COMPUTER SCIENCE & ENGINEERING
I Year (THEORY SYLLABUS)
PAPER 1 : COMPUTER FUNDAMENTALS & MS OFFICE.

Unit 1 : Introduction to Computer systems and Hardware

- Introduction to Computers, generations of computer
- Classification of Computers based on Purpose, Operation & Size
- Anatomy of Computers
- Number Systems
- Basic I/O Devices
- Block Diagram of CPU
- Memory units- Primary and Auxiliary memory
- Programming Languages, general software features trends and utilities.

Unit 2 : Overview of Operating Systems

- Introduction to Operating system , function and its types
- Features of DOS
- Working with DOS Commands
- Features of Windows
- Meaning of Multitasking, File system, desktop components, control panel, Windows Explorer , Device manager, File Manager and Program Manager , Display properties, taskbar properties etc.

Unit 3 : MS-Word

- Introduction to Word Processing
- Editing a Document
- Move and Copy Text and Help System
- Formatting Text and Paragraph
- Finding and Replacing Text and Spell Checking
- Using Tabs
- Enhancing Document
- Columns, Tables and Other Features
- Using Graphics, Templates and Wizards
- Using Mail Merge
- Miscellaneous features of Word

Unit 4 : MS-Excel

- Introduction to Spreadsheet
- Creating Worksheets & feeding data
- Using functions
- Editing Cells and Using commands and functions
- Moving and Copying, Inserting and Deleting Rows and Columns
- Formatting a Worksheet
- Opening, Saving and Printing a Worksheet
- Working with Charts
- Working with Macros
- Pivot tables

Unit 5 : MS-PowerPoint

- Creating Presentations using AutoContent Wizard, Template & Blank Presentation
- Working with Master's Slide, Title handout and Notes
- Viewing a Presentation
- Drawing Objects & Inserting OLE
- Drawing freeform shapes
- Rotating Objects
- Animation in slides/objects

PAPER-I COMPUTER FUNDAMENTAL & MS-OFFICE [THEORY]

PERIODS PER WEEK : 4 **PERIODS PER YEAR : 135**

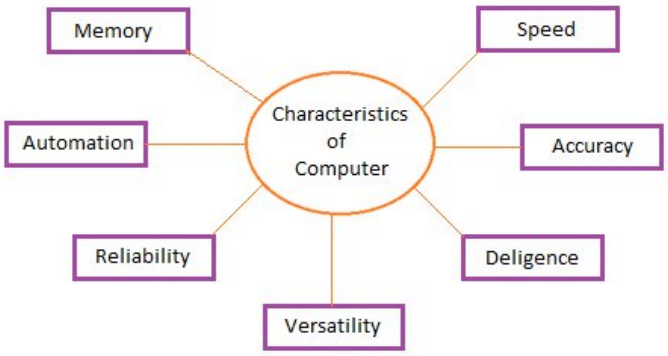
S.NO.	UNITS	NO.OF PERIODS	WEIGHTAGE OF MARKS	NO. OF SHORT QUESTIONS	NO.OF ESSAY QUESTIONS
I	Introduction to Computer systems and Hardware	20	10	2	1
II	Overview of Operating Systems:-	20	10	2	1
III	MS Word	35	24	3	3
IV	MS Excel	35	16	2	2
V	MS Power Point	25	8	1	1
	Total	135	68	10	8

UNIT – 1
Introduction to Computer systems and Hardware

1.Explain Characteristics of Computer?

Ans: Computer: It is an Electronic device and it takes the input data from the user and processing the data, store the data and give the desired output to the user is called computer.

Characteristics of Computer System:



Speed: A computer workswith much higher speed and accuracy compared to humans. Computers can process millions of instructions per second.

Accuracy: Computers perform calculations with 100% accuracy.

Diligence: A computer can perform millions of tasks or calculations with the same consistency and accuracy.

Versatility: computer to perform different kinds of works with same accuracy and efficiency.

Reliability: A computer is reliable as it gives consistent result for similar set of data.

Automation: Computer performs all the tasks automatically.

Memory: A computer has built-in memory called primary memory where it stores data. Secondary storage are removable devices such as CDs, pen drives, etc., which are also used to store data.

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2. Explain Generations of Computers?

Ans: A generation of computers refers to the specific improvements in computer technology. It helped to increase the speed, memory and power of computers. There are five generations of computers which are.

1. First Generation of Computers(1946 – 1959)
2. Second Generation of Computers(1959 – 1965)
3. Third Generation of Computers(1965 – 1971)
4. Fourth Generation of Computers(1971 – 1980)
5. Fifth Generation of Computers(1980 – upto continue)

First Generation of Computers (1946 – 1959):

- The first generation of computers year is 1946 -1959.
- **vacuum tubes** were used as the basic components of CPU and memory.
- **Magnetic tape and paper tape** were used as output and input devices in this generation.
- Example: **ENIAC,EDVAC,UNIVACI**

Second Generation of Computers (1959 – 1965):

- The second generation of computers year is 1959 -1965.
- These computers used **transistors** which were cheap, compact and consuming less power; it is faster than the first generation computers.
- In this generation, **magnetic cores** were used as the primary memory and **magnetic disc and tapes** were used as the secondary storage.
- Example: IBM 1620,IBM 7094

Third Generation of Computers (1965 – 1971):

- The third generation of computers year is 1965 -1971.
- The third generation of computers used **Integrated circuits (ICs)** instead of transistors.
- hese generation computers used **remote processing, time-sharing, multi programming as operating system**.
- Example: IBM-360,PDP.

Fourth Generation of Computers(1971 – 1980):

- The fourth generation of computers year is 1971 -1980.
- The fourth generation of computers used **very large scale integrated (VLSI) circuits**
- These generation computers used **real time, time sharing and distributed operating system**.
- Example: CRAY-1(Super Computer),CRAY-X-MP(Super Computer).

Fifth Generation of Computers(1980 – continue):

- In fifth generation of computers year is 1980 – still continue.
- the **VLSI technology was replaced with ULSI (Ultra Large Scale Integration).**
- This generation computers used **parallel processing hardware and AI (Artificial Intelligence)** software.
- Example: **Desktop,Laptop,NoteBook.**

3.What is Classification of Computer?

Ans: Computers are classified based on the size, type and capacity of their work, which is called classification of computers. *Another name of the classification of computers is known as classes of computers.* Classification of computers is particularized in three main categories.

1. Classification of Computers On the Basis of **Size** and **Capacity.**
2. Classification of Computer On the Basis of **Type.**
3. Classification of Computer According to **Purpose.**

4.Explain Various Computers based on Size?

Ans: classification of computer is based on the internal memory and speed of processing. The computer is classify into **four types** based on size and capability.

1. Micro Computer
2. Mini Computer
3. Main frame computer
4. Super Computer

Microcomputer:

- Micro Computer is the self-contain units and usually designed for used by one person at a time. A Micro Computer is general purpose of processing system. It is the smaller to any other large system.

Mini Computer:

- A Mini Computer is a medium size i.e. more costly and power full then a Micro Computer. A Mini Computer system that support Multiples users. This process is also called Time Sharing system.

Mainframe Computer:

- Main Frame Computer is Very Large computer. A computer with a large storage capacity and very fast speed of processing compare to Micro or Mini Computer.

Supercomputer:

- Supercomputer has internally large storage capacity and computing speed. Which are at least Ten Times faster than other computer.

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5. Explain Various Computers based on Operation?

Ans: The computer is classified into three types based on Type and the basis of Hardware Design and Data Handling. *Classification of computer according to type is given below.*

1. Analog Computer
2. Digital Computer
3. Hybrid Computer

Analog Computer:

- Analog computer is used to measure the physical quantities, temperature, pressure weight and height and gives the result in the form of digits is called analog computer. **Needle clock** , **vehicle's speedometer, Voltmeter**, an example of **analog computer**.

Digital Computer:

- Digital computers are used to calculate digits. Today digital computers are being used in everywhere. Computer devices that work on numbers 0 and 1, those computers are called digital computers.

Hybrid Computer:

- Hybrid computer combine the both analog or digital computer which includes both Analog and Digital properties. Hybrid computer is used in medical field. Hybrid computers are more powerful than analog and digital computers. **Smart watch** is an example of **Hybrid Computer**.

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6. Explain Various Computers based on Purpose?

Ans: The computer is classified into two types According to Purpose. Every computer is designed with different design and different purpose. These are two types they are.

1. Special Purpose computer
2. General Purpose computer

Special Purpose computer:

- They Are Made for Particular Task Or Application, It Incorporates The Instruction Needed Into The Design Of Internal Storage. **Automatic Teller Machine (ATM), Washing machine** is an example of Special Purpose computers.

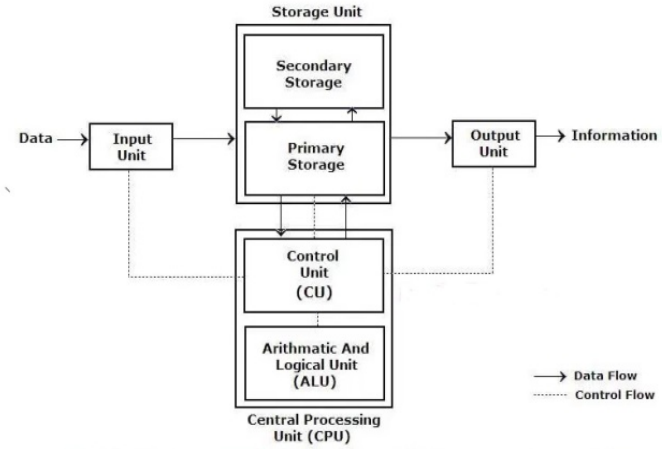
General Purpose computer:

- This computers Needed Instruction To Perform A Particular Task Is Not Storage Permanent. When One Job Is Completed Instruction For Another Job Can Be Loaded Into The Internal Memory For Processing. All microcomputers are examples of general purpose computer system.

7.Draw the block diagram of digital computer and explain each unit neatly?

Ans: Computer: It is an Electronic device and it takes the input data from the user and processing the data, store the data and give the desired output to the user is called computer. A computer system can be divided into two components They are.

1. Hardware
2. Software



Block Diagram of Computer and its components

Hardware: The *hardware* is the tangible parts of the computer or all the physical components of the computer is called Hardware these are touch and feel. A computer consists of the following major hardware components.

- **Input and output devices:**

Input devices : keyboard, mouse, scanner, light pen, joystick, barcode reader.

Output devices: monitor, printer, speaker, plotter

- **Central processing unit (CPU):**
  1. **Control unit(CU):** it act like the supervisor and responsible for co-ordinating the various operations using time signal and executed instructions.
  2. **Arithmetic Logical Unit(ALU):** the major operations performed by the ALU are addition, subtraction, multiplication, division, logic and comparison.
  3. **Memory unit :**

a) **Primary memory:** This memory is also known as main memory. This memory is accessed directly by the processor. Example: RAM, ROM, CACHE MEMORY, REGISTERS.

b) **Secondary memory (or) Auxiliary memory:** Secondary storage permits the storage of computer instructions and data for long periods of time. Secondary memory is also called as auxiliary memory. Example: HARD DISK DRIVE (HDD), SOLID STATE DRIVE (SSD), CD, DVD, PENDRIVE.

Software: the *software* is the intangible set of instructions that control the hardware and make it perform specific tasks. Without software, a computer is effectively useless. These are two types.

- **System software:** System software is designed to facilitate and coordinate and interacts with the computer system at low level. Example: operating system, loader, linker, etc.
- **Application software:** Application software is designed to perform specific usages of the users. Example: Microsoft Word, Microsoft Excel, Microsoft Power Point, etc.

8.Write about Number Systems?

Ans: Number System: The data representation of computer consists of alphabets, numbers and symbols. In our daily life we use decimal number system(0 – 9), but computer use only binary number system(0, 1). Number system is divided into 4 types they are.

1. Binary Number System
2. Octal Number System
3. Decimal Number System
4. Hexa-Decimal Number System

Binary Number System:

1. It has only 2 digits (0,1)
2. It's base or radix is 2
3. The value of the number is represented as power of 2.
4. Example : $(1011101)_2$, $(11011)_2$

Octal Number System:

1. It has only 8 digits they are (0,1,2,3,4,5,6,7)
2. It's base or radix is 8
3. The value of the number is represented as power of 8.
4. Example: $(25)_8$, $(154)_8$

Decimal Number System:

1. It has only 10 digits they are(0,1,2,3,4,5,6,7,8,9)
2. It's base or radix is 10
3. The value of the number is represented as power of 10.
4. Example: $(256)_{10}$, $(184)_{10}$

Hexa-Decimal Number System:

1. It has only 16 digits they are(0,1,2,3,4,5,6,7,8,9,A(10),B(11),C(12),D(13),E(14),F(15))
2. It's base or radix is 16
3. The value of the number is represented as power of 16
4. Example: $(5D)_{16}$, $(1A5)_{16}$

9.Write about Input Devices?

Ans: Input Devices: Generally we give data and program instruction to the computer. So what we give to the computer is known as input. Through which device we give the input is called input device.

1. Mouse
2. Joystick
3. Lightpen
4. Scanner
6. OCR(Optical Character Recognition)
7. Bar Code Reader
8. Magnetic Ink Character Recognition(MICR)

- **Keyboard:** The keyboard is the most frequent and widely used input device for entering data into a computer.
- **Mouse:** The most common pointing device is the mouse. The mouse is used to move a little cursor across the screen while clicking and dragging.
- **Joystick:** A joystick is a pointing device that is used to move the cursor on a computer screen.
- **Light Pen:** A light pen is a type of pointing device that looks like a pen.
- **Scanner:** A scanner is an input device it collects images from the source and converts them to a digital format.
- **Optical Character Recognition(OCR):** it is a device that reads printed text.

10.Write about Output devices?

Output Devices: generally we get information from the computer, so what we get from the computer is called output. Through which device we get output is called output device.

1. **Monitor**
2. **Printer**
3. **Speaker**
4. **Projector**
5. **plotter**

- **Monitor:** Monitors, also known as Visual Display Units (VDUs), are a computer's primary output device.
  1. Cathode-Ray-Tube (CRT)
  2. Flat-Panel Display (Liquid Crystal Display(LCD) ,Light Emitting Diode(LED))
- **Printer:** Printers are output devices that allow you to print information on paper. There are two types of printers:
  1. **Impact Printer:** Characters are printed on the ribbon, which is subsequently crushed against the paper.
  2. **Non-Impact Printers:** these printers print a full page at a time, they're also known as Page Printers.
- **Speakers:** An output device that produces sound after receiving a command from the computer.
- **Projector:** This device that presents visuals on the screen. They are present at movie theatres, auditoriums, etc.
- **Plotter:** It is a device to make graphics, prints and other vector images to give a real life illustration vibe.

11.Write about Primary memory and Secondary Memory?

Ans: Memory: it stores the data or information is called memory. It is also called as storage. Computer memory is divided into two types they are..

1. Primary memory or Main memory
2. Secondary memory or Auxiliary memory

Primary Memory or Main memory: Primary memory is also known as main memory. Primary storage is located on the motherboard. Primary storage includes

1. Read Only Memory (ROM)
2. Random Access Memory (RAM)
3. Cache Memory
4. Registers.

Read only memory (ROM): Read only memory (ROM) is non-volatile primary memory. It keeps its contents when the computer is turned off. The BIOS (Basic Input Output System) is stored in ROM. These are 3 types they are.

- **PROM (Programmable Read Only Memory)**
- **EPROM (Erasable Programmable Read Only Memory)**
- **EAPROM (Electrically Alterable Programmable Read Only Memory)**

Random access memory (RAM): Random access memory (RAM) is volatile primary storage. Once the computer is switched off the data and instructions held in RAM are lost

Cache memory: Cache memory is a type of high-speed volatile random access memory (RAM) which is built into the processor. Data can be transferred to and from cache memory more quickly than from RAM.

Registers: Registers are used to quickly accept, store, and transfer data and instructions that are being used immediately by the CPU. It is not part of the main memory but it store data temporarily.

Secondary memory or Auxiliary memory: A secondary storage device refers to any non-volatile storage device that is internal or external to the computer. It is a permanent data storage. A secondary storage device is also known as an auxiliary storage device or external storage.

- Floppy disk
- Magnetic tape
- Magnetic drum
- Solid-state drives (SSDs).
- Hard disk drives (HDDs).
- CD.
- DVD.
- SD cards.

12.Write about Secondary Storage devices or Auxiliary memory ?

Ans: Memory: it stores the data or information is called memory. It is also called as storage. Computer memory is devided into two types they are

1. Primary memory or Main memory
2. Secondary memory or Auxiliary memory

Secondary memory or Auxiliary memory: A secondary storage device refers to any non-volatile storage device that is internal or external to the computer. It is a permanent data storage. A secondary storage device is also known as an auxiliary storage device, backup storage device, tier 2 storage, or external storage.

- Floppy disk
- Magnetic tape
- Magnetic drum
- Solid-state drives (SSDs).
- Hard disk drives (HDDs).
- CD.
- DVD.
- SD cards.

13.Write about RAM and ROM?

Ans:

Random access memory (RAM): Random access memory (RAM) is volatile primary storage.Once the computer is switched off the data and instructions held in RAM are lost. RAM hold the operating system and any open documents and programs that are running. These are 2 types.

1 **SRAM or STATIC RAM:** It uses a flip-flop to store bit information, It is very fast but more expensive than DRAM.

2 **DRAM or DYNAMIC RAM:** It uses capacitor to store bit information, It has very short data life and less expensive.

Read only memory (ROM): Read only memory (ROM) is non-volatile primary memory. It keeps its contents when the computer is turned off. The BIOS (Basic Input Output System) is stored in ROM. These are 3 types they are.

1 **PROM (Programmable Read Only Memory):** once a PROM has been programmed, its content can never be altered.

2 **EPROM (Erasable Programmable Read Only Memory):** All the contents of EPROM will be erased by using the ultraviolet light for a firm amount of time.

3 **EEPROM (Electrically Erasable Programmable Read Only Memory):** all the contents of EEPROM will be erased by using the electrical signals.

14. Write about different types of Software in details?

Ans: Software: the *software* is the intangible set of instructions that control the hardware and make it perform specific tasks. Without software, a computer is effectively useless. These are two types.

1. System Software
2. Application Software

System software: System software is designed to facilitate and coordinate and interacts with the computer system at low level. The most important system software is the operating system which is a set of programs designed to control the input and output devices etc. Example: DOS, WINDOWS, UNIX, LINUX.

Application software: Application software is designed to perform specific usages of the users. Microsoft Word, Microsoft Excel, Microsoft Power Point is examples of application software. There are two categories of application software.

- **custom software:** Software that is developed for a specific user or organization in accordance with the user's needs is known as custom software.
- **pre-written software packages**: A pre-written software package is that may or may not cater to any specific user's requirements.

Unit 2
Overview of Operating Systems

1.Write the main Functions of an Operating System?

Ans: Operating System: An **Operating System (OS)** is software that acts as an interface between computer hardware components and the user. The interface can be divided into 2 types they are.

1. **CUI (CHARACTER USER INTERFACE) –** it takes the character typing input commands from the user and give the output to the user. Example: DOS Operating System.
2. **GUI (GRAPHICAL USER INTERFACE) –** it takes the input commands from the user by clicking the desktop icons and perfume the associate action. Example: Windows Operating System.

Functions of Operating System:

1. **Process management**
2. **Memory management**
3. **File management**
4. **Device management**
5. **I/O System managements**
6. **Security management**
7. **Command interpretation**
8. **Communication Management**

Process management:

- Process management helps OS to create and delete processes.

Memory management:

- It performs the task of allocation and de-allocation of memory space to programs.

File management:

- It manages all the file-related activities such as organization storage, retrieval, naming, sharing, and protection of files.

Device Management:

- It manages devices like input and output devices it is known as the I/O controller.

I/O System Management:

- One of the main objects of any OS is to hide the peculiarities of those hardware devices from the user.

Security Management:

- It protects the data and information of a computer system against malware threat or virus.

2.Write the Booting Process in MS-DOS?

Ans: **Booting: Booting may be defined as process of loading the operating system into memory is called Booting.** The booting process starts from computer is power on. The booting process of DOS mainly deals with loading three main system files of DOS into memory. These files are **IO.SYS**, **MSDOS.SYS** and **COMMAND.COM**.

- Once the computer system is turned on, **BIOS** (Basic Input /Output System) performs a series of activities or functionality test on programs stored in ROM, called on **Power-on Self-Test** (POST) that checks to see whether peripherals in system are in perfect order or not.
- After the **BIOS** check, it read bootable sequence from **CMOS** (Common Metal Oxide Semiconductor) the sequence is –
  Floppy Disk
  Hard Disk
  CDROM
- After this, it searched first in a floppy disk drive, next hard disk drive ,and next CDROM drive will be searched. If the system is not able to read master boot record from any of these sources, ROM displays the message "**No Boot device found"** and system is halted.
- On finding master boot record from a particular bootable disk drive, operating system loader, also called Bootstrap loader is loaded from boot sector of that bootable drive· into memory. A bootstrap loader is a special program that is present in boot sector of bootable drive.
- Bootstrap loader first loads the **IO.SYS** file. After this, **MSDOS.SYS** file is loaded which is core file of DOS operating system.
- After this, **MSDOS.SYS** file searches to find Command Interpreter in **CONFIG.SYS** file and when it finds, it loads into memory. If no Command Interpreter specified in the **CONFIG.SYS** file, the **COMMAND.COM** file is loaded as default Command Interpreter of DOS operating system.
- The last file is to be loaded and executed is the **AUTOEXEC.BAT** file that contains a sequence of DOS commands. After this, bootable drive displayed on the computer system, which indicates that operating system has been successfully on the system from that drive.

3.Write about some INTERNAL Commands ?

Ans: Command is an instruction written in a computer acceptable language that user types on the dos prompt. It will execute and do the appropriate action. There are mainly two types of dos command.

1. Internal Commands
2. External Commands

1.Internal commands: The internal commands are those commands that are automatically loaded in the memory. Some commonly used DOS internal commands are

1. Cls	5. Ver	9. Del	13. Copy
2. Dir	6. Copycon	10. MD	
3. Date	7. Type	11. CD	
4. Time	8. Ren	12. RD	

1) Cls :- The purpose of this command is to clear the display screen and redisplay the Dos prompt at the top left corner of the screen.

Syntax:- C : / > Cls

2) Dir:- It displays the list of directories and files on the screen.

Syntax:- C : / > dir.

3) Date: - It displays the current system date. User can also change the current date with new date by using this command.

Syntax: - C : /> date

4. Time : - It displays the current systems time user can also change existing time with new time by using this command.

Syntax : - C : / > time

5. VER : It displays the version of DOS being used currently.

Syntax : - C : / > Ver

6. copycon : - The purpose of this command is to create a file.

Syntax : - C : / > copy con filename **.** extension

7. TYPE:- Allows the user to see the contents of a file.

Syntax :- C :/ >Type path

Eg: C:/ > Type D:/> ramu

8. REN : - The purpose of this command is to rename the old file name with new file name.

Syntax : - C : / > ren oldfilename newfilename

C : / > ren ramu somu

9. DEL:- The purpose of this command is to delete file. The user can also delete multiple files by using this command and long with while cards.

Syntax : - C : / > Del file name **.** extension

C : / > Del ramu

C : Del x **.** prg.

10. MD:- The purpose of this command is to create a new directly or sub directly i.e sub-ordinate to the currently logged directly.

Syntax : - C : /> MD directory

C : /> MD sub directory

11. CD : - The purpose of this command is to change from one director to another directory or sub – directory.

Syntax : - C : / > CD directory name

12 . RD: - The purpose of this command is to remove a directory or sub directory. If the user wants to remove a directory or sub – directory then first delete all the files in the sub – directory and then remove sub directory and remove empty main directory.

13. COPY: The purpose of this command is to copy one or more specified files to another disk with same file name or with different file name.

Syntax : - C : / > copy source path target path

C : / > copy A :/> ˜ *. * ˜ C : /> chinni

4.Write about External Commands format and fdisk commands?

Ans: External commands: - This commands are not permanent part of the memory. To execute or run this commands an external file is required.

Format : - Format is used to erase or delete information off of a computer diskette or fixed drive.

Syntax : - FORMAT volume [/FS:file-system] [/V:label] [/Q] [/A:size] [/C] [/X]

- Volume – it specifies the drive letter or volume name
- /FS:file-system – it states the file system(FAT,FAT32, NTFS)
- /V:label – it specifies the volume label
- /Q – it specifies the quick format
- /C – It specifies the file created on the new volume will be compressed by default
- /X – it specifies the volume to dismount first, it no longer be valid

Format a: would erase all the contents off a disk.
Format a: /q : quickly erase all the contents of a disk.
Format c: would erase all the contents of a C: hard disk drive or erase all the computer information.

FDISK: Fdisk is used to delete and create partitions on the hard disk drive.
Syntax: FDISK [/STATUS] /X

- /STATUS – it displays partition information
- /X – It ignores extended disk access support. Use this switch if you receive one of the below symptoms.
    1. Unable access drive
    2. Disk access messages
    3. Stack overflow messages
    4. High amounts of data curruption

5.Write about Aero options ?

Ans: Windows Aero (Authentic, Energetic, Reflective, and Open) was a visual design language introduced by **Microsoft in Windows Vista** and continued in **Windows 7**. It provided a modern and glossy look with animations, translucent windows, and enhanced user interface elements.

Features of Aero:

Feature	Description
Aero Glass	Transparent window borders with blurred background.
Live Thumbnails	Hover over a taskbar icon to see a live preview of the window.
Flip 3D (Win + Tab)	A 3D window switcher that lets users flip through open windows.
Aero Snap	Drag a window to the edge to resize it automatically.
Aero Shake	Shake a window to minimize all others. Shake again to restore them.
Aero Peek	Hover over the taskbar's far right to make all windows transparent and show the desktop.

6.Write about Desktop Gadgets?

Ans: Desktop Gadgets were small, interactive programs that ran on the desktop in **Windows Vista** and **Windows 7**. They provided quick access to useful information and tools, such as clocks, calendars, weather, and system monitoring.
Desktop gadgets are mini applications that:

Gadget	Function
Clock	Displays current time with customizable faces
Weather	Shows current conditions and 5-day forecast
CPU Meter	Monitors CPU and RAM usage in real-time
Sticky Notes	Quick notes pinned to the desktop
Calendar	Monthly calendar with current date highlighted
Slideshow	Rotates through pictures from a selected folder
Currency	Converts currencies using online exchange rates
Feed Headlines	Displays updates from RSS feeds

7. Explain the Help and Support in Windows?

Ans: Help and Support is a built-in feature in Windows designed to assist users in troubleshooting problems, learning how to use Windows features, and finding answers to common questions. It serves as a **user-friendly resource center**.

Windows 7 and earlier:

- Click the **Start** button.
- Click **Help and Support** from the Start Menu.

Windows 10/11:

- Press **F1** while on the desktop or in File Explorer.
- Or type **"Get Help"** in the Start Menu to launch the **Get Help app**.
- You can also visit the **Microsoft Support website**:https://support.microsoft.com

Feature	Description
🔍 **Search Box**	Type a question or keyword to find related help topics.
📂 **Browse Help Topics**	View help by categories (e.g., Hardware, Internet, System).
🛠 **Troubleshooters**	Built-in tools to automatically fix common problems (e.g., network, sound, display).
💬 **Contact Support**	In newer versions, you can chat with or schedule a call with a Microsoft agent.
🌐 **Online Help**	If connected to the internet, Windows shows updated help articles from Microsoft's website.
👨‍🏫 **How-to Guides**	Step-by-step instructions on using Windows features (like setting up a printer, managing files, etc.).

8.Write about File system?

Ans: In **Windows**, everything work with — documents, pictures, programs — is stored as **files** and organized within **folders**. files and folders is essential for navigating, organizing, and managing data on computer.

File: A **file** is a container that stores information or data.

Each file has:

- A **name**
- A **file extension** (e.g., .docx, .jpg, .exe)

Folder: A **folder** (also called a **directory**) is a container used to **organize files and other folders**.

Folders in Windows:

Folder Name	Purpose
Documents	Store personal files and text documents
Pictures	Store images and photos
Music	Store audio and music files
Videos	Store video files
Downloads	Files downloaded from the internet
Desktop	Items visible on your desktop screen

Basic operations On Files and Folders:

- **Create**: Right-click → New → File or Folder
- **Rename**: Right-click → Rename or press F2
- **Copy/Move**: Drag-and-drop or use Ctrl+C / Ctrl+V
- **Delete**: Press Delete or right-click → Delete
- **Search**: Use the search bar in File Explorer to find files/folders

9.Writ about Desktop Components?

Ans: The **desktop** in Windows is the main user interface screen you see after logging in. It acts as a workspace where you can access applications, files, and system functions quickly and easily.

1. Desktop Background (Wallpaper):
   - The image or color you see behind your icons.
   - Can be customized: Right-click desktop → **Personalize** → **Background**.
   - You can use a single picture, slideshow, or solid color.
2. Icons:
   - Small images that represent files, folders, apps, or shortcuts.
   - Common desktop icons include: Ex:**My Computer, Recycle Bin** ,**Network**
3. Taskbar:
   - A horizontal bar, usually at the bottom of the screen.
   - Main parts of the taskbar: **Start Button, Pinned Programs, Notification Area, Show Desktop Button**.

4. Start Menu:
   - Opens when you click the Start button or press the **Windows key**.
   - Contains: List of programs and apps, Power options (Shutdown, Restart)
5. File Explorer:
   - Not shown by default but often accessed via desktop shortcuts or taskbar.
   - Used to browse and manage files, folders, and drives.
6. Recycle Bin:
   - Stores deleted files temporarily.
   - You can **restore** or **permanently delete** items.
   - Emptying the Recycle Bin frees up space on the disk.
7. Search Box :
   - Located next to the Start button.
   - Used to search files, apps, and settings on your PC or the web.

(OR)

The **desktop** in Windows is the main user interface screen you see after logging in. It acts as a workspace where you can access applications, files, and system functions quickly and easily.

Desktop Components

Component	Purpose
Wallpaper	Visual background of the desktop
Icons	Quick access to apps, files, and folders
Taskbar	Central place for managing running apps and tools
Start Menu	Main access point for apps, settings, and power options
System Tray	Displays background services and status indicators
Recycle Bin	Temporary storage for deleted files
Search/Cortana	Helps find programs and files quickly

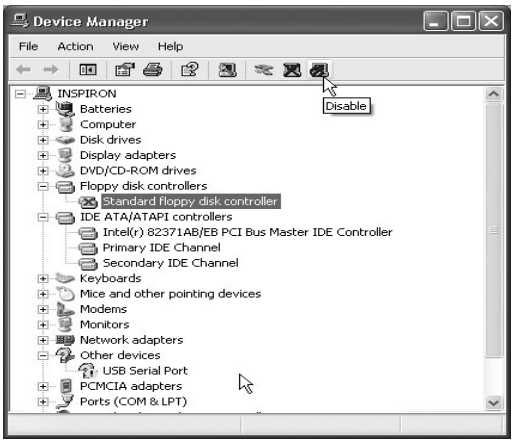
10.Write about control panel?

Ans: The **Control Panel** in Microsoft Windows enables a user to change various computer hardware and software features. Settings for the mouse, display, sound, network, and keyboard .There are eight main areas on the Control Panel, containing different tools designed to optimize your computer.

Category	Key Features
System and Security	Windows Update, Backup & Restore, BitLocker, Firewall, System settings
Network and Internet	Network status, Internet Options, Set up connections
Hardware and Sound	Device Manager, Printers, Sound settings, Power Options
Programs	Uninstall programs, Default programs, Turn Windows features on/off
User Accounts	Change user info, Password settings, Manage accounts
Appearance and Personalization	Display settings, Themes, File Explorer options, Taskbar settings
Clock and Region	Date & time settings, Time zone, Region format
Ease of Access	Accessibility options (Narrator, Magnifier, On-Screen Keyboard)

11.Write about Device manager?

Ans: Device Manager is a built-in Windows tool that allows you to **view, manage, and troubleshoot hardware devices** installed on your computer. It gives a detailed overview of all connected components, such as your keyboard, hard drive, network adapter, display, and more.



How to Open Device Manager

- Using the Start Menu
- Click **Start** → Type **Device Manager** → Press **Enter**

Device Manager displays a **tree view** of device categories. Each category can be expanded to show the hardware installed under it.

Category	Examples
Display adapters	Graphics card (e.g., Intel HD, NVIDIA)
Disk drives	Hard drives, SSDs
Network adapters	Ethernet and Wi-Fi cards
Sound, video and game controllers	Audio devices
Keyboards / Mice	Input devices
Universal Serial Bus controllers	USB ports and hubs
Processors	CPU cores

12.Write about taskbar?

Ans: A horizontal bar, usually at the bottom of the screen, used to manage and launch apps, access notifications, and switch between open windows.

Components of the Taskbar

Component	Description
Start Button	Opens the **Start Menu** for accessing apps, settings, and power options.
Search Box	Allows you to search for files, settings, apps, and web content.
Pinned Apps	Frequently used apps that you manually add to the taskbar for quick access.
Taskbar Buttons	Shows currently **open or running apps and windows**; click to switch or right-click for options.
Task View Button	Displays all open windows and virtual desktops (shortcut: **Windows + Tab**).
Notification Area	Located on the right side (system tray); shows the clock, volume, battery, Wi-Fi, antivirus, and background app icons.
Show Desktop Button	A small button on the far right; click to minimize all open windows and show the desktop.

UNIT – III
MS – WORD

6 Marks Questions

1.Write the step wise procedure to create, edit and save a document in MS –Word .

Ans: Here's a step-by-step guide for creating, editing, and saving a document in Microsoft Word:

1. Creating a New Document

- Double-click the Microsoft Word icon on your desktop or find it in your Start menu.
- Once Word is open, click on "Blank Document" or press **Ctrl + N** to start a new document.
- Click on the blank page and start typing your content.

2. Editing the Document

1. To edit or format text, click and drag your mouse over the desired text or use **Shift + Arrow keys** to highlight it.
2. **Copy & Paste**:
    - To **copy**, press **Ctrl + C**.
    - To **cut**, press **Ctrl + X**.
    - To **paste**, click where you want the text to appear and press **Ctrl + V**.

3. Saving the Document

1. **Save the Document**:
    - Go to **"File" → "Save"** or press **Ctrl + S**.
    - If it's the first time saving, choose a location, enter a file name, and select the format (e.g., .docx, .pdf).
2. **Save As (for another copy or format)**:
    - Go to **"File" → "Save As"**. Select the desired location and enter a different file name if needed.

4. Closing the Document

1. Click **"File" → "Close"** or press **Alt + F4** to exit Word.

2. Write about document views in MS – Word.

Ans: Microsoft Word offers several **document views** to help users work with documents in different layouts and formats. Each view serves a specific purpose, making it easier to perform tasks like editing, formatting, or reviewing a document.

1. Read Mode

Designed for easy reading of the document.

- Provides a distraction-free layout and displays the document like an e-book with pages side-by-side. It hides the ribbon and tools, focusing only on the content.

2. Print Layout

- Displays the document as it would appear when printed.
- Shows margins, headers, footers, and page breaks, allowing you to see the actual layout and formatting.

3. Web Layout

- Displays the document as it would appear in a web browser.
- This view shows how the document will look when viewed online, focusing on a continuous layout without page breaks.

4. Outline View

- Provides a structured view of the document with headings and subheadings.
- It's ideal for creating outlines, reorganizing long documents, and managing complex structures.

5. Draft View

- Focuses on the text and editing without showing most formatting elements like headers, footers, or images.
- Provides a simplified view to facilitate faster text editing.

3.Write about MOVE and COPY commands.

Ans:

Move Command: The Move command allows you to take a selected portion of text or an object from one place in your document and transfer it to another location.

1. Click and drag your mouse to highlight the text or select the object you want to move.
2. Press **Ctrl + X** or right-click and choose **"Cut"** from the context menu. This removes the text/object from its original position temporarily.
3. Click where you want to move the text or object.
4. Press **Ctrl + V** or right-click and choose **"Paste"**. The text or object will be inserted into the new location.

Copy Command: The **Copy** command allows you to make a duplicate of selected text or objects without removing them from their original location.

1. Click and drag your mouse to highlight the text or select the object you want to copy.
2. Press **Ctrl + C** or right-click and choose **"Copy"** from the context menu. This creates a copy of the text/object in the clipboard.
3. Click where you want to paste the copied content.
4. Press **Ctrl + V** or right-click and choose **"Paste"**. The duplicate text or object will be inserted into the new location.

4. write about formatting the paragraph in MS-WORD?

Ans: Microsoft Word provides several paragraph alignment options to organize text within your document. Paragraph alignment determines how text is positioned between the margins of a page. there are four types of paragraph alignment available in Microsoft Word

1. left-alignment
2. center-alignment
3. Right alignment
4. justify.

Left-Alignment: If you want paragraph in left side. Select a paragraph and click the **Align Text Left** button available on the **Home tab** or simply press the **Ctrl + L** keys.

Centre Alignment: If you want paragraph in canter. Select a paragraph and click the **centre** button available on the **Home tab** or simply press the **Ctrl + E** keys.

Right-Alignment: If you want paragraph in right side. Select a paragraph and click the **Align Text Right** button available on the **Home tab** or simply press the **Ctrl + R** keys.

Justify Text: If you want paragraph is adjustment in the document. Select a paragraph and click the **Justify** button available on the **Home tab** or simply press the **Ctrl + J** keys.

5.Write about FIND and REPLACE.

Ans:

Find Command: The **Find** command helps you quickly locate specific words, phrases, or formatting in a document.

1. Press **Ctrl + F** or go to the **"Home" tab** and click on **"Find"** in the **Editing group**.
2. Type the word or phrase you want to find in the search box. As you type, Word will highlight all occurrences of that text in the document.
3. Use the **up and down arrows** next to the search box to move between each occurrence of the search term.

Replace Command: The Replace command allows you to find specific text and replace it with new text automatically throughout the document.

1. Press **Ctrl + H** or go to the **"Home" tab** and click on **"Replace"** in the **Editing group**.
2. In the **"Find what"** box, type the text you want to find.
3. In the **"Replace with"** box, type the new text that should replace the old one.
4. **Replace Options**:
    - Click **"Replace"** to replace the current occurrence and move to the next.
    - Click **"Replace All"** to replace all occurrences in the entire document.
    - Click **"Find Next"** to move to the next occurrence without replacing.

6.Write about SPELL CHECKER?

Ans: The **Spell Checker** in Microsoft Word is a feature that automatically checks and corrects spelling and grammatical errors in a document.

How to Use Spell Checker:

1. **Automatic Spell Check**: By default, Word checks your document automatically as you type. You can see spelling errors underlined in **red** and grammar errors in **blue**.
2. **Manual Spell Check**:
    - Go to the **"Review"** tab in the toolbar.
    - Click on **"Spelling & Grammar"**. A panel will open on the right, listing errors and providing suggestions.
    - You can select **"Ignore"**, **"Add to Dictionary"**, or **"Change"** to fix each error.
3. **Keyboard Shortcut**: Press **F7** to run the Spell Checker manually.

6.Write about MAIL MERGE in MS-WORD?

Ans: Mail Merge is a feature in Microsoft Word that allows users to create multiple documents, such as letters, envelopes, labels, or emails, that are personalized for each recipient.

Components of Mail Merge:

1. **Main Document**
2. **Data Source**
3. **Merge Fields**

Steps to Perform Mail Merge:

1. **Create the Main Document**:
    - Open Microsoft Word and create the document you want to use as the main document (e.g., a letter template).
2. **Select the Recipients**:
    - Go to the **"Mailings"** tab and click on **"Select Recipients"**. You can choose to:
        - **Use an Existing List**: Select a data source such as an Excel file.
        - **Select from Outlook Contacts**: Choose contacts directly from your Outlook.
        - **Type a New List**: Manually type in a list.
3. **Insert Merge Fields**:
    - Click on **"Insert Merge Field"** in the **"Mailings"** tab to insert placeholders like **First Name**, **Last Name**, **Address**, etc., at the appropriate locations in the document.
4. **Preview the Results**:
    - Click on **"Preview Results"** in the **"Mailings"** tab to see what each personalized document will look like.

5. **Finish & Merge**:
    - Once you are satisfied, click on **"Finish & Merge"** and choose to:
        - **Edit Individual Documents**: Creates a new document with all the merged information.
        - **Print Documents**: Directly prints all personalized documents.
        - **Send Email Messages**: Sends the merged documents as emails if you're creating an email merge.

7.write how to create a tables in MS-WORD?

Ans: Creating tables in Microsoft Word is a simple and effective way to organize information, such as text, numbers, or images, in a structured format. Tables help in presenting data in a neat and visually appealing way.

Steps to Create a Table in MS Word:

Method 1: Using the Insert Table Option

1. **Place the Cursor**: Click in the document where you want to insert the table.
2. **Go to the "Insert" Tab**: Navigate to the **"Insert"** tab on the ribbon.
3. **Select "Table"**: Click on the **"Table"** button in the **"Tables"** group.
4. **Choose the Number of Rows and Columns**:
    - A grid will appear. Drag your mouse over the grid to highlight the number of rows and columns you need (e.g., 3 rows by 4 columns).
    - Click to insert the table.

Method 2: Using the "Insert Table" Dialog Box

1. **Click on the "Insert" Tab**: As above, go to the **"Insert"** tab and click on **"Table"**.
2. **Select "Insert Table"**: Click on **"Insert Table…"** from the dropdown.
3. **Specify Rows and Columns**: A dialog box will appear where you can specify the exact number of columns and rows you want.
4. **Adjust Column Width**: You can select options to automatically fit the column width based on content or specify a fixed width.

Method 3: Drawing a Custom Table

1. **Go to the "Insert" Tab**: Click on **"Insert"** and select **"Table"**.
2. **Choose "Draw Table"**: Click on **"Draw Table"** from the dropdown menu.
3. **Draw the Table Manually**:
    - Your cursor will turn into a pencil. Draw a rectangular outline for the table.
    - Draw inside the rectangle to create individual cells (rows and columns) as you want.

Method 4: Quick Tables (Built-In Styles)

1. **Insert Tab**: Go to the **"Insert"** tab and click on **"Table"**.
2. **Select "Quick Tables"**: Choose from the list of pre-designed table templates, such as calendars or tabular lists.
3. **Click on the Desired Quick Table**: It will be inserted into your document.

8.Write about tabs in MS-WORD?

Ans: Tabs in Microsoft Word are used to control **text alignment and indentation**. They help position text accurately on a line, such as in lists, forms, or layouts.

Types of Tabs in MS Word

Tab Type	Symbol	Purpose
Left Tab	⬅ L	Aligns text to the **left** of the tab stop. *(Default type)*
Center Tab	↔ C	Centers the text at the tab stop.
Right Tab	➡ R	Aligns text to the **right** of the tab stop.
Decimal Tab	.	Aligns numbers around a **decimal point**, useful for currency values.
Bar Tab		Draws a vertical line on the document

9.Explain the options in detail in page layout?

Ans: before printing a document we have to set the pages by using page layout. In this we can set margins, orientation, paper size, page breaks, page borders, page colours, water marks etc.

Modifying page margins:

- Click the page layout tab on the ribbon
- On the page setup group, click margins
- Click a default margin or custom margins

Modifying page orientation:

- Click the page layout tab on the ribbon
- On the page setup group, click the orientation (portrait or land scape), size and columns drop down menu
- Click the appropriate choice

Apply a page border and color:

- Click the page layout tab on the ribbon
- Click the page colors or page borders

Create page break:

- Click the page layout tab on the ribbon
- On the page setup group, click the page breaks drop down menu
- Click page break

Unit 4 : MS-Excel

6 marks questions

1.List and explain any six functions in MS – Excel.

ARITHMETIC FUNCTIONS:

NAME	DESCRIPTION AND SYNTAX	RESULT
sum	This function is used to display the addition of numbers **=SUM(10+20+30)**	**60**
abs	This function is used to display absolute value. **=ABS(-4)**	**4**
even	This function is used to display EVEN value **=EVEN(13)**	**14**
odd	This function is used to display ODD value. **=ODD(14)**	**15**
product	This function is used to display product of values. **=PRODUCT(10,2)**	**20**
pi	This function is used to display pi value. **=PI()**	**3.141**
Fact	This function is used to display factorial of a value. **=FACT(5)**	**120**
Power	This function is used to display power of a value. **=POWET(4,2)**	**16**
sqrt	This function is used to display square root of a value. **=SQRT(9)**	**3**

STATICAL FUNTIONS:

NAME	DESCRIPTION AND SYNTAX	RESULT
Avarage	This function is used to display the average of numbers. **=AVERAGE(10,20,30)**	**20**
Max	This function is used to display MAXIMUM value. **=MAX(10,50,80,20)**	**80**
Min	This function is used to display MINIMUM value **=MIN(10,50,80,20)**	**10**

COUNT FUNTIONS:

NAME	DESCRIPTION AND SYNTAX	RESULT
COUNT()	This function is used to display only number count in the list of cells. **=COUNT(4,'a',5,"cse",7)**	**3**
COUNTa()	This function is used to display number count and character count in the list of cells. **=COUNTa(4,'a',5,"cse",7)**	**5**
COUNTBLANK()	This function is used to display only blank cells count in the list of cells. **=COUNTBLANK(4,'a',5,"cse",7)**	**0**
COUNTif()	This function is used to display range of values in the cells. **=COUNTif(c3:c7,">25")**	**3**

2.Write and Explain any five Statistical functions in MS-Excel?

Ans:

Function Name	Purpose	Syntax	Example	Explanation
AVERAGE	Calculates the arithmetic mean of a group of numbers	=AVERAGE(number1, [number2], …)	=AVERAGE(A1:A5)	Adds values in A1:A5 and divides by count of values
MEDIAN	Returns the middle number in a sorted list	=MEDIAN(number1, [number2], …)	=MEDIAN(B1:B5)	Returns the central value (e.g., 30 from {10, 20, 30, 40, 50})
MODE.SNGL	Returns the most frequently occurring number	=MODE.SNGL(number1, [number2], …)	=MODE.SNGL(C1:C10)	If 2 appears most often in the list, it returns 2
STDEV.S	Calculates standard deviation of a sample	=STDEV.S(number1, [number2], …)	=STDEV.S(D1:D10)	Measures how much values deviate from the average (for samples)
COUNT	Counts numeric entries in a range	=COUNT(value1, [value2], …)	=COUNT(E1:E20)	Counts how many cells in E1:E20 contain numbers (ignores text/empty cells)

3.Write the procedure to open, save and Print a worksheet.

Ans:

To Open a Worksheet

- Click the Excel icon on your desktop or start menu.
- **Go to "File" Menu** (top-left corner).
- Click **"Open"**.
- Select your desired file (e.g., Budget.xlsx), then click **Open**.

To Save a Worksheet

- First Time Save (New File):
- Click on the **"File"** tab.
- Select save or **"Save As"**. or Press **Ctrl + S**,
- Choose where to save
- Enter the **file name**.
- Click **"Save"**.

To Print a Worksheet

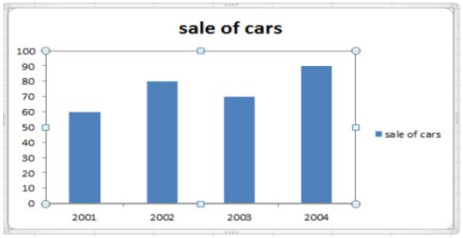
- Click on the **"File"** tab.
- Select **"Print"** from the menu.
- Choose your **printer** from the list.
- Click **"Print"**.

4.Write about charts in MS – Excel.

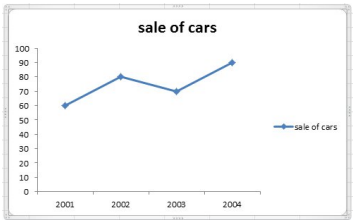
Ans: Charts in **Microsoft Excel** are powerful tools used to visually represent data, making it easier to understand trends, patterns, and comparisons. Excel offers a wide variety of chart types.

	A	B
1	Maruthi show room	
2	vijayawada branch	
3	Year	sale of cars
4	2001	60
5	2002	80
6	2003	70
7	2004	90

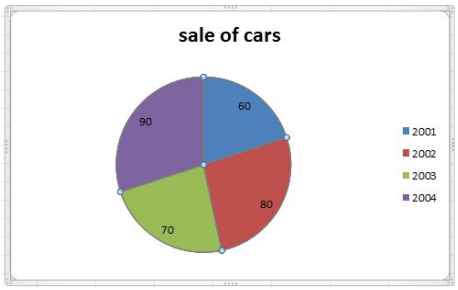
Column Chart: Displays data using vertical bars. Ideal for showing changes over time or comparing different categories.



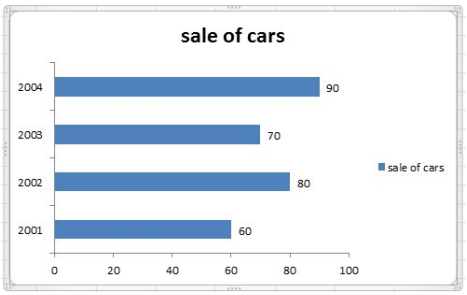
Line Chart: Uses points connected by lines. Best for showing trends over time (e.g., monthly sales).



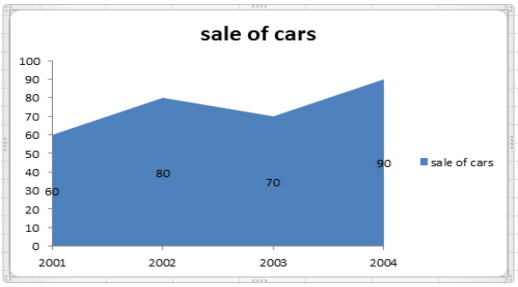
Pie Chart: Shows parts of a whole as slices of a circle. Useful for displaying percentages or proportional data.



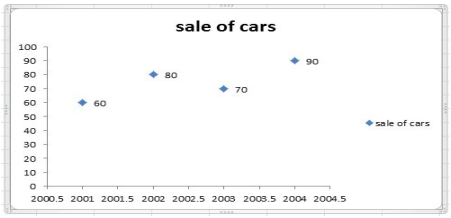
Bar Chart: Similar to a column chart, but with horizontal bars. Useful when category names are long or there are many categories.



Area Chart: Similar to line charts but with the area below the line filled in. Good for emphasizing the volume of change.



Scatter Chart (XY Chart): Plots points on a horizontal and vertical axis. Ideal for showing relationships or correlations between two variables.



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5. Write about Macros?

Ans: **MACROS:** The macro is a useful feature of excel that helps to automatic key strokes(Commands) required executing any command or task. Macros can be used for numeric tasks. such as

1. formatting of ranges
2. Printing a worksheet range
3. Creating charts
4. Accepting data from the user and putting that in a database

Recording a Macro: To record a Macro

1. Click the View tab on the Ribbon
2. Click Macros
3. Click Record Macro
4. Enter a name (without spaces)
5. Enter a Shortcut Key
6. Enter a Description

7. Perform the Macro
8. Click Macros
9. Click Stop Recording

Running a Macro: To run a Macro from the Keyboard shortcut, simply press the keys that you have programmed to run the Macro. Or you can view all macros and run by:

1. Click Macros
2. Click View Macros
3. Choose the Macro and click Run

6.Write about tables in Excel?

Ans: Tables in Microsoft Excel are a feature that allows you to organize and manage related data easily. When you convert a range of cells into a table, Excel provides built-in tools to help with sorting, filtering, formatting, and analysing data.

How to Create a Table in Excel:

- **Enter Your Data** in a range (e.g., A1:D10).
- Select any cell in the range.
- Go to the **Insert** tab and click **Table**.
- Ensure the "Create Table" dialog box selects the correct range and that the "My table has headers" box is checked (if your data has headers).
- Click **OK**.

7.Write about Pivot tables in Excel?

Ans: **Pivot Tables** are one of the most powerful features in Microsoft Excel. They allow users to **summarize, analyze, explore, and present large amounts of data** quickly and efficiently without changing the original dataset.

Benefits of Using Pivot Tables:

- **Quick Summarization** of large datasets
- **Dynamic Data Analysis**: Easily change the layout without modifying the source data
- **Multiple Calculations**: Sum, average, count, max, min, percentage, etc.
- **Custom Grouping**: Group by dates, numbers, or categories
- **Easy Filtering and Sorting**: Built-in tools to narrow down data views

How to Create a Pivot Table in Excel:

- **Prepare Your Data**: Ensure your data is in a clean table format with headers.
- Select any cell within your dataset.
- Go to the **Insert** tab and click on **PivotTable**.
- Choose whether to place the PivotTable in a **new worksheet** or an **existing one**.
- Click **OK**.

Unit 5 : MS-PowerPoint

6 marks questions

1.Write the groups in each tab of a ribbon in power point?

Ans:

1. Home Tab: This tab contains basic and frequently used commands.

Groups:

- **Clipboard** (Cut, Copy, Paste, Format Painter)
- **Slides** (New Slide, Layout, Reset, Section)
- **Font** (Font style, size, color, bold, italic, underline, shadow)
- **Paragraph** (Bullets, numbering, alignment, line spacing, indent)
- **Drawing** (Shapes, Shape Styles, Arrange)
- **Editing** (Find, Replace, Select)

2. Insert Tab: Used to insert different elements into slides.

Groups:

- **Slides** (New Slide)
- **Tables** (Insert Table)
- **Images** (Pictures, Online Pictures, Screenshot)
- **Illustrations** (Shapes, Icons, 3D Models, SmartArt, Chart)
- **Add-ins** (Get Add-ins, My Add-ins)
- **Links** (Hyperlink, Action)
- **Comments** (Insert Comment)
- **Text** (Text Box, Header & Footer, WordArt, Object, Date & Time, Slide Number)
- **Media** (Audio, Video, Screen Recording)

3. Design Tab: Used to control the look and feel of the presentation.

Groups:

- **Themes** (Theme options and variants)
- **Variants** (Color, font, effects, background styles)
- **Customize** (Slide Size, Format Background)

4. Transitions Tab: Used to apply and customize slide transitions.

Groups:

- **Preview** (Preview the transition)
- **Transition to This Slide** (List of transition effects)
- **Timing** (Sound, Duration, Advance Slide)

5. Animations Tab: Used to animate objects on slides.

Groups:

- **Preview** (Preview the animation)
- **Animation** (Add Animation, Entrance, Emphasis, Exit, Motion Paths)
- **Advanced Animation** (Animation Pane, Trigger, Animation Painter)
- **Timing** (Start, Duration, Delay)

6. Slide Show Tab: Used to control how the presentation is shown.

- **Start Slide Show** (From Beginning, From Current Slide, Custom Slide Show)
- **Set Up** (Set Up Slide Show, Hide Slide, Rehearse Timings, Record Slide Show)
- **Monitors** (Resolution, Use Presenter View, Monitor selection)

7. Review Tab: Used for proofing and reviewing content.

- **Proofing** (Spelling, Thesaurus, Translate, Language)
- **Accessibility** (Check Accessibility)
- **Comments** (New Comment, Delete, Previous/Next, Show Comments)
- **Ink** (Start Inking)

8. View Tab: Used to change the view of the presentation and manage windows.
- **Presentation Views** (Normal, Outline View, Slide Sorter, Notes Page, Reading View)
- **Master Views** (Slide Master, Handout Master, Notes Master)
- **Show** (Ruler, Gridlines, Guides)
- **Zoom** (Zoom, Fit to Window)
- **Color/Grayscale** (Color, Grayscale, Black and White)
- **Window** (New Window, Arrange All, Cascade, Switch Windows)
- **Macros** (View Macros)

2. Write the steps to create, save and preview a power point presentation.
Ans:
Creating a PowerPoint Presentation:
- Click on the **Start** menu or use the desktop shortcut to open PowerPoint.
- Select a design theme or click **Blank Presentation** for a simple start.
- The first slide usually has two text boxes for the title and subtitle. Click inside each box to type.
- Add text, images, charts, tables, videos, and shapes from the **Insert** tab.

Saving a PowerPoint Presentation:
- Go to the **File** tab.
- If saving the file, click **Save or press ctrl + s**.
- Select a location
- Enter a file name.
- Click Save

Previewing a PowerPoint Presentation:
- Click on the **Slide Show** tab on the ribbon.
- **From Beginning**: Starts the show from the first slide.
- **From Current Slide**: Starts from the selected slide.
- Click or press the right arrow to move forward.
- Press **Esc** to exit the slide show preview.

3.Write Graphics in power point?
Ans: Graphics in Microsoft PowerPoint refer to any visual elements—such as pictures, shapes, icons, charts, SmartArt, and 3D models—that you can insert into slides to enhance communication and presentation quality. They help make your slides more **attractive**, **engaging**, and **easier to understand**.

Types of Graphics in PowerPoint:
Pictures
- Insert images from your computer or online sources.
- Formats include JPEG, PNG, GIF, BMP, etc.
- Found under **Insert > Pictures**.

Shapes
- Basic geometric figures like rectangles, circles, arrows, and flowchart symbols.
- Customizable with fill, outline, and effects.
- Insert from **Insert > Shapes**.

Icons
- Scalable vector graphics (SVGs) that maintain quality at any size.
- Great for simple, professional illustrations.
- Found in **Insert > Icons**.

SmartArt
- Pre-designed graphics for lists, processes, hierarchies, cycles, and relationships.
- Automatically resizes and aligns text inside.
- Insert via **Insert > SmartArt**.

Charts
- Visual representations of data like pie charts, bar graphs, and line charts.
- Integrated with Excel for easy data editing.
- Use **Insert > Chart** to add.

3D Models
- Insert interactive 3D graphics that can be rotated and animated.
- Available via **Insert > 3D Models**.

4.Write the steps for animation of slides?

Ans: Animations in PowerPoint allow you to add **movement effects** to text, images, shapes, charts, and other objects to make your presentation more dynamic and engaging.

steps to animate slides and objects in PowerPoint:

- Launch Microsoft PowerPoint.
- Open the presentation
- Click on the **text box**, **image**, **chart**, or any object you want to animate.
- Click on the **Animations** tab in the Ribbon. In the **Animation** group, you'll see basic effects like:
  Entrance (e.g., Fade, Fly In, Zoom)
  Emphasis (e.g., Spin, Grow/Shrink)
  Exit (e.g., Disappear, Fly Out)
  Motion Paths (e.g., Lines, Arcs, Custom paths)
- Click on an effect to apply it to the selected object.
- Click **Preview** in the Animations tab to see how the animation looks.

5.Explain the concepts of OLE?

Ans: OLE stands for **Object Linking and Embedding**. It is a Microsoft technology that allows you to **link or embed content from one application into another**, such as embedding an Excel spreadsheet inside a Word or PowerPoint document.

Steps to Embed an Object:

1. Open your destination file (e.g., Word or PowerPoint).
2. Go to the **Insert** tab.
3. Click **Object** (in the Text group).
4. Choose:
   - **Create from File**: To insert an existing file.
   - **Create New**: To create a new object (e.g., a new Excel worksheet).
5. Select the file or type of object.
6. Optionally check:
   - **Link to File** (for linking)
   - Leave unchecked (for embedding)
7. Click **OK**.

UNIT-1
2 MARKS QUESTIONS

1.what is computer?

Ans: Computer: It is an Electronic device and it takes the input data from the user and processing the data, store the data and give the desired output to the user is called computer.

2.Write character sticks of computer?

Ans: Speed
Accuracy
Diligence
Versatility
Reliability
Automation
Memory

3.Write generations of computer?

Ans:

1. First Generation of Computers(1946 – 1959) - vacuum tubes
2. Second Generation of Computers(1959 – 1965) - transistors
3. Third Generation of Computers(1965 – 1971) – Integrated circuits
4. Fourth Generation of Computers(1971 – 1980) – very large scale integrated circuits
5. Fifth Generation of Computers(1980 – continue) – ultra large scale integrated circuits

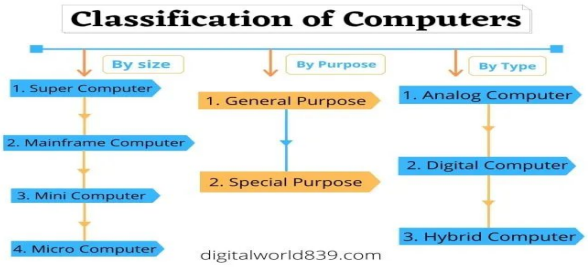
4.Write input and output devices?

Ans:

Input devices : keyboard, mouse, scanner, light pen, joystick, barcode reader.
Output devices: monitor, printer, speaker, plotter

5.Write classification of computer?

Ans:



6.Write types of number systems?

Ans:

Number System	Base	Numbers used
Binary Number System	2	0 and 1
Octal Number System	8	0 to 7
Decimal Number System	10	0 to 9
Hexadecimal Number System	16	0 to 9, A,B,C,D,E,F

7.What is memory?

Ans: Memory: it stores the data or information is called memory. It is also called as storage. Computer memory is divided into two types they are..

1. Primary memory or Main memory
2. Secondary memory or Auxiliary memory

8.What is RAM,ROM, PROM, EPROM, EAPROM?

Ans: RAM – Random Access Memory
ROM – Read Only Memory
PROM – Programmable Read Only Memory
EPROM – Erasable Programmable Read Only Memory

9.what is volatile and Non volatile memory?

Ans:

- **Read only memory (ROM):** Read only memory (ROM) is non-volatile primary memory. It keeps its contents when the computer is turned off.
- **Random access memory (RAM):** Random access memory (RAM) is volatile primary storage. Once the computer is switched off the data and instructions held in RAM are lost

10.What is primary memory and secondary memory?

Ans:

- **Primary memory:** This memory is also known as main memory. This memory is accessed directly by the processor.
  Example: RAM, ROM, CACHE MEMORY, REGISTERS.
- **Secondary memory (or) Auxiliary memory:** Secondary storage permits the storage of computer instructions and data for long periods of time. Secondary memory is also called as auxiliary memory.
  Example: HARD DISK DRIVE (HDD), SOLID STATE DRIVE (SSD), CD, DVD, PENDRIVE.

11.What is hardware and software?

Ans:

Hardware: The *hardware* is the tangible parts of the computer or all the physical components of the computer is called Hardware

Software: the *software* is the intangible set of instructions that control the hardware and make it perform specific tasks.

12.what is language?

Ans: Language: language is the process of communication between the user and the computer. they are.

1. Low level language
2. High level language

13.what is Assembler?

Ans: Assembler: **assembler** translate the assembly code into machine code.

14.what is compiler and interpreter?

Ans:

- **Compiler:** the compiler translate the entire high level source code into machine code at a time and it is also called as object program.
- **Interpreter:** the interpreter translate the high level source code into executable machine code line by line. It is fast response than compare to compiler.

15.What is an utility?

Ans: Utility: A program that performs a specific task related to the management of computer functions, resources, or files, as password protection, memory management, virus protection, and file compression.

16.What is a Worm?

Ans: Worm: An unwanted computer program that duplicates itself across a computer network.

UNIT-2
2 MARKS QUESTIONS

1.What is Operating System?

Ans: Operating System: An **Operating System (OS)** is software that acts as an interface between computer hardware components and the user

2.What is CUI and GUI?

Ans:

- **CUI (CHARACTER USER INTERFACE) –** it takes the character typing input commands from the user and give the output to the user.
  Example: DOS Operating System
- **GUI (GRAPHICAL USER INTERFACE) –** it takes the input commands from the user by clicking the desktop icons and perform the associate action.
  Example : Windows Operating System.

3.Write types of Operating Systems?

Ans:

1. Batch Operating System
2. Multitasking/Time Sharing OS
3. Multiprocessing OS
4. Real Time OS
5. Distributed OS
6. Network OS
7. Mobile OS

4.Write functions of Operating System?

Ans:

1. **Process management**
2. **Memory management**
3. **File management**
4. **Device management**
5. **I/O System managements**
6. **Security management**
7. **Command interpretation**
8. **Communication Management**

5.What is DOS?

Ans:

DOS means Disk Operating System, MS-DOS is one of the oldest and widely used operating system. DOS is a set of computer programs, the major functions of which are file management, control hardware devices. DOS commands can be typed in either upper case or lower case.

6.write Features of DOS?

Ans:

- It is a CHARACTER USER INTERFACE
- It is a single user system.
- It controls program.
- It is machine independence.
- It manages (computer) files.
- It manages input and output system.
- It manages (computer) memory.

7.write Types of DOS Commands?

Ans:

- **Internal Commands**: Commands such as **DEL, COPY, TYPE, DATE,TIME,CLS,DIR** etc. are the internal commands that remain stored in computer memory.
- **External Commands**: Commands like **FORMAT, DISKCOPY, CHKDSK, MOVE,PRINT,TREE,DELTREE,** etc. are the external commands and remain stored on the disk.

8.What is Windows Operating System?
Ans: **Windows Operating System:** The operating system window is the extension of the disk operating system. It is the most popular and simplest operating system

9.What is Booting? Write types of Booting?
Ans:
Booting: Booting may be defined as process of loading the operating system into memory is called Booting.
Types of Booting :

1. **Cold Booting/Switch Booting:** switch on computer system , the operating system is loaded from disk to main memory this type of booting is called **Cold Booting.**
2. **Hot or Warm Booting :**
   Hot booting is done when computer system comes to no response state/hang state. Computer does not respond to commands supplied by user. only solution is to reboot computer by using the **Reset button** or by pressing **ALT + CTRL + DEL** keys from keyboard.

10.What is Meaning of Multitasking?
Ans: Multitasking means multiple works are done at a same time parallel is called multitasking. It is an operating system concept.
11.What is File system?
Ans: A file system is a process of managing how and where data on a storage disk, which is also referred to as file management or FileSystem.
Types of Files:

12.What is desktop components?
Ans: The desktop is your workspace on a computer and is always the first thing that you see once you have logged in. There are several principal components to Windows desktops: The *Start* menu, the Task bar, and the time, which are all located at the bottom of the screen.

13.What is control panel?
Ans: The **Control Panel** in Microsoft Windows enables a user to change various computer hardware and software features. Settings for the mouse, display, sound, network, and keyboard represent a few examples.

12.What is Windows Explorer?
Ans: Microsoft Windows Explorer is a graphical file management utility for the Windows operating system (OS).

13.What is Device manager?
Ans: It is used to view and manage all the hardware devices installed on a computer, such as hard drives, sound cards, USB devices, keyboards, and so on.

14.What is Program Manager ?
Ans: Program Manager is the main window of Microsoft .it opened by clicking Start, Run, and typing "program" and clicking ok. The file is known as program.exe and is located in the root directory of Windows; deleting this file can cause problems with your computer.
15.What is Display properties?
Ans: The display properties window is accessible from the Windows Control Panel, or by simply right-clicking your desktop. The display properties window allows access top several settings, such as the Windows color scheme and background themes, resolution and monitor system drivers.
16.What is taskbar properties?
Ans: The Taskbar is the bar, typically appearing along the bottom edge of your screen, that holds the Start button, the notification area (commonly known as the Tray), and the task buttons (one for each open application window). The settings in this dialog are as follows: Start → Settings → Taskbar

1. **Lock the Taskbar**
2. **Auto-hide the Taskbar**

17.What is Virus?
Ans: A computer virus is a type of malicious software, or malware, that spreads between computers and causes damage to data and software.

18.Write types of Operating Systems used now a days?

Ans: 1 .Disk Operating System (DOS)
2. Windows Operating System
3 .Unix Operating System

19.What is icon?

Ans: Icon : icons are the folders displayed on the desktop screen area. Like recycle bin, my computer….etc

20.What is desktop?

Ans:

Desktop: The desktop is the main screen area that you see after you turn on your computer and log on to Windows. It serves as a surface for our work.

21.What is a GADGET?

Ans:

Gadget: Windows contains mini-programs called gadgets, which offer information at a glance and provide easy access to frequently used tools.

22.What is an Aero?

Ans:

Aero: is an interface that makes your visual interactions with the desktop fun and easy.

UNIT - 3
2 MARKS QUESTIONS

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1. What is a Folder ?

Ans: Folder: A folder is a container we can use to store files in it.

2. What is a Ribbon ? write tabs in Ribbon?

Ans: Ribbon: The Ribbon is the panel at the top portion of the Spread sheet. Ribbon has seven tabs: Home, Insert, Page Layout, References, Mailings, Review, and View that contain many new and existing features of Word.

3. What is Orientation ?

Ans: Orientation: Orientation provides the options to print the text on the paper in either “portrait” or “landscape”.

4. What is office button?

Ans: Office Button: The Microsoft Office button performs many of the functions that were located in the File menu of older versions of Word. This button allows you to create a new document, open an existing document, save or save as, print, send (through email or fax), publish or close.

5. What are the shortcuts for open and save a file?

Ans: **To Open a file:** Ctrl + O
To Save a file: Ctrl + S

6. What are the options in page layout?

Ans: Page Layout: Themes, Page Setup, Page Background, Paragraph, Arrange.

7. What is Header and Footer?

Ans: Header : the content in the header will appear at the top of each printed page.
Footer : the content in the footer will appear at the bottom of each printed page.

8. what is table?

Ans: table: collection of rows and columns is called table.

9.what is Clip Art?
Ans: **Clipart:** Clip art is an illustration/picture existed in the system to insert in the document.

10.What is a Template ?
Ans: **Template:** template is a pattern or blueprint or model or "Starter" document contain starting content or boilerplate text.

11.what is hyperlink?
Ans: Hyperlink: it creates a link to a web page, a picture, an email address or a program.

12. what is page borders?
Ans: page border: to add or change the border around the page is called page border.

13. What is labels and envelopes?
Ans: Label : a small piece of paper and giving information about it is called label.
Envelope: a usually rectangular paper container for a letter is called envelope.

14. What is thesaurus?
Ans: A thesaurus is a book or program that lists synonyms and antonyms of words

15. what is word count?
Ans: find out the number of words, characters, paragraphs, and lines in the document is called word count.

16.what is print layout?
Ans: how was the document can be print on the paper like portrait or landscape is called print layout.

17.what is indent?
Ans: To indent is to begin text with a blank space between it and the margin. These are 7 types

1. left indent
2. right indent
3. center indent
4. bar indent
5. first line indent
6. hanging indent
7. decimal indent

18. what is ruler, gridlines, navigation pane?
Ans: ruler: it is used to measure and line up objects in the document.
Gridlines: turn on gridlines to which you can align objects in the document.
Navigation pane: which allows you to navigate through the document by heading, by page or by searching for text or object?

19.what is macros?
Ans: A macro is a series of commands and instructions that you group together as a single command to accomplish a task automatically.

20.what is help?
Ans: The help feature within applications is usually the fastest and easiest way to get help. In Windows, access it by pressing F1

21.what is template and wizards?
Ans: Template: A template is a sample document that is used for the basis for a new document.
A template determines the basic structure for a document.
Wizards: wizard is a simplified, sequential control for guiding users through a complex task. Wizards guide users through a sequence of steps.

22.what is word processing?
Ans: Word processing is the process of creating and editing documents on a computer.

23.What is quick access tool bar?
Ans:
Quick access tool bar: The quick access toolbar is a customizable toolbar that contains commands that we may want to use.

24.What are the short cuts for New and Close a file?
Ans:
New: Ctrl+ N
Close: Alt+ F4

25.What is smart art?
Ans:
Smart Art: Smart Art is a collection of graphics you can utilize to organize information within your document. It includes timelines, processes, or workflow.

26.What is water mark?
Ans:
Watermark: A watermark is a translucent image that appears behind the primary text in a document.

27.What is formatting a text?
Ans:
Formatting text: A style is a format enhancing tool that includes font typefaces,font size, effects (bold, italics, underline, etc.), colours and more.

28.What is auto text?
Ans:
Auto Text: Auto text is normally used to quickly type lengthy or difficult to type text that you need routinely in your document.

29.what is word wrap?
Ans:
Word wrap: is a text editor or word processor feature that breaks lines between words to adjust them within specified margins.

UNIT - 4

2 MARKS QUESTIONS

1.What is a spread sheet?
Ans: Spread Sheet: A spread sheet is an electronic document that stores various types of data. There are vertical columns and horizontal rows.

2.What is a Formula ?
Ans: Formula: A formula is a set of mathematical instructions that can be used in Excel to perform calculations. Formals are started in the formula box with an = sign.

3.What is a Macro ?
Ans: Macro: The macro is a useful feature of excel that helps to automatic key commands required to execute any command or task. Macros are advanced features that can speed up editing or formatting we may perform often in an Excel worksheet.
4.write How many Rows and Columns in MS – Excel?
Ans: Rows : 10,48,576
Colums: 16,384

5.What is the difference between work book and work sheet?
Ans:
Work Sheet: A worksheet is a single spreadsheet page

Work Book: Workbook is a collection of all the worksheets in a single file. A workbook consists of one or more worksheets.

6.What is Pivot Table?
Ans:
Pivot Table: PivotTables are used to looking at data in several dimensions. A Pivot Table report is an interactive way to quickly summarize large amounts of data in detail

7.Write concept of OLE?
Ans:
Object linking and embedding (OLE): The main benefit of OLE is to add different kinds of data to a document from different applications, like a text editor and an image editor.

8.What is a cell?
Ans:
Cell – Cells are the basic rectangular building blocks of a spreadsheet.
(or)
Intersection of row and column is called the cell.
Cell = Column*Row

9.What is auto fill?
Ans:
Auto Fill: The Auto Fill feature fills cell data or series of data in a worksheet into a selected range of cells.

10.What are the difference types of charts?
Ans:
Excel offers many types of charts including: Column, Line, Pie, Bar, Area, Scatter and more.

UNIT – 5
2 marks questions

1.what is slide?
Ans: a slide is a single page of a presentation. A group of slides is called slide desk.

2.What is power point presentation?
Ans: Presentation: A presentation is a collection of data and information that is to be delivered to a specific audience.
(or)
A PowerPoint presentation is a collection of electronic slides that can have text, pictures, graphics, tables, sound and video. This collection can run automatically or can be controlled by a presenter.

3.What is a Template?
Ans: Template: Template is a pattern or blueprint or model or "Starter" document contain starting content or boilerplate text.

4.Expand AVI and MPEG?
Ans:
AVI: Audio Video Interleave
MPEG: Moving Picture Experts Group.

COMPUTER SCIENCE ENGINEERING
FIRST YEAR

PAPER - II
PROGRAMMING IN C

UNIT – I

PROBLEM SOLVING TECNIQUES

6 MARKS

1.Explain difference between algorithm and flow-chart?

Ans :

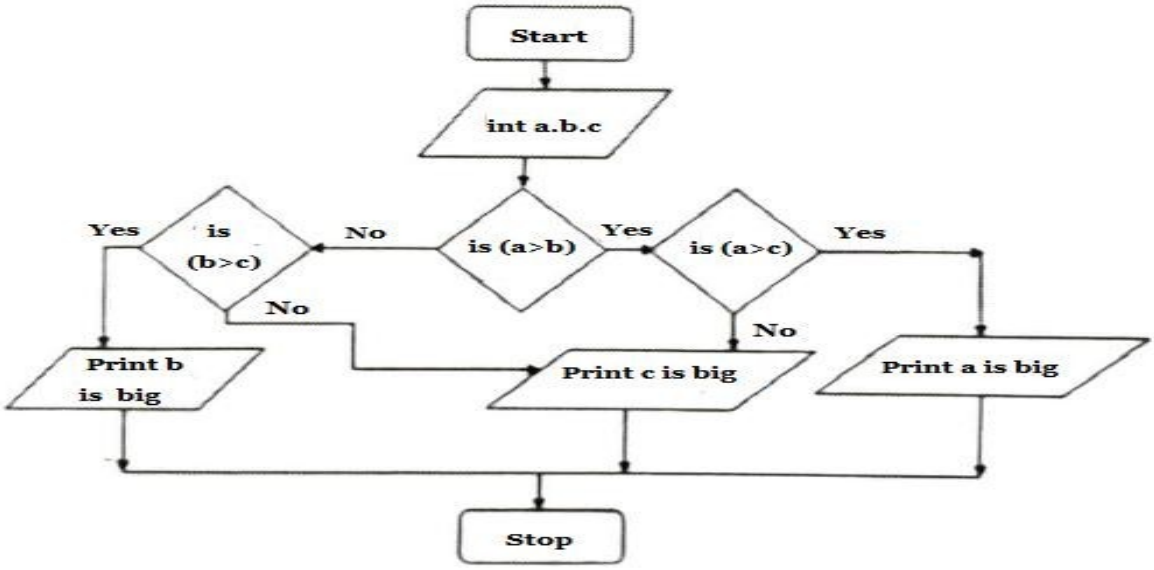
Algorithm	Flow-Chart
1. Algorithm is a method to represent step by step logical process of a problem	1. Flow chart is a diagrammatic representation of an algorithm.
2. It is constructed by using English description.	2. It is constructed by using different type of boxes and symbols.
3. In algorithm each step representing a particular operations leading to solution of a problem.	3. In flow chart employs a series of boxes and arrows, each of which represent a particular step in an algorithm.
4. Algorithm is particularly useful for small problems.	4. Flow chart is particularly useful for complicated programs.
5. For complex programs algorithm prove to be inadequate.	5. For complex programs flow chart prove to be adequate.

2.Write an algorithm to find biggest value in given three integer numbers.

Ans: Algorithm :

Step 1 : start
Step 2 : Declare three integer variables a , b , c.
Step 3 : Read values a =10, b=20 , c=30.
Step 4 : check if a> b
if a> c
print a is big.
else
print c is big.
Step 5 : else if b>c
print b is big.
else
print c is big .
Step 7 : stop .

3. Draw a flow - chart to find the biggest value of a given three numbers.



4. Write an algorithm to find whether the given number in prime or not?

Ans algorithm

Step 1 : Start
Step 2 : Declare three integer variables n, i, p .
Step 3 : Read value for n =12,i=1,c=0
Step 4 : check while n>=i is true
Check if n%i ==0
C++
i++
Step 5 : check if c==2 is true
Print given number is prime
Step 6 : else
Print given number is not prime
Step 7 : stop

5.What are the advantages of Flow chart?

Ans: Flow chart is a diagrammatic representation of an algorithm. It is constructed by using different type of boxes and symbols.

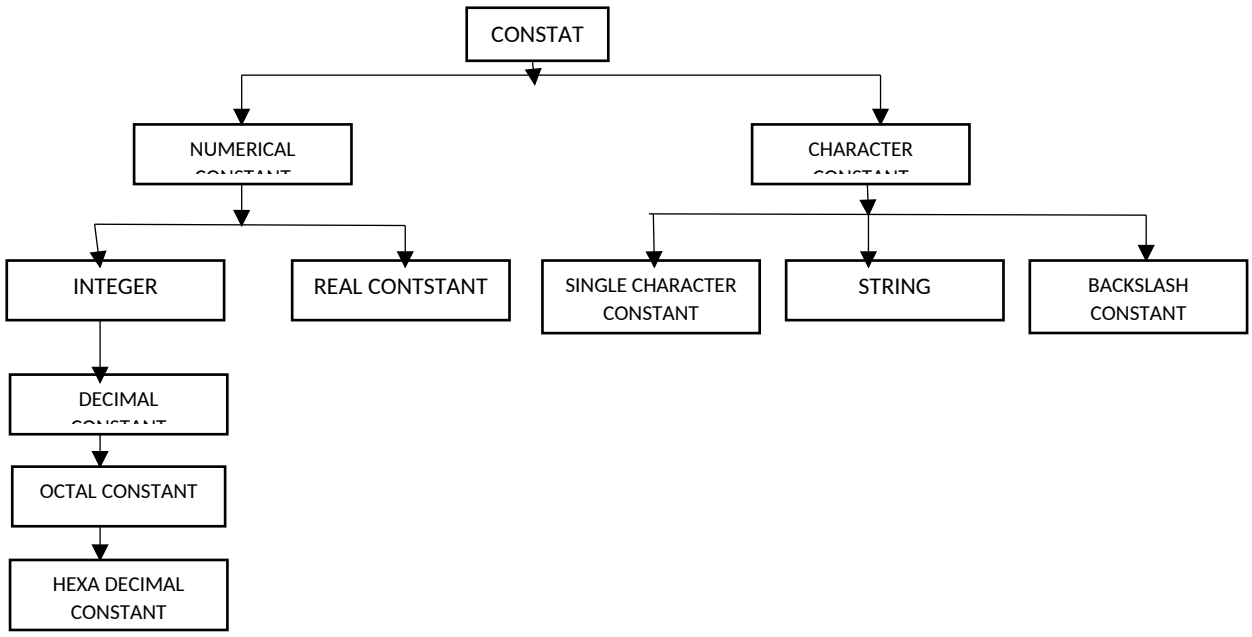
Advantages of Flow Chart:

- It is a convenient method of communication.
- It indicates very clearly just what is being done, where as a program has logically complexitie
- It is a key correct programming.
- It is an important tool for planning and designing a new system.
- It clearly indicates the role played at each level.
- It provides an over- view of the system
- It facilitates trouble shooting
- It promotes logical accuracy.

UNIT – II
Features of C

1. What are constants in C? Explain with examples?

Ans: Constant: Constant is a value fixed in a variable throughout the program execution is called constant. It can not be changed during the execution of the program. C supports several types of constants they are.



Numerical Constant: it can be any of decimal integers (base 10) consists one or more digits 0-9. These are 2 types.

1. Integer constants
2. Real constants

Integer constants: an integer constants refer to a sequence of digits. These are 3 types.

a. Decimal constants: the decimal constants consist of a set of digits 0 to 9, preceded by an optional + or – sign.
   Ex: 562, -452, +89
b. Octal constants: An octal constant consists of any combination of digits from 0 to 7 with a leading 0.
   Ex: 0212, 03456
c. Hexadecimal constants: An Hexadecimal constant consists of any combination of digits from 0 to 9 and alphabets from A to F with a digital preceded by OX.
   Ex: OX2, OX8C

Real constants: Integers, numbers containing fraction parts, some numbers are called real or floating points.
Ex: 2.356, 5.25

Character constants:

a. Single character constants: a single character constants contains a single character enclosed with in pair of single quotation mark.
   Ex: ‘A’, ‘#’
b. String constant: A string constant is a sequence of characters enclosed in double quotes(“ “).
   Ex: “cse”, “college”
c. Backslash constant: ‘c’ supports some special characters constants that are used in output function.
   Ex: ‘\n’, ‘\t’, ‘\b’, ‘\0’

2. What is variable? Write and it's types?

Ans: Whenever the value stored in the system location that location name is called a variable. A variable is an identifier whose value is allowed to change during the execution of program. The variable names are can't use any keyword names. The first letter should be the alphabetical. The variables length up to 31 characters. There are 3 types of variables are available they are

1. Integer variable
2. Float variable
3. Character variable

Variable Declaration: A variable can be used to store a value of any data type. Variables are separated by commas. Variable declaration statement must end with a semicolon(;).

Syntax: data-type var1, var2, var3……..var n;

Ex: int a,b,c;

float average;

char c;

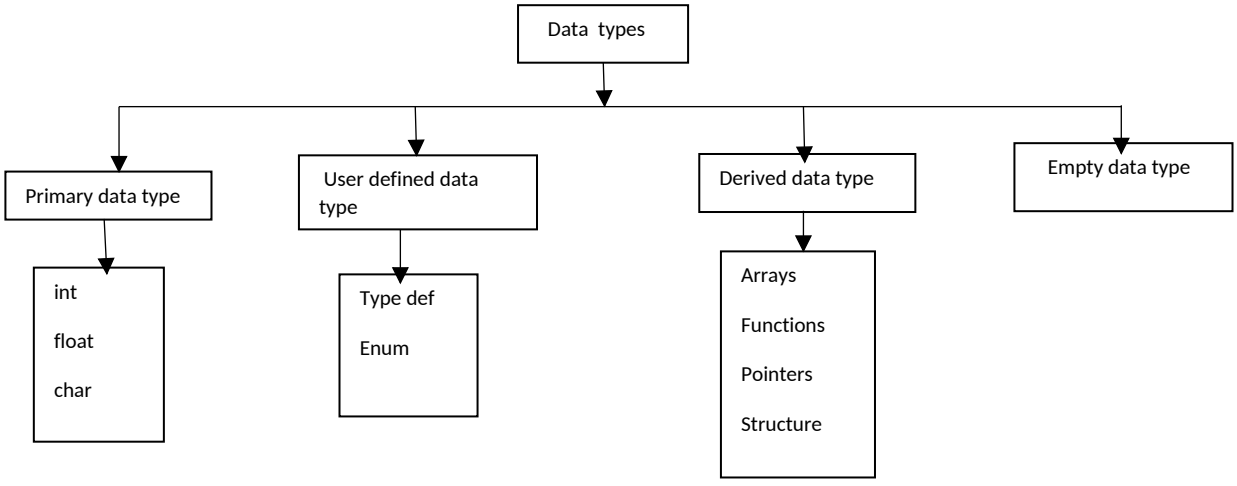
Assign the values to variable: values can be assigned to variable using the assignment operator " =" as follows.

Syntax: variable-name = value or expression;

Ex: int a= 10; int c= a+b;

3. What are the " data types " available in c language ? (or)
Explain about the "different data types " in c language ?

Ans: c language having different types of data , each of which may be represented differently within the computer memory. C supports 4 types of data they are.



1. Primary data type/ Fundamental data type: Which data type are created primarily in any 'c' program that data types are called primary data types.

   Example : int , float, char, double etc.

   Syntax : data–type var1, var2, var3,…….varn;

   Ex : int a , b , c;

   float a , b , c;

   char a , b , c;

2 .user defined data type : Which data type are created by the user requirement that data types are called user defined data type. These are two types they are.

1. Type def
2. Enumerated type data

Type def : Type definition allows users to define an identifier that would present an existing data type.

Syntax : type-def data-type identifier/variable-name;

Ex : type-def int a ;
type-def float b;

Enumerated type data : The identifier is a user defined enumerated data type which can be used to declare the variable that can have one of the value enclosed in parenthesis.

Syntax : enum identifier(var1,var2,var3,…….var n);

Ex : enum day(mon,tue,wed,…….sun);

3 .derived data type : The derived data type are derived the memory location. The derived data types are

1. Arrays
2. Functions
3. Pointers
4. Structures

4 empty data type : Which data type are created by empty space in memory location that data type are called empty data type.

Void is an empty data type normally used as a return type in c.

4.explain " different type of operators " available in c language ?

Ans: Operator: which is operate any two operands that type of symbol is called operator. That instructs to the computer to perform certain mathematical and logical manipulations. C operators can be classified into 8 categories they are.

1. Arithmetic operators
2. Relational operators
3. Logical operators
4. Assignment operators
5. Increment/decrement operators
6. Conditional operators
7. Bitwise operators
8. Special operators

1.Arthmetic operators : which operators are used for mathematical purpose that type of operators are called arithmetic operators. These are used to perform arithmetic operations such as additions, multiplication, subtraction, division and modular etc..,

Operator	Purpose
+	Addition
–	Subtraction
*	Multiplication
/	Division
%	Modulas

2.Relational operators : which operators are specified the relation between any two operands that type of operators are called relational operators. These operations compare the two expression and return a true(1)or false(0).

Operators	Purpose
>	Greater than
>=	Greater than or equal
<	Less than
<=	Less than or equal
==	equal

3.Logical operators : which operators are used for technical purpose that operators are called logical operators.

Operator	Purpose	Example
&&	AND	If(a>b&&a>c)
||	OR	If(a>b||a>c)
!	NOT	If(a!b)

4.Assignment operators : these operators are used to assign the result of an expression to a variable.

Operators	Purpose
=	Assignment
+=	Addition and assignment
-=	Subtraction and assignment
*=	Multiplication and assignment
/=	Division and assignment
%=	Modular and assignment

5.Increment/decrement operator :

Increment operator(++) : the increment operator cause its operands value to be incremented by one the increment operators can incremented the value is two types these are

1. Pre-increment(++i)
2. Post-increment(i++)

Decrement operator (--): the decrement operator cause its operands value to be decremented by one. The decrement operator can decremented the value is two types these are

1. Pre-decrement(--i)
2. Post-decrement(i--)

6.conditional operators (? :) : an expression that make use of a conditional operators is called a conditional expression. The conditional operator tests an expression that returns the resulted of one or two other expression depending on the true or false value of the first expression.

Syntax : identifier = condition ? expression1 : expression2 ;

Ex : c = a>b ? a-b: b-a ;

7.Special operators : c supports some special operators such as

1. comma operator
2. size operators

Comma operators : the comma operator can be used to link the related expression together.

Ex : a(X=5,Y=8,X+Y)

Size of operators : the size of operator is a compile type operator when used an operands it return the number of bytes that the operands occupies in memory.

Ex : x = size of (a); Y= size of (b);

8.Bitwise operators : manipulating data at bit level for using the operators is called bitwise operators. They are 2 types

1. bitwise logical operators
2. bitwise shift operators

Bitwise logical operators : it perform the bit setting, clearing, inversion and compliment operations on the expressions.

Operator	Purpose
&	Bitwise AND
|	Bitwise OR
^	Bitwise EXOR
~	Bitwise One's complement

Bitwise shift operator : it shift the integer value to right or left with a specified number of bits. These are two types

Operator	Purpose
<<	Left shift
>>	Right shift

5.What are the relational operators in C? Explain with suitable examples?

Ans: Operator: which is operate any two operands that type of symbol is called operator. That instructs to the computer to perform certain mathematical and logical manipulations. C operators can be classified into 8 categories they are.

1. Arithmetic operators
2. Relational operators
3. Logical operators
4. Assignment operators
5. Increment/decrement operators
6. Conditional operators
7. Bitwise operators
8. Special operators

Relational operators : which operators are specified the relation between any two operands that type of operators are called relational operators. These operations compare the two expression and return a true(1)or false(0).

Operators	Purpose
>	Greater than
>=	Greater than or equal
<	Less than
<=	Less than or equal
==	equal

Example:

Expression	Result
125 > 120	TRUE
-125 > 120	FALSE
10 < 6 + 5	FALSE
IF a = 25 a>10	TRUE
100 < a	FALSE

6. What are the Logical Operators in C ? Explain with Examples?

Ans: Logical operators : which operators are used for technical purpose that operators are called logical operators. These are 3 types.

1. Logical AND (&&)
2. Logical OR(| |)
3. Logical NOT(!)

Logical AND (&&) : The Logical AND operator is (&&). It is used to check the both expression-1 and expression-2 is true the result is true. Either expression is false the result will be false.

Syntax: if (expression-1) && (expression-2)

Truth table for Logical AND:

Expression – 1	Expression – 2	Result(Expression-1)&&(Expressioin-2)
TRUE	TRUE	TRUE
TRUE	FALSE	FALSE
FALSE	TRUE	FALSE
FALSE	FALSE	FALSE

Logical OR (| |): The Logical OR operator is (| |). It is used to check where the expression-1 OR expression-2 is true result is true. Either expression is true result will be true.

Truth table for Logical OR:

Expression – 1	Expression – 2	Result(Expression-1) | | (Expressioin-2)
TRUE	TRUE	TRUE
TRUE	FALSE	TRUE
FALSE	TRUE	TRUE
FALSE	FALSE	FALSE

Logical NOT(!): The Logical NOT operator is (!). It is used one expression only.If the expression is true the result is false and if the expression is false the result is true is called negative.

Truth table for Logical NOT:

Expression – 1	Result(!)
TRUE	FALSE
FALSE	TRUE

7..explain "input/output statements" in c language with syntax ?

Ans: An input/output function can be accessed from where within a program simply by writing the function name followed by a list of arguments enclosed in parentheses"( )". The arguments represent data item. Input data though key board using scanf( ) function. And get the result through VDU using printf() function.

In a they are two types of input statements:

Input Statements	Input function	Usage	Syntax and Example
Formatted Input Statement	Scanf()	This function is used to send data into the memory from input devices.	Syntax: scanf("format specifiers",&var1,&var2…….....&varn); Ex: scanf("%d", &a);
UnFormatted Input Statement	getchar() gets()	Single character can be entered into the computer using in c library function getchar(). The function gets() receives the string from the input device.	Syntax: character-variable = getchar(); Ex: char a= getchar(); Syntax: gets(<string-type variable>). Ex: gets("cse").

In a they are two types of output statements:

Output Statements	Output function	Usage	Syntax and Example
Formatted Output Statement	Printf()	This function is used to print the data from memory onto a output device.	Syntax: printf("format specifiers",var1,var2…….....,varn); Ex: printf("%d", a);
UnFormatted Output Statement	putchar() puts()	Single character can be displayed using function putchar(). The function puts() output the string is displayed to the output device.	Syntax: putchar(<charcter-variable>); Ex: putchar("A"); Syntax: puts(<string-type variable>). Ex: puts("cse");

Format- specifiers in c language :

%d – integer type %d – long int type

%d—floattype %lf—double

%c-- char type %s—string type

8. What are the Conditional Statements in C? Explain them?

Ans: Conditional Control Statements means to control flow of execution of a program by using condition is called conditional control statements. These are 4 types they are.

1. Simple if
2. If else
3. Nested if
4. Ladder if or if else-if

Simple if – control statement : the if control statement is a conditional control statement. It first checks the condition true or false. If the condition is true statement can be executed, if the condition is false the if block is terminated.

Syntax :

```
if(condition)
  {
      Statement ;
  }
```

Flow chart:

Example code:

```
int  a ,b;

if(a>b)
{
        printf(" a is big: %d",a);
 }
```

If-else – control statement : the if else control statement is conditional control statement. It first checks the condition true or false. If the condition is true the true block of statements can be executed, if the condition is false the else block of statement can be executed.

Syntax :

```
if(condition)
        {  statements;
  }
else
  {  statements;
  }
```

Flow chart :

Example Code:

```
int  a=40,b=20;

printf(" enter the a and b value");
scanf("%d%d".&a,&b);
if(a>b)
  {
        printf("a is big :%d",a);
  }
 else
 {
        printf("b is big:%d",b);
 }
```

Nested if – control statement : it control statement is conditional control statement. It first check the condition true or false. If the condition is true then again check the if block contain another if condition is true or false. If it is also true the true block of statement can be executed, if another condition is false the else block of statement can be executed. If another condition is false the else block of statement can be executed. If the first condition is false then enter to the else block. If it next check the else block contain if condition is true or false. If the condition is true then else block contains if block can be executed otherwise the else block contains another else block can be executed.

Syntax :

```
if(condition)
  {   if(condition)
        {       statement;
        }
      else
        {       statement;
        }
  }
else
  {  if(condition)
       {        statement;
       }
    else
       {       statement;
       }
}
```

Flow chart :

Example Code:

```
int   a=50,b=20 ,c=10;
printf(" enter the a,b and c values ");
scanf ("%d%d%d", &a,&b,&c);
if(a>b)
 {
        if(a>c)
         {      printf("a is big: %d", a);
         }
        else
         {      printf("c is big: %d". c);
         }
 }
 else
  {
        if(b>c)
          {      printf("b is big: %d, b);
          }
        else
          {      printf("c is big: %d", c);
          }
  }
```

If else if / ladder if control statement : it is a conditional control statement. If else if control statement is also called a ladder is control statement. It having a more else-if control statement. First we have to check the if condition is true or false. If the condition is true the if statement is can be executed if the condition id false then control goto the next else-if statement and it check the condition is true or false this process is continue for all else-if statement if false finally the controller is executed the else block of statement.

Syntax :

```
if(condition)
 {
        statements;
 }
else if(condition)
 {
        statements;
 }
else if(condition)
 {
        statements;
 }
else
 {
        statements;
 }
```

Flow chart:

Example Code:

```
int   units;
      float  bill;
      printf(" enter the number of units you used ");
      scanf("%d", &units);
      if(units>500)
        {
            Bill = units * 5.50;
          Printf(" you paid bill is : 5f', bill);
         }
      else if(units>400)
        {
            Bill=units * 4.50;
          Printf("you paid bill is:%f', bill);
         }
      else if(units>300);
        {
            Bill=units * 3.50;
          Printf("you paid bill is : %f', bill);
         }
      else if(units>200)
        {
            Bill=units * 2.50;
          Printf("you paid bill is : %f ", bill);
         }
      else
        {
            Bill=units * 1.50;
          Printf("you paid bill is : %f', bill);
         }
```

9. explain the " simple if-control statement" used in c program ?

Ans : Simple if – control statement : the if control statement is a conditional control statement. It first checks the condition true or false. If the condition is true statement can be executed, if the condition is false the if block is terminated.

Syntax :

```
if(condition)
 {
      Statement ;
 }
```

Flow chart:

Example code:

```
int  a ,b;

if(a>b)
{
        printf(" a is big: %d",a);
 }
```

10.explain the " if else-control statement" used in c program ?

Ans: If-else – control statement : the if else control statement is conditional control statement. It first checks the condition true or false. If the condition is true the true block of statements can be executed, if the condition is false the else block of statement can be executed.

Syntax :

```
if(condition)
        {  statements;
   }
else
    {  statements;
    }
```

Flow chart :

Example Code:

```
int  a=40,b=20;

printf(" enter the a and b value");
scanf("%d%d".&a,&b);
if(a>b)
  {
        printf("a is big :%d",a);
  }
 else
 {
        printf("b is big:%d",b);
 }
```

11.**explain the "Nested if - control statement" used in c language?**

Ans: Nested if – control statement : it control statement is conditional control statement. It first check the condition true or false. If the condition is true then again check the if block contain another if condition is true or false. If it is also true the true block of statement can be executed, if another condition is false the else block of statement can be executed. If another condition is false the else block of statement can be executed. If the first condition is false then enter to the else block. If it next check the else block contain if condition is true or false. If the condition is true then else block contains if block can be executed otherwise the else block contains another else block can be executed.

Syntax :

```
if(condition)
  {   if(condition)
        {       statement;
        }
      else
        {       statement;
        }
  }
else
  {   if(condition)
        {       statement;
        }
      else
        {       statement;
        }
}
```

Flow chart :

Example Code: int a=50,b=20 ,c=10;

```
printf(" enter the a,b and c values ");
scanf ("%d%d%d", &a,&b,&c);
if(a>b)
 {
      if(a>c)
       {     printf("a is big: %d", a);
       }
      else
       {     printf("c is big: %d". c);
       }
 }
 else
  {
      if(b>c)
        {     printf("b is big: %d, b);
        }
      else
        {     printf("c is big: %d", c);
        }
  }
```

12. explain the "if else if—control statement" used in c language ?

(or)

Explain the "ladder if – control statement " used in c language ?

Ans : If else if / ladder if control statement : it is a conditional control statement. If else if control statement is also called a ladder is control statement. It having a more else-if control statement. First we have to check the if condition is true or false. If the condition is true the if statement is can be executed if the condition id false then control goto the next else-if statement and it check the condition is true or false this process is continue for all else-if statement if false finally the controller is executed the else block of statement.

Syntax :

```
if(condition)
 {
        statements;
 }
else if(condition)
 {
        statements;
 }
else if(condition)
 {
        statements;
 }
else
 {
        statements;
 }
```

Flow chart:

Example Code:

```
int   units;
      float  bill;
      printf(" enter the number of units you used ");
      scanf("%d", &units);
      if(units>500)
        {
            Bill = units * 5.50;
          Printf(" you paid bill is : 5f', bill);
         }
      else if(units>400)
        {
            Bill=units * 4.50;
          Printf("you paid bill is:%f', bill);
         }
      else if(units>300);
        {
            Bill=units * 3.50;
          Printf("you paid bill is : %f', bill);
         }
      else if(units>200)
        {
            Bill=units * 2.50;
          Printf("you paid bill is : %f ", bill);
         }
      else
        {
            Bill=units * 1.50;
          Printf("you paid bill is : %f', bill);
         }
```

13.explain the "switch control statement" used in c program?

Ans: Switch control statement : the switch control statement is also a conditional control statement. This switch control statement causes particular group of statement to be chosen from several available group. Switch is a predefined function the switch statement depending the case value. After completed the any case then must follow the break statement (or) continue statement is for required. The selection is based upon the current value of an condition. The condition of a switch statement it compare the case value 1,2……n. if it match the any case value is executed otherwise the default block statement can be executed.

```
Syntax:     switch(condition)
            {     case value1: statements; break;
                  case value2: statements; break;
                        "          "          "
                  case valuen: statements; break;
                  default    : statement;
            }
```

Break statement : the break statement is used to terminated the loop or to exit from a switch statement. It can be used with in a while (or) do-while (or) for(or) switch statement.

Continue statement : the continue statement is used to continue the statement execution of all case value declared in the switch statement

14.What are the loops in C? Explain with suitable examples?

Ans: Repetition (or) looping control statements: looping control statements means the block of statements can be executed repeatedly some specified number of times or until a particular condition is being satisfied is called looping control statements. They are three types of loop control statements

1. While loop statement
2. Do-while loop statement
3. For loop statement

While loop/ entry control statement : The while is an entry controlled loop statement. In which the condition will be test while before executing the statement. If the condition is true than all loop statement will go to execution then it will check the while condition. When the while condition is false the compiler will jump out side of the loop.

```
Syntax :    while(condition)
            {
                  statements 1;
                  statements 2;
                        "
                  Statements n ;
            }
```

Flow chart :

Example Code:

```
int   i=1;
while(i<=10)
{
      printf("%d",i);
      i++;
}
```

Do-while / exit control statement : In do-while loop statement first the body of the statement will go to execution after it will check the condition. When the condition is true then the compiler will execution start from do statement. Then all statement will to execute once. When the while condition false the compiler will jump out side of the do-while loop the do-while terminate with semicolon.

Syntax :
```
do
{
    statements 1 ;
      Statements 2 ;
          “
       Statement n ;
} while(condition);
```

Flow chart :

Example Code:
```
int  i=1;
do
 {
      printf(“%d”,i);
}  while(i < 10);
```

For loop control statement : for is a predefined function. The for statement is commonly used entry controlled looping statement in c language. In for loop they are mainly three parts they are.

1. Initialization part
2. Conditional part
3. Increment/decrement part

Syntax :
```
for(initialization part; conditional part; increment/decrement part)
{
      statement 1 ;
          “
       Statement n :
}
```

Example Code:
```
int  i;
for(i=1;i<=10; i++)
  {
      Printf(“%d”,i);
   }
```

15.explain the "while loop control statement" used in c program ?

(or)

Explain the "entry control statement" used in c program ?

Ans: While loop/ entry control statement : The while is an entry controlled loop statement. In which the condition will be test while before executing the statement. If the condition is true than all loop statement will go to execution then it will check the while condition. When the while condition is false the compiler will jump out side of the loop.

Syntax :

```
while(condition)
{
    statements 1;
    statements 2;
        "
    Statements n ;
}
```

Flow chart :

Example Code:

```
int   i=1;
while(i<=10)
{
    printf("%d",i);
    i++;
}
```

16. Explain the "do—while loop control statement " used in c program ?

(or)

Explain the " exit control statement " used in c program ?

Ans: Do-while / exit control statement : In do-while loop statement first the body of the statement will go to execution after it will check the condition. When the condition is true then the compiler will execution start from do statement. Then all statement will to execute once. When the while condition false the compiler will jump out side of the do-while loop the do-while terminate with semicolon.

Syntax :

```
do
{
    statements 1 ;
        Statements 2 ;
            "
        Statement n ;
} while(condition);
```

Flow chart :

Example Code:

```
int  i=1;
do
{
    printf("%d",i);
}  while(i < 10);
```

17.explain the " for loop control statement " used in c program ?

Ans : For loop control statement : for is a predefined function. The for statement is commonly used entry controlled looping statement in c language. In for loop they are mainly three parts they are.

4. Initialization part
5. Conditional part
6. Increment/decrement part

Initialization part : when the execution of for statement then the compiler will activate the initialization part. After complete the initialization then the compiler will check the conditional part.

Conditional part : the compiler will check the conditional part when the condition is true then all loop statement will go to execution after it will go to the increment/decrement part. When the condition is false the compiler will jump out side of the for loop.

Increment / decrement part : after execute the all for loop statement then the compiler will comes to increment / decrement part.

Syntax : for(initialization part; conditional part; increment/decrement part)
{
statement 1 ;
"
Statement n :
}

Example Code:

```
int  i;
for(i=1;i<=10; i++)
  {
        Printf("%d",i);
  }
```

18.What are the difference between break and continue statements?

Ans:

Break	Continue

1. Break is a keyword used to terminate the loop.
2. break statement can be used with for,while,do-while and switch statements.
3. Syntax : switch(condition)
{
statement1;break;
statement2;break;
}
4. Using keyword "break".
5. Terminate with semicolon
	1. Continue is a keyword used for containing the next iteration of the loop.
	2. This statement when occurs in a loop does not terminate. It is used with for,while,do-while loop, switch.
	3. Syntax :switch(condition)
	{
	statements;continue;
	statements;break;
	}
	4. Using keyword "continue".
	5. Terminate with semicolon

19.Explain the " nested loop statement " available in c language ?

Ans : Nested loop statement : loop within the loop is called nested loop. The nested loop are used any situation of multiprocessing . the c language is having different types of nested loop concepts.

1. Nested while loop
2. Nested do-while loop
3. Nested for loop

Nested while loop syntax : while loop contains another while loop is called nested while loop.

```
While(condition)
{
        While(condition)
        {
                Statements;
        }
        Statements;
}
```

Nested do-while syntax : do-while loop contains another do-while loop is called nested do-while.

```
do
{
        do
        {
                Statements;
        }while(condition);
        Statements;
}while(condition);
```

Nested for loop syntax : for loop contains another for loop is called nested for.

```
for(initialization part ; conditional part ; increment/decrement part)
{
        for(initialization part ; conditional part ; increment/decrement part)
        {
                Statements;
        }
        Statements;
}
```

20.Write the difference between while and do-while statements?

while Loop	**do...while Loop**
1. Condition is checked **before** executing the loop body.	Condition is checked **after** executing the loop body.
2. The loop body may **not execute at all** if the condition is false initially.	The loop body executes **at least once**, even if the condition is false initially.

3. Syntax: while(condition)
{
Statements;
}
	Syntax: do
	{
	Statements;
	} while(condition);

4. When you want to run the loop **only if** the condition is true from the start.	When you want the loop to run **at least once**, regardless of the initial condition.
5. 1. Check condition → 2. Execute body (if true) → 3. Repeat.	1. Execute body → 2. Check condition → 3. Repeat if true.

UNIT - II
IMPORTANT PROGRAMS

1.Write C program to find the biggest value of given 3 integer numbers?

Program:

```
#include <stdio.h>
main()
{
   int a,b,c;
   printf("Enter three integers: ");
   scanf("%d %d %d", &a, &b, &c);
   if (a > b)
   {
       if (a > c)
      {
          printf(“ a is big:%d”,a);
       }
       else
       {
           printf(“ c is big:%d”,c);
       }
    }
   else
   {
       if (b > c)
       {
          printf(“ b is big:%d”,b);
       }
      else
       {
          printf(“ c is big:%d”,c);
       }
    }
   getch();
}
```

Input: Enter three integers: 40 60 20
Output: b is big: 60

2.Write a C program sum of 1 to n natural numbers using while loop?

Program:

```
#include <stdio.h>
main()
{
   int n, i = 1, sum = 0;
   printf("Enter a Number: ");
   scanf("%d", &n);
   while (i <= n)
   {
      sum=sum+ i;
      i++;
   }
   printf("The sum of natural numbers from 1 to n is: %d", sum);
   getch();
}
```

Input: Enter a Number: 5

Output: The sum of natural numbers from 1 to n is: 15

3.Write C program to find the given number is palindrome of not?

Program:

```
#include <stdio.h>
main()
{
   int n, originalNum, reversedNum = 0, remainder;
   printf("Enter a Number: ");
   scanf("%d", &n);
   originalNum = n;
   while (n != 0)
   {
      remainder = n % 10;
      reversedNum = reversedNum * 10 + remainder;
      n= n / 10;
   }
   if (originalNum == reversedNum)
   {
      printf("given number is a palindrome: %d ", originalNum);
   }
   else
   {
      printf("given number is not a palindrome: %d", originalNum);
   }
   getch();
}
```

Input: Enter a Number: 141

Output: given number is a palindrome: 141

4.Write C program to find the factorial of given number using recursion?

Program:

```
#include <stdio.h>
void main()
{
   int n;
   printf("Enter a Number: ");
   scanf("%d", &n);
  result = int factorial(n);
  printf("Factorial is: %d ", result);
  getch();
}
int factorial(int n)
{
   if (n == 0 || n == 1)
   {
      return 1;
   }
  else
   {
      return (n * factorial(n – 1));
   }
}
```

Input: Enter a Number: 5
Output: Factorial is:120

5.Write a C program to generate Fibonacci series into given number?

Program:

```
#include <stdio.h>
void main()
{
   int n, a = 0, b = 1, c, i;
   printf("Enter the number: ");
   scanf("%d", &n);
   printf("Fibonacci Series: ");
   for (i = 1; i <= n; i++)
   {
      printf("%d ", a);
      c = a + b;
      a = b;
      b = c;
   }
  getch();
}
```

Input: Enter a Number: 5
Output: Fibonacci Series: 0 1 1 2 3

`

UNIT – III
ARRAYS IN C

1.Explain array and it's types ?

Ans : Array : collection of similar, related data items is called array. The collection of data items can share a common name and the elements can be stored from 0^{th} location in memory. These elements are stored at continuous memory location. Array can be defined as three types. These are.

1.One-dimensional array
2.Two-dimensional array
3.Multi-dimensional array

One-dimensional array : collection of similar data items can be stored in one variable name and using only one dimension, such an array is called as one dimensional array.

Syntax : data-type array-name[size];

Initialization : int a[5] = { 10,20,30,40,50};

Example1 :

```
int a[6];
printf(" enter array values :");
for( i = 0 ; i < 6 ; i++)
{
        Scanf(" %d ", &a[ i ]);
}
```

Two-dimensional array : collection of data items can be stored in one variable name and using two – dimensions, such an array is called as two - dimensional array. The two dimensions one is row size and the other is column size.

Syntax : data-type array-name[3][3];

Initialization : int a[3][3] ={ {1,2,3},{4,5,6},{7,8,9}};

Multi – dimensional array : c allows three or more dimensions to store a collection of data items can be stored in one variable name and using multiple dimensions and such an array is called as multi-dimensional array.

Syntax : data-type array-name[d1][d2][d3].....[dn];

Initialization :

```
int a[3][2][3] ={   {11,12,13},{14,15,16},
                    {17,18,19},{20,21,22},
                    {23,24,25},{26,27,28}
                };
```

2.Explain one-dimensional array?

Ans : Array : collection of similar, related data items is called array. The collection of data items can share a common name and the elements can be stored from 0^{th} location in memory. These are three types.

1. One-dimensional array
2. Two-dimensional array
3. Multi-dimensional array

One-dimensional array : collection of data items can be given on one variable name using only one dimension, and such a variable is called as one dimensional array. Creation of one dimensional array involves three steps these are.

<u>Syntax of one dimensional array :</u>

Syntax : data-type array-name[size];

Example : int a[10];

<u>Initialization of one-dimensional array :</u>

Example:

```
int a[6];
printf(" enter array values :");
for( i = 0 ; i < 6 ; i++)
{
        Scanf(" %d ", &a[ i ]);
}
```

<u>Accessing of one dimensional array:</u>

example :

```
int a[6];
printf(" display the values of array :");
for( i = 0 ; i < 6 ; i++)
{
        printf(" %d",a[ i ]);
}
```

3.Explain two – dimensional array ?

Ans : Array : collection of similar, related data items is called array. The collection of data items can share a common name and the elements can be stored from 0^{th} location in memory. These are three types.

1. One-dimensional array
2. Two-dimensional array
3. Multi-dimensional array

Two – dimensional array : collection of data items can be given on one variable name using two dimensions and such a variable is called as two-dimensional array

Syntax of Two- dimensional array :

Syntax : data-type array-name[row size][column size];

Example : int a[3][3];

Initialization of Two-dimensional array :

Example :

```
int a[6][3];
printf(" enter array values :");
for( i = 0 ; i < 6 ; i++)
for(j=0;j<3;j++)
{
        Scanf(" %d ", &a[ i ][j]);
}
```

Accessing of Two- dimensional array:

example :

```
int a[6][3];
printf(" display the values of array :");
for( i = 0 ; i < 6 ; i++)
for(j=0;j<3;j++)
{
        printf(" %d",a[ i ][j]);
}
```

4.Explain multi-dimensional array ?

Ans : Array : collection of similar, related data items is called array. The collection of data items can share a common name and the elements can be stored from 0^{th} location in memory. These are three types.

1. One-dimensional array
2. Two-dimensional array
3. Multi-dimensional array

Multi – dimensional array : c allows three or more dimensions to store a collection of data items can be given in one variable name and using multiple dimensions and such a variable is called as multi dimensional array.

Syntax of multi-dimensional array :

Syntax: data-type array-name[d1][d2][d3].....[dn];

Example :

```
int a[3][2][3] ={   {11,12,13},{14,15,16},
                    {17,18,19},{20,21,22},
                     {23,24,25},{26,27,28}
                };
```

Initialization of Multi-dimensional array :

Example:

```
int a[6][3][2];
printf(" enter array values :");
for( i = 0 ; i < 6 ; i++)
for(j=0;j<3;j++)
{
        for(k=0;k<2;k++)
        {
                Scanf(" %d ", &a[ i ][j][k]);
        }
}
```

Accessing of Multi- dimensional array:

example:

```
int    a[6][3][2];
 printf(" display the values of array :");
 for( i = 0 ; i < 6 ; i++)
 for(j=0;j<3;j++)
 {
        for(k=0;k<2;k++)
        {
               printf(" %d",a[ i ][j][k]);
        }
 }
```

5.Write String Handling in array?

Ans: String handling in array: A string is an array of characters, any set of characters defined between double quotation marks is a constant string.

Example: "My College name is GJC".
"My Couse is CSE".

Declaration And Initializing String Variables: A string variables is any valued variable and is always declared as an array.

syntax of a string variable : Char variable- name [size]; The size determines the number of character in the string- name.

example:

```
char  Town [10];
char   stu-name [10];
char   father-name [20];
```

When complier assigns a character string a character array automatically supplies a null character (\0) at the end of string. Therefore, the size should be equal to the maximum of character in the string plus one.

character array to be initialized examples:

```
static char town [10] = "CHIRALA";
static char town [10] = { 'C','H', 'I','R','A', 'L', 'A', \0'};
static char town [ ] ={'R','A', 'J', 'Y', 'A', 'L', 'A', 'K','S', 'H','M','I',\0};
```

Reading words: The input function scanf can be used with% s format specification to read in a string of character

Example:

```
char   student name [20];
 scanf("%s", student-name);
```

Read a line of text: To read a single character from the terminal, using function. getchar(): We can use this function repeatedly, to read successive single characters from the input and place then into a character array. Writing strings to screen

We have used extensively the printf function with %s specification to print strings to the string. The specification %s can be used to display an array of character that is terminate by the null character(\0).

Example: printf ("%S", student_ name");

Important programs of arrays

1. Write a program to read and print an array of elements?

Program: /* Read and print an array of elements */

```
#include<stdio.h>
main()
{
        int a[10],i;
        printf("Enter array values:");
        for(i=0;i<10,i++)
        {
                Scanf("%d",&a);
        }
        prinf(" Print Elements of array is:");
        for(i=0;i<10,i++)
        {
                printf("%d",&a);
        }
        getch();
}
```

Input: Enter array values: 7 8 5 2 3 1 4 9 6

Output: Print Elements of array is: 7 8 5 2 3 1 4 9 6

2.Write a program for sorting of a given values ?

Program :

```
/*    sorting  of a given values  */
#include<stdio.h>
main( )
{
        int     a[6],i,j;
        clrscr( );
        printf("  enter array values :");
        for(i = 0 ; i < 6 ; i++)
        {
        scanf("%d",&a[ i ] );
        }
        printf(" sorting of array is .....");
        for(i = 0 ; i < 6 ; i ++ )
        {
                for( j = i + 1 ; j < 6 ; j ++ );
                {
                        if(a[ i ] < a[ j ])
                        {
                                temp  =  a[ i ];
                                a[ i ]   = a[ j ];
                                a[ j ]   =  temp;
                        }
                }
                printf("%d",a[ i ]);
        }
        getch();
}
```

Input : 90 10 80 30 70 20

Output: 10 20 30 70 80 90

3.Write a program for sum of two matrices ?

Program :

```
/*   sum of two matrices  */
#include<stdio.h>
main( )
{
        int    a[ 3 ][ 3 ],b[ 3 ][ 3 ],c[ 3 ][ 3 ], i , j ;
        clrscr( );
        printf(" enter first array values :");
        for(i = 0;i < 3; i ++)
        {
                for(j=0;j<3;j++)
                {
                        scanf("%d",&a[i][j]);
                }
        }
        printf(" enter second array values :");
        for(i = 0;i < 3; i ++)
        {
                for(j=0;j<3;j++)
                {
                        scanf("%d",&b[i][j]);
                }
        }
        printf(" sum of two matrices is  :");
        for(i = 0;i < 3; i ++)
        {
                for(j=0;j<3;j++)
                {
                        c[i][j] = a[i][j] + b[i][j];
                        printf("%d",c[i][j]);
                }
                printf("\n");
        }
        getch();
}
```

Input : enter first array values: 10 20 30
40 50 60
70 80 90
enter second array values : 1 2 3
4 5 6
7 8 9

Output: sum of two matrices is : 11 22 33
44 55 66
88 99 11

4.Write a program for multiplication of two matrices ?

Program :

```
/*   multiplication of two matrices  */
#include<stdio.h>
main( )
{
        int    a[ 3 ][ 3 ],b[ 3 ][ 3 ],c[ 3 ][ 3 ], i , j,k ;
        clrscr( );
        printf(" enter first array values :");
        for(i = 0;i < 3; i ++)
        {
                for(j=0;j<3;j++)
                {
                        scanf("%d",&a[i][j]);
                }
        }
        printf(" enter second array values :");
        for(i = 0;i < 3; i ++)
        {
                for(j=0;j<3;j++)
                {
                        scanf("%d",&b[i][j]);
                }
        }
        printf(" multiplication of two matrices is  :");
        for(i = 0;i < 3; i ++)
        {
                for(j=0;j<3;j++)
                {
                        for(k=0;k<3;k++)
                        {
                                c[i][j]=0;
                                c[i][j] =  c[i][j] + a[i][k] * b[k][j];
                        }
                        printf("%d",c[i][j]);
                        printf("\n");
                }
                printf("\n");
        }
        getch();
}
```

Input : enter first array values:

```
1  2  3
4  5  6
7  8  9
```

enter second array values :

```
1  1  1
1  1  1
1  1  1
```

Output: sum of two matrices is :

```
 6    6    6
15   15   15
24   24  24
```

5.Write a program for transpose of a matrx ?

Program :

```
/*   transpose of a matrix  */
#include<stdio.h>
main( )
{
        int    a[ 3 ][ 3 ],b[ 3 ][ 3 ], i , j ;
        clrscr( );
        printf(" enter  array values :");
        for(i = 0;i < 3; i ++)
        {
                for(j=0;j<3;j++)
                {
                        scanf("%d",&a[i][j]);
                }
        }
        printf(" transpose of a matrix is :");
        for(i = 0;i < 3; i ++)
        {
                for(j=0;j<3;j++)
                {
                        b[i][j] = a[j][i];
                        printf("%d",b[i][j]);
                }
        }
        getch();
}
```

Input : enter array values: 10 20 30
40 50 60
70 80 90

Output: transpose of a matrix is : 10 40 70
20 50 80
30 60 90

6. Write c program to string handling functions?

Program: /* Sting Handling Functions*/

```
#include <stdio.h>
#include <string.h>
int main()
{
   char str1[100], str2[100], str3[100];
    printf("Enter first string: ");
   gets(str1);
   printf("Enter second string: ");
   gets(str2);

   // strlen - Find length
   printf("\nLength of first string: %lu", strlen(str1));
   printf("\nLength of second string: %lu", strlen(str2));

   // strcpy - Copy string
   strcpy(str3, str1);
   printf("\nCopied first string to str3: %s", str3);

   // strcat - Concatenate strings
   strcat(str1, str2);
   printf("\nConcatenation of str1 and str2: %s", str1);

  // Lower to Upper
  prinf(" lower to upper: %s",strlwr(str1));
  // Upper to Lower
   printf("Upper to Lower:%s",strupr(str2));

   // strcmp - Compare strings
   if (strcmp(str2, str3) == 0)
  {
      printf("\nstr2 and str3 are equal");
   }
  else
  {
      printf("\nstr2 and str3 are not equal");
   }

   getch();
}
```

Input: Enter first string: hello
Enter second string: WORLD

Output:

Length of first string: 5
Length of second string: 5
Copied first string to str3: hello
Concatenation of str1 and str2: helloWORLD
Lower to Upper : HELLO
Upper to Lower: world
str2 and str3 are not equal

UNIT – IV
FUNCTIONS

1.What are the differences between function and procedure ?

PROCEDURE	FUNCTION
1. Procedure is a sub-program which is included with in main program	1.Function is a sub-program which is intended for specific task
2.Procedure do not return a value	2.Function may or may not return a value.
3.Procedure cannot be called again and again	3.Function once defined can be called anywhere and any number of times.
4.Global variables cannot be used in procedure.	4.In function both local and global variables can be used.
5.Procedure can be written only in procedure programming such as Dbase, FoxPro	5.Function can be written in modular programming such as c, c++.
6. Procedure is a subprogram which is included in main program.	6.Function is sub program which is intended for specific task.
7.Procedure can have both input & output parameters.	7.Function can have only input funtions.

2.What are the Library Functions?Explain with suitable examples?

Ans: Library functions are **predefined functions** that come with a programming language's **standard library**.They are written and tested by the language developers, so you can use them without rewriting common code.

Common C Library Functions:

Header File	Function	Purpose	Example
<stdio.h>	printf()	Prints formatted output to the screen	printf("Hello World");
<stdio.h>	scanf()	Reads formatted input from user	scanf("%d", &x);
<string.h>	strlen()	Returns length of a string	strlen("Hello") → 5
<string.h>	strcpy()	Copies one string into another	strcpy(dest, src);
<math.h>	pow()	Raises a number to a power	pow(2, 3) → 8.0
<stdlib.h>	free()	Frees dynamically allocated memory	free(ptr);
<stdlib.h>	abs()	Returns absolute value of an integer	abs(-12) → 12
<time.h>	time()	Returns current time in seconds	time(NULL)
<time.h>	clock()	Returns CPU time used	clock()

3.What are the mathematical functions? Explain with suitable examples?

Ans : Most of the mathematical functions are defined in "math.h". "math.h" header file supports all the mathematical related functions in C language. Some of the mathematical functions is here.

Function	#include	What It Does
sqrt()	math.h	Calculates the square root of a floating-point value
pow()	math.h	Returns the result of a floating-point value raised to a certain power
abs()	stdlib.h	Returns the absolute value (positive value) of an integer
floor()	math.h	Rounds up a floating-point value to the next whole number (nonfractional) value
ceil()	math.h	Rounds down a floating-point value to the next whole number

4.What are the difference between Global Variable and Local Variable?

Ans:

Global Variable	Local Variable
1. It Declared **outside** of all functions	It Declared **inside** a function or block
2. It Accessible from **any function** in the program	It Accessible **only within** the function/block where declared
3. It Exists **throughout program execution**	It Exists **only while the function/block is running**
4. It Automatically initialized to **0** (for basic data types)	It Contains **garbage value** if not initialized
5. It Stored in **Data Segment** of memory	It Stored in **Stack** memory
6. It declared Typically at the **top of the program**, before main()	It declared Inside a function, loop, or block
7. It Useful for sharing data between functions	It Useful for temporary calculations inside a function
Example: #include <stdio.h> int g = 10; int main() {\n printf(\"%d\", g);\n}	Example: #include <stdio.h> int main() { int x = 5; printf(\"%d\", x);}

5.Explain "call – by – value" with suitable example?

Ans : function : function is a self defined block of statements to perform some specific well defined task is called function.

Call – by – value : call by value means when an expression is passed as an arguments to a function, the expression is evaluated, and it is the value that is passed to the function. The variables passed as arguments to function are not changed in the calling function. To change the values of variable in the calling environment, this process is called as "call – by – value".

/* Swapping of values using call – by – value */

```
#include <stdio.h>
int swap(int a, int b);
int main()
{
   int a, b;
   printf("Enter a, b values: ");
   scanf("%d%d", &a, &b);
   swap(a, b);
}
int swap(int a, int b)
{
   int t = a;
   a = b;
   b = t;
   printf("Inside swap: %d %d\n", a, b);
}
```

6.Explain "call – by – reference" ?

Ans : function : function is a self defined block of statements to perform some specific well defined task is called function.

Call – by – reference : when used the call – by – reference mechanism then pointers must be used in list in the function definition. Because the address of the variables must be passed as arguments then this function is also called as call – by – reference .

/* Swapping of values using call – by – reference */

```
#include <stdio.h>
void swap(int *a, int *b);
int main()
{
   int a, b;
   printf("Enter a, b values: ");
   scanf("%d%d", &a, &b);
   swap(&a, &b); // Pass addresses
   printf("The swapped values are: %d %d\n", a, b);
}
void swap(int *a, int *b)
{
   int t = *a;
   *a = *b;
   *b = t;
}
```

7.What are the differences between call-by-value and call-by-reference?

Ans:

Call by Value	Call by Reference
1. A copy of the actual value is passed to the function	The address (reference) of the variable is passed to the function
2. Changes made inside the function **do not affect** the original variable	Changes made inside the function **affect** the original variable
3. Separate memory location is created for parameters inside the function	Function parameters refer to the **same memory location** as the original variables
4. Slightly slower for large data because copies are made	Faster for large data because no copying is done
5. Uses normal variable names in the function call	Uses **pointers** (`*` and `&`) in the function call
6. Safer — the original variable is protected from changes	Riskier — original data can be accidentally modified
`swap(a, b);`	`swap(&a, &b);`
`void swap(int x, int y)`	`void swap(int *x, int *y)`

8.Explain the category of functions in c?

Ans : function : function is a self defined block of statements that perform some specific well defied task is called function. Every c program consists of one or more functions but must and should we have a single function that is main function. In Every c program execution can be started from main function. Functions can be defined into 2 types.

1. Library functions or built-in functions
2. User – defined functions

Library functions : these library functions are also called as predefined functions. These are developed by inbuilt.

Example : printf();
scanf();
getch();
clrscr();

user – defined functions : these functions are developed by the user as per the user requirement are called user defined functions. These are 4 types they are

1. With return type function-name(with arguments)
2. With return type function-name(without arguments)
3. Without return type function-name(with arguments)
4. Without return type function-name(without arguments) (**OR)**

Category	Description
1. Function with **no arguments** and **no return value**	Takes no input and returns nothing. Used when the task is independent.
2. Function with **arguments** and **no return value**	Takes input but doesn't return anything. Usually just processes or prints the result.
3. Function with **no arguments** but **returns a value**	Takes no input, but produces and returns some result.
4. Function with **arguments** and **returns a value**	Takes input and returns a result. Most flexible type.

9.Explain string functions ?

Ans: String : A set of character are called string. String can be represented as the One dimensional character type of array. It store the character from 0^{th} location in memory and last value must be put the null value('\0').

String handling functions : these are used to carry out many of the string manipulations.The most commonly used string handling functions are.

Strcat( ) : This function is used to concatenate or addition of two strings.

Syntax : strcat(string1, string2);

Strcpy( ) : this function is a library or string handling function. This function is used to copy from one string to another string.

Syntax : strcpy(string1, string2);

Strcmp( ) : this function is used to compare the two strings.

Syntax : strcmp(string1, string2);

Strlen( ) : this function is used to find the length of the given string.

Syntax : strlen(string);

Strrev( ) : this function is used to reverse the given string.

Syntax : strrev(string);

IMPORTANT PROGRAMS

1. write a program to find factorial of a given number?

Program :/* factorial of a given number using recursion */

```
#include<stdio.h>
int fact(int n);
int main( )
{       int   n;
        clrscr( );
        printf("enter the n value...:");
        scanf("%d",&n);
        printf("factorial of a given number is :%d", fact( n ));
        getch( );
}
int     fact(int x)
{
        if( x == 1 )
                return 1;
        else
                return x*fact(x-1);
}
```

Input: enter the n value...: 5
Output: factorial of a given number is : 120

2.Explain GCD procedure using recursion method?

Ans: The **GCD** of two numbers is the largest number that divides both without leaving a remainder.

Example: GCD(48, 18) = 6

```
// Recursive function to find GCD
#include <stdio.h>
int gcd(int a, int b)
{
   if (b == 0)
      return a;
   else
      return gcd(b, a % b);
}
int main()
{
   int x, y;
   printf("Enter two numbers: ");
   scanf("%d%d", &x, &y);
   printf("GCD of Two Numbers is:%d", gcd(x, y));

}
```

Input: Enter two numbers: 48 18
Output: GCD of Two Numbers is : 6

UNIT - V
STRUCTURES IN C

1.What is Structure? Explain in detail?

Ans : structure : a group of different data items is called a structure. The structure can be start with the keyword struct. The structure is a user defined data type and the structure elements are created with separate address location in memory. Structure is ended with semicolon and structure elements can be accessed only through the object. The structure can be defined only before the main function or only before the variable declaration in main function.

Syntax :
```
struct    structure-name
{
        data-type    variable-1;
        data-type    variable-2;
              ”              ”
        data-type    variable-n;
}
```

Structure object syntax : struct structure-name object-name;

Struct : it is a keyword or reserved word. It is a common word for the computer and user for specifying the structure.

Structure name : it is a name of the structure. It is a user defined name and it gives the user as his like.

Data-type : it indicate the which type of data stored in a variable either int or float or char.

Variable-name : it indicate the name of the memory location.

Object – name : it can used to access the structure and it's members. It can have the data about the structure and it's members. Structure can be accessed only though the object.

2.Explain array of structures ?

Ans : structure : a group of different data items is called a structure. The structure can be start with the keyword struct. we use structures to describe the format of related variables. we may declare an array of structures ,each element of the array representing a structure variable.

```
struct  class  student[100];
```

Defines an array called student, that consists of 100 elements. Each element is defined to be of the type struct class. Consider the following declaration

```
struct  marks
{
        int  subject1;
        int  subject2;
        int  subject3;
};
main( )
{
        struct  marks  student[3] = {{10,20,30},{40,50,60},{70,80,90}};
}
```

3.How to access structure members? Explain with example.

Ans: structure members can be accessed by using dot(.) operator.

```
#include <stdio.h>
struct Student
{
   int roll;
   char name[20];
   float marks;
};
int main()
{
   struct Student s1;
   s1.roll = 101;
   s1.name = "CSE";
   s1.marks = 88.5;
   printf("Roll: %d", s1.roll);
   printf("Name: %s", s1.name);
   printf("Marks: %.f", s1.marks);
}
```

UNIT - I
2 MARKS

1. Define algorithm ?

Ans: Algorithm : algorithm is a method to represent step by step logical process of a problem. Algorithm have 5 types of properties they are

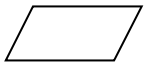
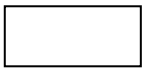
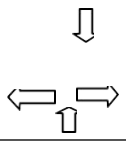
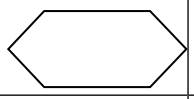
1. Finiteness
2. Definiteness
3. Effectiveness
4. Generality
5. Input and output

2. What is "flow-chart" ?

Ans: Flow-chart : The flow-chart is a diagrammatic representation of an algorithm .

3.Write flow chart symbols?

Ans:

S.No	Symbol	Name	Usage of symbol in flow chart
1		Rounded Rectangle(Oval)	It is used to start and stop
2		Parallelogram	It is used for input or output data
3		Rectangle	It is used to process the data
4		Rhombus	It is used to give condition
5		Arrows	It is used to give flow of given data.
6		Hexagon	It is used for loops like "for, while, do-while"
7		Circle	It is used for connecting lines

3. What is "pseudo-code" ?

Ans : Pseudo – code : The pseudo-code is neither an algorithm nor a program. It is an abstract form of a program. it consists of English like statements which perform the specific operations.

Example : write the pseudo-code for sum of two numbers.

Define : int a,b,c
Read : a=10.b=20
Sum : c= a+b
Display : result.

4. write an algorithm for perimeter of Triangle?

Ans:

Step 1: start

Step 2: declare variables length,width

Step 3: Read values length=10,width=20

Step 4: caliculate perimeter of triangle perimeter=2*(length+width)

Step 5: print perimeter

Step 6: stop

5.What are the basic steps involved in Problem solving?

Ans: 1. Understanding the problem

2. Analyzing the problem

3. Developing the solution

4. coding and implementation

6.What is procedure ?

Ans: Procedure : A fixed , step by step sequence of activities are course of action (with definite start and end points) that must be followed in the same order to correctly perform a task .

UNIT – II
2 Marks Questions

1.who invented the C language?

Ans: C is a structured programming language . It can developed at AT&T BELL Laboratory in U.S.A in 1972 by DENNISH RITCH.

2.Write the structure of c program?

Ans :

document section
linking section
definition section
global declaration section

main function
{
Variable declaration part;
Executable part;
 	
Sub-program declaration part;
}

Sub-program
{
Local variable declaration part;
Statements;
}

3.What is character set? Write the character set used in c language?

Ans: The set of character that can be used to from words, numbers and expressions depending upon the computer on which the program is going to be run. The characters in c language 3 types they are:

1. Letters/Alphabets
2. Digits/Numbers
3. Special characters/Symbols

4 What are different types of constants?
Ans: Constant: Constant is a value fixed in a variable throughout the program execution is called constant.

1. Integer constants
2. Real constants
3. Character constants

5. What is numeric constant ?
Ans: Numerical Constant: it can be any of decimal integers (base 10) consists one or more digits 0-9 is fixed in a variable is called numeric constant.

Ex: int a=10,b=20;

6. What is string constant ?
Ans: String constant: A string constant is a sequence of characters enclosed in double quotes(“ “) is fixed in a variable is called string constant.

Ex: string a= “cse”, b= “college”;

10. What is a single string constant ?
Ans: Single character constants: a single character constants contains a single character enclosed with in pair of single quotation mark is fixed in a variable is called single string constant.

Ex: char a= ‘A’, b= ‘#’

11. What is variable ?
Ans: Whenever the value stored in the system location that location name is called a variable.
Syntax: data-type variable1, varaiable2……..variablen;

12. What are the string variable ?
Ans: A value stored in the system location that location name is called variable. A collection of characters stored in the variable is called string variable.
Ex: String a= " cse",

13. What are the fundamental data type in C ?
Ans: int , float, char, double, string

14. What are the arithmetical operators ?
Ans: Arithmetical operators:

Operator	Purpose
+	Addition
–	Subtraction
*	Multiplication
/	Division
%	Modulas

14. What are the bit wise operators ?
Ans: Bitwise operators : manipulating data at bit level for using the operators is called bitwise operators. They are 2 types

1. bitwise logical operators
2. bitwise shift operators

Bitwise logical operators :

Operator	Purpose
&	Bitwise AND
|	Bitwise OR
^	Bitwise EXOR
~	Bitwise One's complement

Bitwise shift operator :

Operator	Purpose
<<	Left shift
>>	Right shift

15. What are the conditional operators ?
Ans: conditional operators (? :) : an expression that make use of a conditional operators is called a conditional expression.
Syntax : identifier = condition ? expression1 : expression2 ;

Ex : c = a>b ? a-b: b-a ;

16. What are input and output statements ?
Ans: Input: Input data though key board by using scanf( ) function.
Output: get the result through VDU using printf() function.

17. What is syntax of pritnf ( ) statements ? and scanf ( ) ?
Ans: Scanf Syntax: scanf("format specifiers",&var1,&var2…….....&varn);

Ex: scanf("%d", &a);
Printf Syntax: printf("format specifiers",var1,var2…….....,varn);

Ex: printf("%d", a);

18. What is a getchar ( ) function in C ?
Ans: Single character can be entered into the computer using in c library function getchar().

Syntax: character-variable = getchar();

Ex: char a= getchar();

19. What is putchar ( ) ?
Ans: Single character can be displayed using function putchar().

Syntax: putchar(<charcter-variable>);

Ex: putchar("A");

20. What is gets ( ) fuction in 'C'?
Ans: The function gets() receives the string from the input device.

Syntax: gets(<string-type variable>).

Ex: gets("cse").

21. What is puts ( ) functions in 'C' ?
Ans: The function puts() output the string is displayed to the output device.

Syntax: puts(<string-type variable>).
Ex: puts("cse");
22. Write about simple if statement ?
Ans: simple if is a conditional control statement. It first check the condition is true or false. If the condition is true the true block statements can be executed.
Syntax: if(condition)

```
{
        Statements;
}
```

23. Write a syntax if-else statement ?
Ans:

```
if(condition)
{
        Statements;
}
else
{
        Statements;
}
```

24. How many types of loops available in C ?
Ans: there are three types of loops available in c.

1. While loop
2. Do-while loop
3. For loop

25. What is break statement ?
Ans: Break is a keyword used to terminate the loop. break statement can be used with for,while,do-while and switch statements.

26. What is continue statement ?
Ans: Continue is a keyword used for containing the next iteration of the loop. This statement when occurs in a loop does not terminate. It is used with for,while,do-while loop, switch.

27. Write the syntax of switch ( ) statement ?
Ans: switch(condition)

```
{
        case value 1: statements; break;
        case value 2: statements;break;
        case value 3: statements; break;
        ”       ”       ”       ”
        default : statements;
}
```

28. Write about goto statement ?
Ans: : goto is a predefined function. This goto statement is used to transferring the controller from one part to some other part of the program. This is also called as branching statement.

29. What are Logical Operators ?
Ans: Logical Operators:

Operator	Purpose	Example
&&	AND	If(a>b&&a>c)
||	OR	If(a>b||a>c)
!	NOT	If(a!b)

30. What is Nested loop?
Ans: Nested loop statement : A loop within the another loop is called nested loop. The nested loop are used any situation of multiprocessing .
Nested while loop syntax : while loop contains another while loop is called nested while loop.

```
While(condition)
{
        While(condition)
        {
                Statements;
        }
        Statements;
}
```

UNIT-III
2 MARKS

1.What is array?

Ans:: collection of similar, related data items is called array. The collection of data items can share a common name and the elements can be stored from 0^{th} location in memory.

1.One-dimensional array
2.Two-dimensional array
3.Multi-dimensional array

2.What is One dimensional array? Write syntax?

Ans: One-dimensional array : collection of data items can be given on one variable name using only one dimension, and such a variable is called as one dimensional array.

Syntax : data-type array-name[size];

Example : int a[10];

3.What is Two dimensional array? Write syntax?

Ans: Two – dimensional array : collection of data items can be given on one variable name using two dimensions and such a variable is called as two-dimensional array

Syntax : data-type array-name[row size][column size];

Example : int a[3][3];

4.What is Multi dimensional array? Write syntax?

Ans: Multi – dimensional array : c allows three or more dimensions to store a collection of data items can be given in one variable name and using multiple dimensions and such a variable is called as multi dimensional array.

Syntax: data-type array-name[d1][d2][d3].....[dn];

Example :
```
int a[3][2][3] ={ {11,12,13},{14,15,16},
                  {17,18,19},{20,21,22},
                  {23,24,25},{26,27,28}
                };
```

5.What is string?

Ans: string: collection of characters or sequence of characters is called string.

Syntax: Char variable- name [size];

example: char Town [10];

char stu-name [10];

6.Write string functions?

Ans: strlen() – it is used to find length of string
Strrev() – it is used to reverse a string
Strupr() – it is used to convert lower to upper
Strlwr() – it is used to convert upper to lower
Strcmp() – it is used to compare two strings

UNIT – IV
2 MARKS

1.What is procedure?

Ans: a **procedure** is simply a **step-by-step set of instructions** to perform a specific task is called procedure. a **procedure** usually means a **function** that may or may not return a value.

2.Define a function?

Ans: A **function** is a **self-contained block of code** that performs a specific task, can be reused, and may return a value is called function.

3.What are the types of function?

Ans: functions are 2 types.

1. Library functions or built-in functions
2. User – defined functions

Library functions : printf(); scanf(); getch(); clrscr();

user – defined functions : These are 4 types they are

1. With return type function-name(with arguments)
2. With return type function-name(without arguments)
3. Without return type function-name(with arguments)
4. Without return type function-name(without arguments)

4.What is the syntax of function? Give an example?

Ans:

```
return-type  function-name(Arguments-list)
  {
        local variable declaration part;
        executable part;

        return  value;
  }
```

Example:

```
int add(int a, int b)
  {
        return a + b;
  }
```

5.What are the advantages of function?

Ans:

1. The functions allows a large program to be broken down into a number of smaller functions.
2. The repeated instructions can be placed within a single function.
3. Using functions can reduce the length of the program.
4. It is easy to locate and isolate a faulty function.

6.What is a global variable?

Ans: A **global variable** in C is a variable that is **declared** at the top of the program or before main function and is **accessible by all functions** within the same program file is called global varable**.**

7.What is a local variable?

Ans: A **local variable** in C is a variable that is **declared inside a function, block, or loop** and can only be accessed **within that specific function or block**.

8.What are the parameters?

Ans: parameters are the **variables listed in the function definition** that receive values (called *arguments*) when the function is called. **Parameters** are defined inside the parentheses of a function.

9.What is a main( ) function?

Ans: The **main() function** is the **entry point** of every C program — it's where execution starts and ends. The main() function is a special function in C where program execution begins. Every C program **must** have exactly one main() function.

10.Write any 4 mathematical functions with example?

Ans:

Function	Purpose	Example Code
sqrt(x)	Returns the square root of x	printf("%f", sqrt(25));
pow(x, y)	Returns x raised to the power y	printf("%f", pow(2, 3));
abs(x)	Returns the absolute value of an integer x	printf("%d", abs(-5));
ceil(x)	Rounds x up to the nearest integer (as double)	printf("%f", ceil(3.2));

11.Write any 4 arithmetical functions with example?

Ans:

Function	Purpose	Example Code
sqrt(x)	Returns the square root of x	printf("%f", sqrt(16));
pow(x, y)	Returns x raised to the power y	printf("%f", pow(5, 2));
fmod(x, y)	Returns the remainder of x / y (floating-point)	printf("%f", fmod(7.5, 2.0));
abs(x)	Returns the absolute value of an integer	printf("%d", abs(-9));

12.What is a global string?

Ans: A **global string** is simply a **string variable declared outside of all functions** (including main()), making it **accessible from any function** in the same program file.

13.What is a recursion?

Ans: recursion is a process where a **function calls itself** repeatedly ,directly or indirectly to solve a problem is called recursion.

14.What is use of return statement?

Ans: The **return statement** is used inside a function to **Send a value back** to the function's caller (if the function has a return type other than void).

15.What is use of void function?

Ans: A **void function** is a function that **does not return any value** to the caller function.

16.What are the string handling functions in c ? explain them?

Ans:

Function	Purpose	Example	Output
strlen(str)	Returns the length of the string	strlen("Hello")	5
strcpy(dest, src)	Copy of one string to another string	strcpy(a, "Hi")	a = "Hi"
strcat(dest, src)	Appends two strings	strcat(a, " World")	a = "Hello World"
strrev(str)*	Reverses a string	Strrev("abc")	"cba"
strlwr(str)*	Converts string to lowercase	Strlwr("HELLO")	"hello"
strupr(str)*	Converts string to uppercase	Strupr("hello")	"HELLO"

UNIT – V
2 MARKS

1.What is structure? Write syntax of structure?

Ans: a group of different data items is called a structure. The structure can be start with the keyword struct.

Syntax :
```
struct   structure-name
{
        data-type   variable-1;
        data-type   variable-2;
                ”           ”
        data-type   variable-n;
}
```

Structure object syntax : struct structure-name object-name;

2.What are the advantages of structure?

Ans:

Advantage
1. Grouping different data types
2. Improved program organization
3. Reusability
4. Easier data passing to functions
5. Improves maintenance
6. Memory management

3.What is nested structure?

Ans: A nested structure is a structure that contains another structure as one of its members is called nested structure.

4.What are the advantages of structure over an array?

Ans:

Advantage
1. Can store different data types
2. More meaningful grouping of data
3. Better organization for complex data
4. Easier data passing to functions
5. Improves maintainability

5.What is a union? Write syntax of union?

Ans: a group of different data items is called a union. The union can be start with the keyword union. there is a major difference between structure and union is storage. A union may contain many members of different types but it can handle only one member at a time.

Syntax :
```
union   union-name
{
        data-type   variable-1;
        data-type   variable-2;
                ”           ”
        data-type   variable-n;
}
```

union object syntax : union union-name object-name;

ACCOUNTANCY AND TALLY

FIRST YEAR CSE PAPER - III

Accountancy and Tally

UNIT – 1 : Introduction to Accountancy

UNIT – 2 : Double Entry System

UNIT – 3 : Journal

UNIT – 4 : Ledger

UNIT – 5 : Subsidiary Books

UNIT – 6 : Cash Book

UNIT – 7 : Bank Reconciliation Statement

UNIT – 8 : Trial Balance

UNIT – 9 : Final Accounts

UNIT – 10 : Tally

UNIT – 1
INTRODUCTION TO ACCOUNTANCY

1.Explain Accounting concepts?

Ans: Accounting concepts are:

1. **Business entity concepts:** The owner is separate from the business. Business is a separate entity. Financial statements are prepared for the business as an entity.
2. **Money measurement concept:** All monetary transaction which are capable of being expressed in terms of money are recorded in books of accounts.
3. **Cost concept:** Transactions are to be recorded at cost, not at their market or realizable values.
4. **Going concern concept:** Assumes that business will continue to exist for fairly long period of time and its life is perpetual.
5. **Accounting period concept:** It is a period of twelve months for which financial statements are prepared.
6. **Dual aspect concept:** States that in every transaction there are two aspects one is receiving and other is giving hence one is referred as debit and other credit.
7. **Accrual concept:** Implies revenue is recognized in the period in which it is earned not on the basis of receipt.
8. **Realization concept:** It recognizes an item of revenue as incomes only when it is realized.
9. **Matching concept:** It is based an accounting period concept which requires that costs incurred and revenues earned should match during the accounting period.

2.Explain accounting conventions?

Ans: Accounting conventions are:

1. **Convention of Consistency:** According to this convention the record should remain similar in form and content unless a change is unavoidable. Consistency of record helps in making comparison between post-present business results.
2. **Full disclosure:** It reveals all important financial information necessary for business. It should fulfill the aims of accountancy. The accountancy records should be the business management.
3. **Conservation:** It requires that the accountants should follow the rule of anticipating no profits but provides for all possible losses. It avoids over stating of profits.
4. **Materiality:** The concept states that something to be disclosed or no in financial statements depends on whether it is material or not.

UNIT – 2
DOUBLE ENTRY SYSTEM

1.Define Double Entry System and Explain with it's features?

Ans: Double entry system: both the debit and credit transactions are to be recorded in this system is called double entry system. " for every debit there must be corresponding value of credit".

Features of Double Entry System:

1. Every business transaction effects two accounts.
2. Each transaction has two aspects those are debit and credit.
3. It is based upon accounting assumptions, concepts and principles.
4. It helps in preparing trial balance which is a test of arithmetical accuracy in accounting.
5. Finally it helps in preparation of final accounts with the help of trial balance.

2.Explain Double entry system and write its advantages and disadvantages?

Ans: Double entry system: both the debit and credit transactions are to be recorded in this system is called double entry system.

advantages:

1. It provides a complete record of all business transaction.
2. As systematic record of transactions is kept possibilities for misappropriation and fraud are reduced to the minimum.
3. It provides reliable record of all the business transactions.
4. It is possible to prepare a profit and loss account and ascertain net profit and net loss for a particular period.
5. It helps to preparing trial balance.
6. As complete information about assets, liabilities and capital is available it is possible to prepare balance sheet and ascertain the true financial position of the business on any particular date.

Disadvantages:

1. It is too expensive.
2. Its accuracy always cannot be relied upon.
3. Many numbers of accounts are to be maintained.

3.What is account? Explain the types of accounts?

Ans: Account: An "Account" is a record of transaction relating to a particular person properly or a head of income or expenditure. These are 2 types of accounts they are

1. Personal Account
2. Impersonal Account
   a. Real Account
   b. Nominal Account

Personal Account: It is an account of particular person or institution.

Rule: Debit the receiver,
Credit the giver.

Impersonal Account: an account without a person is called impersonal account. These are two types.

Real Account : It is an account of particular asset or property.

Rule : Debit what comes in,
Credit what goes out.

Nominal Account : It is an account of a particular head of income or expenditure.

Rule : Debit the expenses and losses,
Credit the gains and incomes.

UNIT-3
Journal

1.What is journal and explain journal wit proforma?

Ans: Journal: A journal is a book in which transactions are recorded in chronological order is called journal. It is the first book of accounts.

- A journal is called a book of prime entry or original entry because all the business transactions are entered first in this book.
- All the transaction related to business like purchase, sales, cash receipts and payments, assets, loans and advances etc. are first recorded in the "Journal". Here this book is called "Books of prime entry".

Journal entry: The process of recording the business transaction in the journal is known as journalizing. To divide business transactions into two aspects and recording in the journal is "Journal entry", The first one is debit aspect and second one is credit aspect.

Journalizing: Journal is a book in which transaction are entered in serial order one after another and when they are made writing of transaction in journal is call "Journalizing".

Proforma:

Date	Particulars	L.F	Debit Amount	Credit Amount

UNIT-4
Ledger

1.Write the procedure of ledger posting?

Ans: Ledger Posting: The process of grouping of all the transactions relating to a particular account at one place is called posting. It is necessary to post all the journal entries into various accounts in the ledger.

Format

Date	Particulars	J.F	Amount	Date	Particulars	J.F	Amount
DATE MONTH YEAR	TO NAME OF THE CREDIT ACCOUNT IN JOURNAL		XXX	BY NAME OF THE DEBIT ACCOUNT IN JOURNAL			XXX

1. The words Dr. and Cr. are used to denote Debit and Credit.

2. Name of the account is mentioned between Dr. and Cr. on the top middle portion of the account.

3. Each account is divided into two parts. Left hand side part of the account is called as "Debit Side" and Right hand side of the account is called as "Credit Side".

4. Date of the transaction is recorded in the "Date" column.

5. The word 'To' is used before the account which appear on the debit side of an account and he word 'By ' is used before the account which appear on the credit side of an account in the particulars column.

6. The name of the other account which is affected by the transaction is written either on the debit side or credit side in the particulars column.

7. The page number of the corresponding journal or subsidiary book from where that particular entry is transferred is entered in the Journal Folio (J.F.) column.

8. The amount pertaining to this account is entered in the amount column.

2.Explain different types of ledgers in details?

Ans: Ledger is a main book which contains all the accounts in which the transactions recorded in the books of original entry are transferred. Ledger is also called the "Book of Secondary Entry", because the transactions are finally incorporated in the ledger.

Types o f Ledger:

1. Real Account
2. Personal Account
3. Nominal Account

Ledger is a book with various accounts like Real, Personal and Nominal Accounts and each account is shown on a separate page, that gives the details of the different transactions and its summary. Ledger is a book of account containing a classified summary of every transaction recorded in journal. According to L.C. CROPPER, the book which contains a classified and permanent record of all the transactions of a business is called Ledger.

3.What is ledger and explain ledger with proforma?

Ans: Ledger: It is a book in which various accounts are opened (personal, real, nominal). All the debit and credit aspects which are recorded in the journal are transferred to the respective accounts as ledger. Ledger is also called as book of final entry.

Advantages of ledger:

- It is a book of final entry.
- It is prepared to know the net effect of various transactions affecting a particular account.
- It is prepared on the basis of journal.
- All ledger accounts are balanced.
- No narration is given.
- The process of recording in ledger is called “Positing”.
- Ledger serves the basis for the preparation of final accounts.

Proforma :

Dr **Cr**

Date	Particulars	J.F	Amount	Date	Particulars	J.F	Amount
DATE MONTH YEAR	**TO NAME OF THE CREDIT ACCOUNT IN JOURNAL**		**XXX**	**BY NAME OF THE DEBIT ACCOUNT IN JOURNAL**			**XXX**

4.Explain the procedure of balancing the ledger?

Ans: balancing is the process of finding the difference between total debits and the total credits of an account. The net result of such debits and credits in an account is called balance.

Procedure for Balancing:

1. To find the balance of an account, the amount columns of both Debit side and credit side total separately and then calculate the difference of both columns.

2. We insert it in the lesser side of the account, with the words 'Balance carried down' in the corresponding particulars column prefixed with 'To' or 'By'.

3. Total again both the amount columns put the total on both sides and draw a line above and a line below the totals.

4. Enter the date of the beginning of the next period in the date column and bring down the balance on the corresponding side along with the words "To Balance b/d" or "By Balance b/d" in the particulars column.

UNIT-5

Subsidiary Book

1.What is Subsidiary book and explain types of subsidiary book ?

Ans: Subsidiary Books: Each journal is meant for writing a particular type of transactions. These journals are called subsidiary books. These are 8 types.

Types of Subsidiary books:

1. Purchase book: This book records all credit purchases of goods.

Date	Particulars	Invoice No	L.F	Amount

2. Purchase return book: This book records transactions, in which goods purchased on credit are returned.

Date	Particulars	Debit Note	L.F	Amount

3. Sales book: This book records credit sale of goods.

Date	Particulars	Invoice No	L.F	Amount

4. Sales return book: This book records transactions in which goods sold on credit are returned.

Date	Particulars	Credit Note	L.F	Amount

5. Cash book: This book records all cash transactions whenever cash is received or paid.
6. Bills receivable book: This book records the bills of exchange, whose amounts are receivable.
7. Bills payable book: This book records the bills of exchange, whose amounts are payable.
8. Journal proper: This book records all those transactions for which there are no separate subsidiary books, in other words, in journal proper we record residual transactions.

UNIT-6
CASH BOOK

1.What is cash book and explain types of cash books?

Ans: Cash Book: In this book, we record particulars of receipt and payment of money transactions only is called cash book. At any time, the balance shown by the cash book should be equal to the actual cash in the cash box. **There are various types of cash books. They are:**

1. Single column cash book/simple column cash book
2. Two column cash book/double column cash book
    a. Cash, discount column cash book
    b. Bank, discount column cash book
3. Three column cash book/triple column cash book
4. Petty cash book

Single column cash book: One column cash book record only receipt and payment of cash. It is also called simple cash book. It has one column on the debit side to record receipt of cash and one column on the credit side to record payment of cash.

Proforma : **Dr** **Cr**

Date	Particulars	L.F	Amount	Date	Particulars	L.F	Amount

Two column cash book: Two column cash book records not only receipt and payments of cash but also the cash discount, so the two column cash book is called "cash book with cash and discount column" cash book.

Proforma : Dr **Cr**

Date	Particulars	L.F	Amount	Allowed Discount	Date	Particulars	L.F	Amount	Received discount

Three column cash book: In three column cash book we enter transaction relating to not only cash but also cash discount and bank, so this cash book is called "cash book with cash, bank and discount columns" cash book.

Proforma :

Dr **Cr**

Dt	Particular	L.F	Amount	Bank	Allowed Discount	Dt	Particular	L.F	Amount	Bank	Received Discount

Petty cash book: In big forms cash is generally paid and received through bank but there are small payments which cannot be conveniently made by cheques, so to make small or petty payments such as bus voucher, cartage or coolie, postage, or refreshment charges. A petty cashier is appointed. The petty cashier makes these petty payments and records them in a book is called "petty cash book".

Proforma : Dr **Cr**

Cash Received	L.F	Date	Particulars	Voucher No	Total Payment	Analysis of Payment				
						Travelling Charges	Post age	Tele gram	Refresh ment	Carri age

UNIT-7

Bank reconciliation statement (BRS)

1.Explain the Importance of Bank Reconciliation Statement?

Ans: the statement prepared to reconcile the balances of cash book and pass book is called "Bank Reconciliation statement". i.e. The Bank Reconciliation statement is a statement prepared to reconcile the difference between the balances as per the bank column of the cashbook and passbook at any given date.

Advantages:

➤ We can locate the mistakes or errors on either side.

➤ Enables the business concern to get up - to - date record of transactions from the bank. Ensure proper evidence of payment

➤ Enable the business to identify the cheques deposited at bank by the business but not collected in time.

➤ It prevents the frauds and misappropriations

Preparation of Bank Reconciliation Statement: The preparation of Bank Reconciliation Statement starts with making adjustments to one balance to the other balance. The Bank reconciliation statement usually prepared for a specific period means a month, a Quarter, half year or a year according to convenience of the firm.

The Bank Reconciliation Statement can be prepared with the balances of Cash book and Pass book in the following types.

Nature of Balance	Cash Book Shows	Pass Book Shows
Favorable Balance	Debit Balance	Credit Balance
Unfavorable Balance(Over Draft)	Credit Balance	Debit Balance

2.what is Bank Reconciliation Statement (BRS)?

Ans: Bank reconciliation statement is a report or statement prepared by the business to match the bank transactions recorded in the books of accounts with the bank statement this is called bank reconciliation statement.

- It is a statement or report
- It is used to prepare only to match the bank book and the cash book
- Cash book and bank book is matched at the transaction it is not required to prepare.
- Cheque is noted in cash book but not noted in bank book that this time we prepare BRS.

Proforma :

Particulars	Amount (Rs)	Amount (Rs)
Balance at bank as per cash bank (or)		XXXX
overdraft balance as per pass bank		
Add :		
1. Cheques issued but not at presented for payment	XXXX	
2. Interest allowed by the bank	XXXX	
3. Interest and divided collected by the bank	XXXX	
4. Direct payments into bank by a customer	XXXX	
5. Gives collected by the bank on behalf of the customer	XXXX	
6. Wong entry in the ret side of the pass book	XXXX	XXXX
Less :		XXXX
1. Cheques paid into the bank but not at clear	XXXX	
2. Interest and expenses charged by the bank	XXXX	
3. Direct payments by the bank	XXXX	
4. Dishonor of a bill discounted with the bank	XXXX	
5. Cheques debited in cash book but forgot to send to bank	XXXX	
6. Wrong entry on the debit side of pass book	XXXX	XXXX
Balance as per pass book (credit balance) (or) overdraft as per pass book.		XXXX

UNIT – 8

TRIAL BALANCE

1.What is trial balance and explain with proforma?

Ans: Trial Balance: Trail balance is a statement in which debit and credit balance of all the ledger accounts are shown to test the arithmetical accuracy of the books of accounts. Trail balance is not conclusive proof of accuracy of book of accounts.

Features of trail balance:

1. It is not an account, it is only a statement which is prepared to verify the arithmetical accuracy of ledger accounts.
2. It contains debit and credit balances of ledger accounts.
3. It is prepared on a particular date generally at the end of business year.
4. Trial balance helps in preparing final accounts.
5. As it is prepared by taking up the ledger account balances both debit and credit side of trial balance are always equal.
6. The preparation of trial balance is not compulsory there is no hard and fast rule in this regard.

Proforma :

particulars	L.F	Debit Balance Rs	Credit Balance Rs

2.Explain procedure for How to prepare trial balance?

Ans: Preparation of trial balance procedure:

1. As the trial balance is prepared on a particular date that particular date should be shown on the head of trial balance.
2. Trial balance is prepared in the form of statement containing Si. No, Name of the account, Ledger folio, debit balance and credit balance.
3. The debit balance of the accounts are to be written in the debit column, where as credit balance of the accounts to be written in the credit column of trial balance the totals of bath column should be equal. It proves arithmetical accuracy.

Aspects to be considered while preparing trial balance:

1. First prepare the format of trial balance showing heading with date on while it is prepared whenever the balances of ledger accounts are given. Based on the nature of the account decide whether the account is debit or credit.
2. Generally, the accounts which show debit balance are the accounts of various aspects expenses and losses, debtors, drawings etc. the accounts which show credit balance are capital account, loan account, profit and gains account etc.

3.Explain error disclosed and not disclosed by trial balance?

Ans: Trial balance: Trail balance is a statement in which debit and credit balance of all the ledger accounts are shown to test the arithmetical accuracy of the books of accounts.

Errors disclosed:

1. Commission to post an amount from subsidiary book to ledger
2. Posting of amount on wrong side
3. Posting of wrong amount on correct side
4. Error due to wrong totaling
5. Under casting and over casting

Errors Not disclosed:

1. Positing wrong entry in subsidiary books
2. Compensating error / posting into header of accounts
3. Error of omission
4. Error of principles

UNIT-9

Final Accounts

1.What is final account explain types of final accounts?

Ans: Final accounts are accounts prepared at the close of trading period it reveals the results of trading activities it includes trading accounts, profit and loss account, balance sheet is called final accounts. These are 3 types.

1. Trading account
2. Profit and loss account
3. Balance Sheet

Types of Final accounts:

- **Trading accounts:** trading account is prepared at the end of each accounting period to assess the gross profit or gross loss is called trading account.

  Trading Account Horizontal proforma:

Particulars	Amount	Particulars	Amount

  Trading Account Vertical proforma:

Particulars	Amount	Amount

- **Profit and Loss account:** profit and loss account is prepared at the end of the each accounting period to assess the net profit or net loss is called profit or loss account.

  Profit and Loss Account Horizontal proforma:

Particulars	Amount	Particulars	Amount

  Profit and Loss Account Vertical proforma:

Particulars	Amount	Amount

- **Balance sheet:** balance sheet is prepared at the end of each accounting period to assess the financial position like assets and liabilities is called balance sheet.

  Liquidity Order:

Capital & Liabilities	Amount	Amount	Assets	Amount	Amount

  Permanency Order:

Capital & Liabilities	Amount	Amount	Assets	Amount	Amount

UNIT-10
Tally

1.How to create company in tally?

Ans: The new company can be created using the following steps

1. Start "program" tally 9.2
2. Double click on tally icon on desktop
3. Select the option create company from company information screen
4. The company creation window gets opened and user can enter all the details of company like name of company, mail name, company address, email address of company, Vat registered no, if any using of currency symbols as Rs. The financial year of company.
    a. **Directory:** It is path in which you will create tally in your system.
    b. **Name:** type the name of your company
    c. **Ailing name and address:** Type the address of your company here.
    d. **E-mail address:** type E-mail address of our company.
    e. **Income ax number:** type the PAN number.
    f. After computing all the details tally asks you whether you want to save (accept) the information entered above or not. If you click on "yes" option (or press on enter key) the information will be accepted by the tally.
5. Once you accept the information in the company creation screen you will get the gateway of tally screen.

2 MARKS QUESTIONS
UNIT-I

1. What is accounting?

Accounting: Accounting Is the art of recording, classifying and summarizing in a significant manner is called Accounting.

2. What is book-keeping?

Book – Keeping: It Means recording of daily business transactions in a systematic manner is called book-keeping.

3. What is accountancy?

Accountancy: It specifies rules and regulations for how to prepare accounts and why to prepare accounts.

4. What is debit ? or Define Debtors?

Debit: debit is an accounting entry the either increase an asset or decrease a liability. What comes in is called debit. A person who receives something from others is called debtors.

5. What is credit? Or Define Creditors?

Credit: credit is an accounting entry that either increase a liability or decreases an asset. What goes out is called credit. A person who pays something to others is called creditors.

6. What is capital?

Capital: capital is the amount of money which is invested in business to earn profit is called capital.

7. what is drawings?

Drawings: drawings are the amount of money drawn from business for personal use is called drawings.

8. What is assets?

Assets: Asserts are properties of possessions they include cash , machinery, furniture, debtors and other things is called Assets. These are two types.

1. Tangible Assets
2. Intangible Assets

UNIT -II

1. Wht is double entry system?

Double Entry System: Both debit and credit transactions are to be recorded in the book of accounts, in this system is called double entry system.

2. What is account?

Account: An account is a record of transaction relating to particular person or property or head of income or expenditure.

UNIT -III

1. What is journal?

Journal: A journal is a book in which transactions are recorded in chronological order is called journal. It is a first book of accounts.

2. Define journal entry?

Journal Entry: The process of recording the business transaction in the journal is known as journal entry.

UNIT - IV

1. What is ledger?

Ledger: All the journal transactions are transferred to the separate books of accounts is called ledger. It is also called as a book of final entry.

2. What is posting

Posting: the process of grouping of all the transactions relating to a particular account at one place is called posting.

UNIT -V

1. What is subsidiary books?

Subsidiary Books: Subsidiary books are books of original entry. They are also known as day books Or special journals.

2. What is invoice?

Invoice: Invoice is a document sent by the seller to the purchaser. Which contains the details of the quantity of goods, sold and price of the goods terms and condition of the payment particulars. This document is called as invoice.

3. What is debit note?

Debit Note: It is a document sent to the supplier while retuning the goods purchased on credit from hm. The debit note contains all the information about the goods this statement is called debit note

4. What is credit note?

Credit Note: It is a document prepared and sent to the customer to inform that his account is credited with the amount of goods returned by him. This statement is called credit note.

5. What is journal proper?

Journal Proper: This book is used to record transactions which do not find place in other seven subsidiary books is called journal proper. Is also known as journal residual.

6. what is trade discount?

Trade Discount: the discount given by the seller to buyer is known as trade discount.

UNIT -VI

1. What is cash book?

Cash Book: In this book we record particulars of receipt and payment of money transactions is called cash book.

2. Write types of cask books?

a. Single column cash book
b. Double column cash book
    i. Cash, discount column cash book
    ii. Bank, discount column cash book
c. Three column cash book
d. Petty cash book

3. What is contra entry?

Contra Entry: A contra entry is an entry that is recorded when both debit and credit side that effect the same account at the same day the result is net zero.

4. What is discount?

Discount: A discount is an incentive given by the creditor to debtor for prompt payment is called discount.

5.What is cash discount?

Ans: The discount for prompt payment is called cash discount.

UNIT - VII

1. What is pass book?

A **passbook** is a small physical book provided by a bank to account holders. It is used to record all credit and debit transactions made in a savings or current account.

2. What is bank reconciliation statement?

Bank Reconciliation Statement: The statement prepared to reconcile the balances of cash book and pass book is called Bank reconciliation statement.

3. What is overdraft?

Overdraft: The excess amount used by the business from the bank current account even though there is no balance at current account is called over draft.

UNIT - VIII

1. What is trial balance?

Trial Balance: Trial balance is a statement is used to find the accuracy of accounts by using the all debit and credit transactions from the ledger.

2. Define suspence account?

A **suspense account** is a temporary account used in accounting to record transactions when there is uncertainty about where they should be posted. It helps keep the books balanced while the proper account is determined.

UNIT - IX

1. What is final accounts?

Final Accounts: Final account are accounts prepared at the close of trading period it reveals the results of trading activities it includes trading account, profit and loss account, balance sheet is called final accounts.

2. What is trading account?

Trading Account: Trading account is prepared at the end of each accounting period to assess the gross profit or loss is called trading account.

3. What is profit and loss account?

Profit and Loss Account: Profit and loss account is prepared at the end of each accounting period to assess the net profit or net loss is called profit and loss account.

4. What is balance sheet?

Balance Sheet: Balance sheet is prepared at the end of each accounting period to assess the financial position like assets and liabilities is called balance sheet.

5. What is adjustment?

an **adjustment** refers to changes made at the end of an accounting period to ensure that revenues and expenses are recorded in the correct period, according to the **accrual basis of accounting** is called adjustment.

6. Define Depreciation?

Depreciation is the **systematic reduction in the value of a fixed asset** over its life due to **wear and tear, passage of time, obsolescence**, or usage. Or decrease in the value of the asset is called depreciation.

7. Define Bad Debts?

Bad debts refer to the **amounts owed by customers (debtors) that are no longer recoverable** and are written off as a **loss** in the books of accounts is called bad debts.

UNIT – X

1. What is tally?

Tally: Tally is a accounting software it is used to prepare All accounts like journal, ledger ,profit and loss accounts balance sheet in computer is called tally.

2. Write tally keys?

F1 : Select a company	F5 : Payment	F9 : Purchase
F2 : Date	F6: Receipt	F10 : Memos
F3 : Company information	F7 : Journal	F11 : Features
F4 : Contra	F8 : Sales	F12: Configuration

3. What is a Cash flow statement?

It is a statement which describes the inflows and outflows of cash equivalents in an enterprise during a specified period of time is called cash flow statement.

4. **What is a funds flow statement?**

It is a statement which provides the information of movement of funds and it showing the increase or decrease in working capital is called funds flow statement.