Resource Locator which is simply another word for address
are the people who control the access to the web. Internet Service Providers (ISP)
is the privilege to access and make changes to folders. Access privileges
is the unique code assigned to the location of a file in storage, a device in a system of network, or any other data source on a network. Address
are multimedia files that are 'attached' to an E-mail; can be text, graphics, sound video, spreadsheet, database or even an entire application. Attachments
is number of signalling elements that can be transmitted per second on a circuit Older term being replaced by bps-bits per second Baud
The smallest amount of information that can be transmitted is called

Bit
A combination of can indicate an alphabetic character, a numeric digit, or perform signalling, switching or other functions. Bits
is application software that gives you a graphical interactive interface for searching, finding, viewing and managing information over a network. Browser
is a computer that uses the services of another computer (a server or host). Client
is a multi-user collection of information. Database
A sits at the gateway of a private network and only lets certain types of information in from and out to the network. firewall
is a computer that provides access to files for remote users (clients). File server
is a "tag" language in which web pages are formatted and web information is distributed. HTML (Hyper Text Markup Language)
is a distributed bulletin board system about a particular topic. Newsgroup
A is hypermedia document on the web. Page
A is an Internet service provider's dial-up connection for modem users, used particularly to describe local connections so modem users don't have to dial long distance. pop
To a file means to decompress, or expand a file that has been made smaller using a compression utility. unzip
The Internet is used for the following Information browsing electronic mail (e-mail) Newsgroups File transfer Access to and use of other computers.
A is basically an electronic bulletin board where messages are left for others to see and respond to if necessary.

Newsgroup
Newsgroup messages are stored on Internet servers called News Servers
When you post a message to a, it is posed onto your ISP's news server. newsgroup
When you post a message to a newsgroup, it is posed onto your ISP's news server
is a network feature that has no equivalent in standalone computing. Electronic mail
provides an electronic mail tool called the Outlook Inbox. Microsoft Outlook
Microsoft Outlook provides an electronic mail tool called the Outlook Inbox
instruction directs the computer to accept data from a specific input device and store in a specific location in the store Input
MS Multiplan is an example of packages Spreadsheet
The first stage of program debugging is Desk checking
When errors are detected in a program, a series of diagnostics referred to as an error list is generated by the language translator Message
Simplification of program maintenance is an advantage of program Documentation
In alignment, the text along the right side of the paragraph appears ragged Left
In Excel, chart allow you to print a chart that is separate from data Sheets
chart is used when printing a worksheet and a chart on a single sheet of paper Embedded
A chart symbol that represents a single data point is data marker
The x-axis of a chart is also called axis

category Gridlines in a plot area makes it easy to compare data marker with an axis value True In a hybrid computer system, a conversion element is irrelevant. False The Chart _____feature leads a user through a step-by-step process to create a chart and displays sample views as you build it Wizard Computer viruses are written programs. True AutoShapes button in Microsoft PowerPoint provides access to over _ **150** Write-protecting a disk means preventing the computer from (over) important data that are already contained in it erasing There are _____ types of environments in PowerPoint There are ____ main types of networks in the industry Aside the cables, there are ____ components that are present in most networks three A local area network has a range of approximately ____ kilometre one The internet is a typical example of ____ area network wide Underlined words that have web addresses embedded in them are_____ hyperlinks is the number of signalling elements that can be transmitted per second on a circuit Baud Electronic mail has equivalent feature in standalone computing False Internet area that comprises thousands of newsgroups is _____. Newsgroup messages are stored on Internet servers referred to as _____ servers

News
A hypermedia document on the web is called page
In network transmission, is an older term that is being replaced by bits-per-second Baud
Excel workbook can be set up as a dynamic work environment. True
The Print button on the Standard docked toolbar does NOT bypass the Print dialog box. False
Automatic Spell Check feature of the Microsoft Word CANNOT be disabled. False
Spelling checker is a substitute for proofreading. False
In alignment, the texts along both sides of the paragraph appear ragged centre
instruction tells the computer to move a piece of data from a computer storage location Output
A branch statement will cause the computer to branch to a statement only when certain conditions exist conditional
Which of the following is NOT a system software? Microsoft Office
Which of the following is the primary goal of the operating system? User convenience
Operating system that appears to its users as a traditional uniprocessor system is Distributed
The Input/Output system consists of the following EXCEPT Disk scheduler
The following are generalised software EXCEPT Linux
The following are examples of integrated packages EXCEPT Microsoft Windows10
The operating system environment in which the response time is the turnaround time is

Batch
The following are other names for command interpreter system EXCEPT Kernel
Which of the following is not a communication package? Paradox III
Which of the following is not an attribute of a good program? Sequential
The error that results from Illegal use of a feature of programming language is Syntax
The following are methods of testing a program EXCEPT Trace trek
Which of the following is not a class of data used in program testing? Virtual
The following are tools for planning problem solution step in programming EXCEPT Coding
Which of the following is not an advantage of program documentation? provides operating instructions to the programmer
Which of the following definitions of algorithm is NOT correct? Set of program codes to be executed on a physical machine
The <enter> key can be used for the following EXCEPT Create a blank space</enter>
Character formatting include the following EXCEPT Highlight
Which of the following is NOT a toggle button? Font face
Which of the following is NOT true of paragraph alignment? It determines the paper size
Types of paragraph alignment options are Four
The following are paragraph alignment options EXCEPT Middle alignment
By default, the print command prints Entire document

The following are the components of the Excel workbook EXCEPT Presentation tools
Which of following will NOT clear the content of a cell in Excel? Selecting the cell and pressing the Enter key
In Microsoft PowerPoint, which of the following function key is used to run a slide show? F5
Which of the following is NOT a working environment in PowerPoint? Outskirt view
Text attributes include the following EXCEPT Weight
The value-axis of a chart is also called y-axis
In Excel, which of the following makes it easy to compare actual worksheet data to graphical representation of the data? Embedded chart
In which of the following paragraph alignment options is the text along the left side of the paragraph appears ragged Right
Which of the following is NOT correct of flowcharts? It is read bottom-up
Which of the following is not classified as a cursor control key? SHIFT
Which of the following is not an attribute of an algorithm? Ambiguity
Operator's manual contains the following EXCEPT The various codes making up the program
The Generation saw the introduction of machine Fifth
Small-scale integration is a product of Third
The following are the criteria for classifying Strength
Which of the following resource type is most likely Printers

Which of the following devices is required for wireless Modem
A purpose computer is one that is designed to solve a restricted. Special
Application backlog led to the evolution of 4th
The instructions that tell a computer how to Programs
The shortcut key combination for copying text Ctrl+C
An area of a computer that temporarily holds data is called
Which of the following is NOT a part of the components of most networks? Memory server
Which of the following key combinations moves you to the bottom of the current document? <ctrl> + <end></end></ctrl>
The starting point for a web site is called Home page
Which of the following is used in network environment to store all shared programs and data? File server
Which of the following tabbed categories is used for predesigned PowerPoint presentations? Presentation
In PowerPoint, in which view can you work with only one slide at a time, add title and body text, graphs, organization charts, clip art, WordArt, draw shapes and have access to all of the toolbars and the commands on the menu bar? Slide
The sixth stage of program development is Program debugging
Given the expression $a = b + 5$, which of the following is NOT an operand? +
The following are game packages EXCEPT SAGE chit chat
Compilers carry out the following analysis EXCEPT

Code
The basic purpose of the computer operating system is two
The following are secondary functions of the computer operating systems EXCEPT Control the allocation and use of the computing system's resources among the various users and tasks
Which of the following statements is NOT true? The basic resources of a computer system are provided by its hardware
Computer software come in different forms. Which of the following is NOT one? Device ports
Which of the following statements is NOT true? The sound card is an expansion card that does not plugs into any slot on the motherboard
Which of the following definitions of algorithm is NOT correct? Set of program codes to be executed on a physical machine
Which of the following statements is TRUE? Static electricity is an enemy of computer keyboards
When entering texts, which of the following keys has no effect on itself? Shift
Which of the following is NOT a sixth generation CPU? Cyrix 6X86
In which generation did UNIX operating system came about? third
Which of the following is NOT a navigation key? Escape
Early computers were rarely owned by individuals but rather confined to the laboratories and few research institutes because They were large in size and too expensive
Which of the following is a computer NOT capable of doing? taking input data through the printer
In which of the Slide views in PowerPoint do you view thumbnails of all of the slides in your presentation and arrange the order of the slides? Slide sorter view
DEC stands for Digital Equipment Corporation

In a distributed system each processor has its own local memory
Which of the following is NOT a basic types of instructions in computer programming? mathematical
Computer programming languages can be classified into the following categories EXCEPT Medium level symbolic language
Each instruction in a machine language program consists of operation code and operands
Which of the following is NOT an input device? Speaker
A Computer is capable of all BUT one of the following Data pressing
Which of the following is NOT one of the panes in the Normal view of the PowerPoint window Sorter
The following CANNOT be part of a filename EXCEPT -
A file name in PowerPoint can have up to 255 characters
The most common network topology isstar
In network, radio waves are used to transmit data or information from one node to the other Wireless
The software tool that is used to look at web pages is called Browser
Following hyperlinks to pages and subjects one may never have heard about is called Surfing
The devise in telephone system that converts series of electronic signals into pulses of sound is Modem
could be regarded as the largest of all wide area networks Internet

The internet computers communicate with one another using a common language called
HTML
In Excel, chart allow you to print a chart that is separate from data Sheets
When saving a document for the first time in Microsoft Word, it automatically assigns a filename using theline of the document content. First
In PowerPoint view, user is presented with the presentation outline, current slide, and current slide notes Normal
Another name for the y-axis of a chart is axis Vertical
In Normal view, the PowerPoint window is divided into panes Three
The key is pressed to end a PowerPoint slide show Escape
Assembly language is to second generation computers as language is to first generation computers Machine
instruction will get information from the hard disk and print on paper Output
code instructs the computer to perform arithmetic operations. Operation
The operands in an instruction must consist of the actual data that the computer will use to perform an operation. False
A operating system allows more than one active user program to be stored in main memory at the same time Multiprogramming
All multiprogramming systems are time-sharing systems. False
Sheetfed scanners look and act more like photocopiers. False
With Sheetfed scanners, scanning directly from a book is possible. False

The data stored on a storage device is usually referred to as copy. Soft
NumLock key is to numeric keypad as key is to capital/block/uppercase letters Capslock
Activating the numeric keypad affects the function keys. False
C programming language is a product of generation computers 3rd
computer systems integrate audio, video and data. Multimedia
sits at the gateway of a private network and only lets certain types of information in from and out to the network. Firewall
line is a private line leased from a telecommunications carrier Dedicated
is the smallest amount of information that can be transmitted Bit
Printed materials are often called copies Hard
Hand scanners are automated devices. False
In a network operating system the users are NOT aware of the existence of multiple computers. False
A multiprocessing system has only one central processing unit False
There are major reasons for networks Two
There are typical network topologies Three
In most software packages, the function key F1 is used to run theprogram. Help
are peripheral devices used to digitize artwork, photographs, text, or other items from hard copy.

Scanners
Expansion Slots on motherboards are for Adapter Cards
The chips have data written on them during manufacturing that tells the CPU what to do when the PC is switched on is referred to as ROM
In Operating systems the primary interface between the user and the rest of the system is its Command Interpreter
This short cut key combination deletes a line in most text documents. CTRL + Y
consists of expensive and very fast memory chips that store the data or instructions that the CPU will look at next. Cache Memory
Modern Computer Operating Systems may be classified into any of the following except Virtual
A series of coded instructions showing the logical steps the computer follows to solve a given problem is called a Programm
Computer program that accepts a source program in one high-level language, reads and translates the entire user's program into an equivalent program in machine language is referred to Compiler
Assembly language has a one-to-one relationship with machine language, but uses symbols andfor particular items. mnemonics
The acronym MIS stands for Management Information System
A program is normally tested by executing with test data
is a graphical representation of the major steps of work in process Flowchart
This flowchart symbol is for Decision making
This flowchart symbol is for Junction point of program

An abstraction of a program to be executed on a physical machine is an Algorithm
is a program design aid that serves the function of a flowchart in expressing the detailed logic of a program. Pseudocode
An unambiguous way of showing the actions to be taken when a given set of conditions occur is by using a Decision table
Computer is fast becoming the universal machine of the 21st century
Early computers were to be owned by individuals large in size and too expensive
The term is referred to facts about a person, object or place e.g. name, age, complexion, school, class, height etc. Data
is referred to as processed data or a meaningful statement e.g. Net pay of workers, examination results of students, list of successful candidates in an examination or interview etc. Information
The of data processing involves the use of machines such as typewriter, roned machines, adding machines and the like. Mechanical method
The computer has both and facilities for holding data and instructions. This capacity varies from one machine to the other. Internal and external storage
The computer comprises the input unit, the processing unit and the output unit. Hardware
are the series of instructions that enable the computer to perform a task or group of tasks Computer software
The web lets you or from one web p age to other pages on the web. jump or hyperlink
Computer as a is being applied to almost every area of human society. Universal machine
One of the areas in which computer has been applied intensively and extensively is the Military

The business of governance is a business. Serious
Computer application is now felt inand Vehicle maintenance. traffic control
Computer application is now felt in traffic control and Vehicle maintenance
Computer application in has led to the use of computer terminals at home. Communications
The now provides faster, more convenient and cheaper electronic flow of information than the telephone, fax and telex transmission. Electronic mail service
The most dramatic computer application is witnessed in the and communications sectors. Transport
The delivery of health care facilities has been one of the notable areas in which computer applications have proved most beneficial to mankind. Health care facilities
The computer is used in the diagnosis and physiological monitoring of patients life during surgical operation and intensive care programme. Physiological
Computer is commonly used to find the accurate solutions to both and problems scientific and engineering
The computer is used to find solution to very complex and statistical computations a incredible speed and accuracy. Mathematical
Computer technology has changed the face of and through its various applications. business and industry
Information and replace capital and energy as the primary wealth-creating assets. Knowledge
The computer is used to the foreign exchange rates of major currencies. Calculate
CAD stands for Computer Aided Designs
A involves a computerized system of data processing procedures which are integrated in an organisation to provide accurate, complete, concise, timely and effective data which

management can use at various level of decision making for planning, organizing, directing, controlling and monitoring procedures.

Management Information System

The computer is used as a tool by to report accurately on the transaction register which constitutes the most crucial aspect in the audit trail. Auditors
preparation is essentially a repetitive and a routine task which has to be done periodically. Payroll
Computers were originally meant to assist in scientific and engineering Applications
Computers have been applied in virtually all fields of human Endeavour
Computer has become a tool of any modern man (or woman). universal
BBS stands for Bulleting board system
The Internet is a global network of computer networks. interconnected
Hyperlinks are or words and graphics that have web addresses. underlined or bordered
is a different colour from the rest of the text in a web site. Hyperlink text
The enables you to create and edit text effects by using the available options. WordArt toolbar
The button provides access to over 150 shapes. AutoShapes
The is one of the default toolbars displayed when you start PowerPoint. Drawing toolbar
enables you to create drawn objects using a set of tools located on the Drawing toolbar. PowerPoint
To use PowerPoint, you must load the program from the hard disk into the computer's memory
is an application program used to create presentations. PowerPoint

The enables you to view your printouts on screen before you print them. Print Preview command
The is the gray background behind the chart. plot area
A quick way to print your whole worksheet is to click on the print button on thestandard toolbar
All default print options are listed in the Print dialog box
Text entries are left aligned while numeric entries and calculated results are right aligned
Each time you click on the button, an extra decimal place is displayed to the right of the decimal point. Increase Decimal
Each time you click on the button, one decimal place fewer is displayed. Decrease Decimal
You can use Excel's built-in formats to change the appearance of numbers. built-in formats
A is a group adjacent cells that forms a rectangular shape. Range
When you launch Excel, you see a new, blank workbook called Book 1
A workbook can be saved temporary in the Computer memory
A workbook can be saved permanently on the Disk
The Excel worksheet consists of various Elements
Excel is a software application that provides an or worksheet environment. electronic spreadsheet
Working with a can be complicated and time consuming paper spreadsheet
Paper spreadsheets have limited functionality because they are Static

A consists of information written in tabular form. Spreadsheet
A file is a collection of related information defined by its Creator
is one of the most visible services of an operating system. File management
It is possible to change the appearance and position of text by applying various formatting options
can be used to emphasize text in a document. Character formats
The places a copy of a file on disk into an active document window. File, Open command
Text files can be created and modified with the aid of a special program called an Editor
WYSIWYG stands for What-You-See-Is-What-You-Get
To use Word, you must load the program from the hard disk into the computer's memory
The purpose of is to determine whether a program consistently produces correct or expected results. Testing
is caused by faulty logic in the design of the program. Logic errors
is caused by mistake in coding. Syntax errors
is the process of locating and correcting errors. Debugging
A needs to thoroughly understand what is required of a problem. Programmer
means the Program must do what it is supposed to do correctly and must meet the criteria laid down in its specification. Accuracy
means the Program must always do what it is supposed to do, and never crash. Reliability

means optimal utilization of resources is essential. The program must use the available storage space and other resources in such as way that the system speed is not wasted. Efficiency
means the Program should cope with invalid data and not stop without an indication of the cause of the source of error. Robustness
means the Program must be easy enough to use and be well documented. Usability
means the Program must be easy to amend having good structuring and documentation. Maintainability
The computer is a general-purpose machine with a remarkable ability to process Information
Computer programming is both and an art and a science
In a high level language one specifies the logical procedures that have to be performed to achieve a
Machine language is the binary language and its made up of only and Os and 1s
has a one-to-one relationship with machine language, but uses symbols and mnemonics for particular items. Assembly language
programming languages are means by which programmers manipulate the computer. Computer
have evolved from the machine language to assembly language, high level language and very high level programming language. Programming languages
4GL stands for Fourth Generation Language
The are not designed by the programmer but by the fourth generation software itself. program flows
A or that assists computer users to write their own programs by expanding simple statements into program code. program generator or application generator

The difficulty of programming and the time required to program computers in assembly languages and machine languages led to the development ofhigh-level languages
allow the computer to change the sequence of execution of instruction, depending on conditions built into the program by the programmer. Logic instructions
An directs the computer to accept data from a specific input device and store it in a specific location in the store. input instruction
The tells the computer what to do such as add, subtract, multiply and divide. operation code
Basically, human beings cannot orin computer language speak or write
A computer must be to respond to a specific instruction. Programmed
The is a suit of programs written by programmers for computer users. User programs
are packages that can be used to produce books and documents in standard form. Desktop publishing
are packages that can be used to solve statistical problems, e.g. Stat graphical, SPSS. Statistical packages
SPSS stands for Statistical packages for social scientists
is software for designing, setting up and subsequently managing a database. Database packages
are packages that enable you to bring out images, diagrams and pictures. Graphical packages
are programs or packages that perform a variety of different processing operations using data that is compatible with whatever operation is being carried out. Integrated packages
an application mainly designed for numerical figures and reports. Spreadsheet
A is used to create, edit, save and print reports. Word Processor
is a set of programs designed to solve problems of a specific nature

Application software
include programs to clear areas of storage, writing file labels and updating common data. Housekeeping Operations
makes an exact copy of a file from one medium to another or from an area of a medium to another area of the same medium. File copy
File Conversion covers data transfer from any medium to another, making an exact copy or simultaneously and editing and validating
Utility Software is a set of commonly used programs in data processing departments also called service or general-purpose programs
An is a computer program that accepts a source program in assembly language program reads and translates the entire program into an equivalent program in machine language. Assembler
An Interpreter is a program that accepts program fin a source language, reads, translates and executes it, line by lone into machine language
A Compiler is a computer program that accepts a source program in one high-level language, reads and translates the entire user's program into an equivalent program in machine language, called the object program or object code
The suites of languages that translate other languages to machine language are called Language Translator
One of the most important component of an operating system is itscommand interpreter
provides the user with access to the various resources the system maintains. distributed system
A distributed system is a collection of that do not share memory or a clock. Processors
refers to a mechanism for controlling the access of programs, processes, or users to the resources defined by a computer controls to be imposed, together with some means of enforcement. Protection