Biyani's Think Tank

Concept based notes

Computer Fundamentals & Office Management Tools

BCA I Sem.

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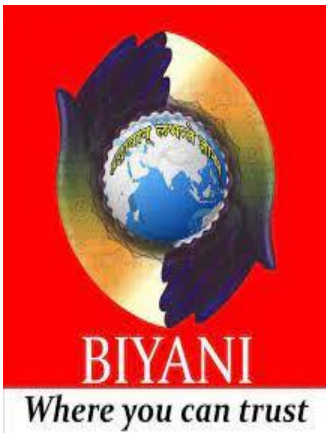

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Preface

I am glad to present this book, especially designed to serve the needs ofthe students. The book has been written keeping in mind the general weakness in understanding the fundamental concepts of the topics. The book is self-explanatory and adopts the “Teach Yourself” style. It is based on question-answer pattern. The language of book is quite easy and understandable basedon scientific approach.

Any further improvement in the contents of the book by making corrections, omission and inclusion is keen to be achieved based on suggestions from the readers for which the author shall be obliged.

I acknowledge special thanks to Mr. Rajeev Biyani, *Chairman* & Dr. Sanjay Biyani, *Director* (*Acad.*) Biyani Group of Colleges, who are the backbones and main concept provider and also have been constant source of motivation throughout this Endeavour. They played an active role in coordinating the variousstages of this Endeavour and spearheaded the publishing work.

I look forward to receiving valuable suggestions from professors of various educational institutions, other faculty members and students for improvement of the quality of the book. The reader may feel free to send in their comments and suggestions to the under mentioned address.

Author

Syllabus

UNIT- I

Introduction to Computers: Characteristics of computers, Evolution of computers, generation of computers, Block diagram of computer & role of each block, classification of computers. Input and Output Devices

Primary and Secondary Memory: Memory hierarchy, Random access memory (RAM), types of RAM, Read only memory (ROM), types of ROM. Classification of secondary storage devices, magnetic tape, magnetic disk, optical disk.

Number Systems: Introduction to number system, Binary, Octal, Hexadecimal, conversion between number bases, Arithmetic operations on binary numbers, Alphanumeric- BCD, EBCDIC, ASCII, Unicode.

UNIT-II

Computer Software: software categories, system software, application software, utility software. Classification of system software, **Computer Languages**: Introduction, classification of programming languages, generations of programming languages, features of a good programming language.

Internet Basics: Introduction,, Features of Internet, Internet applications, Services of Internet,Logical and Physical addresses, Internet Service Providers, Domain Name System. **Web Basics** : Introduction to Web, Web browsers, http/https,URL.

UNIT-III

MS Word: Word processing, MS-Word features, creating saving and opening documents in Word, interface, toolbars, ruler, menus, keyboard shortcut, editing, previewing, printing & formatting a document, advance features of MS Word, find & replace, using thesaurus, mail merge, handling graphics, tables, converting a Word document into various formats like-text, rich text format, Word perfect, etc.

MS Excel: Worksheet basics, creating worksheet, entering data into worksheet, data, text, dates, alphanumeric values saving & quitting worksheet, opening and moving around in an existing worksheet, Toolbars and menus, Keyboard shortcuts, working with single and multiple workbook, working with formula & cell referencing, Auto sum, coping formulas, absolute and relative addressing, formatting of worksheet, previewing & printing worksheet, Graphs and Charts, Database, macros, multiple worksheets-concepts.

UNIT-IV

Power Point: Creating and viewing a presentation, managing Slide Shows, navigating through a presentation, using hyperlinks, advanced navigation with

action setting and action buttons, organizing formats with MasterSlides, applying and modifying designs, adding graphics, multimedia and special effects.

Microsoft Access: Planning a database (tables, queries, forms, reports), creating and editing database, customizing tables, linking tables, designing and using forms, modifying database structure, Sorting and Indexing database, querying a database and generating reports.

Chapter 1

Computer History and Hardware

Q.1. Explain about the evolution of Digital Computers.

Ans.: The successful general purpose mechanical computers were developed. In 1930, mechanical calculations were built for automatic addition, subtraction, multiplication & division. A calculator is not a programmable device. The different eras of the evolution of the computer are listed below:

(1) **Mechanical Era :** There were many attempts to create a m/c that could help to perform various calculations. In 1823, Charles Babbage tried to build a mechanical as computing m/c capable of performing automatic mathematical calculations. This was designed to compute tables of functions such as logs functions etc. In 1830‟ s Babbage made a more powerful mechanical computer. This m/c was designed to perform any mathematical calculation automatically. It could perform addition etc. It had a memory unit. Its capacity was 1000 numbers, each no. consisting of 50 digits. The m/c was a programmable m/c. It had mechanism for enabling a program to change the sequence of its operations automatically. In the late 19th century punched cards were commercially used. Soon IBM was formed in 1924. Konand Zuse developed a mechanical computer, the Z1, in 1938 in Germany.

(2) **The Electronic Era :** The first electronic computer using. Valves were developed by John V. Atanas off in the late 1930‟ s. It contained add-subtract unit. It was relatively a small computer and used about 300 valves. Its memory unit consisted of capacitors mounted on a rotating drum. It used a no. of I/O devices including a card punch and a card reader. The first popular general electronic digital computer was the ENIAC

(Electronic Numerical Interpreter and calculator). John von Neumann was the consultant of the ENIAC project. The ENIAC used a high speed memory to store both programs as well as data during program execution. Neumann and his colleagues designed and build the IAS Computers. It used RAM consisting of a cathode ray tube. The transistors were invented in 1948 at AT&T bell laboratories. Slowly they replaced Vacuum tubes. IC‟ s were first introduced, ie, designed and fabricated in 1958-59. The examples of computers using IC‟ s are-: IBM – 370 & PDP-8. In 1970 LSI chips were introduced is form of memory units. Computers built in 1970‟ s & onwards used micro process and other LSI, VLSI and ULSI components.

Q.2. What were the different Computer Generations?

Ans.: The various generations of the computers an listed below :

(i) **First Generation (1946-1954) :** The digital computes using electronic values (Vacuum tubes) are known as first generation computers. The high cost of vacuum tubes prevented their use for main memory. They stored information in the form of propagating sound waves.

(ii) **Second Generation (1955-1964) :** The second-generation computer used transistors for CPU components & ferrite cores for main memory & magnetic disks & tapes for secondary memory. They used high-level languages such as FORTRAN (1956), ALGOL (1960) & COBOL (1960). I/O processor was included to control I/O operations.

(iii) **Third Generation (1965-1974) :** The third-generation computers used IC‟ s (SSI& MSI) for CPU components. Semiconductor memories were LSI chips, Magnetic disk & tapes were used as secondary memory. Cache memory was also incorporated in the computers of 3rd generation. Micro programming, parallel memory multiprogramming etc were introduced. E.g. Of third generation computers are PDP II etc.

(iv) **Fourth Generation :** In 4th generation computers microprocessors were used as CPU‟ s VLSI chips were used for CPU memory & supporting chips.

Computer of this generation were very fast. 8, 16 & 32 bit microprocessors were developed during this period. Main memory used fast semiconductors chips up to 4 M bits size. Hard disks were used as secondary memory. Keyboards, dot matrix printers etc. were developed. OS- such as MS-DOS, UNIX, Apple‟ s Macintosh were available. Object oriented language, C++ etc were developed.

(v) **Fifth Generation (1991- continued) :** 5th generation computers use ULSI (Ultra-Large Scale Integration) chips. Millions of transistors are placed in a single IC in ULSI chips. 64 bit microprocessors have been developed during this period. Data flow & EPIC architecture of these processors have been developed. RISC & CISC, both types of designs are used in modern processors. Memory chips and flash memory up to 1 GB, hard disks up to 600 GB & optical disks up to 50 GB have been developed.

Q.3. Explain about the Von-Neumann Architectures.

Ans.: In this type of architecture, the computer consisted of a CPU, memory and I/O devices. The program is stored in the memory. The CPU fetches an instruction from the memory at a time and executes it. Thus, the instructions are executed sequentially which is a slow process. Neumann m/c are called control flow computer because instruction are executed sequentially as controlled by a program counter. To increase the speed, parallel processing of computer have been developed in which serial CPU‟ s are connected in parallel to solve a problem.

Even in parallel computers, the basic building blocks are Neumann processors.

Q4. Explain the block diagram of computer system?

Ans: A computer can process data, pictures, sound and graphics. They can solve highly difficult hitches quickly and accurately. A computer performs basically five major computer operations or functions. These are

1) It accepts data or instructions by way of input,

2) It stores data,

3) It can process data as required by the user,

4) It gives results in the form of output, and

5) It controls all operations inside a computer.

We discuss below each of these Computer operations

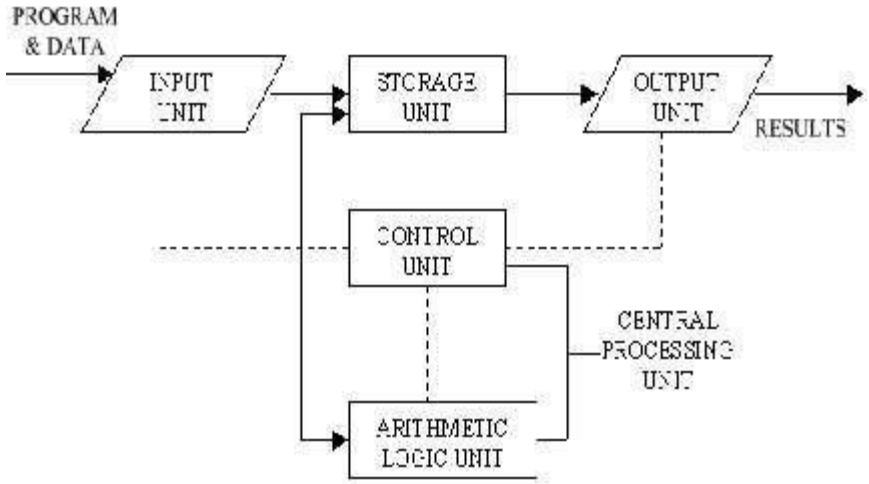


Fig: *Basic computer Operations*

1. Input: This is the process of entering data and programs in to the computer system. You should know that computer is an electronic machine like any other machine which takes as inputs raw data and performs some processing giving out processed data. Therefore, the input unit takes data from us to the computer in an organized manner for processing.

2. Storage: The process of saving data and instructions permanently is known as storage. Data has to be fed into the system before the actual processing starts. It is because the processing speed of Central Processing Unit (CPU) is so fast that the data has to be provided to CPU with the same speed. Therefore the data is first

stored in the storage unit for faster access and processing. This storage unit or the primary storage of the computer system is designed to do the above functionality. It provides space for storing data and instructions.

The storage unit performs the following major functions:

- All data and instructions are stored here before and after processing.
- Intermediate results of processing are also stored here.

3. Processing: The task of performing operations like arithmetic and logical operations is called processing. The Central Processing Unit (CPU) takes data and instructions from the storage unit and makes all sorts of calculations based on the instructions given and the type of data provided. It is then sent back to the storage unit.

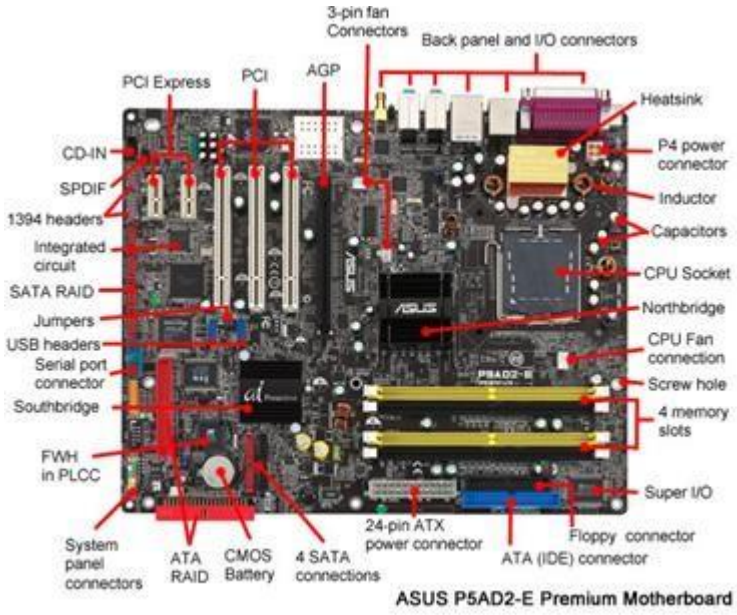
4. Output: This is the process of producing results from the data for getting useful information. Similarly the output produced by the computer after processing must also be kept somewhere inside the computer before being given to you in human readable form. Again the output is also stored inside the computer for further processing.

5. Control: The manner how instructions are executed and the above operations are performed. Controlling of all operations like input, processing and output are performed by control unit. It takes care of step by step processing of all operations inside the computer.

Q5. What do you know by Motherboard? Explain.

Ans. The motherboard is the piece of computer hardware that can be thought of as the "backbone" of the PC. The motherboard connects all parts of a computer together. The CPU, memory hard drive, optical drives, video card, sound card and other

ports and expansion cards connects to the motherboard directly via cables. Popular motherboard manufactures are Intel, ASUS, AOpen, ABIT, MSI, Biostar.



It is a printed circuit board that is the foundation of a computer, located at the bottom of the computer case. It allocates power to the CPU, RAM, and all other computer hardware components. Most importantly, the motherboard allows hardware components to communicate with one another.

Below is a listing of other motherboard components that are not shown in the picture above or were part of older computer motherboards.

BIOS

Bus

Cache memory

Chipset

Diode

Dip switches

Electrolytic

Fuse

Game port and MIDI header

Internal speaker

Keyboard controller

LCC

Network header

Obsolete expansion slots (AMR, CNR, EISA, ISA, VESA)

Obsolete memory slots (SIMM)

Onboard LED

Voltage regulator

Voltage regulator module (VRM) ETC.

Q.6. Explain about the System Bus.

Ans.: Bus means the electronic path between various components Bus refers to particular types of a cable. Each cable of a bus carries information of one bit. Buses are of 3 types:

(1) Address Bus
(2) Data Bus
(3) Control Bus

(1) **Address Bus :** It carries the address of memory location of required instructions and data. The address Bus is unidirectional, i.e., data flows in one direction from CPU to memory. The address bus data determines the maximum number of memory addresses. This capacity is measured in binary form. E.g. A 2 –bit address bus will provide 2^2 addresses.

(2) **Data Bus :** Data bus is an electronic path that connects CPU, memory & other h/w devices. Data bus carries the data from CPU to memory or I/P–O/P devices and vice versa. It's a directional bus because it can transmit data in either direction. The processing speed of a computer increases if the data bus is large as it takes more data at one time.

(3) **Control Bus :** Control Bus controls the memory and I/O devices. This bus is bidirectional. The CPU sends signals on the control bus to enable the O/P of the addressed memory devices.

Q.5. List out various Cards and elaborate about them?

Ans.: (1) **Sound Card:** This card is used for I/P& O/P sound. Microphone is used to I/P& speaker is used to O/P the sound. The sound card converts the sound into computer language & vice versa. All sound cards are based on MIDI (Musical Instrument Digital Interface) which represents the music in electronic form. The main part of sound card is DSP (Digital signal processor) which uses arithmetic logic to bring out sound effects. Sound card comes with 16-bit computers. DAC (Digital to Analog) and ADC (Analog to Digital) sound card uses DMA (Direct memory Access) channel is to read & write the digital audio data.

(2) **SCSI (Small Compute System Interface)** : This technology is used in high speed hard disk. It's often used in servers where high volume of data is used. At present different versions of SCSI are used. The capacity of the SCSI is determined by the bus width and speed of the interface. Through SCSI the computers bus is extended by means of the cable. It's an extension of the computer bus.

(3) **Network Cards** : N/W card is a versatile device because it performs a number of tasks that contribute to the entire process of transmitting and receiving data between computers. It links a computer to another computer of the n/w through cable wires. A seven-layer model of OSI (Open System Interface) is used in the Internet for receiving and transmitting of data. The information passes through there seven layers. N/W card implements the physical layer and half of the data link layer.

Q.6. Describe briefly about different types of Ports.

Ans.: Computers have an interface called ports. Peripheral devices are interfaced to the computers through these ports. Data flows in & out through these ports. Ports are of 2 types, Parallel & Serial.

A parallel port allows the transfer of all the bits of a word simultaneously. In parallel interface there are multiple lines to connect the peripherals to the port. A parallel interface is used to transfer data at a faster rate for higher speed peripherals such as disk and tapes.

A Serial port allows serial data transfer. In serial data transfer, one bit of data is transmitted at a time. In serial interface, only one line or a pair of line is used to transmit data. It's used for slow speed peripherals such as terminal. Printers employ either serial interface or parallel interface. The disadvantage of a serial/ parallel port is that only one device can be connected to a port.

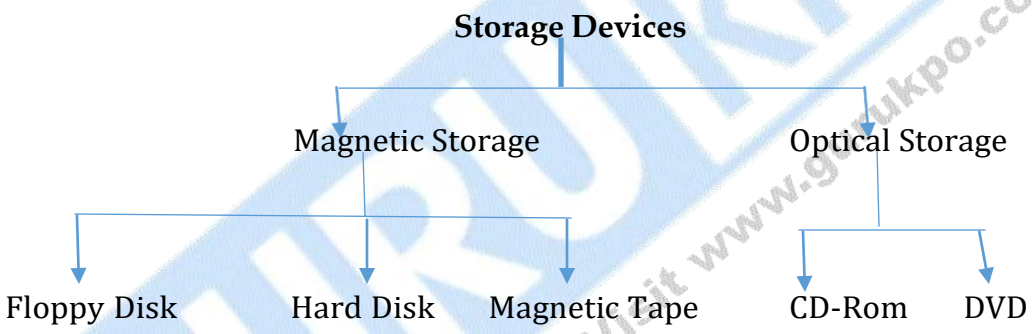
Chapter 2

Storage Devices

Q.1. How can you classify Storage Devices? What are its different types elaborate?

Ans.: Storage devices or secondary storage devices are used to store data and instruction permanently. They are used in computers to supplement the limited storage capacity of RAM.

Storage devices can be categorized in two parts :



Floppy Disk : It's a circular disk coated with magnetic oxide and enclosed within square plastic cover (Jacket). It's available in different size, but the most commonly used floppy is 3½. Data up to 1.44 MB can be stored in it. Data is written as tiny magnetic spots on the dish surface creating new data or a disk surface eraser data previously stored at that location. Floppies are available in 2 sizes, 3.5 inch & 5.25 inch. The 3.5 inch size floppy is mostly used. The 5.25 inch floppy is kept in a flexible cover & it's not safe. It can store about 1.2 MB data.

Hard Disk : Hard disks are made of aluminum or other metal alloys which are coated on both sides with magnetic material. Unlike floppy disks, hark disks are not removable from the computer. To remain the storing capacity several disks

are packed together & mounted on a common drive to form a disk pack. A disk is also called a platter.

Magnetic Tape : Magnetic tape is a mass storage device. It's used as a back up storage. It's a serial access type of storage device. Its main advantage is that it stores data sequentially. Standard sizes are ½ inch or ¼ inch or 8mm & 3mm wide. Some Head names of tapes are: DAT (Digital Audio tape) & DLT (Digital Liner Tape) etc.

Optical Memory : Information is written to or read from an optical disk or tape using laser beam. Optical disks are not suitable memory storage units because their access time is more than that of hard disks. Their advantage is that they have very high storage capacity. Types of optical memory are: CD –ROM, CD-R, CD-RW, DVD-ROM, DVD-R and DVD-RW. Information on a CD-ROM is written at the time of manufacture.

CD-R/W of 700 MB are available.

A DVD-ROM is similar to CD-ROM. It uses shorter wave length of laser beam and hence, stores more data than CD-ROM.

Q.2. Explain about Modem.

Ans.: Modem is abbreviation for Modulator – Demodulator. Modems are used for data transfer from one computer to another through telephone lines. The computer works in digital mode, while analog technology is used for carrying massages across phone lines. Modem converts information from digital mode to analog mode at the transmitting end and converts the same from analog to digital at receiving end. Modems are two types :

(i) Internal Modem

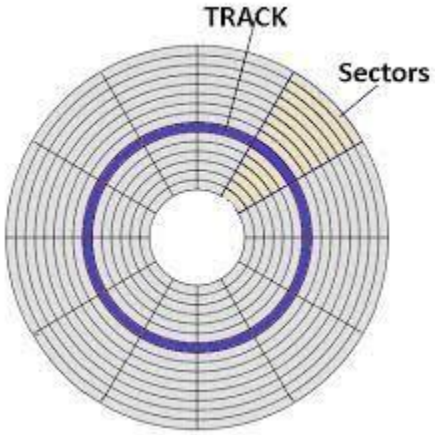
(ii) External Modem

Q.3. What is Formatting?

Ans.: The process of magnetically mapping of a floppy is called formatting. Before storing the data on a floppy, it needs to be magnetically mapped, so that data can be stored in the right place. Every new floppy needs to be formatted before use. Formatting means, creating tracks & sectors on the floppy. Tracks are in the

shape of circles on the floppy which divide it into various segments. The number of tracks depends upon the density of the floppy. In a high density floppy, up to 80 tracks can be created.

If a floppy has 80 tracks with each track having 20 sectors, then the number of sector would be 1600.



Q4. Write the Difference between Random versus Sequential Access

Ans. Sequential Access- A sequential access device is one in which the arrival at the location desired may be preceded by sequential through other locations , so that access time varies according to location. In other words, information on a serial sequence in which it is stored. It is suitable for such applications like preparation of monthly pay slips or monthly electricity bills etc. where each address needs to be accessed in turn. Magnetic tape and punched paper media are sequential storage device.

Random Access- A random Access device is one in which any location in the device may be selected at random, access to the information stored is direct, and approximate equal access time is required for each location. Magnetic disk and magnetic drum are direct access storage devices.

Q5. What is speed?

Ans. Speed refers to access information from a disk. The disk address of the desired data has to be specified. The disk address is specified in terms of the track number, the surface number, and the sector number. Information is always written from the beginning of a sector and can be read only from the track beginning. As soon as a read/write command is received by the disk unit, the read/write heads are first positioned on the specified track number by moving the arm assembly in the proper direction. This involves a mechanical motion of the arm and is slow. The time required to position the head over the proper track is called the seek time or speed. The speed or seek time varies depending on the position of the arm assembly when a read/write command is received.

Q6. What do you understand by storage capacity?

Ans. The storage capacity of disk system depends on the tracks per inch of surface and the bits per inch of track .Although the diameter of a standard size magnetic disk is 14 inches but some disks are quite large running upto 4 feet in diameter. Larger disks have more tracks and hence they have greater storage capacity.

Q.1. Give short notes on various Input and Output Devices.

Ans.: The devices which are used to input the data and the programs in the computer are known as "Input Devices. These devices convert what we input, into a form that is understandable by a computer. It provides man to machine communication. Some of the I/O devices are explained below:

(1) **Keyboard** : The data and instructions are input by typing on the keyboard. The message typed on the keyboard reaches the memory unit of a computer. It's connected to a computer via a cable. Apart from alphabet and numeral keys, it has other function keys for performing different functions.

(2) **Mouse** : It's a pointing device. The mouse is rolled over the mouse pad, which in turn controls the movement of the cursor in the screen. We can click, double click or drag the mouse. Most of the mouse's have a ball beneath them, which rotates when the mouse in moved. The ball has 2 wheels of the sides, which in turn mousse with the movement of the ball. The sensor notifies the speed of its movements to the computer, which in turn moves the cursor/pointer on the screen.

(3) **Scanner** : Scanners are used to enter information directly in to the computers memory. This device works like a Xerox machine. The scanner converts any type of printed or written information including photographs into digital pulses, which can be manipulated by the computer.

(4) **Track Ball** : Track ball is similar to the upside- down design of the mouse. The user moves the ball directly, while the device itself remains stationary. The user spins the ball in various directions to effect the screen movements.

(5) **Light Pen** : This is an input device which is used to draw lines or figures on a computer screen. It;s touched to the CRT screen where it can detect **raster** on the screen as it passes.

(6) **Optical Character Reader**: It's a device which detects alpha numeric characters printed or written on a paper. The text which is to be scanned is illuminated by a low frequency light source. The light is absorbed by the dark areas but reflected from the bright areas. The reflected light is received by the photocells.

(7) **Bar Code Reader:** This device reads bar codes and coverts them into electric pulses to be processed by a computer. A bar code is nothing but data coded in form of light and dark bars.

(8) **Voice Input Systems:** This devices converts spoken words to M/C language form. A micro phone is used to convert human speech into electric signals. The signal pattern is then transmitted to a computer when it's compared to a dictionary of patterns that have been previously placed in a storage unit of computer. When a close match is found, the word is

recognized.

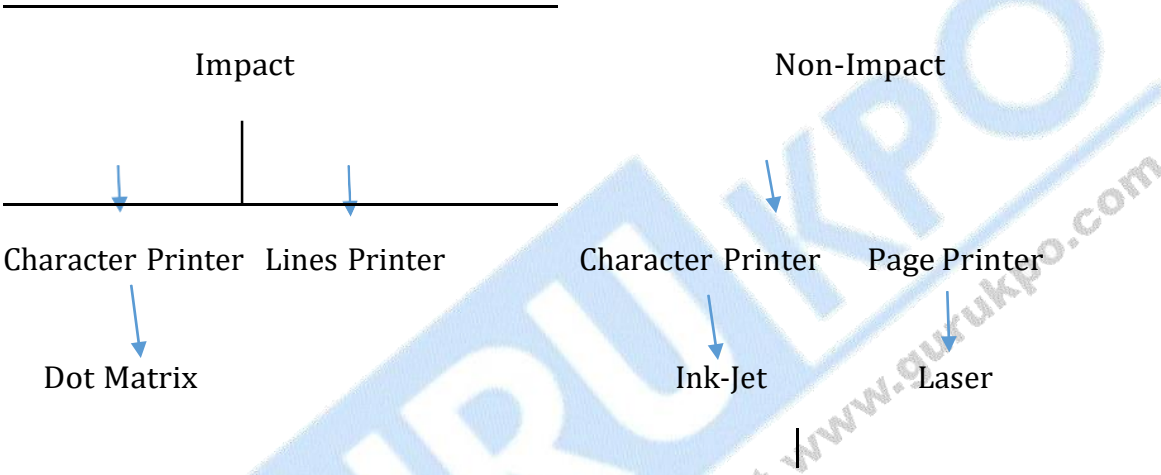
(9) **Plotter:** Plotter is an O/P device that is used to produce graphical O/P on papers. It uses single color or multi-color pens to draw pictures as blue print etc.

(10) **Digital Camera:** It converts graphics directly into digital form. It looks like an ordinary camera, but no film is used therein, instead a CCD (changed coupled Divide) Electronic chip in used. When light falls, on the chip though the lens, it converts light waves into electrical waves.

Q.2. What is a Printer and what are the different types of Printers?

Ans.: Printers are O/P devices used to prepare permanent O/P on paper. Printers can be divided into two main categories :

Printer



(1) **Impact Printers** : In this hammers or pins strike against a ribbon and paper to print the text. This mechanism is known as electro-mechanical mechanism. They are of two types.

(i) Character Printer

(ii) Line Printer

(i) **Character Printer :** It prints only one character at a time. It has relatively slower speed. Eg. Of them are Dot matrix printers.

Dot Matrix Printer : It prints characters as combination of dots. Dot matrix printers are the most popular among serial printers. These have a matrix of pins on the print head of the printer which form the character. The computer memory sends one character at a time to be printed by the printer. There is a carbon between the pins & the paper. The words get printed on the paper when the pin strikes the carbon. There are generally 24 pins.

(ii) **Line Printer** : It prints one line of text at a time. They have higher speed compared to character printers. These printers have a poor quality of O/P. Chain printers and Drum printers are examples of line printers.

(2) **Non-Impact Printers** : There printers use non-Impact technology such as ink-jet or laser technology. There printers provide better quality of O/P at higher speed. These printers are of two types :

(i) **Ink-Jet Printer :** It prints characters by spraying patterns of ink on the paper from a nozzle or jet. It prints from nozzles having very fine holes, from which a specially made ink is pumped out to create various letters and shapes. The ink comes out of the nozzle in a form of vapors. After passing through a reflecting plate, it forms the desired letter/shape at the desired place.

(ii) **Laser Printer :** It prints the entire page in one go. These printers have photo sensitive drum made of silicon. This drum is coated with recharge photoconductive, which is extremely sensitive to light. This drum is exposed to the laser rays reflected from the shapes to be printed. The area where there rays fall gets discharged. This drum while rotating comes in contact with toner and the toner gets attached to the discharged area on the drum. Then when the drum comes in contact with paper, the toner that has got attached to the drum in the original shape gets attached to the paper & hence printing takes place. The paper is slightly heated and the toner gets permanently attached to it.

Q.3. What are the different types of Memory?

Ans.: The memory in a computer is made up of semi-conductions. Semi-conduction memories are of two types :

(1) **RAM :** Random Access Memory

(2) **ROM :** Read Only Memory

RAM : The Read and write (R/W) memory of a computer is called RAM. The User can write information to it and read information from it. In Random Access, any memory location can be accessed in a random memory without going through any other memory location. The RAM is a volatile memory, it means information written to it can be accessed as long as power is on. As soon as the power is off, it cannot be accessed.

ROM : Read only memory: Its non volatile memory, ie, the information stored in it, is not lost even if the power supply goes off. It's used for the permanent storage of information. It also posses random access property. Information cannot be written into a ROM by the users/programmers. In other words the contents of ROMs are decided by the manufactures

Q4. Write ALU and its components?

Ans. It is a digital circuit that performs integer arithmetic and logical operations. The ALU is a fundamental building block of the central processing units of a computer, and even the simplest microprocessor contain one for purposes such as

maintaining timers.it represents the fundamental building block of the central processing unit of a computer.

Q6. Explain classification of computer in detail.

Ans. Classification digital Computer based on size and Capability
Based on size and capability, computers are broadly classified into

- Microcomputers(Personal Computer)
  A microcomputer is the smallest general purpose processing system. The older pc started 8 bit processor with speed of 3.7MB and current pc 64 bit processor with speed of 4.66GB Examples: -IBM
  PCs, APPLE computers

Microcomputer can be classified into 2 types :

1. Desktops
2. Portables

The difference is portables can be used while travelling whereas desktops computers cannot be carried around.

The different portable computers are: -

1) Laptop
2) Notebooks
3) Palmtop (hand held)
4) Wearable computers

Laptop: - this computer is similar to a desktop computers but the size is smaller. They are expensive than desktop. The weight of laptop is around 3 to 5 kg.

Notebook: - These computers are as powerful as desktop but size of these computers are comparatively smaller than laptop and desktop. They weigh 2 to 3 kg. They are more costly than laptop.

Palmtop (Hand held): - They are also called as personal Digital Assistant (PDA). These computers are small in size. They can be held in hands. It is capable of doing word processing, spreadsheets and hand writing recognition, game playing, faxing and paging. These computers are not as powerful as desktop computers. Ex: - 3com palmV.

Wearable computer: - The size of this computer is very small so that it can be worn on the body. It has smaller processing power. It is used in the field of medicine. For example pace maker to correct the heart beats. Insulin meter to find the levels of insulin in the blood.

Workstations:- It is used in large, high-resolution graphics screen built in network support, Engineering applications(CAD/CAM), software development desktop publishing
Ex: Unix and windows NT.

Minicomputer: -A minicomputer is a medium-sized computer. That is more powerful than a microcomputer. These computers are usually designed to serve multiple users simultaneously(Parallel Processing). They are more expensive than microcomputers.

Examples: Digital Alpha, Sun Ultra.

Mainframe computers: - Computers with large storage capacities and very high speed of processing (compared to mini- or microcomputers) are known as mainframe computers. They support a large number of terminals for simultaneous use by a number of users like ATM transactions. They are also used as central host computers in distributed data processing system.
Examples: - IBM 370, S/390.

Supercomputer: - Supercomputers have extremely large storage capacity and computing speeds which are many times faster than other computers. A supercomputer is measured in terms of tens of millions Instructions per second (mips), an operation is made up of numerous instructions. The supercomputer is mainly used for large scale numerical problems in scientific and engineering disciplines such as Weather analysis.
Examples: - IBM Deep Blue

Q1. What is Operating System?

Ans: An **operating system** (**OS**) is a type of system software that manages computer's hardware and software resources.. Application programs need a platform to run itself and operating system work as a platform to run application programs.

Q2. Explain NTFS File System?

Ans: NTFS (New Technology File System) is the file system that the Windows NT operating system uses for storing and retrieving files on a hard disk.. NTFS has improvements and some advantages over FAT file system in performance, memory and security.

There are following characteristics of NTFS :

- NTFS support very large files (up to 2 to the 64th power or approximately 16 billion bytes in size)
- An access control list (ACL) that lets a server administrator control who can access specific files
- It provides compression of Files
- It does support for names based on Unicode
- NTFS gives Data security on Hard disks

Q3. Explain FAT File System?

Ans: The FAT(File Allocation Table) is a file system that provide a file allocation table situated at the beginning of a logical volume. FAT was earle designed for small disks and folders. There are two copies of the file allocation table are stored on disk. In any situation if one copy of the file allocation table is corrupted, the other file allocation table is used.

Q4. Explain DOS with its Commands?

Ans DOS stands for Disk Operating System is a operating system developed by Microsoft company for IBM,

Following are the commands used in MS-DOS:-.

Append
used by programs to open files in another directory as if they were located in the current directory.

Attrib
used to change the attributes of a single file or a directory.

Break
This command sets or clears extended CTRL+C checking.

Call
Itis used to run a script or batch program from within another script or batch program.
The call command has no effect outside of a script or batch file. In other words, running the call command at the DOS prompt will do nothing.

Chcp
displays or configures the active code page number.

Chdir
The chdir command is used to display the drive letter and folder that you are currently in. Chdir can also be used to change the drive and/or directory that you want to work in.

Cls
This command clears the screen of all previously entered commands and other text.

Command
The command command starts a new instance of the command.com command interpreter.

Copy
This command does exactly that – it copies one or more files from one location to another.

Date
used to show or change the current date.

Del
The del command is used to delete one or more files.

Dir

used to display a list of files and folders contained inside the folder that you are currently working in.

Diskcopy

It is used to copy the entire contents of one floppy disk to another.

Q6. What is operating System and its characteristics?

Ans: An **operating system** (OS) is a type of system software that manages computer's hardware and software resources.. Application programs need a platform to run itself and operating system work as a platform to run application programs.

Examples of Operating System are-Microsoft Windows 7 ,Apple MacOS , Ubuntu Linux ,.
Google Android iOS –

There are some characteristics of Operating system as following-

1. Job/Task management
2. Resource management
3. Input/output management
4. Recovery of Error
5. Memory management

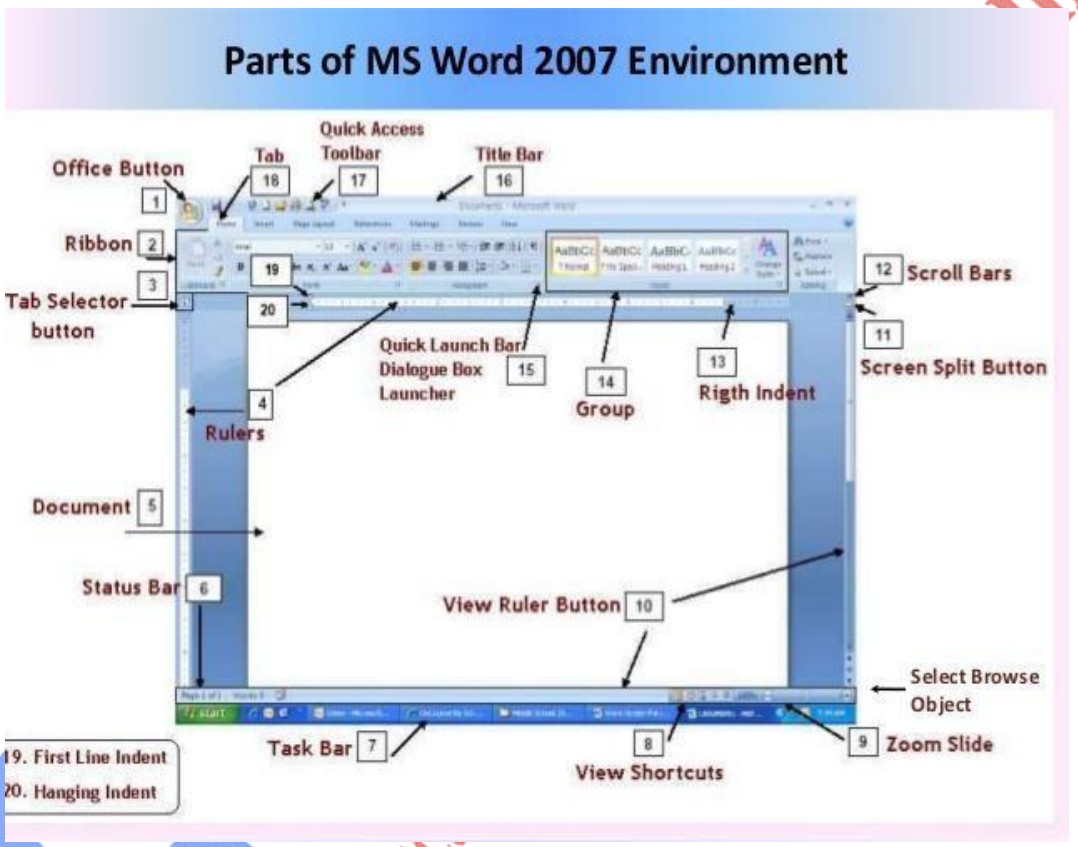
Unit 2

MS-

WORD

Q1. Give introduction of MS-WORD?

Ans:



There are following buttons which are shown in above image-

Microsoft Office Button : This button provides access to menu commands in Word. This Button is replacement of File button in previous versions. This button have commands likeNew, Open, Save, Print and Recent Documents.

Ribbon: This is in the area across the top of the screen that makes almost all the capabilities of Word available in a single area. It replaces the menus and toolbars in previous versions.

Tab: This area on the Ribbon, contains buttons that are categorized in groups. The default tabs are Home, Insert, Page Layout, Reference, Mailings, Review and View.

Quick Access Toolbar : It is a customizable toolbar at the top of a document. By default the Quick Access Toolbar provides the options as Save, Undo, and Repeat buttons and is used for easy access to frequently used commands.

Title Bar : This is a horizontal bar at the top of an active document. This bar shows the name of the document and application. There are buttons such as Minimize, Restore and Close buttons are at the right end of the Title Bar..

Q2. Give shortcut keys of MS.WORD?

Ans: There are following shortcut keys used in MS-WORD-

To do this	Press
Switch to the next window.	ALT+Tab
Switch to the previous window.	ALT+SHIFT+Tab
Close the active window.	CTRL+W or CTRL+F4
Move to the next option or option group.	Tab
Move to the previous option or option group.	SHIFT+Tab
Switch to the next tab in a dialog box.	CTRL+Tab
Switch to the previous tab in a dialog box.	CTRL+SHIFT+Tab
Move between options in an open drop-down list, or between options in a group of options.	Arrow keys
Perform the action assigned to the selected button; select or clear the selected check box.	SPACEBAR
Select an option; select or clear a check box.	ALT+the letter underlined in an option
Open a selected drop-down list.	ALT+DOWN ARROW
Select an option from a drop-down list.	First letter of an option in a drop-

	down list.
Close a selected drop-down list; cancel a command and close a dialog box.	ESC
Run a selected command.	Enter
Move to the beginning of the entry.	HOME
Move to the end of the entry.	END
Move one character to the left or right.	LEFT ARROW or RIGHT ARROW
Move one word to the left.	CTRL+LEFT ARROW
Move one word to the right.	CTRL+RIGHT ARROW
Select or cancel the selection of one character to the left.	SHIFT+LEFT ARROW
Select or cancel the selection of one character to the right.	SHIFT+RIGHT ARROW
Select or cancel the selection of one word to the left.	CTRL+SHIFT+LEFT ARROW
Select or cancel the selection of one word to the right.	CTRL+SHIFT+RIGHT ARROW
Select from the cursor to the beginning of the entry.	SHIFT+HOME
Select from the cursor to the end of the entry.	SHIFT+END
Display the **Open** dialog box.	CTRL+F12 or CTRL+O
Display the **Save As** dialog box.	F12
Open the selected folder or file.	Enter
Open the folder one level above the selected folder.	BACKSPACE

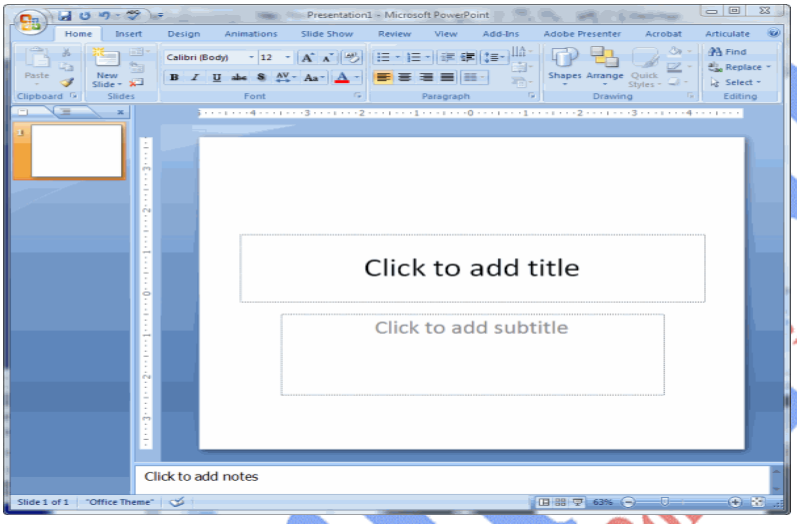
Delete the selected folder or file.	DELETE
Display a shortcut menu for a selected item such as a folder or file.	SHIFT+F10
Move forward through options.	Tab
Move back through options.	SHIFT+Tab
Open the look in list.	F4 or ALT+I
Cancel an action.	ESC
Undo an action.	CT RL+Z
Redo or repeat an action.	CTRL+Y
Move to a task pane from another pane in the program window. You may have to press F6 multiple times.	F6
When a menu is active, move to a task pane. You may have to press CTRL+Tab multiple times.	CTRL+Tab
When a task pane is active, select the next or previous option inthe task pane.	Tab or SHIFT+Tab
Display the full set of commands on the task pane menu.	CTRL+SPACE BAR
Perform the action assigned to the selected button.	SPACE BAR or Enter
Open a drop-down menu for the selected gallery item.	SHIFT+F10
Select the first or last item in a gallery.	HOME or END
Scroll up or down in the selected gallery list.	PAGE UP or PAGE DOWN

UNIT -3

MS- POWERPOINT

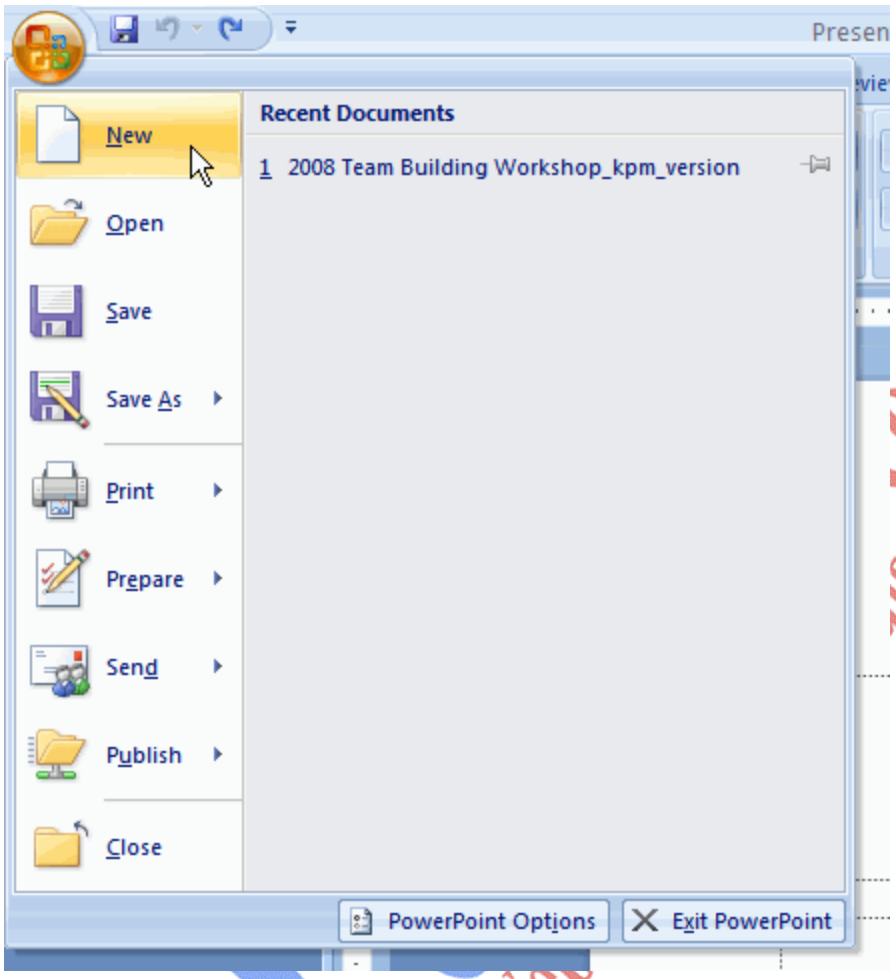
Q1 Give introduction of MS Powerpoints-

Ans

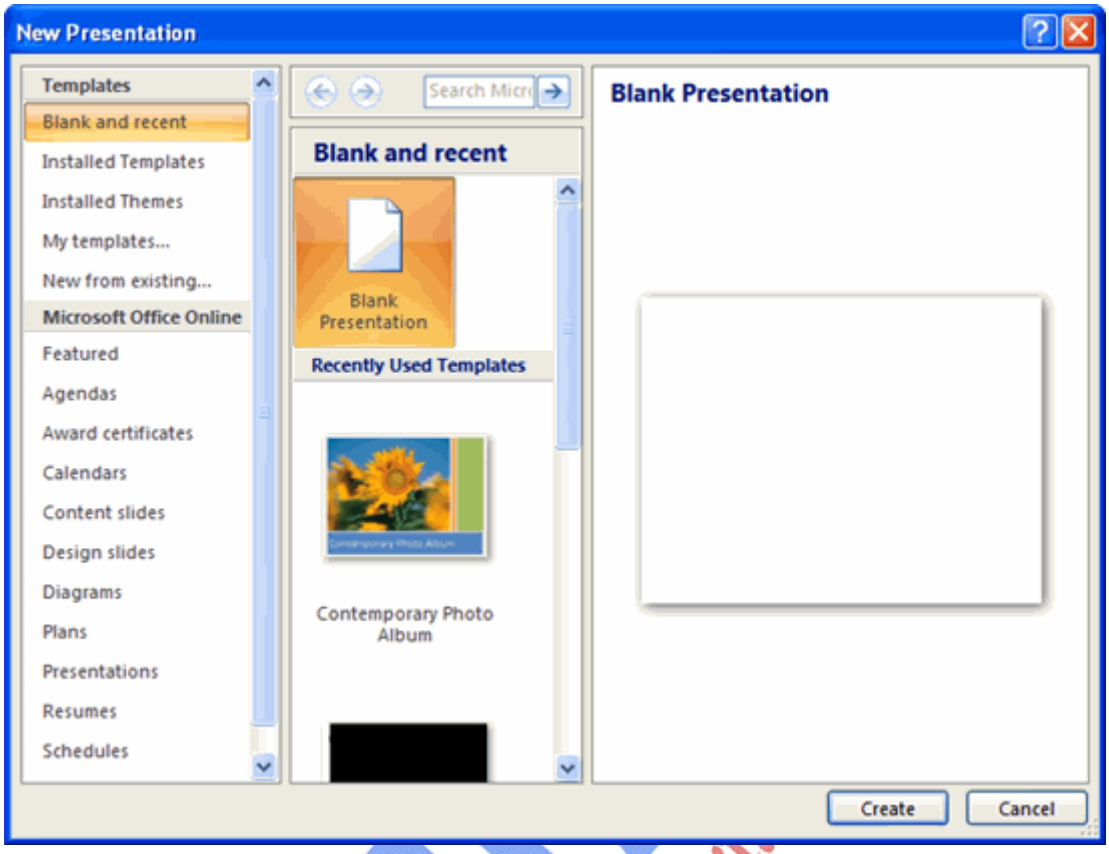


When you open PowerPoint from the **Start** menu or from an icon on your desktop, a new presentation with **one slide** appears by default. You can also create a new presentation while PowerPoint is **already open**.

- Click the **Microsoft Office button**, and choose **New** from the menu.



- The **New Presentation** dialog box will appear. **Blank** presentation is selected by default.



- Click **Create**, and a new presentation will open in the PowerPoint window.

  The default slide that appears when you create a new presentation is a **Title Slide** layout.

Q2. How to change theme of a slide?

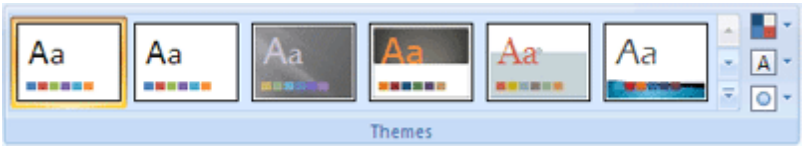
Ans

For customizing a theme, you start by changing the colors, the fonts, or the line and fill effects that are used.

Customize theme colors

Theme colors contain four text and background colors, six accent colors, and two hyperlink colors. The colors in the Theme Colors button represent the current text and background colors, and the set of colors next to the Theme Colors name after you click the Theme Colors button represent the accent and hyperlink colors for that theme. When you change any of these colors to create your own set of theme colors, the colors in the Theme Colors button and next to the Theme Colors name change accordingly.

1. On the Design tab, in the Themes group, click Colors.



2. Click Create New Theme Colors.
3. Under Theme colors, click the button next to the name of the theme color element that you want to change.
4. Under Theme Colors, click the color that you want to use. Repeat steps 3 and 4 for all of the theme color elements that you want to change.

   Tip Under Sample, you can see the effect of the changes that you make.

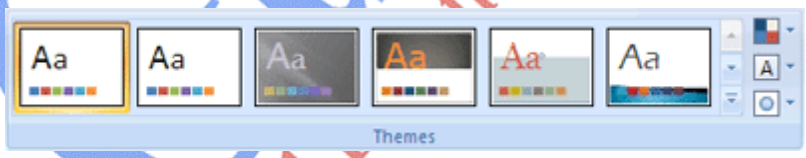
5. In the Name box, type an appropriate name for the new theme colors, and then click Save.

   Tip If you want to return all theme color elements to their original theme colors, click Reset before you click Save.

Customize theme fonts

Theme fonts contain a heading font and a body text font. When you click the Theme Fonts button  , you see the name of the heading and body text fonts used for each theme font below the Theme Fonts name. You can change both of these fonts to create your own set of theme fonts.

1. On the Design tab, in the Themes group, click Theme Fonts.



2. Click Create New Theme Fonts.
3. In the Heading font and Body font boxes, select the fonts that you want to use.

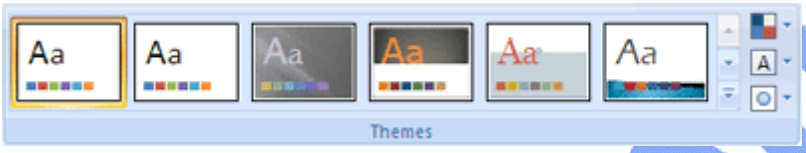
   Tip Under Sample, you can see sample text in the font style that you select.

4. In the Name box, type an appropriate name for the new theme fonts, and then click Save.

Select a set of theme effects

Theme effects are sets of lines and fill effects. When you click the Theme Effects button , you see the lines and fill effects used for each set of theme effects in the graphic displayed with the Theme Effects name. Although you cannot create your own set of theme effects, you can choose the one that you want to use in your own document theme.

1. On the Design tab, in the Themes group, click Theme Effects.



2. Click the effect that you want to use.

Q3 How we can apply animation and transition In a slide?

Ans:

Add Animations

PowerPoint provides four types of animations: Entrance, Emphasis, Exit, and Motion Paths. After you add an animation, you can use the Custom Animation pane to modify it by choosing an effect. Choosing an effect enables you to define what starts the animation, its properties (such the direction from which an object moves onto the slide), and control the speed of the animation. In addition, you can have an animation start when you click the mouse, start along with the previous animation, or start at a specified time after the previous animation.

You may also use the Play button Play on the Custom Animation pane to preview an animation.

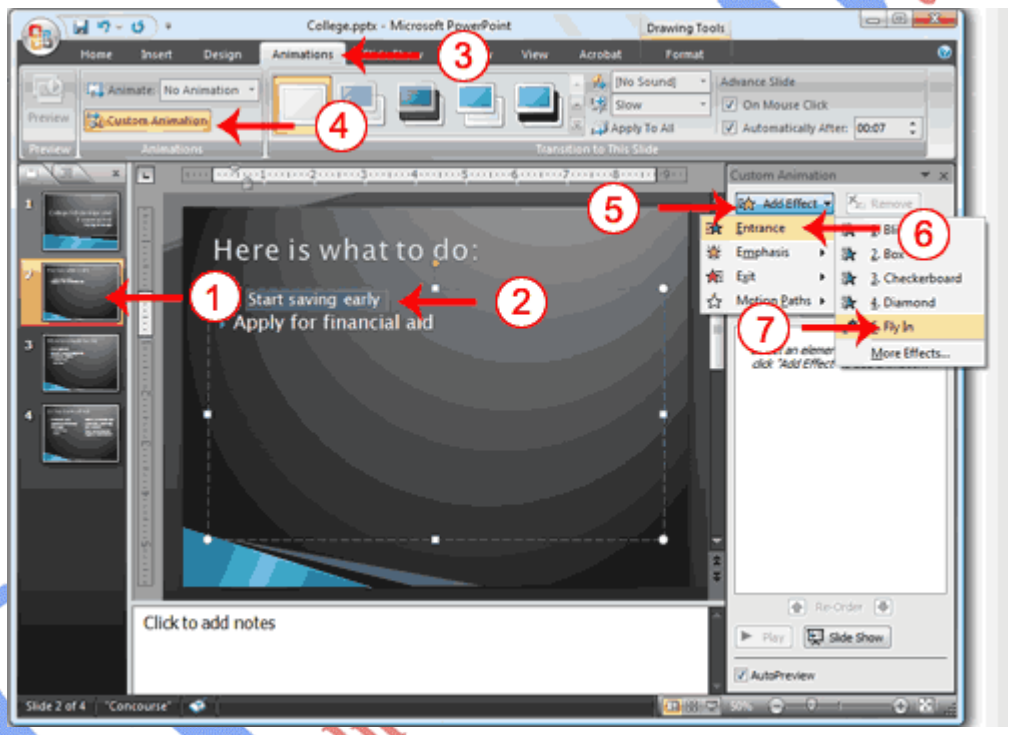
To choose an effect:

1. Select the object you want to animate.
2. Choose the Animations tab.
3. Click the Custom Animation button Custom Animation. The Custom Animation pane appears.
4. Click the Add Effect button Add Effect. A menu appears.
5. Choose the type of effect you want. A submenu appears.
6. Click the effect you want. PowerPoint applies the effect.

To modify an effect:

1. Click the down arrow next to the Start field on the Custom Animations pane and then select the start method you want.
2. Click the down arrow next to the Property field on the Custom Animations pane and the select the property you want. The Property field might be labeled Direction, Size, or some other property.
3. Click the down arrow next to the Speed field on the Custom Animations pane and then select the speed you want to apply to your animation.

To preview the animation, click the Play button Play on the Custom Animations pane.



1. Click Slide 2 on the Slides tab.
2. Select "Start saving early."
3. Choose the Animations tab.
4. Click the Custom Animation button Custom Animation. The Custom Animation pane appears.
5. Click the Add Effect button Add Effect. A menu appears.
6. Choose Entrance. A submenu appears.
7. Click Fly In. PowerPoint applies the effect. If the Auto preview box is checked, PowerPoint automatically provides you with a preview of the animation.

Add Transitions

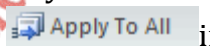
Transitions determine how your presentations move from one slide to the next. For example, a slide can move up onto the screen and replace the previous slide. PowerPoint provides several transition methods. You can add sound to a transition and you can control its speed. You can apply a transition to selected slides or to all of the slides in your presentation.

A transition can occur when the presenter clicks the mouse or after the amount of time you specify.

To apply a transition to selected slides:

1. On the Slides tab, hold down the Ctrl key and then click the slides to which you want to apply the transition.
2. Choose the Animations tab.
3. Click the More button in the Transition to this Slide group. A menu of transitions appears.
4. Click the transition you want to apply. PowerPoint applies the transition. As you roll your pointer over each transition, PowerPoint provides you with a live preview of the transition.

To apply a transition to all slides:

1. Choose the Animations tab.
2. Click the More button in the Transition to this Slide group. A menu of transitions appears.
3. Click the transition you want to apply. As you roll your pointer over each transition, PowerPoint provides you with a live preview of the transition.
4. Click the Apply to All button 

in the Transition to This Slide group.

To add a sound to a transition:

1. Choose the Animations tab.
2. Click the down arrow next to the Transition Sound field and then click the sound you want. As you roll your pointer over each sound, PowerPoint plays the sound.

To set the speed of a transition:

1. Choose the Animations tab.

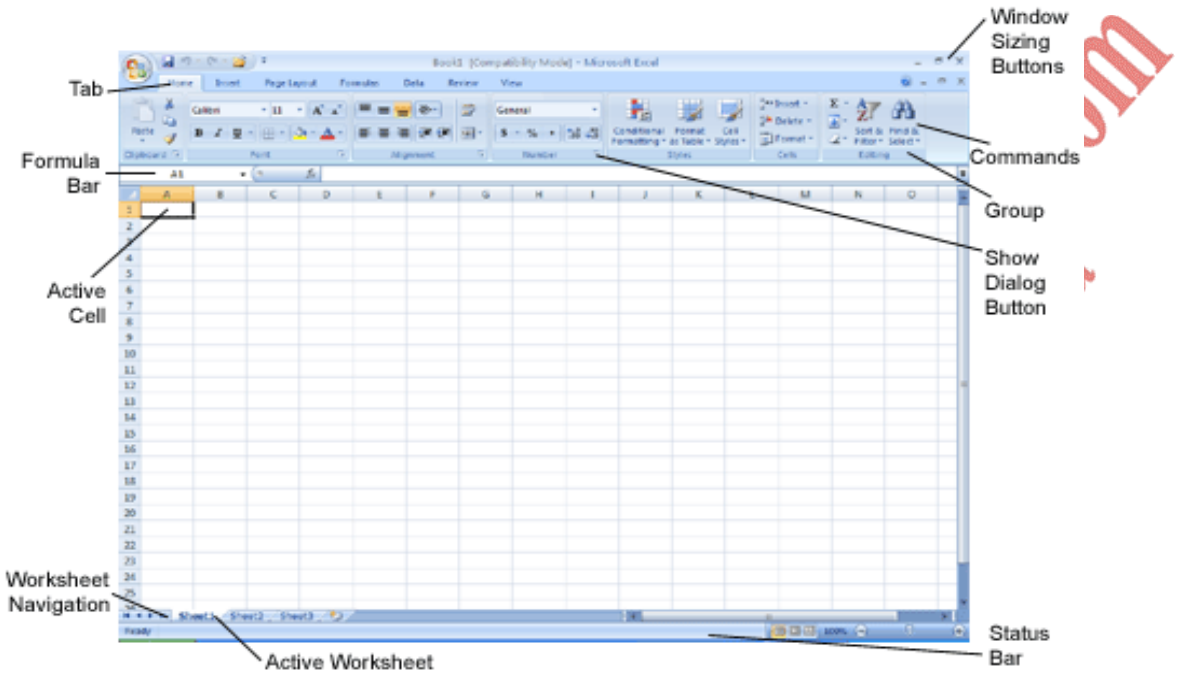
2. Click the down arrow next to the Transition Speed field and then click the speed you want.

UNIT –

4 MS-

EXCEL

Q1 Give introduction of MS-EXCEL?



Microsoft Excel is a spreadsheet application program offered in the Microsoft office software package. This program allows you to perform calculations and use graphic tools, pivot tables, and a macro programming language called VBA. In addition, Excel can also be used to create charts and graphs

After finishing this course you should be able to do the following:

- Start Excel
- Identify the items on the Excel program screen
- Know how to use Toolbars
- Customize Toolbars
- Work with Sheets
- Create a New spreadsheet
- Open an existing saved excel sheet
- Save a sheet

- Convert Excel to PDF
- Rename a sheet
- Work on multiple sheet

- Enter the data
- Insert and Delete rows/columns
- Create Tables
- Draw charts
- Inserting Picture/Hyperlinks/Symbols
- Enter a formula
- Import, Filter and Sort the data
- Freeze/Unfreeze Worksheets
- Use Pivot tables

Starting Excel:
1. Go to the Start Button on the Desktop and press it. Click on All Programs.
2. Then click on Microsoft Office, then Microsoft Office Excel 2007
.3. This opens the Excel 2007 program

Creating a New Sheet
Click on the New button after clicking office button.

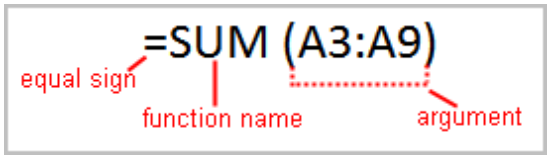
Q2 Explain functions used in MS-EXCEL?

Ans **A** function is a predefined formula in MS-ACCESS that performs calculations using specific values in a particular order.
The benefit of functions is that they can save you time because you do not have to write the formula yourself as there are prebuilt formulas. For example, you could use an Excel function called **Average** to quickly find the average of a range of numbers or the **Sum** function to find the sum of a cell range.

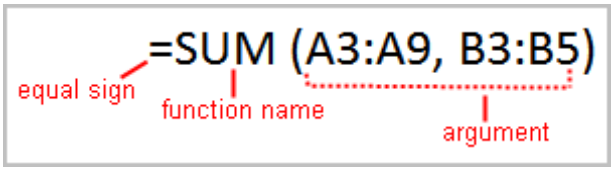
Basic function's Features

1. All functions begin with the = sign.
2. After the = sign, define the **function name** (e.g., Sum).
3. Then there will be an **argument**. An argument is the cell range or cell references that are enclosed by parentheses. If there is more than one argument, separate each by a comma.

An example of a function with one argument that adds a range of cells, A3 through A9:



An example of a function with **more than one argument** that calculates the sum of two cell ranges:



Excel literally has hundreds of different **functions** to assist with your calculations. Building formulas can be difficult and time consuming. Excel's functions can save you a lot of time and headaches.

Excel's different functions

There are many different functions in Excel 2007.

Statistical functions:

- **SUM**: Adds a range of cells together
- **AVERAGE**: Calculates the average of a range of cells
- **COUNT**: Counts the number of chosen data in a range of cells
- **MAX**: Identifies the largest number in a range of cells
- **MIN**: Identifies the smallest number in a range of cells

Financial functions:

- **Interest rates**
- **Loan payments**
- **Depreciation amounts**

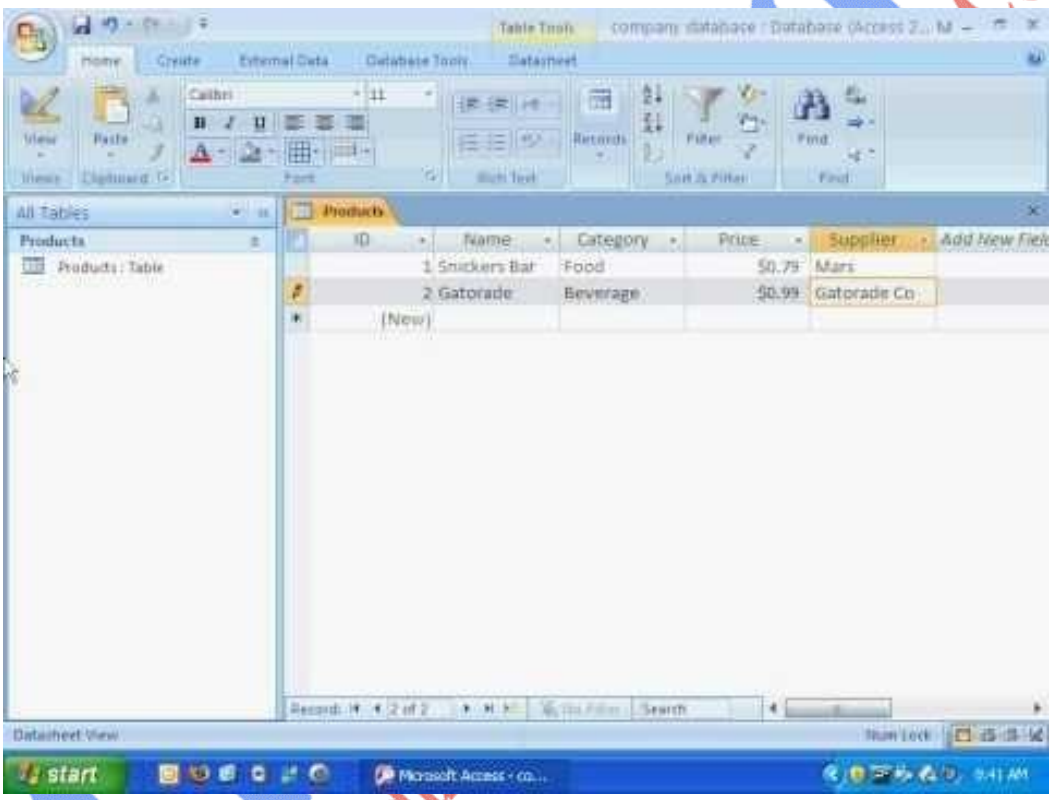
Date and time functions:

- **DATE**: Converts a serial number to a day of the month
- **Day of Week**
- **DAYS360**: Calculates the number of days between two dates based on a 360-day year
- **TIME**: Returns the serial number of a particular time
- **HOUR**: Converts a serial number to an hour
- **MINUTE**: Converts a serial number to a minute
- **TODAY**: Returns the serial number of today's date
- **MONTH**: Converts a serial number to a month
- **YEAR**: Converts a serial number to a year

UNIT - 5 MS-ACCESS

Q1. Give introduction of MS-ACCESS?

Ans



Microsoft Access 2007 is a Database Management System that creates a relational database to perform variousdata-tracking needs of an organization. Access 2007 provides the user with different kind of features for creating and editing data organized into tables, forms, and reports.

Q2 How can you create Database and Table in MS-ACCESS?

Ans First of all, open Access by clicking on the desktop icon, or choose Access from the start menu. This brings up the getting started with microsoft office access screen.

To Select Blank Database Template following are steps

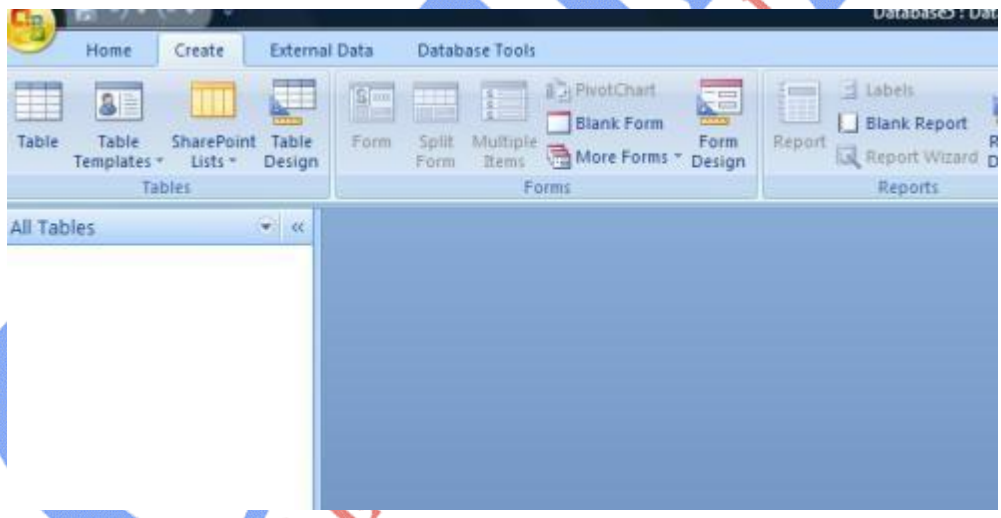
Towards the top left of the screen you will see a "Blank Database" icon. Click this icon to bring up the Blank Database side bar on the right hand side of the screen. This is where you will enter details about the database file that you are about to create.

Now Enter filename for your Access 2007 database

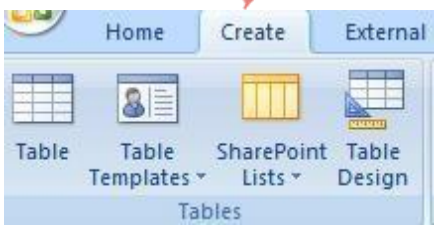
Begin by entering the name that you want to call the database in the filename textbox. Now. Click on Create

MS Access 2007 Table creating steps are-

start by opening your existing database file if it is not already open. Your blank database file should now be fully open.



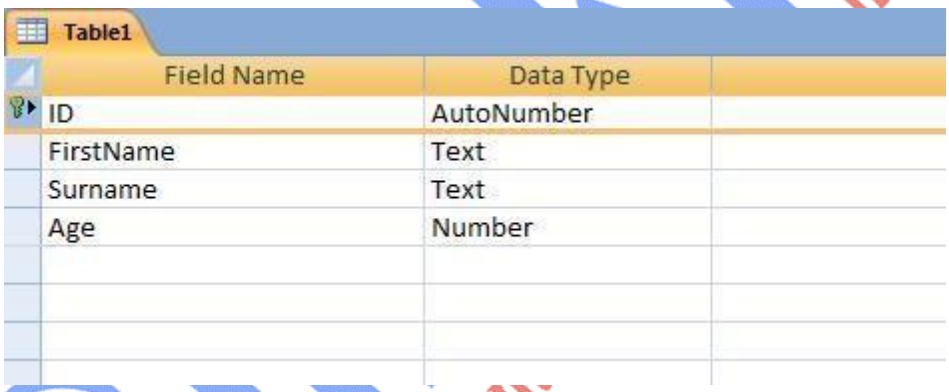
Select the CREATE tab on the Access ribbon. Next select the TABLE DESIGN icon from the TABLES group. This creates a new table.



This opens the TABLE DESIGN GRID where you enter each field name and its data type. The first field we are going to create is the ID field which is going to contain a unique reference number for each record. On the next row the field is going to be called FIRSTNAME and the data type is going to be TEXT. On the third row the field name is SURNAME with the data type again being TEXT. And finally, the last field name is AGE and the data type here is going to be NUMBER.

Before you save the table you will need to choose the Primary Key, which in this case is ID. To do this, select the ID row by clicking on it, and then simply click the primary key symbol on the Ribbon.

The table design grid should now look like this:



You can now save the table by clicking the save icon on the top left of the screen above the Access Ribbon. To view your table select DATASHEET VIEW from the VIEWS group under the DESIGN TAB. This brings up the datasheet view of the table that you have just created. You should see your field headings running across the top of the table.

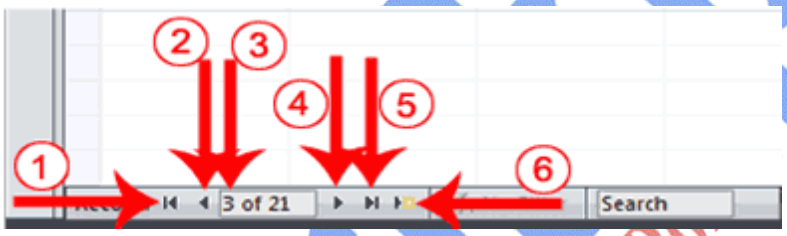
Q3 How can you create Forms in MS-ACCESS?

Ans Access can automatically create different types of forms. As, when you click the Form button on the Create tab, Access places all fields in the selected table on a form..

Following are the steps to create Form:-

1. Open the Navigation pane.
2. Click the table or query on which you want to base your form.
3. Activate the Create tab.
4. Click Form in the Forms group. Access creates a form.

You can use the Navigation bars to move through the records on a form.



1	Go to First Record
2	Go to Previous Record
3	The Current Record
4	Go to Next Record
5	Go to Last Record
6	Create a New (Blank) Record

You can save your form with following steps:-

1. Click the Save button on the Quick Access toolbar. Access saves the form unless you are saving for the first time. If you are saving for the first time, the Save As dialog box appears.
2. Type the name you want to give the form.
3. Click OK. Access saves the form.

Q4 How can you create Reports in MS ACCESS?

Ans Report Wizard is used to select what fields appear on your report. You can also define how the data is grouped and sorted.

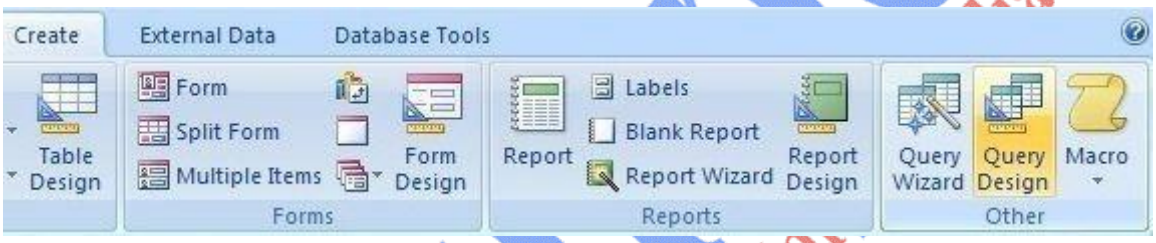
1. On the **Create** tab, in the **Reports** group, click **Report Wizard**.
2. Follow the directions on the Report Wizard pages. On the last page, click **Finish**.

.

Q5 How can you create Query in MS ACCESS?

Ans Following are the steps to create query of a Table-

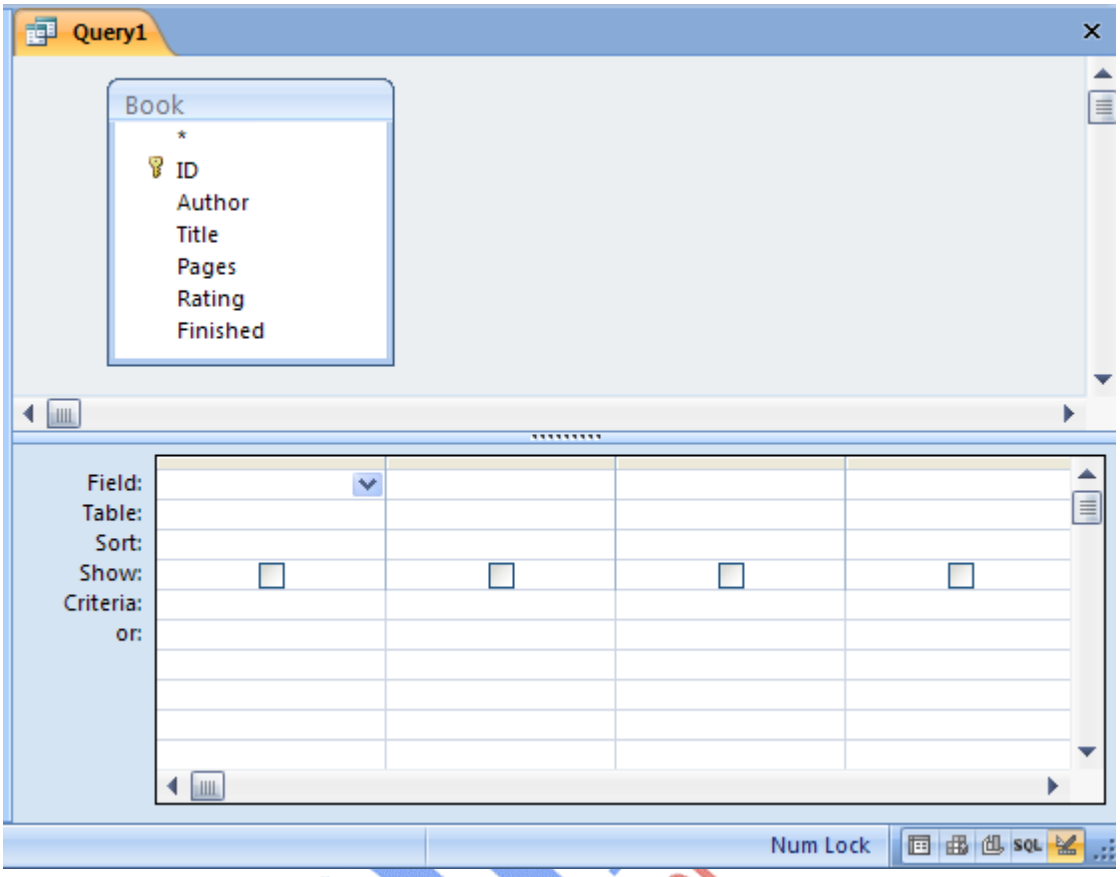
1. Click the *Create* tab, and then the *Query Design* button at the right hand end.



2. You can also use the *Query Wizard*. To create a Query but here we are doing it by Query Button.
3. Access asks you which tables you want to ask questions about.

Click on *table on which you want your query,* and click the *Add* button. The window stays open, so click the *Close* button.

Access presents you with the query design page.



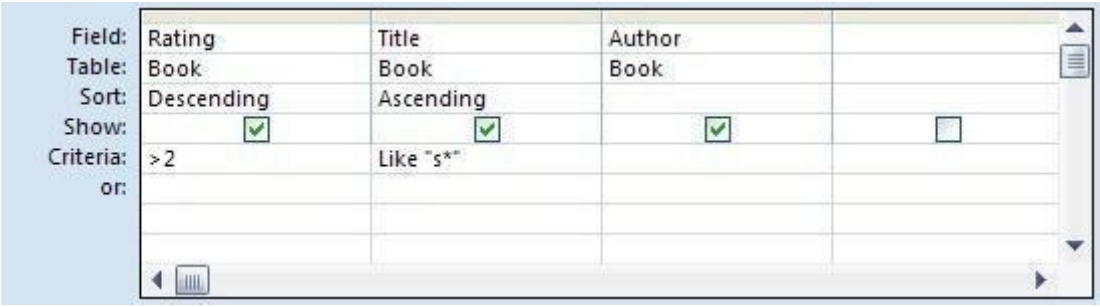
The upper portion of the screen contains all of the included tables, with a list of the fields. The lower portion is where the questions are asked.

First, you need to choose which of the fields in the table you want to either ask questions about, or wish to include in the answer. To choose, double-click the field, or drag it to the grid below.

We have already chosen the *fields*, and the *tables* are added automatically. The next thing is the *sort*. To sort the books by rating for instance, click in the sort box for that column, and change the setting to *Ascending* or *Descending*.

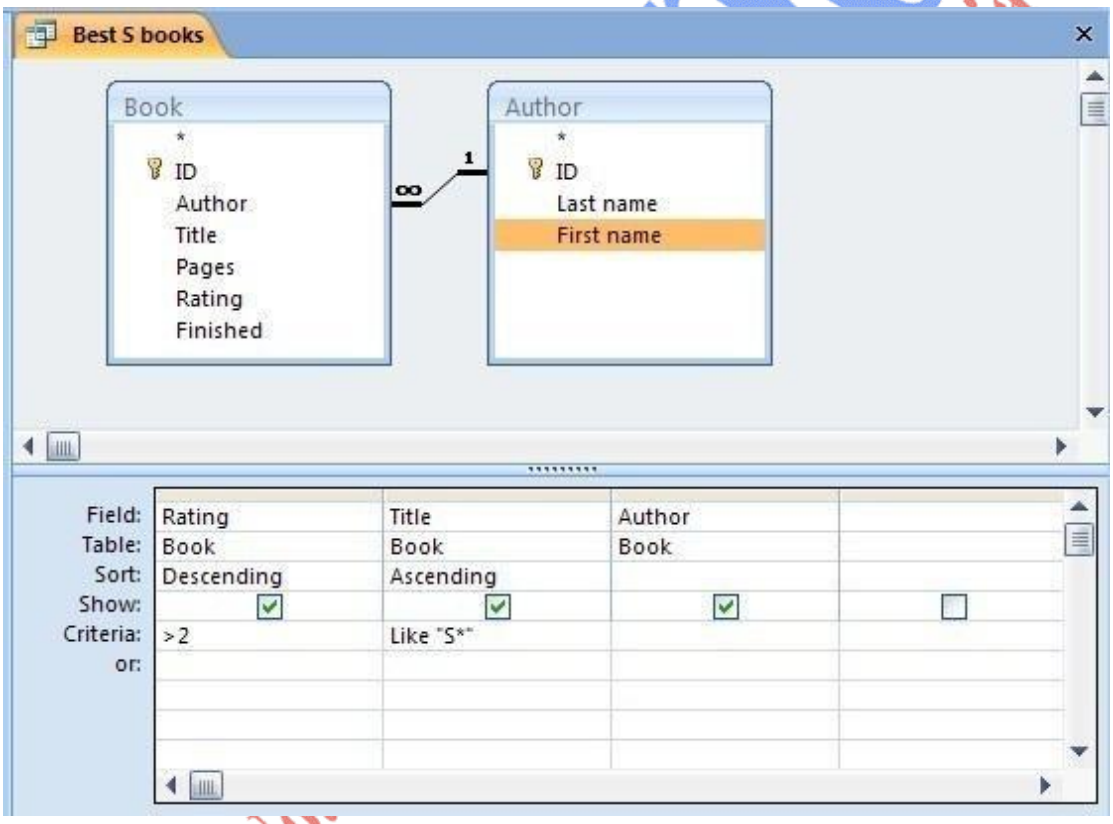
In our case, we want to only see books where the Title starts with "~S', and the rating is better than 2. The "~S' criteria also includes what is known as a wild card. That is, the title needs to start the letter S, but anything at all is permitted after that.

Numeric criteria are allowed to be defined as limits, rather than specific values, so in the case we can use the "~>' operator.



Finally, you can save the query for later..

.



This question paper contains 3 printed pages] Roll No. .....

Sl.No. **135**

B.C.A. (Part - I)

B.C.A. (Part - I) EXAMINATION, 2017
(Faculty of Science)
(Three - Year Scheme of 10 +2 + 3 Pattern)
Paper - 135
COMPUTER ORGANIZATION

Time : Three Hours] *[Maximum Marks : 100*

Answer of all the questions (short answer as well as descriptive) are to be given in the main answer -book only. Answers of short answer type questions must be given in sequential order. Similarly all the parts of one question of descriptive part should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book. Write your roll numbers on question paper before start writing answers of questions.

PART - I

Each question is of 2 marks.

Words limit for the answers is 40 words.

1. a) What was the first generation of computer?

   b) What is cache memory?

   c) What do you mean by data path?

   d) What are the major parts of a central processing unit?

   e) What is the function of program counter.

   f) Write the basic instruction processing steps?

   g) What are the inputs of a sequence computer (SC)?

   h) What is instruction cycle and opcode fetch?

   i) What is the full form of EEPROM?

   j) Write the name of auxiliary storage devices.

[10 × 2 = 20]

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PART - II

Each question is of 4 marks

Words limit for the answers is 80 words.

2. Write short note on historical evolution of the computers

3. Write the operations of control unit.

4. Write the features of pentium microprocessor.

5. Write the functions of data transfer instruction.

6. Write the major difference between microprocessor and microcontroller.

[5 × 4 = 20]

PART - III

Each question is of 12 marks

7. What is a Von-Neumann architecture of a computer? Explain the functions of different units used in it. [12]

OR

Explain the various types of output devices of computer. [12]

8. Draw the Basic building block diagram of computer system. Explain its blocks in brief. [12]

OR

Write the classification of computers. Compare mini computers, micro computers and mainframe computers. [12]

9. What do you mean by 'system buses'? Draw the common bus system diagram and explain it. [12]

OR

Explain the phases of instruction cycle of the computer system. [12]

10. What do you mean by 'registers'? Write the name of basic registers they are used in computer system. Explain any four registers. [12]

OR

Draw the diagram for memory hierarchy in a computer system. Discuss the magnetic disk in detail. [12]

11. Explain the 8085 microprocessor with block diagram. [12]

OR

Explain the characteristics of RISC and CISC computers. [12]

This question paper contains 2 printed pages. Roll No. .....

BCA (Part-I) **Comp.Org.**

135

B.C.A. (Part-I) EXAMINATION, 2019

(Faculty of Science)

(Three Year Scheme of 10+2+3 Pattern)

COMPUTER ORGANIZATION - 135

Time Allowed : Three Hours Maximum Marks : 100

No supplementary answer-book will be given to any candidate. Hence the candidates should write the answer precisely in the main answer-book only.

All the parts of one question should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book.

Write your roll number on question paper before start writing answers of questions.

PART - I

Each question is of 2 marks. Word limit for the answer is 40 words. 10x2=20

1. (a) What is system clock ?
   (b) What are magnetic tapes ?
   (c) What is instruction word ?
   (d) Discuss about the shift microoperation with example.
   (e) Explain the design of client server computer.
   (f) What are the features of Pentium Microprocessor ?
   (g) What is the EPROM and EEPROM ?
   (h) What is main memory ?
   (i) What are auxiliary storage devices ?
   (j) Discuss about the buses.

PART - II

Each question is of 4 marks. Word limit for the answer is 80 words. 5x4=20

2. Explain Von Neumann Architecture.

3. Discuss about the control unit and its functions.

4. What do you mean by decoding of instruction ?

5. Explain static and dynamic RAM.

6. Give the differences between microcontroller and microprocessor.

PART - III

Each question is of 12 marks. 3x4=12

7. Discuss following points about the storage devices :
   (a) Von Neumann Architecture
   (b) Mother Board
   (c) Bus Architecture

OR

Discuss following :
   (a) Computer Ports
   (b) Network Cables
   (c) Network Adaptor Card

8. What do you mean by Instruction Execution Cycle ? Discuss in detail with branch, skip, jump and shift instruction. 12

OR

Discuss the classification of Computer Systems with advantages and limitations of each.

9. Design a common bus system using multiplexer for 4 registers of 4 bit each. Also discuss the simple organization of CPU with memory and I/O subsystems. 12

OR

Discuss about the Register Transfer Language and Draw the block diagram of the hardware that implements the following statement.

X+YZ : R1⇐R2, R2⇐R1

10. Why do we need so many addressing modes ? Explain addressing modes in detail. 12

OR

What do you mean by locality of reference ? Also discuss about the cache memory.

11. Explain about the 8085 microprocessor with suitable diagram. 12

OR

Discuss about the RISC and CISC Computer with merits and demerits.

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This question paper contains 3 printed pages] Roll No. .....

Sl.No.

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B.C.A. (Part - I)

B.C.A. (Part - I) EXAMINATION, 2017

(Faculty of Science)

(Three-year scheme of 10 + 2 + 3 Pattern)

Paper - 136

OFFICE MANAGEMENT TOOLS

Time : Three Hours] *[Maximum Marks : 100*

Answer of all the questions (short answer as well as descriptive) are to be given in the main answer -book only. Answers of short answer type questions must be given in sequential order. Similarly all the parts of one question of descriptive part should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book. Write your roll numbers on question paper before start writing answers of questions.

Question paper consists of three Parts.
All THREE Parts are compulsory.

Part I: *(Very short Answer) consists of 10 questions of two marks each with two questions from each unit. Maximum limit for each question is up to 40 words.*

Part II: *(Short Answer) consists of 5 quesitons of four marks each with one question from each unit. Maximum limit for each question is up to 80 words.*

Part III: *(Long answer) consists of 5 questions of twelve marks each with one question from each unit with internal choice.*

PART - I

1. a) Explain any 5 important features of operating system.
   b) Differentiate Internal and External DOS command.
   c) Define status Bar in MS - Word.
   d) What do you mean by show/Hide Button in MS-Word.
   e) What do you mean by spreadsheet?
   f) What is the use of set print Area in MS-Excel?
   g) Explain the use of slide sorter in MS-Powerpoint.
   h) Why we use master slides in Powerpoint?
   i) Define Icon and its use.
   j) What is the degree of a relation?

[10 × 2 = 20]

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P.T.O.

[5 × 4 = 20]

PART - II

Attempt all questions.

Each questions carries 4 marks.

2. Write short notes on the following:
   a) Booting process.
   b) Text editor.
   c) Windows Explorer.
   d) Kernell and shell.

3. Explain the use of following commands in MS-Word.
   a) Format painter.
   b) Title Bar and scroll Bar.
   c) Macro.
   d) Line spacing.

4. Explain the Absolute, Relative and mixed Reference in MS-Excel.

5. What is the use of conditional formatting in MS-Excel, explain with suitable example.

6. How many kinds of views are available to create a Database in MS - Access, explain with suitable example.

PART - III

Attempt all questions.

Each questions carries 12 marks.

7. Write short notes on the following (any three)
   a) Disk Defregmentation. [4]
   b) Dettree, X copy command. [4]
   c) System Tray in Task Bar. [4]
   d) Define FAT (File Allocation Table) [4]

OR

a) Why we say that operating system works as a Resource manager, explain in detail. [7]

b) Define Batch Processing, Real time operating system. [5]

8. a) Explain the Utility of Mail Merge. [6]

b) Explain split table, Merge Table, Cell. [6]

OR

a) Define some of the commands/options available in Print Dialogue Box. [6]

b) Explain super script, sub-script, sorting & Print layout option in MS-Word. [6]

9. a) Pivot table in MS - Excel? [6]

b) Hlookup and Vlookup functions in Excel? [6]

OR

a) Explain any 4 (four) Text function, with example. [6]

b) What is the use of filter in Excel. [6]

10. a) How many ways we use the slide show in Powerpoint. [6]

b) What is Rehearse Timing in Powerpoint. [6]

OR

a) What do you mean by Transition in Powerpoint? [6]

b) Explain the kinds of Presentation views are available in Power point. [6]

11. Explain any 5 advantages and disadvantages of Database Management system, in detail. [12]

OR

a) Define Database, database management system and its functions. [6]

b) What is form wizards in Access. [6]

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This question paper contains 2 printed pages.

B.C.A.(Part - I)

Roll No. .....

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Off. Man. Tool

B.C.A. (PART I) EXAMINATION - 2018

(FACULTY OF SCIENCE)

(Three - Year Scheme of 10+2+3 Pattern)

Paper - 136

(Office Management Tools)

Time Allowed : Three Hours

Maximum Marks - 100

Question paper consists of three Parts.

All THREE Parts are compulsory.

PART - I: (Very Short Answer) consists of 10 questions of two marks each with two questions from each unit. Maximum limit for each question is up to 40 words.

PART - II: (Short answer) consists of 5 questions of four marks each with one question from each unit. Maximum limit for each question is up to 80 words.

PART - III: (Long answer) consists of 5 questions of twelve marks each with one question from each unit with internal choice.

PART - I

1. a. Explain "Attrib" DOS Command with syntax.
   b. What do mean by booting sequence? Explain.
   c. What do you mean by Thesaurus? Explain.
   d. How to set a page into two columns? Write steps.
   e. What is difference between work-book and work-sheet? Explain
   f. What is short cut key to select entire column? Explain
   g. Which Power Point feature allows the user to create a simple presentation quickly? Explain.
   h. How to edit an embedded organization chart object? Write steps.
   i. What are the different views to display a table? Explain.
   j. How duplicate Query wizard is helpful?

PART - II

2. Write five comparisons between Data and Information.

3. Explain the use of following commands in MS - Word using suitable examples -
   a. Format Painter
   b. Watermark
4. How to work with formulas in excel? Explain
5. What is a Power Point presentation? Describe Custom Animation.
6. What are the advantages of Database Management System over File System? Explain

PART - III

1. Define OS. Write basic functions of OS. Compare NTFS and FAT on the basis of various features.

OR

Write notes on the following DOS commands -

a. COPY CON
b. XCOPY
c. MOVE
d. CHKDSK
e. FC
f. TREE

2. What is Mail-Merge? What are the advantages of mail-merge? Write steps to create Mail - Merge.

OR

How to convert a word document into Word Perfect, Rich text and Text Format? Write all steps.

3. Write notes on -
   a. Find & Select
   b. Conditional Formatting
   c. Trace Precedents and Trace Dependents
   d. Cell Styles

OR

What is a macro? What are the importances of macros in Excel? Write steps to create a macro.

4. Write notes on.
   1. Transition in Power Point
   2. Action Buttons

OR

What is slide master and slide layout in Power Point? Explain in detail.

5. What do you mean by DBMS? Explain different types of DBMS in detail.

OR

Explain reports in MS-Access. Explain two methods to create reports in MS-Access.

This question paper contains 2 printed pages. Roll No. .....

B.C.A. (Pt. -I) **Off. Man. Tool**

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B.C.A. (Part-I) EXAMINATION - 2019

(Faculty of Science)

(Three-Year Scheme of 10+2+3 Pattern)

OFFICE MANAGEMENT TOOLS - 136

Time Allowed : Three Hours Maximum Marks : 100

Question paper consists of three parts.
All THREE parts are compulsory.

PART-I : *(Very Short Answer) consists of 10 questions of two marks each. Maximum limit for each question is upto 40 words.*

PART-II : *(Short answer) consists of 5 questions of four marks each. Maximum limit for each question is upto 80 words.*

PART-III : *(Long answer) consists of 5 questions of twelve marks each with one question from each unit with internal choice.*

Write your roll number on question paper before start writing answers of questions.

PART - I

1. (a) Define Bookmark in MS-Word.
   (b) What is Replace short key ?
   (c) What is macro ?
   (d) What is thesaurus ?
   (e) Define "COPYCON" DOS Command with syntax.
   (f) What is "Save as" ?
   (g) What is page orientation ?
   (h) Define Hyperlink.
   (i) Define Master Slide.
   (j) Define Column Charts.

PART - II

2. Describe validation in MS-Excel.

3. What is a PowerPoint Presentation ? Describe Slide Transition.

4. What is goal seek in MS-Excel ? Explain.

5. Describe a Database Planning in MS-Access.

6. Describe page setup in MS-Word.

P.T.O.

PART - III

1. What is Operating System ? Differentiate between NTFS and FAT file system.

OR

Write short notes on the following DOS Commands :

(a) CD (b) DIR (c) TYPE

(d) COPYCON (e) DEL (f) RD

2. How to create a mail-merge explain in detail using suitable example.

OR

How to convert a word document into different formats like Rich Text and Word Perfect ?

3. Write short notes :

(a) Find and Replace

(b) Trace Precedents and Trace Dependents

(c) Watermark

(d) Sorting and Filtration

OR

What is a Pivot Table in Excel ? Explain using suitable example.

4. Write notes on :

(a) Header and Footer toolbar.

(b) Custom animation in powerpoint.

OR

What is Slide Master and Slide Layout in PowerPoint ? Explain in detail.

5. Explain forms in MS-Access. Explain all methods to create forms in MS-Access.

OR

What is DBMS ? Explain Different types of DBMS in details.

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