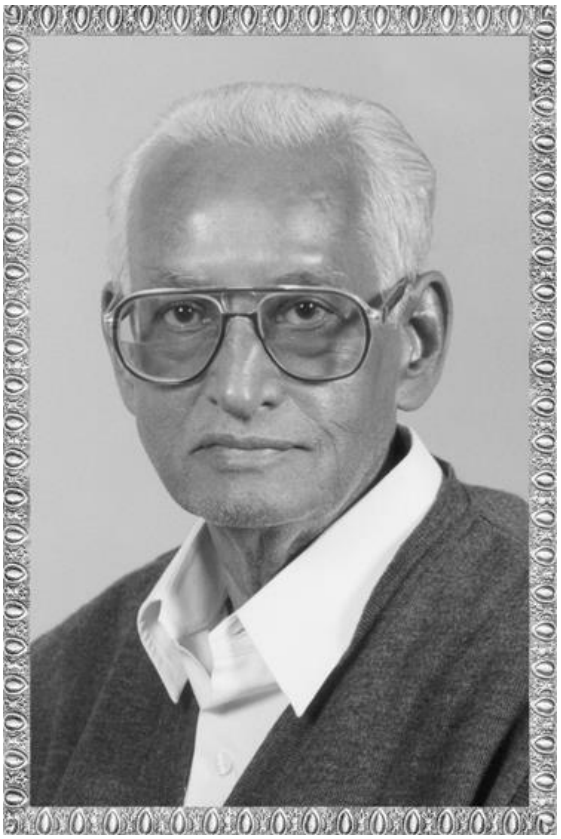
Shree H.N.Shukla College of I.T. & Mgmt.

(Affiliate to Saurashtra University & G.T.U)



Lt. Shree Chimanbhai Shukla

B.C.A. / B.Sc.(I.T.) SEM-1 (COMPUTER FUNDAMENTAL)

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COMPUTER FUNDAMENTAL

CH-1:- INTRODUCTION OF COMPUTER

Q-1. Definition of Computer

DETAILING:

- Computer is electronic device.
- Word computer come from the word compute.
- Compute means calculation
- So computer is calculation device
- It can perform arithmetic and logical operation.
- Charles babbage was god father of computer.

ONE WORD QUESTION AND ANSWER

SR.NO	QUESTION	ANSWER
1	COMPUTER MEANS	CALCULATION

Q-2. Explain Data Processing Cycle

DETAILING:-

Data (input) --------process---------- output (result)

- Computer is based on 3 different part like data, process and result.

Data:-

- Data is raw material
- Any information input into computer is called data.

Process:-

- Is a set of code
- **Cpu can perform all the process into the computer.**

Output:-

- After complete the process, it generate the output, output means result.

ONE WORD QUESTION AND ANSWER

SR.NO	QUESTION	ANSWER
1	DATA MEANS_	RAW MATERIAL
2	INFROMATION MEANS	OUTPUT
3	PROCESS MEANS	CALCULATION

Q-3. Explain Characteristics of computer(5 marks m.imp)

DETAILING:-

- Computer is electronics device.
- It has many characteristics like
  - Accuracy
  - Speed
  - Storage capacity
  - Portable in size
  - Multi programming
  - No feeling

1) **Accuracy :-**

- Accuracy of computer is very high
- Computer can perform many operation
- In these operation it can perform perfect result with out any error.

2) **Speed:-**

- Computer is very fast.
- Computer complete all the process with in very less time
- The speed of computer is in micro second
- The speed of computer is very high compare human.
- Computer can perform work in second while human can perform same task the year.

3) **Storage capacity:**

- Computer can store large amount of data.

- Storage capacity of computer is very large.
- In computer data is store in storage device.
- In compute there is not limit to store our data
- In computer we can store data in long time.

4) **Portable in size:-**

- Old technology computer is very big in size.
- Day by day technology is very increase.
- So size and weight of computer is reduce.
- Small computer provide portability
- Portable means we can easily transfer one place to other place.
- Now a days computer is very small in size and very less in weight.

5) **Multi programming:-**

- Computer is multiple work device.
- At the time computer can perform multiple work
- Like at one moment computer can perform excel , and we can open word and work in it again we can open web browser and search any data . So here in our computer can perform 3 task at the same time.

6) **No feeling:-**

- Computer is electronic device.
- Computer is machine so it has no feeling.
- Computer can perform any work with help of user.
- We can operate computer 24* 7.
- Computer is not human so it has no feeling.

ONE WORD QUESTION AND ANSWER

SR.NO	QUESTION	ANSWER
1	SPEED OF COMPUTER IS	MICRO SECOND
2	ACCURACY MEANS	PERFECTION
3	VERSATILTY MENAS	PERFORM MANY TASK
4	CAN COMPUTER USE EVERY WHERE?	YES

Explain use and dis advantages of computer. (2 marks)

Detailing:-

Use of computer:-

- Personal use, in medical sector, in science, in space, in banking, railway, bus reservation, office and many other places.

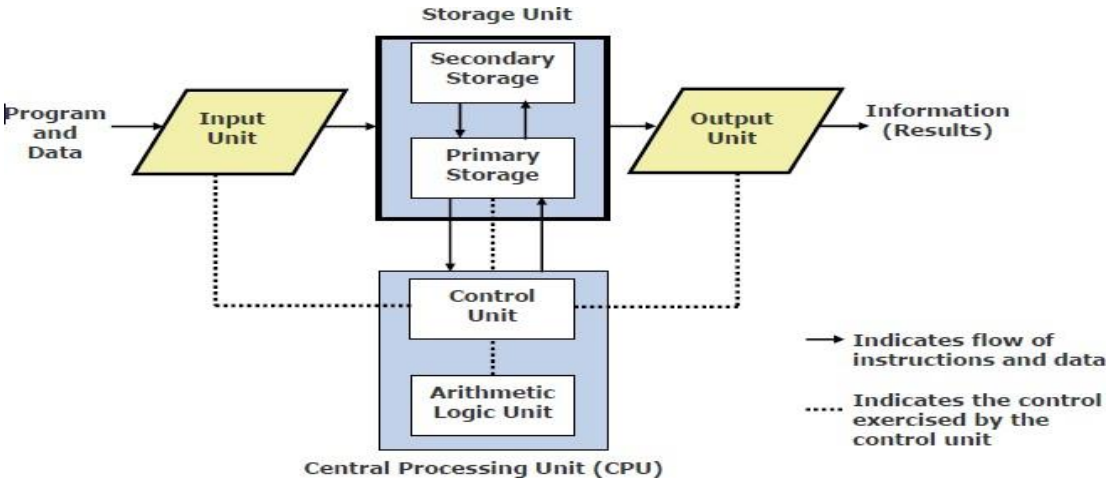
Disadvantages:-

- Computer cannot take any decision because it is machine.
- It always required power.
- Without power computer cannot operate.
- There is chance to fail hard ware and software.
- Atmosphere is effect to the part of computer.

Explain block diagram of computer. (5 marks m.imp)
Or
Explain Simple Model of Computer.

DETAILING:-

- **CPU (Central Processing Unit):-**



- In above diagram there are three different part like input ,output and cpu.

❖ **Input Unit:-**

- An input unit of a Computer system performs the following functions:
  - It accepts (or read) instructions and data from outside word.
  - It converts these instructions and data in computer acceptable form.
  - It supplies the converted instructions and data to the computer system for further processing

❖ **Output Unit:-**

- An output unit of a computer system performs the following functions :
  - It accepts the results produced by the computer, which are in coded form and hence, cannot be easily understood by us.
  - It converts these coded results to human acceptable (readable) form.
  - It supplies the converted results to outside word.

❖ **Storage Device:-**

- The storage unit of a computer system holds (or stores) the following:
  - Data and instructions required for processing (received from input devices)
  - Intermediate results of processing
  - Final result of processing, before they are released to an output device

❖ **Arithmetic and Logic Unit (ALU) : -**

- Arithmetic and logic unit of a computer system is the place where the actual executions of instructions take place during processing operation.

❖ **Control Unit (CU):-**

- Cu is real brain of compter.

- Cu is monitor into computer.
- Cu can check all the process into computer and it also monotir to all the input and out put device.

ONE WORD QUESTION AND ANSWER

SR.NO	QUESTION	ANSWER
1	GIVE THE INPUT DEVICE NAME	KEYBOARD,SCANNER,MIC ETC
2	CPU MEANS	PROCESSOR
3	ALU MEANS	ARITHMETIC AND LOGIC UNIT
4	I.C MEANS	INTEGRATED CIRCUIT
5	CU MEANS	CONTROL UNIT
6	HOW MANY TYPES OF STORAGE ARA VAILABLE	2(PRIMARY AND SECONDARY)

Q- Explain Classification of Computer by processing speed Or

Classification of computer by there size.(5 marks mimp)

Explain digital computer.

DETAILING:-

- There are 4 types of computer like micro, mini, mainframe and super.
- Here all types of computer we can explain.

1) Micro computer:-

- It is small computer.

- In this computer micro processor is used.
- It it found in 1970 by ibm.
- Personal computer ,desktop computer, laptop are example of micro computer. Currently processor named Pentium-II is available in the market.

2) Mini computer:-

- It is found in 1960 by ibm.
- Mini computer is multi user computer.
- It is capable to support the numbers of user.
- This computer is use into server.

3) Mainframe computer:-

* These are suited to big organizations to manage high volume application.

- **It is found in 1970 by ibm.**
- Thousands of user can access this computer at the same time.
- It it use in server.
- It has large storage capacity and it has high processing speed.
- This computer can use in large organization.

4) Super computer:-

- Super computer is most powerful and most expensive computer in today's world.
- It can perform lots of work in to micro second.
- In super computer there are 1000 processor available.

- There are more then 500 super computer are available in the world.

- Super computer is very big in size so it has non portable.
- India's first super computer is param.

ONE WORD QUESTION AND ANSWER

SR.NO	QUESTION	ANSWER
1	HOW MANY TYPES OF COMPUTER ARE AVAILABLE IN PROCESSING SPEED	4MICRO,MINI,MANI FRAME,SUPER
2	WHICH COMPUTER PROCESSING SPEED IS VERY HIGH	SUPER COMPUTER
3	NAME OF INDIA'S FIRST SUPER COMPUTER	PARAM

Q-Explain Generation of computers.(m.imp)
Detailing:-

1. **First Generation (1942-55):-**

- First generation computers were made up of **vacuum tubes.**
- These computers were of very big sizes, expensive consume lot of power.

Limitations

- They were too large in size requiring rooms for installation.
- Thousands of vacuum tubes that were used so it can produce large amount. Hence the air- conditioned required.
- High power consumption and short life span.
- Commercial production of these computers was difficult and costly.
- Limited programming capabilities
- No portable.

2. **Second Generation (1955-64):-**

- The second generation computers using **transistors** instead of vacuum tubes.
- Compared to vacuum tubes they are in size and having more life.

Advantages

- They were more then 10 times faster than first generation computers.
- They were much smaller in size then first generation computers.
- Requiring smaller space for installation.
- They accept less power than the first generation computers.

- They were much easier to program and use than the first generation computers.

Limitations

- They had more than one transistors to made this type of computers
- It is very difficult and costly.
- Repairing charge is very costly.

3. **Third Generation (1964-75):-**
   - The third generation was based on IC (Integrated Circuits) technology.
   - The IC technology was also known as "microelectronics" technology .

Advantages

- They were much more powerful than the second-generation computers.
- Smaller in size as compared to second-generation computers.
- Less power than the second-generation computers.
- Commercial production was easier and cheaper.
- They are portable.

Limitation

- Third generation computers were located had to be properly air-conditioned.
- Highly sophisticated technology and expensive setup was required for the manufacture of IC chips.

4. **Fourth Generation (1975-89):-**
   - The fourth generation computers were also made by IC technology.
   - It is known as Small Scale Integration (SSI).
   - After the advance technology in the production of IC chip it was possible to coordinate 100 components on one chip.
   - It is known as Medium Scale Integration (MSI).
   - Latest and advance IC technology is Very Large Scale Integration (VLSI) in which more than 10 lakhs components can be coordinate on one chip.
   - Fourth generation computers were based on LSI technology.

Advantages

- The pcs were much smaller and cheaper as compared to previous generations.
- They consumed much less power than the third-generation computers.
- They had faster and larger primary memory and secondary storage devices as compared to third-generation computers.
- Pcs are used for office and home usage.
- The pcs of the fourth generation made computers affordable even by individuals for their personal use at home.

Limitations

- Highly difficult technology required for the manufacture of LSI chips.

➢ **Fifth Generation (1989 Onwards):-**

- This generation computers use the ULSI (Ultra Large Scale Integration) for making IC chips.
- Size of this computer is reduced and speed is increase.
- These computers are very powerful and compact as compared to fourth generation computers.

Advantages

- In this generation pcs are much smaller and handy the pcs of the fourth generation.
- They consume much less power.
- They have faster and larger primary memory and secondary storage devices as compared to other generation.
- They are totally general purpose machines.
- Commercial production of these systems is easier and cheaper.

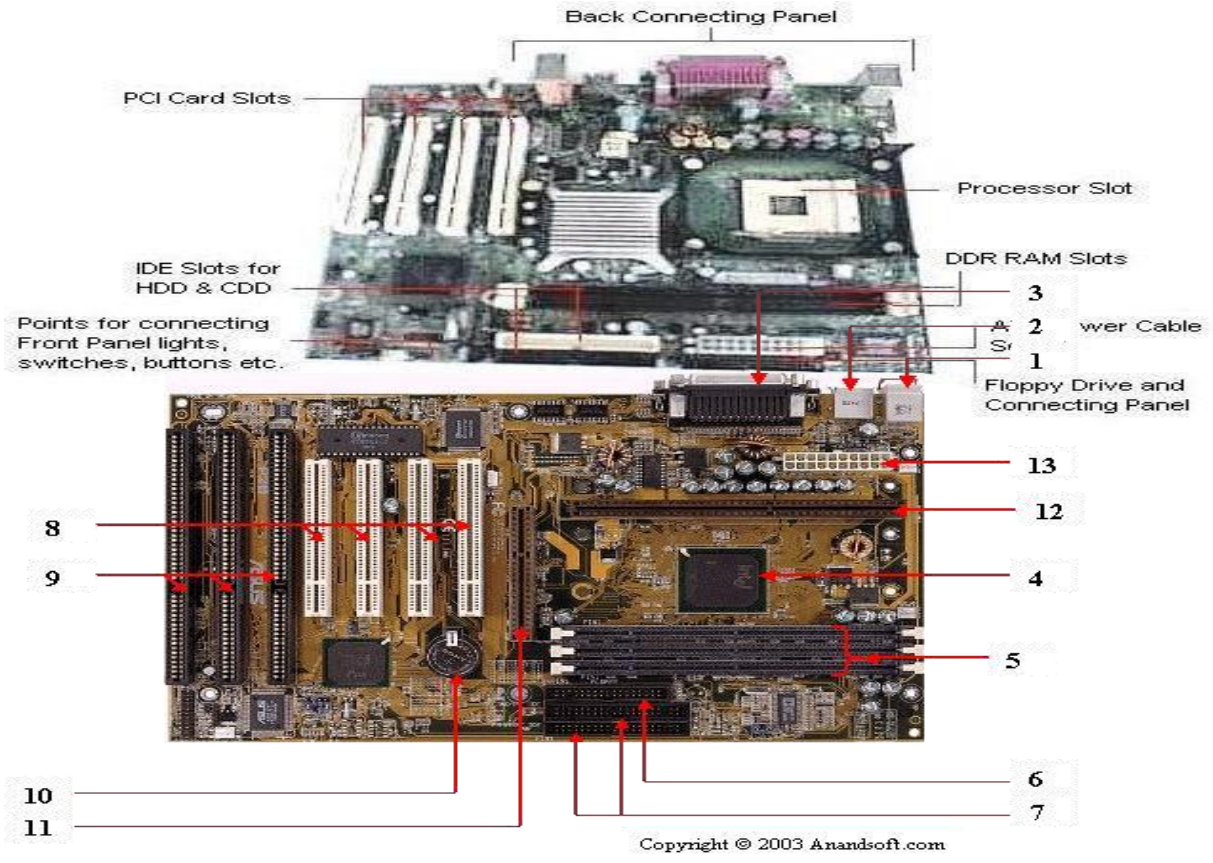
ONE WORD QUESTION AND ANSWER

SR.NO	QUESTION	ANSWER
1	TIME LINE OF 1ST GENERATION	1942-1955
2	TIME LINE OF 2ND GENERATION	1955-1964
3	TIME LINE OF 3RD GENERATION	1964-1975
4	TIME LINE OF 4TH GENERATION	1975-1989
5	TIME LINE OF 5THGENERATION	1989 TO ONEARDS
6	WHICH TECHNOLOGY USE IN FIRST GENERATION	VACCUME TUBE
7	WHICH TECHNOLOGY CAN USE IN 2ND GENERATION	TRASISTOR
8	WHICH TECHNOLOGY USE IN 3,4,AND 5TH GENERATION	I.C.

Q- Explain Mother Board.

DETAILING:-

- The motherboard serves as a single platform to connect all of the parts of a computer together.
- A motherboard connects CPU, memory, hard drives, optical drives, video card, sound card, and other ports and expansion cards directly or via cables.
- It can be considered as the backbone of a computer.



- Mother board is back bone of computer.
- Mother board is circuit it is located in to cpu.
- We can connect mouse, keyboard, usb, dvd drive and all devices are connect into mother board.
- With out mother board we can not perform any task in to computer.
- To attach device mother use different port of computer.

Q- explain mother board in detail

Detailing:-

- Mother board is main part of computer.
- Mother board is single plate form to connect all part of computer.
- Mother board is back bone of computer.
- Mother board is circuit board which is located in cpu.
- We can connect mouse, key board ,usb drive and all device into the mother board.
- With out mother board we can not operate computer.
- Mother board is hard ware.
- To attach device in mother board it can use port.

Q- explain computer port in detail

Detailing:-

- Mother board has following ports
- Likes ps2 port, ram port, usb port, agp port, parallel port ,cmos battery.

1) **Ps2 port:-**

- Ps2 means play station 2 port.
  - It was design by ibm in 1972.
  - In this port we can connect mouse and key board.
  - It is also called mouse and key board port.
  - It is old technology.
- Now a days this port are not use.

Parallel port:-

- Parallel port is also called printer port.
- only printer is connect in this port.
- Data transfer speed of this cable is very fast.
- There are 25 pin are available in this port
- It is old technology.
- It is design by ibm.

3) USB PORT:-

- Usb means universal serial bus.
- Usb is connect with mother board.
- This port also design by ibm
- It is latest port of computer.
- Now a days more than 139 devices are connect into this port.
- It is plug and play port.
- Monitor,printer,mouse, pen drive, camera and many other devices are connect into this device.

5) RAM PORT.:

- Random access memory is ram.
- In this port we can connect only ram.
- More than one ram port are available in motherboard.
- In ram port 168 pins ara available.

6) AGP PORT:-

- **Agp means advanced graphics port.**
- **In agp port we can connect agp card, sound card and video card.**
- **It support high resolution and 3d images and movies.**

7) CMOS BATTERY:-

- **Cmos means complementory mettle oxide semiconductor.**
- **It is used to change date and time of computer.**

Intel,asus,ibm aopen,bio star,abit,giga bite and msi are popular manufacturers of mother board.

Q- explain processor in detail

Detailing:-

- Processor is brain of computer.
- Processor tell to compute what to do and where to do?
- It decide which task is important into computer.
- It is also called micro processor ,chip or cpu.
- It perform all the basic operation
- The speed of processor is in mhz.(mega hertz).
- Which means millions of cycle perform in micro second.
- This first micro processor was found in 1971 and it is called 4040 processor.
- 4040, 8080, 8085 and 8088 are oldest processor.
- Latest processor is i2, i3, i4……..

Q- Explain compter Cable in detail.

DETAILING:-

- To attach different hard ware or device into computer we can use cable.
- There are many types of cable available like vga cable, usb,rj45,rj11 etc.

1) **Vga cable:-**

- Video graphics array is full form of vga cable.
- Vga cable is most popular and most common type of cable.
- Vga cable is used to connect monitor into cpu.

- Monitor like crt, non crt, lcd and led monitor.
- Vga cable was found in 1980 by ibm.

2) **Rj45 cable:-**

- It is network cable
- It is used to connect internet into computer.
- It is also use for networking.
- It is also called network cable.
- Using this cable we can also connect modem.

3) **Rj11 cable:-**

- It is special types of cable used to connect telephone into computer.
- It is old type of cable today.

4) **Parallel cable:-**

- This is special types of cable
- Using this type of cable we can connect hard disk , cd drive and dvd drive
- This cable is available inside the cpu not out side.
- It is old cable.

5) **Sata cable:-**

- Serial advance technology attachment is full form of sata cable.
- Sata cable is latest cable.
- It is used to connect hard disk into mother board.
- This cable provide high data transfer speed.

6) **Usb cable:-**

- It means universal serial bus.
- It is latest cable
- More then 139 device attach with the help of this cable.
- Monitor, printer ,fax machine, hard disk etc are connect with the help of usb cable.

Q- EXPLAIN SOUND CARD.
DETAILING:-

- **It is also called audio card.**
- **It support sound into computer.**
- **Without sound card computer can not play audio.**

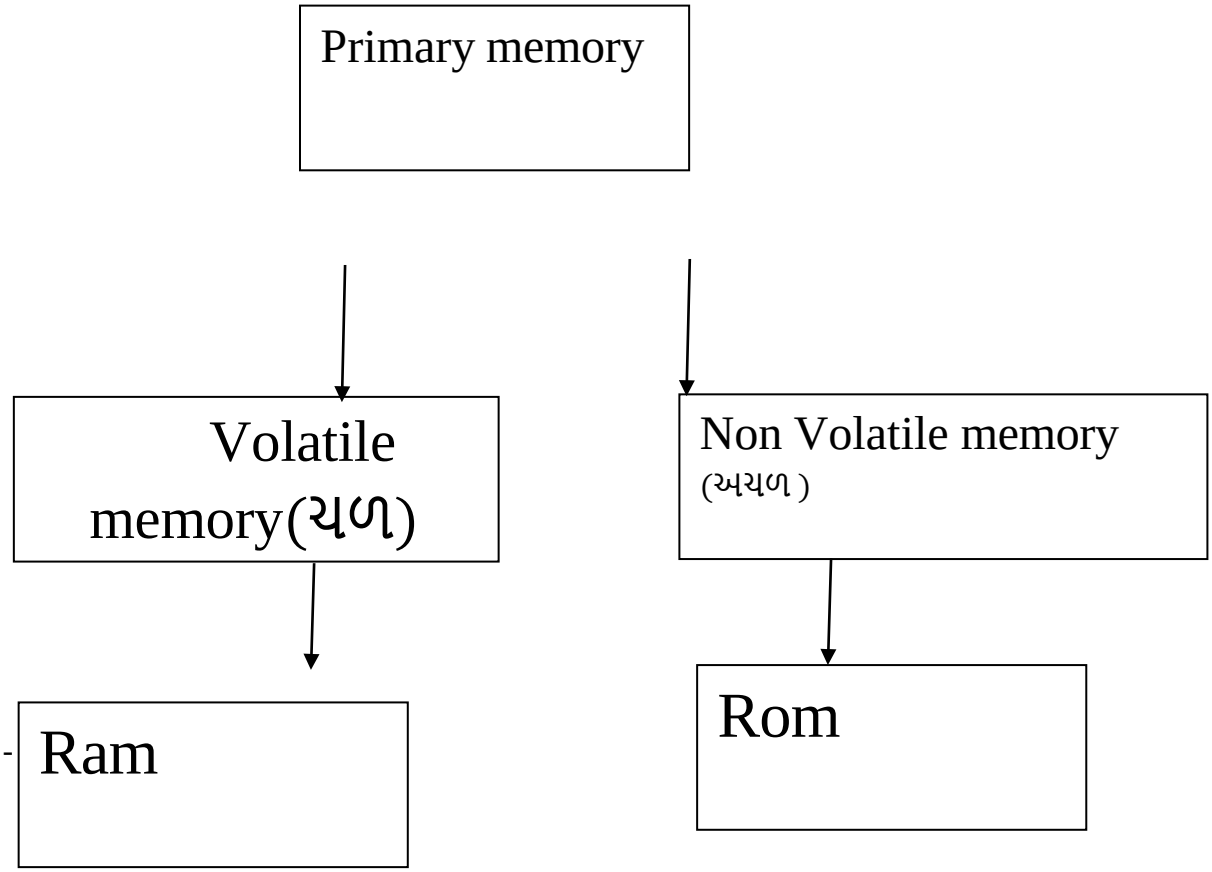
Q- **EXPLAIN GRAPHICS CARD.**

DETAILING:-

- **It is also called video card,video adapter and graphic adapter.**
- **It support high level graphics 3d image,3d game and hd videos.**

Q- EXPLAIN PRIMARY MEMORY(3 MARKS) DETAILING:

- In computer there are two types of memory like primary and secondary.
- Now we can explain what is primary memory?



Ram:

- Primary memory is also called **main memory.**
- There are two types of primary memory like ram and rom. These memory insert into cpu(motherboard).
- Without these memory we can not start our computer. So that's why it is called primary.
- Random access memory. Ram is internal memory It is volatile memory.

- Ram is also called temporary memory.
- Ram is made with silicon and plastic material.
- When pc is switch off then ram is blank.
- Values in ram are continuously change so that's we can say ram is volatile memory.
- Ram is insert into motherboard or other circuit board.
- Ram insert into ram port.
- Ram is inexpensive.

Rom:-

- Rom read only memory.
- It is also called flash memory
- It is also called permanent storage or field storage.
- In rom data is store permanent and it can be change by only expert.
- Without rom computer can not working.
- In rom bios files are available.
- Rom can not blank when pc is switch off.
- Rom is non volatile memory.
- There are 3 types of Rom like

1) PROM
2) EPROM
3) EEPROM.

1) PROM:-

- Programable read only memory.
- Prom is non volatile because once data is insert then it can never change.

2) Eprom:-

- Erasable programable read only memory.
- This types of rom is rewritable.
- This type of rom is costly.

3) EEPROM:-

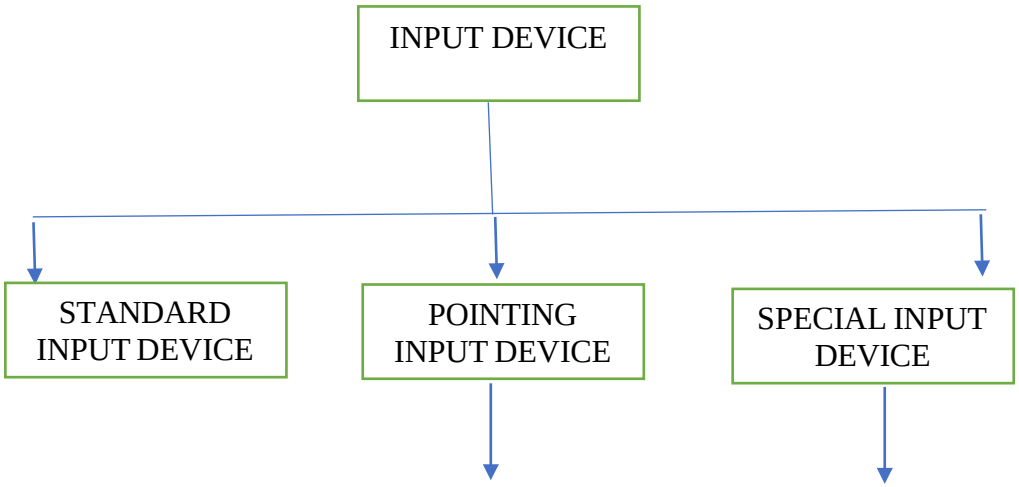
- Electrically erasable programmable read only memory.
- It can delete bunch of instruction
- Programmer can re program into it.
- This type of rom use ultra violet signal to delete information.

CH-2 :-INPUT DEVICE

Q-1 WHAT IS INPUT DEVICE?EXPLAIN TYPES OF INPUT DEVICES.(5 MARKS M .IMP)

DETAILING:-

- INPUT DEVICE IS ELECTRONICS DEVICE.
- WHICH ACCEPT DATA FROM THE OUTSIDE THE WORLD AND TRANSLAT THEM INTO COMPUTER LANGUAGE.
- THERE ARE SO MANY TYPES OF INPUT DEVICES ARE AVAILABLE.



1. KEYBOARD.
   - MOUSE
   -LIGHT PEN
   -JOYSTICK
   -TOUCH SCREEN
   -VDE
   -SCANNER
   -CAMERA
   -MIC

1)**STANDARD INPUT DEVICE:-**

- KEYBOARD:-

- KEYBOARD IS MOST COMMON TYPE OF INPUT DEVICE.

IT ALLOW DATA ENTRY INTO COMPUTER SYSTEM BY PREESING KEYS.

- KEYBOARD IS LOOK LIKE TYPE WRITER.
- TYPE WRITER WAS FOUND ON 1819
- 1ST KEYBOARD WAS FOUND IN 1890.
- THERE ARE TWO TYPES OF KEYBOARD.LIKE
- **GENERAL PURPOSE KEYBOARD**
- **SPECIAL PURPOSE KEYBOARD**

1) GENERAL PURPOSE KEYBOARD:-

- IT IS STANDARD KEYBOARD
- IT IS USE WITH MOST OF COMPUTER.
- IT IS CALLED GENERAL PURPOSE BECAUSE IT HAS ENOUGH KEYS TO MAKE THEM USEFUL FOR ANY TYPE OF APPLICATION.
- THE MOST POPULAR GENERAL PURPOSE KEYBOARD USE TODAY ARE 101 KEYS.
- THIS KEYBOARD IS FOUND IN 1972 BY IBM
- THE FIRST KEYBOARD HAS 83 KEYS.SO IT IS CALLED PC 83 KEYBOARD.
- THE LAYOUT OF KEYBOARD IS QWERTY.
- NOW A DAYS MANY TYPES OF KEYBOARD ARE AVAILABLE LIKE PC 84,PC 101,PC 104AND PC 126 KEY BOARD.
- THERE ARE VARIOUS TYPES OF KEYS AVAILABE IN KEYBOAD LIKE NUMERIC KEY,ARROW KEY,ALPHA NUMERIC KEY,FUNCTION KEY,SPECIAL KEYS AND OTHER.

1) ALPHANUMERIC KEY:-

- IT CONTAIN ENGLISH ALPHABET LIKE A TO Z AND NUMBER LIKE 0 TO 9 .
- I HAS SPECIAL CHARACTER LIKE ?,+,- ,@,# AND MANY OTHER.

2) NUMERIC KEY:-

- IT CONTAIN NUMBER LIKE 0 TO 9 AND SOME OPERATOR LIKE +,- AND MORE.

3) Arrow key:-

- There are four types of arrow key like up ,down , left and right.

4) Special key:-

- SPECIAL KEY ARE USE WITH SPECIAL PURPOSE.

- SOME OF THE MOST IMPORTANT KEYS ARE ALTER, CONTROL, SPACE BAR , ANY MANY MORE.

5) OTHER FUNCTION KEY:-

- KEYBOARD HAS SET OF 12 FUNCTION KEYS LIKE F1 ,F2…F12.

2) SPECIAL PURPOSE KEY BOARD:-

- THE SPECIAL PURPSE KEYBOARD USE WITH SPECIAL APPLICATION.
- USE OF THIS TYPES OF KEYBOARD IS FAST DATA ENRTY.

TYPES OF KEY BOARD:

1) NORMAL KEY BOARD:-

- THIS TYPE OF KEYBOARD USE WITH DESKTOP COMPUTER.
- NORMALTHIS KEYBOARD CONNECT INTO PS2 PORT AND USB PORT.

2) LAPTOP KEY BOARD.

- IT IS SMALL IN SIZE.
- IT DOSE NOT REQUIRE ANY TYPE OF PORT BECAUSE THIS KEY BOARD ATTECH INTO LAPTOP.

3) WIRELESS KEYBOARD:

- THIS TYPES OF KEYBOARD DOES NOT REQUIRED ANY TYPE OF WIRE FOR THE CONNECTION..
- COMPARE OTHER KEY BOARD IT IS EXPENSIVE.

4) ROLL BACK KEYBOARD:-

- IN THIS TYPE OF KEYBOARD USER ROLL ENTIRE KEYBOARD AND TRANSFER INTO ONE PLACE TO OTHER PLACE .
- IT IS VERY EXPENSIVE.

- **POINTING INPUT DEVICE:-**

1) MOUSE:-

- THE FIRST MOUSE WAS FOUND BY DOUGLAS ENGELBART IN 1964.
- MOUSE IS ALSO CALLED EDIT TEXT DEVICE.
- MOUSE IS POINITNG DEVICE.
- IT IS SMALL OBJECT WE CAN MOVE ON THE FLATE SURFACE.
- MOUSE IS USE TO DRAW PICTURE AND DIAGRAM.
- IT IS SMALL AND LOOK LIKE MOUSE.
- THE FIRST MOUSE USE BALL TECHNOLOGY.
- NOW A DAYS MOUSE CAN USE LASER TECHNOLOGY FOR BATTER MOVEMENT.
- THE MOUSE HAS SOME COMMON FUNCTION LIKE CLICK, DOUBLE CLICK,AND DRAG.
- THERE ARE VARIOUS TYPES OF MOUSE . LIKE MECHANICAL MOUSE,LASER MOUSE,WIRELESS MOUSE AND 3D MOUSE.
- MOUSE USE PS2 PORT AND USB PORT
- MOSE IS INEXPENSIVE

2) TOUCH SCREEN:-

- TOUCH SCREEN IS SIMPLE INPUT DEVICE.
- IT IS EASY TO USE.
- TOUCH SCREEN WAS FOUND IN 1965.
- TODAY 99% MOBILE COMPANY USE THIS TCHNOLOGY.
- IN RAILWAY STATION,BUS STATION AND BANKING SECTOR USE THIS TECHNOLOGY.

3) LIGHT PEN:-

- IT IS POINTING DEVICE.
- IT IS FOUND IN 1965.
- IT IS CALLED LIGHT PEN BECAUSE IT IS SIMILAR TO THE PEN AND USE SENSOR LIGHT.
- IT IS ALSO CALLED ELECTRONIC PEN.
- THE PURPOSE OF LIGHT PEN IS DRAW THE ACCURATE DIAGRAM.

4) JOY STICK:-

- JOY STICK IS POINTING DEVICE.
- THE FUNCTION OF JOY STICK IS SIMILAR TO THE MOUSE.
- IT IS FOUND IN 1978.

- THE PURPOSE OF JOY STICK IS PLAY GAME.

5) TRACK BALL:-

- IT IS FOUND IN 1947.
- TRACK BALL IS POINTING DEVICE.
- IT IS USE IN ANY TYPE OF SURFACE.
- THE FUNCTION OF TRACK BALL IS SIMILAR TO THE MOUSE.

SPECIAL INPUT DEVICE:-

1) VDE:-

- VOICE DATA ENTRY.
- IT IS USE FOR LARGE DATA ENTRY.
- THIS DEVICE IS FAST AND ACCURATE.
- IT IS USE FOR HANDICAP PERSON AND SECURITY DEPARTMENT.
- IN vde USER CAN SPEAK IN SPECIAL LANGUAGE LIKE AMERICAN ENGLISH.
- IT IS INEXPENSIVE DEVICE.
- NOT WIDELY USED TODAY.

2) MIC(MICRO PHONE):

- MIC IS SPECIAL INPUT DEVICE.
- IT RECEIVE HUMAN VOICE AND CONVERT INTO DIGITAL FORMATE.
- SPECIAL TYPES OF DRIVER AND SOFTWARE ARE REQUIRED.
- IT IS USEFUL IN CHAT AND RECORDING AND ETC.

- IT IS POPULAR INPUT DEVICE.

3) SCANNER(M.IMP):

- SCANNER IS SPECIAL PURPOSE INPUT DEVICE.
- SCANNER IS INPUT DEVICE THAT TRANSLAT PAPER DOCUMENT INTO ELECTRONIC FORMATE THAT CAN STORE INTO COMPUTER.
- SCANNER CONVERT HARDCOPY DATA INTO SOFT COPY DATA.

- TO OPERATE SCANNER WE MUST REQUIRE SOFTWARE AND DRIVER.
- SCANNER IS EASY TO USE.
- SCANNER CONNECTED WITH USB PORT.
- THERE ARE FOURT TYPES OF SCANNER LIKE

1) OMR
2) 0CR
3) OBR
4) MICR.

1) **OMR SCANNER:**

- OMR MEANS OPTICAL MARK READER.
- THIS SCANNER AREA CAPABLE TO SCAN PREDEFINE TYPES OF MARK MADE BY PEN OR PENCIL.
- CHECKING OF PAPER VERY FAST,ACCURATE AND WITHOUT CORRUPTION.
- THIS SCANNER SCAN ONLY MARK.
- IT CAN NOT READ ANY CHARACTER AND SPECIAL SYMBOL.
- ERASE AND CANCEL CAN NOT POSSIBLE IN THIS SCANNER.
- THIS SCANNER NEED GOOD QUALITY PAPER.
- DUSTY PAPER CAN NOT SCAN .
- IT IS EXPENSIVE.
- THIS TYPES OF SCANNER USE IN GOVERNMENT SECTOR AND EXAM DEPARTMENT.
- OMR SHEET ARE REQUIRED TO PERFORM MARK.

2) **OCR SCANNER:-**

- OPTICAL CHARACTER READER.
- IT IS CAPABLE TO SCAN ALPHABET AS WELL NUMBER.
- IT IS CAPABLE TO SCAN GRAPHICS AND SPECIAL SYMBOL.
- OCR SCANNER CAN REQUIRE OCR SHEET.
- ROUGH AND DUSTY PAPER CAN NOT SCAN.
- IT IS VERY EXPENSIVE AND USE ONLY LARGE ORGANIZATION.
- IT IS FAST ACCURATE AND WORK WITHOUT CORRUPTION.

3) **OBR:-**

- OPTICAL BARCODE READER.
- BARCODE SCANNER IS RESPONSIBLE TOSCAN SPECIAL TYPES OF BAR.

- DATA CODED IN THE FORM OF SMALL LINE ARE KNOWN AS BAR CODE.
- BAR CODE REPRESENT NUMERICAL DATA BY COMBINATION OF VERTICAL LINE.
- BAR CODE READER USE LASER TECHNOLOGY.
- IT IS HAND HALD DEVICE.
- IT IS ADVANCE TECHNOLOGY USE IN SHOPPING MALL , POST OFFICE AND OTHER DEPARTMENT.

4) **MICR:-**

- MAGNETIC INK CHARACTER READER.
- MICR IS USE IN BANKING SECTOR FOR THE FAST PROCESS OF LARGE VOLUME OF CHEQUE.
- IT ALLOW COMPUTER TO READ INFORMATION LIKE ACCOUNT NUMBER AND MANY OTHER DETAIL PRINTED ON THE CHEQUE.
- IT IS EXPENSIVE DEVICE WE CAN NOT USE IN OUR HOME.

CAMERA:-

- CAMERA IS SPECIAL INPUT DEVICE.
- IT IS NOT DIRECTLY CONNECT TO THE COMPUTER.
- THERE ARE FOUR TYPES OF CAMERA LIKE VIDEO CAMERA, DIGITAL CAMERA, WEB CAM,CCTV.

1) VIDEO CAMERA:-

- VIDEO CAMERA IS SPECIAL USE FOR FILM AND TELEVISION INDUSTRY.

- IT IS ALSO USE FOR SHUTING IN PARTICULAR FUNCTION.
- IN THIS CAMERA IT CAN NOT PROVIDE VIDEO OR PICTURE DIRECTLY INTO COMPUTER BUT IT RECORD ALL THE DATA INTO FILM AND FILM WAS DEVELOP.
- VIDEO CAMERA IS VERY HIGH QUAITY RESOLUTION.
- IT IS VERY EXPENSIVE.

2) DIGITAL CAMERA:-

- IT IS USE FOR CAPTURE IMAGE.
- IN CURRENT DIGITAL CAM IT ALSO SUPPORT VIDEO AND SOUND RECORDING FACILITY.

COMPARE TO VIDEO CAM IT DOES NOT PROVIDE HIGH RESOLUTION .

3) WEB CAMERA(WEB CAM):

- WEB CAMERA IS DIRECTLY CONNECT IN PERSONAL COMPUTER AND LAPTOP.
- IT DOES NOT HAVE STORAGE UNIT.
- IT IS SUITABLE FOR PERSON TO PERSON COMMUNICATION OR LIVE CHAT.
- WEB CAM REQUIRE INTERNET,WITHOUT INTERNET USER CAN NOT ACCESS WEB CAM.
- COMPARE TO OTHER CAM IT DOES NOT PROVIDE GOOD RESOLUTION AND QULITY OF SOUND AND VIDEO.
- IT IS BY DEFAULT AVAILABLE IN LAPTOP.

4) CCTV CAMERA:-

- CCTV MEANS CLOSED CIRCUIT TELEVISION.
- IT IS RESPONSIBLE TO CAPTURE LIVE VIDEO.
- IT IS CONNECT WITH COMPUTER OR OTHER DEVICE.
- IT IS CAPABLE TO CAPTURE DAY EVENT OR NIGHT EVENT.
- IT IS USEFULL FOR SECURITY PURPOSE.IT IS USE IN GOVERNMENT OFFICE ,PRIVATE OFFICE AND HOME .

Q-EXPLAIN GRAPHICS TABLET.
ANS:-

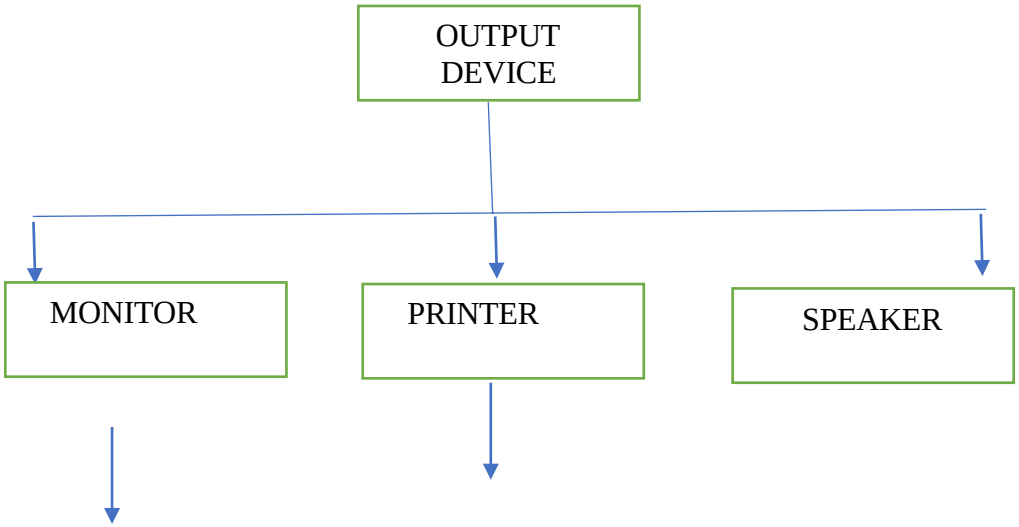
- **IT IS ALSO CALLED DIGITAL TABLET,GRAPHICS PAD ,DRAWING TABLET OR PEN TABLET.**

- **IT IS INPUT DEVICE THAT ENABLE USER TO HAND DRAW IAMGE.**
- **IT IS ALSO USE TO CAPTURE HAND WRITING SIGNATURE AND MANY WAYS.**

CH-3 :-OUTPUT DEVICE 14 MARKS
15 LECTURES

Q-1 WHAT IS OUTPUT DEVICE?EXPLAIN TYPES OF OUTPUT DEVICES.(5 MARKS M .IMP)

DETAILING:-



- CRT MONITOR. - IMPACT
- NON CRT - NON IMPACT

DEFINITION:-

- OUTPUT DEVICE IS ELECTRONICS DEVICE THAT RECEIVE DATA FROM THE COMPUTER AND TRANSLATE THEM INTO HUMAN LANGUAGE.
- THERE ARE MANY TYPES OF OUTPUT DEVICES AVAILABLE TODAY.

1) MONITOR:-

- IT IS MOST POPULAR OUTPUT DEVICE.
- IT PRODUCE SOFT COPY OUT PUT.
- IT WAS FOUND 1862.
- IT IS ALSO CALLED V.D.U (VIDEO DISPLAY UNIT) OR VISUAL DISPLAY.
- IT IS WINDOW THAT GENERATE OUTPUT OF ALL PROCESS OF COMPUTER.
- THERE ARE TWO TYPES OF MONITOR LIKE CRT AND NON CRT.

1) CRT MONITOR:-

- CRT MEANS CATHODE RAY TUBE.
- IT IS NON PORTABLE MONITOR.
- THIS MONITOR IS LOOK LIKE TV.
- IT IS MOST COMMON AND POPULAR O/P DEVICE.
- IT IS USE CATHODE TUBE.
- THIS MONITOR AVAILABLE IN MANY SIZE LIKE 15,17,21 AND 24 INCH.
- IT GENERATE TOO MUCH HEAT.
- CRT MONITOR ALSO AVAILABLE IN BLACK N WHITE AND COLOR.
- IT IS OLD TECHNOLOGY NOT USE TODAY.

2) NON CRT MONITOR:

- NON CRT INCLUDE LCD,LED AND PDP.
- IT IS USE MICRO PROCESSOR CHIP.
- IT IS LIGHT IN WEIGHT.
- IT IS USE LESS ELECTRONICS POWER.
- IT GENERATE TOO LESS HEAT.
- IT IS PORTABLE.
- IT IS ADVANCE TECHNOLOGY.
- THERE ARE THREE TYPES OF NON CRT MONITOR WE EXPLAIN HERENONE BY ONE.

A) LCD:-

- LIQUID CRYSTAL DISPLAY.
- AFTER CRT MONITOR LCD IS USED.
- IT IS SMALL IN SIZE AND LIGHT IN WEIGHT.
- IT IS USED MICRO CHIP FOR PROCESSOR.
- IT IS PORTABLE.
- IT PROVIDE HIGH RESOLUTION.
- LCD IS FOUND IN 1968.

- LCD AVAILABEL IN COLOR ALSO.
- THERE AREA MANY SIZE OF LCD MONITOR LIKE 14 ,17,21,29 INCH.

B) LED:-

- LIGHT EMITTING DIODES.
- IT IS FOUND IN 1977.
- AFTER LCD IT IS USED.
- IT IS ADVANCE.
- IT IS PORTABLE.
- IT PROVIDE HIGH RESOLUTION AND BETTER QUILITY OUTPUT.
- IT IS MORE USE TODAY.

C) **PFP:-**

- PLAZMA DISPLAY PANNEL
- IT IS FOUND IN 2014.
- IT IS MOST ADVANCE TECHNOLOGY TODAY WORLD.
- PDP IS LATEST MONITOR TYPES.
- IT IS VERY BIG IN SIZE.
- IT PROVICE VERY HIGH RESOLUTION AND MUCH BETTER QUILITY OUTPUT TO COMPARE OTHER DEVICE.
- IT IS VERY EXPENSIVE.

Crt monitor **lcd monirot** **led monitor**

Pdp monitor.

PRINTER:-

PRINTER ARE MOST POPULAR AND COMMON TYPES OF O/P DEVICE.

- IT IS RESPONSIBLE TO GENERATE O/P IN HARD COPY FORMATE.
- PRINTER ARE CONNECT INTO PARALLEL PORT OR USB PORT.
- TO OPERATE PRINTER IT REQUIRE DRIVER AND SOFTWARE.
- THERE ARE TWO TYPES OF PRINTER. LIKE 1)IMPACT PRINTER 2) NON IMPACT PRINTER.
- PRINTER ARE CLASSIFIED AS CHARACTER PRINTER,LINE PRINTER AND PAGE PRINTER.
- CHARACTER PRINTER PRINT ONE CHARACTER AT A TIME
- LINE PRITNER PRINT ONE LINE AT A TIME.
- PAGE PRINTER PRINT PAGE ONE PAGE AT A TIME.
- PRINTER ARE AVAILABLE IN COLOR AND BLACK & WHITE.
- PRINTER IS FOUND IN 1938.

TYPES OF PRINTER:

1) IMPACT PRINTER:-

- IMPACT PRINTER USE RIBBON TECHNOLOGY

- IT IS OLD TECHNOLOGY PRINTER.
- THERE ARE FOUR TYPES OF IMPACT PRINER LIKE DOT MATRIX ,CHAIN,DRUM AND DAISY WHEEL.

1) DOT MATRIX PRINTER:-

- IT IS IMPACT PRINTER.
- IT IS USE RIBBON TECHNOLOFY.
- IT IS A CHARACTER PRINTER BECAUSE IT PRINT ONE CHARACTER AT A TIME.
- IT IS OLD TECHNOLOGY.
- DOT MATRIX PRINTER IS VERY NOISY .TO REDUCE VOICE WE CAN USE COVER.
- IT PRINT MULTIPLE COPY AT A TIME BY USING CARBON PAPER.
- THE SPEED OF **THIS PRINTER ARE 30 TO 600 CHARACTER PER SECOND(CPS).**

2) DAISY WHEEL PRINTER:

- IT IS IMPACT PRINTER.
- IT IS ALSO USE RIBBON TECHNOLOGY.
- IT IS OLD PRINTER.
- IN THIS PRINTER MATEL WHEEL IS USE.
- IT IS **CHARACTER PRINTER.**
- THE **SPEED OF THIS PRINTER ARE 10 TO 50 CHARACTER**

PER SECOND.(CPS).

3) DRUM PRINTER:-

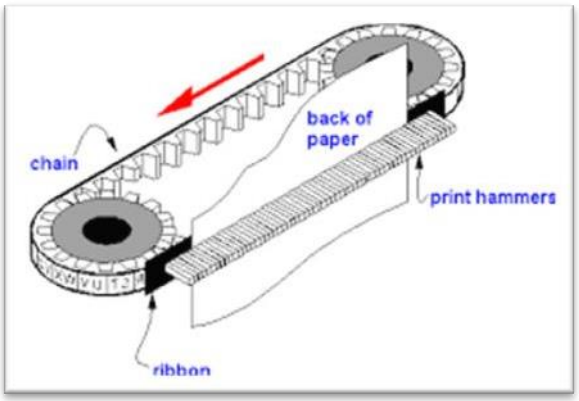
- IT IS IMPACT PRINTER .
- IT IS USE RIBBON TECHNOLOGY.
- IT IS USE METAL SELINDER.
- IT IS LINE PRINTER.
- THE SPEED OF THIS PRINTER ARE 300 TO 2000 LINE PER MINUTE.(LPM).

4) CHAIN PRINTER:-

- IT IS IMPACT PRINTER.
- IT USE RIBBON TECHNOLGY.
- **THE SPEED OF THIS PRINTER ARE 40 TO 100CHARACTER**

PER SECOND.

- IT IS OLD TECHNOLOGY.



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2) NON IMPACT PRINTER:-

- NON IMPACT PRINTER IS ADVANCE PRINTER.
- IT IS USE SPRAY WITH LASER TECHNOLOGY.
- THIS TYPES OF PRINTER USE EVERY WHERE TODAY.
- THERE ARA TWO TYPES OF NON IMPACT PRINTER LIKE
- 1) INKJET PRINTER
- 2) LASER PRINTER.

---

1) INKJET PRINTER:-

- IT IS NON IMPACT PRINTER.
- IT IS USE SPRAY WITH LASER TECHNOLOGY.
- IT IS CHARACTER PRINTER.
- INK JET PRINTER PRODUCE HIGH QUALITY OUTPUT .
- IT IS QUIET IN OPERATION.
- INK JET PRINTER ARE COLOUR AND BLACK N WHITE.
- THE SPEED OF THIS PRINTER ARE 40 TO 300 CHARACTER PER SECOND.(CPS)
- IT IS ADVANCE TECHNOLOGY.

- IT IS EXPENSIVE.

2) **LASER PRINTER:-**

- IT IS NON IMPACT PRINTER.
- IT IS USE SPRAY TECHNOLOGY.
- IT IS MOST USEFUL AND POPULAR PRINTER.
- THIS PRINTER IS PAGE PRINTER.
- LOW SPEED LASER PRINTER PRINT 4 TO 12 PAGE PER MINUTE(PPM).
- HIGH SPEED LASER PRINTER PRINT 500 TO 1000 PAGE PER MINUTE(PPM).
- IT IS NOT EXPENSIVE.
- IT CAN NOT GENERATE MULTIPLE PRINT AT A TIME BECAUSE IT NOT USE CARBBON.

- PLOTTER:-
- PLOTTER IS USE TO PRINT DIAGRAM ,BANNER,LARGE IMAGE AND GRAPHICS IMAGES.

- PLOTTER ARE VERY SLOW AND THEY ARE VERY LARGE.
- IT IS EXPENSIVE.
- IT IS NON PORTABLE
- IT IS NOT USE PAPER BECAUSE IT IS USE SPECIAL TYPE OF CLOTHS AND PLASTICS.
- 

3) SPEAKER:-

- IT IS OUTPUT DEVICE.

ALL THE COMPUTER GENERATE SOUND WITH THE HELP OF SPEAKER.

- SPEAKER CONVERT ELECTRONICS SIGNAL IN SOUND WAVE.
- THERE ARE TWO TYPES OF SPEAKER LIKE INTERNAL AND EXTERNAL SPEAKER.

1) INTERNAL SPEAKER:-

- IT IS AVAILABLE WITH MOTHERBOARD.
- IT IS ONLY RESPONSIBLE TO GENERATE BEEP SOUND OR SOME SMALL SOUND TO ALERT USER.

2) EXTERNAL SPEAKER:-

- IT IS AVAILABLE WITH SOUND CARD AS WELL AS MOTHERBOARD CIRCUIT AND ALSO OUT OF CPU.
- IT REQUIRE SOFTWARE OR DRIVER.
- SPEAKER SUPPORT AUDIO FILE,VIDEO FILE OR SOUND FILE.

OTHER OUTPUT DEVICE:-

1) LCD PROJECTOR:-

- LIQUID CRYSTAL DISPLAY PROJECTOR.

- LCD PROJECTOR IS TYPE OF VIDEO PROJECTOR.
- IT DISPLAY VIDEO,IMAGE,FILE ON SCREEN OR ANY FLAT SURFACE.
- IT IS MODERN PROJECTOR.
- EASY TO USE NO ANY DRIVER OR SOFTWAE NEED.
- IT IS PORTABLE AND EXPENSIVE.
- IT IS USEFULL IN EDUCATION DEPARTMENT,PRIVATE SECTOR,GOV OFFICE AND MANY OTHER SITE.

2) OHP PROJECTOR:-

- OHP MEANS OVER HEAD PROJECTOR.
- IT IS USE IN EDUCATION DEPARTMENT.
- IT DISPLAY DIAGRAM,TEXT OR IMAGE ON THE SCREEN OR FLAT SURFACE.
- IT IS EXPENSIVE.
- IT IS OLD TECHNOLOGY.

3) FAX:

- FAX MEANS FASCIMILE.
- IT IS CALLED TELECOPY OR TELEFAX.
- IT TRANSFER TEXT AND IMAGE.
- TELEPHONE LINE IS REQUIRED TO USE FAX MACHINE.

4) OLED PROJECTOR:

- OLED MEANS ORGANIC LIGHT EMITTING DIODE.
- IT IS DISPLAY HIGH RESOLUTION VIDEO,IMAGE OR GRAPHICS.
- IT IS FOUND IN 1987 BY CODEK COMPANY.

5) HEADPHONE:-

- HEADPHONE ARE SMALL LISTENING DEVICE.
- IT IS A CONVERT ELECTRONIC SIGNAL INTO SOUND WAVE.
- HEADPHONE ARE ALSO KNOWN EARPHONE.

6) SGD:-

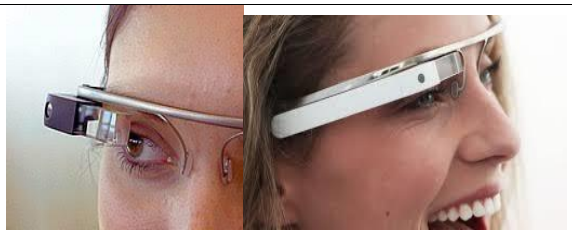
- SGD MEANS SPEECH GENERATING DEVICE.

It is also known as voice output communication.

- this device allow user to select message to be spoken.
- This device are attach into computer system.
- It is expensive and not widely use.

7) GOOGLE GLASS:-

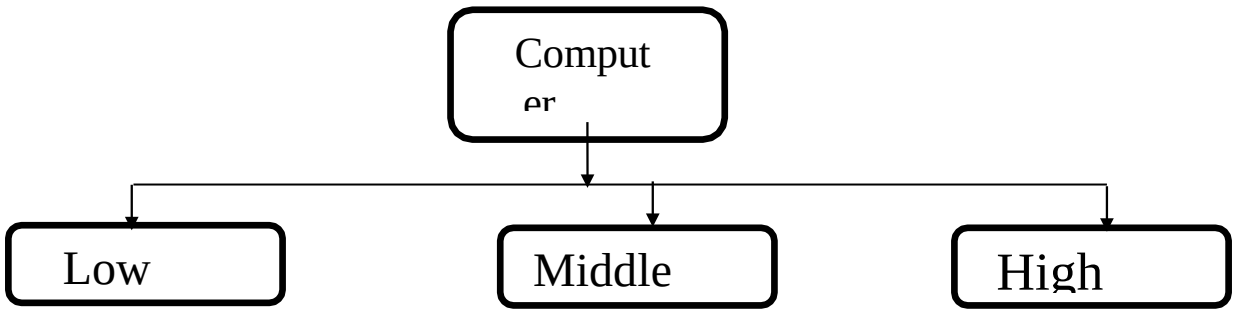
- GOOGLE GLASS IS OPTICAL HEAD DISPLAY TECHNOLOGY.
- IT LOOK LIKE EYE GLASS.
- IT DISPLAY INFORMATION IN EYE GLASS.
- THE FIRST GOOGLE GLASS WAS FOUND IN 15'IH MAY 2014.
- THE PRICE OF GOOGLE GLASS IS $1500.
- ON JANUARY 2015 GOOGLE WAS ANNOUNCED THAT IT WOULD BE STOP PRODUCTION OF GOOGLE GLASS FOR SECURITY REASON.



CH 4 operating system, computer language And number system

Q-**1.what is computer language?Explain types of computer language.**
(3 marks)

- Language is way of commumication.
- Programming language consists of all the character and symbol to communication with the computer system.
- They are created for special purpose.
- Types of computer language.



1. Low Level Language:-

- Machine language and assembly language are known as low level language.

(I)Machine Language:-

- Machine language is also known as binary language.
- It is made of only two symbols like (0,1)
- There is special binary code for each instruction.
- Machine language very fast run program.
- No need to any translator.
- Using this language user must need hardware language.

(i) Assembly Language:-

- Machine language use binary code its very difficult to understand.
- Assembly language use some special symbol and special function.
- Special function like add, sub, mul, div, and, mod.
- It is use special symbol like ?, @, +, -, * and many more.
- It is easy to understand.
- In this language translator is must required.

2. Middle Level Language:-

- Some language use the feature of low level language as well as high level language such language are known as middle level language.
- c and c++ are middle level language.

3. High Level Language:-

- To write program in any language user has no remember of any code.
- High level language are easy to use.
- In high level language user does not need knowledge of hardware.
- It is most popular language today.

- Complier are use to convert high level language into machine

Language.

- it check error line by line.

2. Interpreter :-

- It is also use to convert high level language into machine language.
- It check error statement by statement .

Q-3.Explain types of operating system in details. (3 marks)

Operating system:- (OS)

And

- Operating system is system software which act as interact between user Computer hardware.
- Operating system communicate between user and computer.
- Operating system is most important software.
- Without operating system we can not operate computer.
- There are many types of operating system like batch processing

Operating System, multi programming operating system, multi processor operating system and time sharing operating system.

1. Batch processing operating system:-

- It is also called serial processing and sequential processing.
- In this type of operating system computer can collect program/data and process in one by one.
- It is first come first come first out system.
- Punch card and payroll system are example of this operating system.

2. Multi programming OS:-

- In this OS computer system support more than one program at a time.
- It means we can perform word, excel, powerpoint, google at a time.

3. Multi processor OS:-

- In this type of operating system that made use of more than one CPU.
- It can improve the performance of computer system.
- in case of any one CPU is fail than other CPU is take over all the work without loss of data.

---

4. Time sharing OS:-

Quick - It is from of multi processing OS which operate instructive mode in Response time.

- It is allow number of users to use one computer at a time.
- In this type of OS cpu is devide time in between all the user.

Q-4. Explain software package.

OR

Explain application software package.

- Application software is type of software which is design in order to perform specific task.

Letter

- For example we might want to do some official work like writing

And putting notice to make slide and to make some calculation.

- In this case we need some software packages.
- There are verity of software package available today like.
  1) **Word processing software**
  2) **Spread sheet software**
  3) **Presentation software**
  4) **Database software**

The

  5) **Graphical software**

1. Word processing software:-

- Word processing is software which has all the facility can be apply on

Word.

- We can process on word or entire document.

- this type of effect is use in word processing software package.

2. Spread sheet software:-

- Spread sheet is table or matrix of row and column.
- The enter section of row and column is call cell.
- Cell can hold the date include number, formula and text.
- Excel is example of speard sheet document.

3. Presentation package:-

- There are some presentation software available and we fulfill our requirement.
- Presentation program is package use to display information in the form of slide show.
- Power point is example of this package.

4. Data base package:-

- Database management system just call database manager is a program that One or more computer user creat and access data in the database.
- Access is example of this package.
- Database is collection of tables it store all the user data.

5. Graphics software:-

- Graphics software is form of application software for the use of edit ,creat
  And view the graphical file.
- This program allow to view photographer or digital media.
- 3d studio, corel draw, and photo shop are example of this package.

6. Animation software:-

- Computer animation describe any animations.
- We can creat wide range of animation,
- Creat animation we can use this software package.
- Cinema 3D and 4D, micro media, flash, blander and maya are example of animation software.

Ch -5 :- EMERGING TECHNOLOGY & VIRUS AND IMPORTANT TERMS.

IMPORTANT TERMS:-

ATM:-

- ☑ AUTOMATED TELLER MACHINE.
- ☑ ATM IS ALSO CALLED AUTOMATED BANKING MACHINE.(ABM).
- ☑ USING ATM COUSTOMER CAN ACCESS THERE BANK ACCOUNT IN ORDER TO MAKE CASH WITHDRAW ,DEPOSTE AND CHECK THE BALANCE.
- ☑ IN ATM ATM CARD IS USED.
- ☑ ATM CARD IS ISSUED BY THE BANK.
- ☑ ATM CARD IS ALSO KNOWN AS BANK CARD ,E CARD OR CASH CARD.
- ☑ USING ATM CARD WE CAN ENTER PIN NUMBER THEN WE CAN ACCESS OUR ACCOUNT.

- ☑ ATM WORK 24*7.
- ☑ ATM MACHINE IS FOUND IN 1996.
- ☑ ATM IS SMALL TYPES OF BANK.

BACK UP AND RESTORE:-

- **IN GENERAL BACKUP IS THE PROCESS AS WE CAN COPY OUR ACTUAL DATA AND PASTE SOME OTHER PLACE.**

- **BACKUP IS SECURE OUR DATA.**
- **IF OUR ORIGINAL DATA IS DELETED WE CAN USE THE DATA WHICH WAS TAKEN AS A BACK UP.**
- **WE COPY THE BACKUP DATA AND PASTE ORIGINAL DRIVE ,THIS PROCESS IS CALLED RESTORE.**
- **IF WE DO NOT BACKUP THEN WE CAN NOT USE BACK UP.**

✦ HARD COPY & SOFT COPY:-

- SOFT COPY IS UNPRINTED DIGITAL DOCUMENT.
- ANY DATA INTO COMPUTER IS CALLED SOFT COPY.
- SOFT COPY IS ELECTRONICS VERSION OF OUR FILE.
- ANY DOCUMENT IS IN FORM OF PRINTED IS KNOWS

AS HARD COPY.

- HARD COPY REQUIRED PAPER AND INK.

DATA BUS:-

- GENERALLY BUS IS COLLECTION OF WIRE.
- USING COMPTUER BUS DATA IS TRANSFER IN ONE PART TO OTHER PART.
- IT IS SET OF PHYSICAL CONNECTION LIKE CABLE, CIRCUIT AND OTHER.

Buffer:-

- **It means something reserve for use**
- **It is temporary storage area.**
- **Example of buffer is RAM.**
- **The purpose of most buffers is to act as a holding area, enabling the CPU to manipulate data before transferring it to a device.**

Spooling:-

- **WE use computer printer to print something we might have abserve we give printing command, we do not need to wait till all the page are printed.**
- **CPU become free after send printing command.**
- **Now the question is CPU is free in printer has not finished printing document.**
- **So, where does the data go ? The data is store in special memory is called spooling.**
- **Spooling guide the printer.**

Pointer:- / cursor

- **Cursor is called pointer.**
- **We might have seen different type of symbol while working with computer.**
- **Cursor or pointer is special symbol like arrow, hand and many other.**

Icon:-

Icon is small picture which is use to represent computer file or some computer program.

Desktop:-

- **Desktop is fijrst screen of computer.**
- **Desktop consists of picture, file, folder, software and many other document.**
- **Desktop is window that is part of total display area.**

Recyclebin/ Trash:-

- **Re-cycle-bin is also call trash.**
- **Re-cycle-bin is icon on the window desktop that represent folder were deleted file are temporary store.**
- **The size of re-cycle-bin is 10% of hard disk.**

Taskbar:-

- **While working within window operating system we might seen horizontal line at the bottom of the screen which has start bottom and other icon is call task bar.**

System tray:-

- **The system tray is located in the windows task bar.**
- **It contain many icon for easy access the system function such as date and time, volume and network.**

E-Mail:-

E- Mail means electronic mail.
In today's world we all aware about the E-Mail. Using in E – Mail we can send image, message. Without internet we can not access E-Mail.
E-Mail required user name, password and E-mail address.

E-Mail is communication with to one or more user.

CLI:-

- **CLI means command line interface.**
- **In CLI user type command and computer response that command.**
- **The example of CLI is DOS,UNIX and LINUX.**
- **CLI is more secure than GUI.**

GUI:-

- **GUI means graphical user interface.**
- **GUI is very slow computer to CLI.**
- **When we deal with graphical task at the time GUI use to.**
- **GUI can support all types of graphics, image and video.**

FILE:-

- **Data or information has a name is called file.**
- **All the information or data are store in file.**
- **There are many types of file like data file, txt file, program file , any many more.**
- **We can say that file is collection of data.**

Folder :-

- **Folder and directory are same.**
- **Directory are use in cli.**
- **Folder are use in gui.**

- **Folder are use to store file.**

Drive :-

- **Drive is top most folder of partition.**
- **Hard disk can divide into many drive.**
- **Generally name of drive are c,d,e any more.**
- **In drive we can store folder and file.**

Disk drive:-

- **Disk drive is machine that read and write data into disk.**
- **Disk drive rotate the disk very fast and it write the data.**
- **Example of disk drive are floppy disk drive, optical disk drive.**

Menu :-

- **Menu is list of command or option.**
- **Most application have a menu bar.**
- **Menu bar provide easy way to access the software.**
- **For example :-Menu bar like file menu, home menu , design menu , view and many more in ms word.**

-

Shortcut key:-

- **Shortcut key provide easy and fast method to use computer.**
- **Shortcut key always use with ctrl key ,alt key, and shift key.**
- **Example of shortcut keys are ctrl n, ctrl c, ctrl v ,ctrl z.**

Shutdown/turn off:-

- **When we don't want to use computer we can switch off computer.**
- **Action of switch off computer is known as shutdown.**
- **Shutdown means we close our computer.**

Reboot/Restart :-

- **Reboot is also called restart.**
- **When we want to start computer again after switch off properly is called restart.**

Restart means also we turn of and again start our computer at the a time.

Syntax:-

- **When we learn English we can use properly grammar.**
- **Computer language can understand everything but if type with proper format.**
- **Syntax means grammar of particular language or command.**

Fiber optic cable:-

- **Fiber optic is also called optical fiber.**
- **It is use glass and fiber material.**
- **In today most of electronics device use this cable.**
- **It is cable that connect device.**
- **Data transfer speed of this cable is very fast.**
- **In fiber cable atmosphere are not effect.**
- **The life time of this cable is very long.**
- **This is very expensive cable.**

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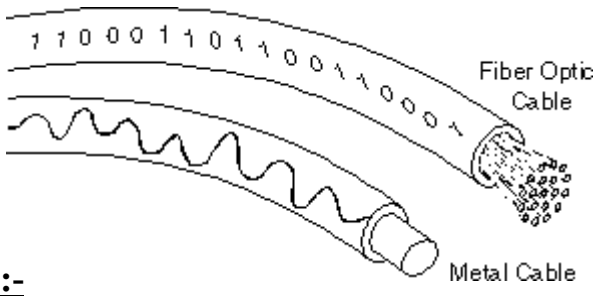


Ups:-

- **ups means uninterrupted power supply.**
- **Ups is device that connect with computer.**
- **Ups used to power connection. Means when electric power Is off at that time ups is automatic active and our computer work continues few hours.**
- **ups is inexpensive.**

Input/output device:-

- **it is also called peripheral device.**
- **Using input and output device we can enter our data and see the result.**
- **Example of i/o device are monitor, printer, scanner, mic, speaker.**

Dialog box :-

- **There are two types of dialog boxes like Modal dialog and modeless dialog box.**

1) **Modal dialogue box:-**
   - **Some dialog box are appear in the front of our screen we need to give response to it.**
   - **If we don't response we can not go for any task.**
   - **It is called model dialog box.**

2) **Modeless dialog box:-**
   - **Some dialog box are appear in front of our screen it is not necessary to give the response to it.**
   - **It is called modeless dialog box.**

PRINTING SPEED.(CPS,CPM,LPM,PPM):-

Net meeting:

- A product developed by Microsoft Corporation.
- that enables groups to teleconference using the Internet as the transmission medium.
- netmeeting supports chat sessions, a whiteboard, and application sharing. It's built into Microsoft's Internet Explorer Web browser.

Q-Explain cell phone in detail.

- Cell phone is also called mobile phones.
- It a soft range portable electronic device.
- It is very much popular than other device today.
- Current mobile provide many services like sms, Bluetooth ,game,internet, recording and many more.
- Cell phone is found from the concept of radio in the year 1920.
- The first cell phone found in 1973 by martin cooper.
- Cell phone is first available to the public in the year 1984.
- Many company manufacture cell phones.
- Frist cell phones is key pad cell phone. And now a days touch mobile is available.
- Cell phone is easy to use .
- It is expensive and inexpensive.

Q-Explain blue tooth in detail.
Ans:-

- Blue tooth technology using short range data transmission.
- It is used in mobile ,desktop ,laptop and tablet.
- The name blue tooth is derived from the blue tooth , a king of dan mark more than 1000 years ago.
- In blue tooth small file ,small video and data can sent.
- The range of blue tooth is 100 ft.
- Now a days blue tooth is not use to wide because it is old technology.

Q- Explain wi-fi in detail.
Ans:-

- Wi-fi means wire less fidelity.
- Wi-fi is wire less way to access internet.
- Using wi-fi we can use internet any where of home, office, public place and other place.
- Wife in free.
- The range of wi- fi is 1000 meter.
- Today's world wi-fi is very wide use by people.
- It is easy to use.

- Router is require to install wi-fi.

q- Explain li-fi in detail.

- Lifi means light fidelity.
- Li-fi is wireless optical network technology that use in mobile ,computer and laptop.
- Li-fi is found in 2011 by harled haas.
- Harled haas is chair professor of mobile communication at the university of edinburge.
- Li-fi is advance version of wi-fi.
- It is use for wireless internet.
- Li-fi is more faser than wi-fi.
- Range of li-fi is 27 miles.

q- Explain remote sensing , gis and gps.

Ans:-

Remote sensing:-

- Remote sensing is application of space science.
- Remote sensing is collection of information about object without physical connection of that object.
- The data collection of Indian remote sensing are irs-A and irs-B.

Gis:-

- Gis means geographical information system.
- Gis is a system to capture ,store and manage data with special refer to the earth.
- It is satellite base computer system that capable of store and edit the information.
- Gis is powerful tool in many area like military department , whether dept, and many more sector.

Gps:-

- Gps means global position system.
- Gps work through the space.
- It capture **3d data for** various application.
- Basically gps is found for military department in 1980.
- There are 24 satellite in gps.
- The speed of this satellite is 7000 mile per hours.
- It continues move in earth .
- Now a days gps use in many sector like
- In gas, in forest , in oli and petrol , in sports , also use farmer , sports mans and many more.

Q- explain infrared technology. Ans:-

- Infrared technology start with small use.
- Use this technology we can control electrical object with out touch.
- Remote of tv , ac and fan are use this technology.

q- Explain modem ans:-

- Modem means modulator demodulator.
- Modem use to send digital data over phoneline.
- Modem use with telephone line to access internet.

q- Explain virus and anti virus.

Ans :-

- Virus word is no new word in today's generation
- Computer virus are same as bacteria virus.
- Virus is a one type of program.
- Virus damage our computer.
- Virus damage hard disk, our file , internal part of computer, operating system , and input and out put device also.
- Computer virus pass computer to computer.
- Virus multiplied in computer by making copy itself.
- Computer virus come from many sector like using internet , using pen drive , using optical drive ,using email and down load file or application.
- Virus mainly come from using internet
- Here are indicator that our computer might affect of virus like our computer work slow , computer can stop response , restart computer automatically , we can not print properly , we see some error msg.
- How to protect computer to effect of virus????

Anti virus: -

- We can protect our computer from the virus so we can perform few simple steps.
- We should running more secure operating system like linux and unix.
- If we are using unsecure os then install virus protection soft ware like antivirus.
- It is nice safe guard.
- Many antivirus software are available for free on the internet.
- But we use protected anti virus so it is more secure.

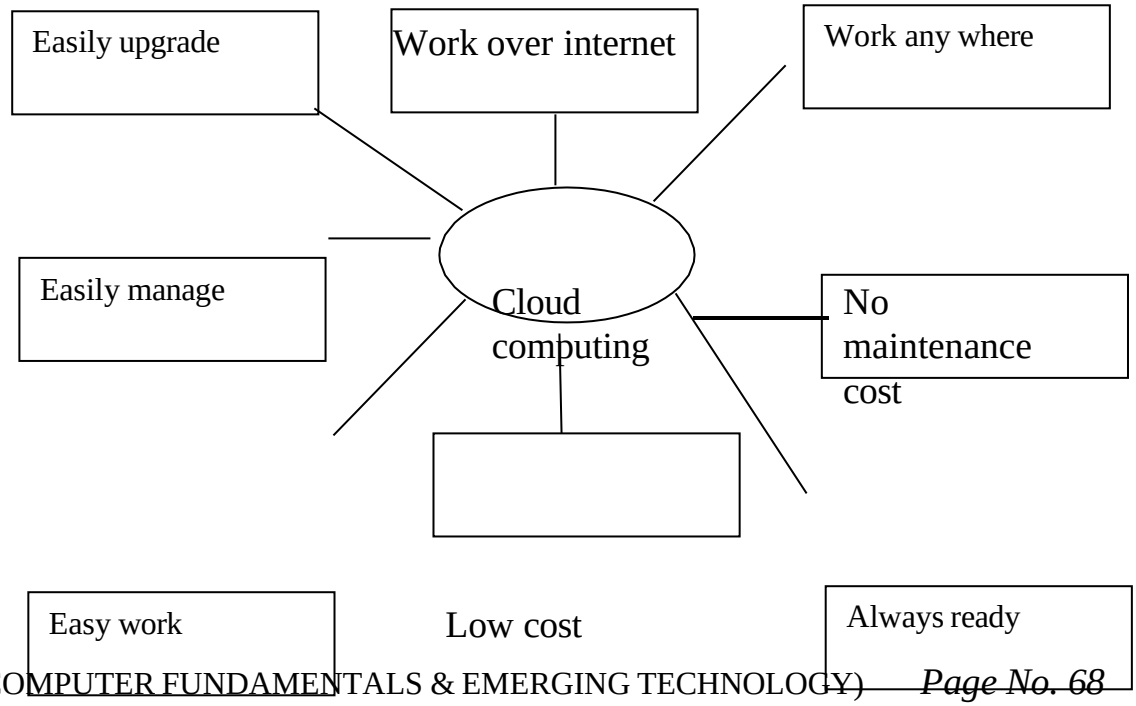
- Some virus in the jpg file also.
- There are list of some antivirus software program like avast , Norton , mcafee , eset , web root , avira , Kaspersky , avg and many more.

Q- Explain cloud computing.

Ans:-

- The term cloud computing refer to the network or internet.
- It is very advance and new technology in today's world.
- It is data storage and access technology.
- Cloud computing means store and access data and program over the internt.
- Cloud computing can not store data in our local drive.
- It is store proper server in any company.
- In other word we can say that cloud is something which is present at the remote location.
- Cloud is wire less data storage technology.
- Cloud can provide service over the internet.
- Today all the application run in cloud.
- Cloud provide following advantages like less coast , 24*7 availability , flexibility in capacity , automatic update, high security , easily manage.

Benefit of cloud computing:-



Example: Dropbox, Gmail, Facebook

- Right now, Dropbox is the clear leader in Streamlined **cloud** storage allowing users to access files on any device through its application or website with up to 1 terabyte of free storage.
- Google's email service provider Gmail, on the other hand, provides unlimited storage on the **cloud**.

Cloud provide following service : (explain service model in cloid computing)

IAAS , PAAS , SAAS.

1)IAAS:-

- Infrastructure as a service.
- According to internet engineering task force**(ietf),** the most basic cloud service model is that provide offer of infrastructure , machine and other resource.
- It refer to online service that the user from detail of infrastructure like physical computer resource , location and security and backup facility.

2)**PAAS:-**

- Platform as a service.
- It provide environment to application developer.
- In paas model cloud provide platform like which operating system are install in the pc and check programming language.

3)**SAAS:-**

- Soft ware as a service.
- In saas model , user can access to application software and data base.
- In saas model cloud provide install and operate application software in the cloud and cloud user access the software from cloud.

Ch-4 part-2(number system)

Bit:-

- Bit means binary digit.
- It is a smallest storage unit into the computer.
- Bit can hold only one of two value like 0 and 1.
- It is binary digit.
- Bit use only number not a character.

Nibble:-

- Nibble is a part of computer storage .
- Nibble is combination of 4 bits.
- 4 bits = 1 nibble.
- It is not used today.
- Half byte is called nibble.

Byte:-

- Byte is collection of 8 bits.
- 1 byte = 8 bits.

Storage area :-

1 bit=	**0 and 1.**
1 nibble=	4 bits.
1 byte =	8 bits
1024 bytes =	1 kb(kilo byte)

1024 kb=	1mb(mega byte)
1024 mb=	1gb(giga byte)
1024gb=	1 tb(tera byte)
1024 tb=	1pb(peta byte)
1024 pb=	1 eb(exa byte)
1024 eb=	1zb(zetta byte)
1024zb=	1 yb(yotta byte)

q- Explain number system in detail.

Ans:-

- There are 4 types of number system. Like
  1) Binary number system(2)
  2) Octal number system(8)
  3) Decimal number system(10)
  4) Hexa decimal number system(16)

- **Binary number system:-**

- Base:-2
- No of symbol :- 2
- Symbol :- 0,1.
- **Ex:- (10)2**

- **Octal number system:-**

- Base:-8
- No of symbol :- 8
- Symbol :- 0,1,2,3,4,5,6,7.
- **Ex:- (1457)8.**

- **Decimal number system:-**

- Base:-10
- No of symbol :- 10
- Symbol :- 0,1,2,3,4,5,6,7,8,9.
- **Ex:- (57789)10 .**

- **Hexa decimal number system:-**

- Base:-16
- No of symbol :- 16
- Symbol :- 0,1,2,3,4,5,6,7,8,9.A(10),B(11),C(12),D(13),E(14),F(15)
- **Ex:- (ABC8)16 .**

Q- Explain types of code.

Ans:-

- Most computer not represent character as a pure binary number.
- They use coded version of binary to represent letter and special symbol.
- There are four types of codes like

1) BCD
2) ASCII
3) EBCDIC
4) UNICODE

1) BCD:

- Binary coded decimal.
- Convert binary to decimal number system.
- Computer perform this process automatic.

Decimal	**Binary**
0	**0000**
1	**0001**
2	**0010**
3	**0011**
4	**0100**
5	**0101**
6	**0110**
7	**0111**
8	**1000**
9	**1001**

ASCII:-

- American standard code for information interchange.
- It is represent English character as a number.
- Ascii provide 0 to 127 unique code for each small and capital letters and special symbol.
- For example:- ascii code for m is 77.
- Ascii is developed by American national standard institute.(ansi).
- Most language used ascii code in programming.

EBCDIC:-

- Extended binary coded decimal interchange code.
- It can represent 8 bit binary number.
- It can display 256 unique character.
- This code is use in ibm machine.

UNI CODE:-

- It means unique code.
- Unicode is computing industry for the represented and handle variety of text and symbol written in computer.
- Uni code provide the unique number for the every character.

- No matter what the platform.
- No matter what the program and no matter what the language.

q- Explain parity bit(explain parity check)

Ans:-

- Parity bit is a technique to detect the error into the program.
- Paritybit detect error it will never correct but only detect.
- At the time of program execution computer can add 1 bit into our data this bit is called parity bit.

Some additional question and answer.

Q- explain analog computer.

Ans:-

- In analog computer data is represented by using voltage.
- Analog computer is very big in size.
- Analog computer use vacuum tube or transistor as a technology.
- Today's analog computer are not in ues.

Q-explain MIDI keyboard .

Ans:-

- Midi keyboard or controller keyboard is piano style electronic musical keyboard.
- Midi means musical instrumental digital interface.

Q- what is flash memory.

Ans:- rom aama lakhvanu….

Q- what is seek time? Or what is access time?

Ans:-

- The seek time and access time are use in hard disk
- Seek time divide all the process in the seek one.
- Seek time give the data to the hard disk for read and write operation.
- It is a time management system.

---

q- Explain ddr ram.

Ans:-

- Ddr means dual data rate.
- Ddr ram is temporary storage memory.
- Ddr ram is plastic cover magnetic material.
- Ddr ram is advance ram.

q- Explain wireless device.

Ans:-

- Coreless phone , remote control ,radio, wire less mouse and wire less key board are example of wire less device.
- Wireless router is also example of wireless device.
- It not use any type of wire for data transmission.
- It is advance technology.
- Today most of device are wire less device.
- It is very expensive technology.

q- Wexplain GSM.

- Gsm means global system for mobile communication.
- Gsm is digital mobile network that is widely use by mobile phone user.
- Gsm is advance communication system.
- **GSM** is a standard developed by the **European Telecommunications Standards Institute (ETSI)** to describe the protocols for second-generation (2G) digital cellular networks used by mobile devices such as mobile phones and tablets.

q- Explain 5gl.(5th generation programming language)

Ans:-

- 5gl is any programming language base on problem solving and return algorithm style.
- Any programming language that use logical statement ,control statement and types of loping us a part of 5gl.

q- How many type of modem are available.?

Ans:- there are two types of modem are available like

1) Ethernet modem
2) Wireless modem.

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q- Explain CDMA.

Ans:-

- CDMA stands for "**Code Division Multiple Access**."
- It is radio networks used by wireless carriers.
- **CDMA** is an example of multiple access, where several transmitters can send information simultaneously over a single communication channel..
- **CDMA** is used as the access method in many mobile phone standards.
- **It is old technology.**

q- Explain static ram(sram).

Ans:-

- **Static random-access memory** (**static RAM** or **SRAM**).
- **It** is a type of **random-access memory** (**RAM**)
- That uses flip-flop circuit to store each bit.
- **SRAM** is volatile memory; data is lost when power is removed.

---

q- Explain dynamic ram

Ans:-

- "**Dynamic Random Access Memory**.".
- DRAM is a type of **RAM** that stores each bit of data on a separate capacitor.
- This is an efficient way to store data in memory, because it requires less physical space to store the same amount of data than if it was stored statically.

---

q- Explain 4gl .

Ans:- - **Fourth-generation language** (4GL)

- **Fourth-generation** computer programming **language**.

- 4gls **are** closer to human **language** than other high-level languages and **are** accessible to people without formal training as programmers.
- They allow multiple common operations to be performed with a single programmer- entered command.

- **Example** of these languages include Perl, Python, Ruby, SQL,

Q- explain 3gl in detail.

Ans:-

- A **third generation language** improves over a second-**generation language** by having the **computer** take care of non-essential details.
- A **programming language** such as C, FORTRAN, or Pascal enables a **programmer** to write programs that are more or less independent from a particular type of **computer**.

q- Explain 2gl

Ans:-

- A **second generation programming language** is also known as an assembly **language**.
- These archaic **programming languages** were popular during the late 1950s.
- A **second-generation language** uses alphabet letters, so **programming** is technically easier than just using complex series of zeros and ones.

Q:explain 1gl:-

Ans:-

- A **first-generation programming language** (1GL) is a machine-level **programming language**.
- The instructions in 1GL are made of binary numbers, represented by 1s and 0s.
- This makes the **language** suitable for the understanding of the machine but far more difficult to interpret and learn by the human **programmer**.

q- How many types of virus are

available. Ans:-

1) Boot sector virus
2) Web scripting virus
3) Browser virus
4) Resident virus
5) Direct action virus
6) Polymer virus
7) File infector virus
8) Macro virus
9) Multi virus

Q- give the full form of sim card.

Ans :- subscriber identity module.

Q- explain com.

Ans:-

- Computer output microfilm.
- Com is system that convert data into microfilm form
- It is develop in 1960.
- This com are use in tv and movie industries.

Q- Explain Edvac:-

EDVAC (Electronic Discrete Variable Automatic Computer) was one of the earliest electronic computers. Unlike its predecessor the ENIAC, it was binary rather than

decimal, and was designed to be a stored-program computer.

Full form of ENIAC:-

Ans:-

ENIAC, short for Electronic Numerical Integrator And Computer,was the first general-purpose electronic computer.

Some other full form

ENIAC:- short for Electronic Numerical Integrator And Computer,

EDVAC:- Electronic Discrete Variable Automatic Computer

IBM:-International Business Machines Corporation

EDSAC:-Electronic Delay Storage Automatic Calculator

UNIVAC:-Universal Automatic Computer

LSI:-Large-Scale Integration

VLSI:- Very-large-scale integration

SSI :- Small Scale Integration.

MSI:- Medium Scale Integration.

ULSI:- Ultra Large Scale Integration.