

XI– COMPUTER APPLICATION

Name :

Class : **Sec :**

School :

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1. INTRODUCTION TO COMPUTER

PART-I

I. CHOOSE THE CORRECT ANSWER:

1. First generation computers used
(a) **Vacuum tubes** (b) Transistors (c) Integrated circuits (d) Microprocessors
2. Name the volatile memory
(a) ROM (b) PROM (c) **RAM** (d) EPROM
3. Identify the output device
(a) Keyboard (b) Memory (c) **Monitor** (d) Mouse
4. Identify the input device
(a) Printer (b) **Mouse** (c) Plotter (d) Projector
5. Output device is used for printing building plan, flex board, etc.
(a) Thermal printer (b) **Plotter** (c) Dot matrix (d) inkjet printer
6. Which one of the following is used In ATM machines,
(a) **Touch Screen** (b) speaker (c) Monitor (d) Printer
7. When a system restarts ,which type of booting is used.
(a) **Warm booting** (b) Cold booting (c) Touch boot (d) Real boot.
8. Expand POST
(a) Post on self-Test (b) Power on Software Test
(c) **Power On Self-Test** (d) Power on Self Text
9. Which one of the following is the main memory?
(a) ROM (b) **RAM** (c) Flash drive (d) Hard disk
10. Which generation of computer used IC's?
(a) First (b) Second (c) **Third** (d) Fourth

PART-II

VERY SHORT ANSWERS:

1. What is a Computer?

- ❖ A computer is an electronic device that processes the input according to the set of instructions provided to it and gives the desired output at a very fast rate

2. Distinguish between Data and Information.

Data	Information
Data is defined as an unprocessed collection of raw facts, suitable for communication, interpretation or processing.	Information is a collection of facts from which conclusions may be drawn.
Example: 134, 16, 'Kavitha', 'C'	Example: Kavitha is 16 years old.

3. What are the components of the CPU?

- ❖ Control Unit
- ❖ Arithmetic and Logic Unit (ALU) and
- ❖ Memory Unit

4. What is the function of an ALU?

- ❖ The ALU is a part of the CPU where various computing functions are performed on data.
- ❖ The ALU performs arithmetic operations such as addition, subtraction, multiplication, division and logical operations

❖ The logical operations of ALU promote the decision-making ability of a computer.

5. Write the functions of control unit.

- The control unit controls the flow of data between the CPU, memory and I/O devices.
- It also controls the entire operation of a computer.

6. What is the function of memory?

The Memory Unit is of two types are,

❖ **Primary Memory:** The primary memory is used to temporarily store the programs and data when the instructions are ready to execute.

❖ **Secondary Memory:** The secondary memory is used to store the data permanently.

7. Differentiate Input and Output unit.

Input Unit	Output Unit
Input unit is used to feed any form of data to the computer, which can be stored in the memory unit for further processing.	An Output Unit is any hardware component that conveys information to users in an understandable form.
Example: Keyboard, mouse, etc.	Example: Monitor, Printer etc.

8. Distinguish Primary and Secondary memory.

Primary Memory	Secondary Memory
The Primary Memory is volatile, that is, the content is lost when the power supply is switched off.	The Secondary memory is non-volatile, that is, the content is available even after the power supply is switched off.
The Random Access Memory (RAM) is example of a main memory.	Hard disk, CD-ROM and DVD ROM are examples of secondary memory.

PART-III

SHORT ANSWERS:

1. What are the Characteristics of Computer?

- Speed
- Accuracy
- Consistency
- Flexibility
- Diligence
- Storage Capacity

2. Write the applications of computer.

The various applications of computers in today's are:

- ✓ Business
- ✓ Education
- ✓ Marketing
- ✓ Banking
- ✓ Insurance
- ✓ Communication
- ✓ Health Care

- ✓ Military
- ✓ Engineering Design

3. What is input device? Give two examples.

Input device is used to feed any form of data to the computer, which can be stored in the memory unit for further processing.

Example: Keyboard, mouse, Scanner, Fingerprint scanner, Track Ball, Retinal Scanner, Light pen etc.

4. Name any three output devices.

Monitor, Printer, Plotter, Speaker, Multimedia Projectors are the output devices.

5. Differentiate optical and Laser Mouse.

Optical Mouse	Laser Mouse
It uses light source to judge the motion of the pointer.	Laser Mouse uses Laser Light instead of a light source.
Optical mouse is less sensitive towards surface.	Laser Mouse is highly sensitive and able to work on any hard surface.

6. Write short note on impact printer.

- ❖ These printers print with striking of hammers or pins on ribbon.
- ❖ These printers can print on multi-part (using carbon papers) by using mechanical pressure.
- ❖ **Example:** Dot Matrix printers and Line matrix printers are impact printers.

7. Write the characteristics of sixth generation.

- ❖ In the Sixth Generation, computers could be defined as the era of intelligent computers, based on Artificial Neural Networks.
- ❖ One of the most dramatic changes in the sixth generation will be the explosive growth of Wide Area Networking.
- ❖ Natural Language Processing (NLP) is a component of Artificial Intelligence (AI).
- ❖ It provides the ability to develop the computer program to understand human language.

8. Write the significant features of Monitor.

- ❖ Monitor is the most commonly used output device to display the information.
- ❖ Pictures on a monitor are formed with picture elements called PIXELS.
- ❖ Monitors may either be Monochrome which display text or images in Black and White or can be colour, which display results in multiple colours.
- ❖ There are many types of monitors available such as CRT (Cathode Ray Tube), LCD (Liquid Crystal Display) and LED (Light Emitting Diodes).
- ❖ The monitor works with the VGA (Video Graphics Array) card.
- ❖ The video graphics card helps the keyboard to communicate with the screen.
- ❖ It acts as an interface between the computer and display monitor.
- ❖ Usually the recent motherboards incorporate.

PART-IV

EXPLAIN IN DETAIL:

1. EXPLAIN THE BASIC COMPONENTS OF A COMPUTER

WITH A NEAT DIAGRAM.

Input Unit:

Input unit is used to feed any form of data to the computer, Which can be stored in

the memory unit for further processing.

Example: Keyboard, Mouse, etc.

Central Processing Unit:

- CPU is the major component which interprets and executes software instructions. It also controls the operation of all other components such as memory, input and output units.
- It accepts binary data as input process the data according to the instructions and provides the result as output.
- The CPU has three components which are Control unit, Arithmetic and logic unit (ALU) and Memory unit.

Arithmetic and Logic Unit:

- The ALU is a part of the CPU where various computing functions are performed on data.
- The ALU performs arithmetic operations such as addition, subtraction, multiplication, division and logical operations.
- The result of an operation is stored in internal memory of CPU.
- The logical operations of ALU promote the decision-making ability of a computer.

Control Unit:

- The control unit controls the flow of data between the CPU, memory and I/O devices.
- It also controls the entire operation of a computer.

Output Unit:

An Output Unit is any hardware component that conveys information to users in an understandable form.

Example: Monitor, Printer etc.

Memory Unit:

- The Memory Unit is of two types which are primary memory and secondary memory.
- The primary memory is used to temporarily store the programs and data.
- The secondary memory is used to store the data permanently
- The Primary Memory is volatile; the Random Access Memory (RAM) is an example of a main memory.
- The Secondary memory is non-volatile.
- Hard Disk, CDROM and VD ROM are examples of secondary memory.

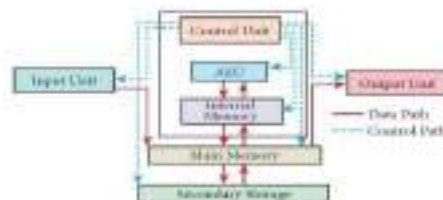


Fig: Components of a Computer

2. Discuss the various generations of computers.

- ❖ First generation -1940- 1956(VACCUM TUBES)
- ❖ Second generation -1956-1964 (TRANSISTORS)
- ❖ Third generation -1964-1971 (INTEGRATED CIRCUIT)
- ❖ Fourth generation -1971-1980 (MICROPROCESSOR)
- ❖ Fifth generation -1980 to till date (ULTRA LARGE SCALE INTEGRATION)

❖ Sixth generation - IN FUTURE.

Generation & Period	Main Component Used	Merits/Demerits
First Generation (1940-1956)	Vacuum tubes	<ul style="list-style-type: none"> • Big in size • Consumed more power • Malfunction due to overheat • Machine Language was used.
Second Generation (1956-1964)	Transistors	<ul style="list-style-type: none"> • Smaller compared to First Generation. • Generated Less Heat. • Consumed less power when compared to first generation • Punched cards were used. • First operating system was developed – Batch Processing and Multiprogramming Operating System. • Machine language as well as Assembly language was used.
Third Generation (1964-1971)	Integrated Circuits (IC)	<ul style="list-style-type: none"> • Computers were smaller, faster and more reliable. • Consumed less power. • High Level Languages were used.
Fourth Generation (1971-1980)	Microprocessor Very Large Scale Integrated Circuits (VLSI)	<ul style="list-style-type: none"> • Smaller and Faster. • Microcomputer series such as IBM and APPLE were developed. • Portable Computers were introduced.
Fifth Generation (1980 - till date)	Ultra Large Scale Integration (ULSI)	<ul style="list-style-type: none"> • Parallel processing • Super conductors • Computer size was drastically reduced • Can recognize images and

		graphics <ul style="list-style-type: none"> • Introduction of artificial intelligence and expert system • Able to solve high complex problems including decision making and logical reasoning
Sixth Generation (In future)		<ul style="list-style-type: none"> • Parallel and Distributed computing. • Computers have become smarter, faster and smaller. • Development of robotics. • Natural Language Processing. • Development of Voice Recognition Software.

3. EXPLAIN THE FOLLOWING

- Inkjet printer
- Multimedia projector
- Barcode/QR code reader

a) Inkjet printer:

Inkjet printers use color cartridges which combined magenta, yellow and cyan inks to create color tones. A black cartridge is also used for monochrome output. Inkjet printers work by spraying ionized ink at a sheet of paper. The speed of inkjet printer range from 1-20 PPM (Pages Per Minute).

They use the technology of firing ink by heating it so that it explodes towards the paper in bubbles or by using piezoelectricity in which tiny electric currents controlled by electronic circuits are used inside the printer to spread ink in jet speed. An inkjet printer can spread millions of dots of ink at the paper every single second.

b) Multimedia projector:

Multimedia Projectors are used to produce computer output on a big screen. These are used to display presentations in meeting halls or in classrooms.

c) Barcode/QR code reader

A Bar code is a pattern printed in lines of different thickness. The bar code reader

scans the information on the bar codes transmits to the computer for further processing. The system gives fast and error free entry of information into the computer.

QR (Quick Response) code: The QR code is the two dimension bar code which can be read by a camera and processed to interpret the image.

2. NUMBER SYSTEM

PART-I

I. CHOOSE THE BEST ANSWER

- Which refers to the number of bits processed by a computer's CPU?
A) Byte B) Nibble C) **Word length** D) Bit
- How many bytes does 1 Kilo Byte contain?
A) 1000 B) 8 C) 4 D) **1024**
- Expansion for ASCII
A) American School Code for Information Interchange
B) **American Standard Code for Information Interchange**
C) All Standard Code for Information Interchange
D) American Society Code for Information Interchange
- 2^{50} is referred as
A) Kilo B) Tera C) **Peta** D) Zetta
- How many characters can be handled in Binary Coded Decimal System?
A) **64** B) 255 C) 256 D) 128
- For 1101_2 , the equivalent Hexadecimal equivalent is?
A) F B) E C) **D** D) B
- What is the 1's complement of 00100110?
A) 00100110 B) **11011001** C) 11010001 D) 00101001
- Which amongst this is not an Octal number?
A) 645 B) 234 C) **876** D) 123

PART - II

VERY SHORT ANSWERS:

1. What is data?

- ❖ The term data comes from the word **datum**, which means a raw fact.
- ❖ The data is a fact about people, places or some objects.

2. Write the 1's complement procedure.

- **This is for negative numbers only i.e. the number whose MSB is 1**

Step 1: Convert given Decimal number into Binary

Step 2: Check if the binary number contains 8 bits, if less add 0 at the left most bit, to make it as 8 bits.

Step 3: Invert all bits (i.e. Change 1 as 0 and 0 as 1)

Example: Find 1's complement for $(-24)_{10}$

Given Number	Binary Number	1's Compliment
$(-24)_{10}$	00011000	11100111

3. Convert $(46)_{10}$ into Binary number

$$\begin{array}{r} 46 / 2 = 23 + 0 \\ 23 / 2 = 11 + 1 \\ 11 / 2 = 5 + 1 \\ 5 / 2 = 2 + 1 \\ 2 / 2 = 1 + 0 \end{array}$$

MSB

$$(46)_{10} = (101110)_2$$

LSB

4. We cannot find 1's complement for $(28)_{10}$. State reason.

❖ $(28)_{10}$ is positive number.

❖ 1's Complement represents signed numbers (Negative numbers) only. So, $(28)_{10}$ cannot find 1's complement.

5. List the encoding systems that represents characters in memory.

❖ BCD – Binary Coded Decimal

❖ EBCDIC – Extended Binary Coded Decimal Interchange Code

❖ ASCII – American Standard Code for Information Interchange Unicode

❖ ISCII – Indian Standard Code for Information Interchange

❖ Unicode

PART-III

SHORT ANSWERS:

1. What is radix of a number system? Give example

❖ A numbering system is a way of representing numbers. Each number system is uniquely identified by its **base value** or **radix**. Radix or base is the count of number of digits in each number system.

❖ Radix or base is the general idea behind positional numbering system.

2. Write note on binary number system.

There are only **TWO DIGITS** in the Binary system, namely, **0 and 1**.

❖ The numbers in the binary system are represented to the base 2 and the positional multipliers are the powers of 2.

❖ The left most bit in the binary number is called as the **Most Significant Bit (MSB)** and it has the largest positional weight.

❖ The right most bit is the **Least Significant Bit (LSB)** and has the smallest positional weight.

3. Convert $(150)_{10}$ into Binary, then convert that Binary number to Octal.

$$150 / 2 = 75 + 0 \quad \text{MSB}$$

$$75 / 2 = 37 + 1$$

$$37 / 2 = 18 + 1$$

$$18 / 2 = 9 + 0$$

$$9 / 2 = 4 + 1$$

$$4 / 2 = 2 + 0$$

$$2 / 2 = 1 + 0$$

$$(150)_{10} = (10010110)_2$$

LSB

$$\begin{array}{ccccccc} & 0 & 1 & 0 & & 0 & 1 & 0 & & 1 & 1 & 0 \\ & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} \\ & = & 2 & & & = & 2 & & & = & 6 \end{array}$$

$$(10010110)_2 = (226)_8$$

4. Write short note on ISCII.

- ISCII is the system of handling the character of Indian local languages.
- This as a 8-bit coding system.

- Therefore it can handle 256 (2^8) characters.
- This system is formulated by the department of Electronics in India in the year 1986-88 and recognized by Bureau of Indian Standards (BIS).

5. Add a) $-22_{10} + 15_{10}$

$22_{10} = (10110)_2$
 $15_{10} = (00001111)_2$
 $1's \text{ complement} \rightarrow 11101001$
 $2's \text{ complement} \rightarrow 11101010$
 $(-22)_{10} + (15)_{10} \Rightarrow 11101010 + 00001111 = 11111001$
 $(-22)_{10} + (15)_{10} = \boxed{11111001}$

b) $20_{10} + 25_{10}$

$20_{10} = (10100)_2$
 $25_{10} = (11001)_2$
 $(20)_{10} + (25)_{10} \Rightarrow 00010100 + 00011001 = 00101101$

PART-IV

EXPLAIN IN DETAIL:

1. a) Write the procedure to convert fractional Decimal to Binary

The method of **repeated multiplication by 2** has to be used to convert such kind of decimal fractions.

The steps involved in the method of **repeated multiplication by 2**:

Step 1: Multiply the decimal fraction by 2 and note the integer part. The integer part is either 0 or 1.

Step 2: Discard the integer part of the previous product. Multiply the fractional part of the previous product by 2. Repeat Step 1 until the same fraction repeats or terminates (0).

Step 3: The resulting integer part forms a sequence of 0s and 1s that become the binary equivalent of decimal fraction.

Step 4: The final answer is to be written from first integer part obtained till the last integer part obtained.

$0.2 \times 2 = 0.4$	Integer part	0 (first integer part obtained)
$0.4 \times 2 = 0.8$		0
$0.8 \times 2 = 1.6$		1
$0.6 \times 2 = 1.2$		1
$0.2 \times 2 = 0.4$		0 (last integer part obtained)

Write the integer parts from top to bottom to obtain the equivalent fractional binary number. Hence,

$(0.2)_{10} = (0.00110011...)_{2} = (0.00110011)_{2}$

b. Convert $(98.46)_{10}$ to Binary

1. Integer part

$$\begin{array}{r}
 2 \overline{) 98} \\
 \underline{2 49} \\
 2 \overline{) 24} \\
 \underline{2 12} \\
 2 \overline{) 6} \\
 \underline{2 3} \\
 1
 \end{array}$$

2. Fractional part

$$\begin{array}{l}
 0.46 \times 2 = 0.92 = 0 \\
 0.92 \times 2 = 1.84 = 1 \\
 0.84 \times 2 = 1.68 = 1 \\
 0.68 \times 2 = 1.36 = 1 \\
 0.36 \times 2 = 0.72 = 0 \\
 0.72 \times 2 = 1.44 = 1
 \end{array}$$

$$(98.46)_{10} = (1100010.01110\dots)_2$$

2. Find 1's Complement and 2's Complement for the following Decimal number

a) -98

$$\begin{array}{r}
 2 \overline{) 98} \\
 \underline{2 49} \\
 2 \overline{) 24} \\
 \underline{2 12} \\
 2 \overline{) 6} \\
 \underline{2 3} \\
 1
 \end{array}$$

$$= 98_{10} = 1100010$$

8 bit format of 98_{10}

1's complement

Add 1 bit

2's complement

$$= 01100010$$

$$= 10011101$$

$$= + 1$$

$$= \underline{\underline{10011110}}$$

b) -135

$$\begin{array}{r}
 2 \overline{) 135} \\
 \underline{2 67} \\
 2 \overline{) 33} \\
 \underline{2 16} \\
 2 \overline{) 8} \\
 \underline{2 4} \\
 2 \overline{) 2} \\
 1
 \end{array}$$

$$135_{10} = 10000111$$

1's complement

Add 1 bit

2's complement

$$= 01111000$$

$$= + 1$$

$$= \underline{\underline{01111001}}$$

3. a) Add $1101010_2 + 101101_2$

$$\begin{array}{r}
 1101010 \\
 + 101101 \\
 \hline
 10010111
 \end{array}$$

b) Subtract $1101011_2 - 111010_2$

$$\begin{array}{r}
 1101011 \\
 - 111010 \\
 \hline
 110001
 \end{array}$$

3.COMPUTER ORGANIZATION PART – I

CHOOSE THE CORRECT ANSWER

1. Which of the following is said to be the brain of a computer?
(a) Input devices (b) Output devices (c) **Memory device** (d) Microprocessor
2. Which of the following is not the part of a microprocessor unit?
(a) ALU (b) Control unit (c) **Cache memory** (d) register
3. How many bits constitute a word?
(a) 8 (b) 16 (c) 32 (d) **determined by the processor used.**
4. Which of the following device identifies the location when address is placed in the memory address register?
(a) Locator (b) encoder (c) **decoder** (d) multiplexer
5. Which of the following is a CISC processor?
(a) Intel P6 (b) AMD K6 (c) **Pentium III** (d) Pentium IV
6. Which is the fastest memory?
(a) Hard disk (b) Main memory (c) **Cache memory** (d) Blue-Ray dist
7. How many memory locations are identified by a processor with 8 bits address bus at a time?
(a) 28 (b) **1024** (c) 256 (d) 8000
8. What is the capacity of 12cm diameter DVD with single sided and single layer?
(a) **4.7 GB** (b) 5.5 GB (c) 7.8GB (d) 2.2 GB
9. What is the smallest size of data represented in a CD?
(a) blocks (b) sectors (c) **pits** (d) tracks
10. Display devices are connected to the computer through.
(a) USB port (b) Ps/2 port (c) SCSI port (d) **VGA connector**

Part – II

VERY SHORT ANSWERS

1. What are the parameters which influence the characteristics of a microprocessor?

- a) Clock speed
- b) Instruction set
- c) Word size

2. What is an instruction?

A command which is given to a computer to perform an operation on data is called an **instruction**.

3. What is a program counter?

The Program Counter (PC) is a special register in the CPU which always keeps the address of the next instruction to be executed.

4. What is HDMI?

High-Definition Multimedia Interface is an audio/video which interface transfers the uncompressed video and audio data from a video controller, to a compatible computer monitor, LCD projector, digital television etc.

5. Which source is used to erase the content of a EPROM?

EPROM retains its contents until it is exposed to ultraviolet light. The ultraviolet light clears its contents, making it possible to reprogram the memory.

PART-III

SHORTANSWERS:

1. Differentiate Computer Organization from Computer Architecture.

- Computer organization deals with the hardware components of a computer system.
- Computer architecture deals with the engineering considerations involved in designing a computer.

2. Classify the microprocessor based on the size of the data.

- 8-bit microprocessor
- 16-bit microprocessor
- 32-bit microprocessor
- 64-bit microprocessor

3. Write down the classifications of microprocessors based on the instruction set.

- RISC stands for Reduced Instruction Set Computers.
- Complex Instruction Set Computers (CISC)

4. Differentiate PROM and EPROM.

PROM:

- Programmable read only memory is also a non-volatile memory on which data can be written only once.
- PROM is manufactured as a blank memory
- PROM programmer or a PROM burner is used to write data to a PROM chip.
- The process of programming a PROM is called burning the PROM.

EPROM:

- Erasable Programmable Read Only Memory is a special type of memory which serves as a PROM,
- The content can be erased using ultraviolet rays.
- An EPROM differs from a PROM, PROM can be written only once and cannot be erased.
- EPROMs are used widely in personal computers because they enable the manufacturer to change the contents of the PROM to replace with updated versions or erase the contents before the computer is delivered.

5. Write down the interfaces and ports available in a computer.

- Serial Port
- Parallel Port
- USB Ports
- USB 3.0
- VGA Connector
- Audio Plugs
- PS/2 Port
- SCSI Port
- High Definition Multimedia Interface (HDMI)

6. Differentiate CD and DVD

CD	DVD
<ul style="list-style-type: none">❖ A CD or CD-ROM is made from 1.2 millimetres thick, polycarbonate plastic material. A thin layer of aluminium or gold is applied to the surface.❖ CD data is represented as tiny indentations known as "pits", The areas between pits are known as "lands".❖ The capacity of an ordinary CDRom is 700MB.	<ul style="list-style-type: none">❖ A DVD (Digital Versatile Disc or Digital Video Disc) is an optical disc.❖ DVDs are often used to store movies at a better quality. DVDs are read with a laser.❖ The disc can have one or two sides, and one or two layers of data per side;❖ Capable of storing up to 4.7 GB of data.

7. How will you differentiate a flash memory and an EEPROM?

Flash memory devices:

- ❖ Flash memory is an electronic (solid-state) non-volatile computer storage medium that can be electrically erased and reprogrammed.
- ❖ Flash memories can be used in personal computers, Personal Digital Assistants (PDA), digital audio players, digital cameras and mobile phones.
- ❖ Flash memory offers fast access times.
- ❖ The time taken to read or write a character in memory is called access time.
- ❖ Examples for Flash memories are pen drives, memory cards etc.

EEPROM:

- ❖ Electrically Erasable Programmable Read Only Memory can be erased by exposing it to an electrical charge.
- ❖ EEPROM is non-volatile.
- ❖ EEPROM is slower in performance.

PART-IV

EXPLAIN IN DETAIL:

1. Explain the characteristics of a microprocessor.

A Microprocessor's performance depends on the following characteristics:

- ✓ Clock speed
- ✓ Instruction set
- ✓ Word size

a) Clock Speed:

- ❖ Every microprocessor has an internal clock that regulates the speed at which it executes instructions.
- ❖ The speed at which the microprocessor executes instructions is called the clock speed. Clock speed is measured in MHz (Mega Hertz) or in GHz (Giga Hertz).

b) Instruction Set:

- ❖ A command which is given to a computer to perform an operation on data is called as an instruction.
- ❖ Basic set of machine level instructions that a microprocessor is designed to execute is

called as an instruction set. This instruction set carries out the following types of operations:

- Data transfer
- Arithmetic operations
- Logical operations
- Control flow
- Input/output

c) Word Size:

- ❖ The number of bits that can be processed by a processor in a single instruction is called its word size.
- ❖ Word size determines the amount of RAM that can be accessed by a microprocessor

2. How the read and write operations are performed by a processor? Explain.

- The Central Processing Unit (CPU) has a Memory Data Register (MDR) and a Memory Address Register (MAR).
- The Memory Data Register (MDR) keeps the data which is transferred between the Memory and the CPU.
- The Program Counter (PC) is a special register in the CPU which always keeps the address of the next instruction to be executed.
- The Arithmetic and Logic unit of CPU places the address of the memory to be fetched, into the Memory Address Register (MAR).
- A bus is a collection of wires used for communication between the internal components of a computer.
- The word in the RAM has the same size (no. of bits) as the Memory Data Register (MDR). If the processor is an 8-bit processor like Intel 8085, its MDR and the word in the RAM both have 8 bits.
- The read operation transfers the data (bits) from word to Memory Data Register. The write operation transfers the data (bits) from Memory Data Register to word.

3. Arrange the memory devices in ascending order based on the access time.

- A memory is just like a human brain. It is used to store data and instructions.
- Computer memory is the storage space in the computer, where data and instructions are stored.
- There are two types of accessing methods to access (read or write) the memory. They are

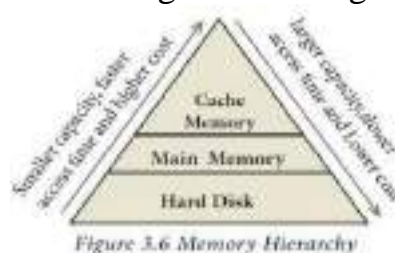
1. Sequential Access and
2. Random Access

SEQUENTIAL ACCESS:

The memory is accessed in an orderly manner from starting to end.

RANDOM ACCESS:

Any byte of memory can be accessed directly without navigating through previous bytes. Different memory devices are arranged according to the capacity, speed and cost.



4. Explain the types of ROM.

- Read only memory refers to special memory in a computer with pre-recorded data at manufacturing time which cannot be modified.
- The stored programs that start the computer and perform diagnostics are available in ROMs.
- ROM stores critical programs such as the program that boots the computer.
- Once the data has been written onto a ROM chip, it cannot be modified or removed and can only be read.
- ROM retains its contents even when the computer is turned off.
- ROM is called as a non-volatile memory.

PROM:

- ❖ Programmable read only memory is also a non-volatile memory on which data can be written only once.
- ❖ PROM is manufactured as a blank memory, whereas a ROM is programmed during the manufacturing process itself.
- ❖ PROM programmer or a PROM burner is used to write data to a PROM chip.
- ❖ The process of programming a PROM is called burning the PROM.

EPROM:

- ❖ Erasable Programmable Read Only Memory is a special type of memory which serves as a PROM, but the content can be erased using ultra violet rays.
- ❖ An EPROM differs from a PROM, PROM can be written only once and cannot be erased.
- ❖ EPROMs are used widely in personal computers because they enable the manufacturer to change the contents of the PROM to replace with updated versions or erase the contents before the computer is delivered.

EEPROM:

- ❖ Electrically Erasable Programmable Read Only Memory can be erased by exposing it to an electrical charge.
- ❖ EEPROM is non-volatile.
- ❖ EEPROM is slower in performance.

4. THEORETICAL CONCEPTS OF OPERATING SYSTEM PART-I

Choose the correct answer:

1. Operating system is a
A) Application Software B) Hardware C) **System Software** D) Component
2. Identify the usage of Operating Systems
A) Easy interaction between the human and computer
B) Controlling input & output Devices
C) Managing use of main memory
D) **All the above**
3. Which of the following is not a function of an Operating System?
A) Process Management B) Memory Management
C) Security management D) **Complier Environment**
4. Which of the following OS is a commercially licensed Operating system?
A) **Windows** B) UBUNTU C) FEDORA D) REDHAT
5. 5) Which of the following Operating systems support Mobile Devices?
A) Windows 7 B) Linux C) BOSS D) **iOS**
6. 6) File Management manages
A) Files B) Folders C) Directory systems D) **All the Above**
7. 7) Interactive Operating System provides
A) **Graphics User Interface (GUI)** B) Data Distribution
C) Security Management D) Real Time Processing
8. 8) An example for single task operating system
A) Linux B) Windows C) **MS-DOS** D) Unix
9. 9) The File management system used by Linux is
A) **ext2** B) NTFS C) FAT D) NFTS

PART-II

VERY SHORT ANSWERS:

1. List any two uses of Operating system?

To ensure that a computer can be used to extract what the user wants it do.

- ❖ Easy interaction between the users and computers.
- ❖ Starting computer operation automatically when power is turned on (Booting).
- ❖ Controlling Input and Output Devices
- ❖ Manage the utilization of main memory.
- ❖ Providing security to user programs.

2. What is multi-user Operating system?

- ❖ It is used in computers and laptops that allow same data and applications to be accessed by multiple users at the same time.
- ❖ The users can also communicate with each other. Windows, Linux and UNIX are examples for multi-user Operating System.

3. What is a GUI?

- ❖ The GUI is a window based system with a pointing device to direct I/O, choose from menus, and make selections and a keyboard to enter text.
- ❖ Its vibrant colors attract the user very easily.

4. What are the security management features available in Operating System?

- (1) File access level

(2) System level

(3) Network level

5. What is multi-processing?

- ❖ This is a one of the features of Operating System. Operating System has two or more processors for a single running process (job). Processing takes place in parallel is known as parallel processing.
- ❖ Since the execution takes place in parallel, this feature is used for high speed execution which increases the power of computing.

6. What are the different Operating Systems used in computer?

- ❖ Single User Operating Systems
- ❖ Multi-user Operating Systems
- ❖ Multi-Processing Operating Systems
- ❖ Distributed Operating Systems
- ❖ Prominent Operating Systems

PART-III

SHORT ANSWER

1. What are the advantages and disadvantages of Time-sharing features?

Advantages	Disadvantages
It allows execution of multiple tasks or processes concurrently	Problem of Reliability
Quick Response	Questions of security and integrity of uses programs and data
Avoids duplication of software	Problem of data communication
Reduces CPU idle time	Various processes after a time is elapsed.

2. List the key features of Operating system

- ❖ User Interface
- ❖ File Management
- ❖ Memory Management
- ❖ Process Management
- ❖ Fault tolerance
- ❖ Security Management

3. Write a note on Multi processing

- ❖ Operating System has two or more processors for a single running process (job). Processing takes place in parallel is known as parallel processing.
- ❖ Since the execution takes place in parallel, this feature is used for high speed execution which increases the power of computing.

PART-IV

EXPLAIN IN DETAIL:

1. Explain the concept of a Distributed Operating System along with its advantages.

- ❖ The Distributed Operating System is used to access shared data and files that reside in any machine around the world using internet/ intranet. The user can handle the data from different locations.

❖ The users can access as if it is available on their own computer.

The advantages of distributed Operating System are as follows:

- ❖ A user at one location can make use of all the resources available at another location over the network.
- ❖ Many computer resources can be added easily in the network .
- ❖ Improves the interaction with the customers and clients.
- ❖ Reduces the load on the host computer.

2. List out the points to be noted while creating a User Interface for an operating system?

- ❖ User interface is one of the significant features in Operating System. The only way that user can make interaction with a computer.
- ❖ The following points are considered when User Interface is designed for an application.
- ❖ The user interface should enable the user to retain this expertise for a longer time.
- ❖ The user interface should also satisfy the customer based on their needs.
- ❖ The user interface should save user's precious time. The ultimate aim any product is to satisfy the customer
- ❖ The User Interface must satisfy the customer.
- ❖ The user interface should reduce number of errors committed by the user

3. Explain Process management technique in Operating system

- ❖ Process management is function that includes creating and deleting processes providing mechanisms for processes to communicate and synchronize with each other.
- ❖ **The Operating System is responsible for the following activities associated with the process management:**
- ❖ Operating system processes which is executed by system code.
- ❖ User processes which is executed by user code.
- ❖ The following algorithms are mainly used to allocate the job (process) to the processor.

1. FIFO

2. SJF

3. Round Robin

4. Based on Priority

1. FIFO (First In First Out) Scheduling:

- This algorithm is based on queuing technique. The process that enters the queue first is executed first by the CPU, followed by the next and so on.
- The processes are executed in the order of the queue (row).

2. SJF (Shortest Job First) Scheduling:

- This algorithm works based on the size of the job being executed by the CPU.
- Consider two jobs A and B.
- A = 6 kilo bytes 2) B = 9 kilo bytes. First the job "A" will be assigned and then job "B" gets its turn.

3. Round Robin Scheduling

- The Round Robin (RR) scheduling algorithm is designed for time sharing systems.
- Jobs (processes) are assigned and processor time in a circular method.

- **Example** Take three jobs A, B, C.
- First the job A is assigned to CPU then job B and job C and then again A, B and C

4. Based On Priority

- The given job (process) is assigned based on a Priority.
- The job which has higher priority is processed first.
- Take two jobs A and B.
- Let the priority of A be 5 and priority B be 7.
- Job B is assigned to the processor before job A.

5. WORKING WITH WINDOWS OPERATING SYSTEM

PART-I

CHOOSE THE BEST ANSWER:

- From the options given below, choose the operations managed by the operating system.
a. Memory b. Processor c. I/O devices **d. all of the above**
- Which is the default folder for many Windows Applications to save your file?
a. My Document b. My Pictures c. Documents and Settings d. My Computer
- Under which of the following OS, the option Shift + Delete – permanently deletes a file or folder?
a. Windows 7 b. Windows 8 c. Windows 10 **d. All of the OS**
- What is the meaning of "Hibernate" in Windows XP/Windows 7?
a. Restart the Computer in safe mode
b. Restart the Computer in hibernate mode
c. Shutdown the Computer terminating all the running applications
d. Shutdown the Computer without closing the running applications
- The shortcut key used to rename a file in windows
a. F2 b. F4 c. F5 d. F6

PART-B

VERY SHORT ANSWERS:

1. What is known as Multi-Tasking?

❖ Multiple applications which can execute simultaneously in windows is known as "Multi-Tasking".

2. What are called standard icons?

- ❖ The icons which are available on desktop by default while installing Windows OS are called standard icons.
- ❖ The standard icons available in all Windows OS are My Computer, Documents and Recycle Bin.

3. Differentiate Files and Folders.

Files	Folders
File is the collections of data/information. (Records).	Folder is a collection of files.
Create a File: Start All programs → select application → ok	Create a folder: Right click new Folder ok

4. Differentiate Save and Save As option.

- "Save" option save a new document in first time. (Ctrl+S)
- "Save As" option save an already saved the document with a new name and also create a copy of already saved document with a new name obviously.

5. How will you Rename a File?

To Rename a file,

- Click File → Rename
- Press F2 or click over the file or folder. A surrounding rectangle will appear around the name. Type in the new name
- Click the right mouse button over the file or folder. Select Rename from the pop-up menu.

4. To finalise the renaming operation, press Enter.

PART-III

SHORT ANSWERS:

1. What are the functions of windows operating system?

Some of the functions of Windows Operating System are:

- ❖ Access applications (programs) on the computer (word processing, games, spread sheets, calculators and so on).
- ❖ Load any new program on the computer.
- ❖ Manage hardware such as printers, scanners, mouse, digital cameras etc.,
- ❖ File management activities (For example creating, modifying, saving, deleting files and folders).
- ❖ Change computer settings such as colour scheme, screensavers of your monitor, etc.

2. Write a note on Recycle bin?

- ❖ Recycle bin is a folder which contains all deleted files and folders having an opportunity to recover from it.

3. Write a note on the elements of a window?

- ❖ Title bar
- ❖ Menu bar
- ❖ Tool bar
- ❖ Scroll bars
- ❖ Status bar
- ❖ Borders
- ❖ Work Space (area) and
- ❖ Corners

4. Write a two ways to create a new folder?

Method I:

Step 1: Open **Computer Icon**.

Step 2: Open any drive where you want to create a new folder.

Step 3: Click on File → New → Folder.

Step 4: A new folder is created with the default name “New folder”.

Step 5: Type in the folder name and press Enter key.

Method II:

Step 1: In the Desktop, right click → New → Folder.

Step 2: A Folder appears with the default name “New folder”.

Step 3: Type the name you want and press Enter Key.

Step 4: The name of the folder will change.

5. Differentiate copy and move?

COPY	MOVE
To copy the file(s) or folder(s) in the new location, navigate to the target location then do one of the following:	To move a file or folder, first select the file or folder and then choose one of the following:
Click Edit → Copy or Ctrl + C or right Click → Copy from the pop-up menu.	Click on the Edit → Cut or Ctrl + X or right click → cut from the pop-up menu.








COPY







Click **Edit** → **Paste** or **Ctrl + V**.
 Or **Right click** → **Paste** from the pop-up menu.

MOVE

Click **Edit** → **Paste** or **Ctrl + V**.
 Or **Right click** → **Paste** from the pop-up menu.

PART-IV**EXPLAIN IN DETAIL:****1. Explain the versions of Windows Operating System.**

Versions	Logo	Year	Specific features
Windows 1.x		1985	<ul style="list-style-type: none"> • Introduction of GUI in 16-bit processor • Mouse was introduced as an input device.
Windows 2.x		1987	<ul style="list-style-type: none"> • Supports to minimize or maximize windows. • Control panel feature was introduced with various system settings and customising options.
Windows 3.x		1992	<ul style="list-style-type: none"> • Introduced the concept of multitasking. • Supported 256 colours which brought a more modern, colourful look to the interface.
Windows 95		1995	<ul style="list-style-type: none"> • Introduced Start button, the taskbar, Windows Explorer and Start menu. • Introduced 32-bit processor and focused more on multitasking.
Windows 98		1998	<ul style="list-style-type: none"> • Integration of the Web browser (Internet Explorer) with the Operating System. • DOS gaming began to disappear as Windows based games improved. • Plug and play feature was introduced.
Windows NT			<ul style="list-style-type: none"> • Designed to act as servers in network.
Windows Me		2000	<ul style="list-style-type: none"> • It introduced automated system diagnostics and recovery tools.

Windows 2000		2000	<ul style="list-style-type: none"> • Served as an Operating System for business desktop and laptop systems. • Four versions of Windows 2000 were released: Professional (for business desktop and laptop systems), Server (both a Web server and an office server), Advanced Server (for line-of-business applications) and Data Centre Server (for high-traffic computer networks).
Windows XP		2001	<ul style="list-style-type: none"> • Introduced 64-bit Processor. • Improved Windows appearance with themes and offered a stable version.
Windows Vista		2006	<ul style="list-style-type: none"> • Updated the look and feel of Windows.
Windows 7		2009	<ul style="list-style-type: none"> • Booting time was improved, introduced new user interfaces like Aero Peek, pinning programs to taskbar, handwriting recognition etc. and Internet Explorer 8.
Windows 8		2012	<ul style="list-style-type: none"> • Windows 8 is faster than previous versions of Windows. • Start button was removed. • Windows 8 takes better advantage of multi-core processing, solid state drives (SSD), touch screens and other alternate input methods. • Served as common platform for mobile and computer.
Windows 10		2015	<ul style="list-style-type: none"> • Start Button was added again. • Multiple desktop. • Central Notification Center for App notification and quick actions. • Cortana voice activated personal assistant.

2. Explain the different ways of finding a file or folder?

Finding Files and Folders

You can use the search box on the Start menu to quickly search a particular folder or file in the computer or in a specific drive.

To find a file or folder:

- Click the Start button, the search box appears at the bottom of the start menu.
- Type the name of the file or the folder you want to search. Even if you give the part of the file or folder name, it will display the list of files or folders starting with the specified name.
- The files or the folders with the specified names will appear, if you click that file, it will directly open that file or the folder.
- There is another option called “**See more results**” which appears above the **search** box.
- If you click it, it will lead you to a **Search Results** dialog box where you can click and open that file or the folder.

Searching Files or folders using Computer icon

- Click **Computer Icon** from desktop or from **Start menu**.
- The Computer disk drive screen will appear and at the top right corner of that screen, there is a **search** box option.
- Type the name of the file or the folder you want to search. Even if you give the part of the file or folder name, it will display the list of files or folders starting with the specified name.

Just click and open that file or the folder.

3. Write a procedure to create shortcut in Windows OS?

- ❖ Shortcuts to your most often used folders and files may be created and placed on the Desktop to help automate your work.
- ❖ Select the file or folder that you wish to have as a shortcut on the Desktop.
- ❖ Right click on the file or folder.
- ❖ Select **Send to** from the shortcut menu, then select Desktop (create shortcut) from the submenu.
- ❖ A shortcut for the file or folder will now appear on your desktop and you can open it from the desktop in the same way as any other icon.

6. INTRODUCTION TO WORD PROCESSOR

PART-I

CHOOSE THE CORRECT ANSWER

1. Which is the opening screen of OpenOffice?
a. Star desktop b. **Star center** c. Star screen d. Star window
2. Which option allows you to assign text, tables, graphics and other items to a key or key combination
a. Auto format b. Automatic c. **Auto text** d. Auto graphics
3. Which menu contains the Numbering option.
a. File b. Edit c. Tools d. **Format**
4. Which is displayed at the top most part of the window?
a. Menu bar b. Tool bar c. **Title bar** d. Format bar
5. Which is changing the default appearance of the text called?
a. **Text formatting** b. Page formatting
c. Special formatting d. Paragraph formatting
6. The Find & Replace option is available in which menu?
a. File b. **Edit** c. Format d. Tools
7. Which button selects all instances of the search text in the document?
a. Find b. **Find All** c. Replace d. Replace All
8. What is the shortcut key to go to the start of the document?
a. **Ctrl + Home** b. Ctrl + End c. Home d. End
9. What is the shortcut key for finding and replacing text in a document?
a. Ctrl + F1 b. **Ctrl + F** c. Ctrl + F5 d. Ctrl + F7
10. What is the short cut key for Undo?
a. Ctrl + E b. Ctrl + U c. **Ctrl + Z** d. Ctrl + n

PART-II

VERY SHORT ANSWERS

1. How do you insert pictures in to your document?

Open office Writer has the ability to insert and edit images in a more simple way.

- ❖ Place the insertion pointer where you want the image to appear
- ❖ Select Insert → Picture → From file
- ❖ The insert picture dialog box appears where the picture gallery opens from which the desired picture can be selected.
- ❖ If the picture is not in the gallery, then browse the pictures from the folder, choose the desired one and Click on the Open button
- ❖ The selected picture is inserted into the document

2. What are the different packages in OpenOffice writer?

Open Office is a productive office suite with a collection of different software packages such as

- ❖ OpenOffice Writer - Word Processor to create text documents
- ❖ OpenOffice Calc - Spreadsheet to create worksheets
- ❖ OpenOffice Base - Database
- ❖ OpenOffice Impress - Presentation software
- ❖ OpenOffice Draw - Drawing Software
- ❖ OpenOffice Formula - Create formula and equations

3. What is auto text in writer?

AutoText allows you to assign text, tables, graphics and other items to a key or key combination. For example, rather than typing "TamilNadu" every time you use that phrase, you might just type "tn" and press F3.

4. How do you merge cells in a table?

To merge a group of cells:

- Select the cells to merge.
- Right click and choose Cell → Merge or
- Choose Table → Merge Cells from the menu bar.





5. State the difference between proprietary software and open source software?

proprietary software		open source software	
Package	Developer	Package	Developer
Microsoft Word	Microsoft Corporation	OpenOffice Writer	Apache
WPS Word	Kingsoft	LibreOffice Writer	The document foundation
WordPro	Lotus Corporation	Abiword	Abisource

PART-III

SHORT ANSWERS:

1. What is the difference between moving and copying text?

Moving text	Copying text
To move a text from one location to another	To copy a text from one location to another
Select the text to be moved	select the text to be copied
Click Ctrl + X or Cut Icon  or Edit → Cut	Click Ctrl + C or Copy Icon  or Edit → Copy
The text is removed from the source location and placed in the clipboard	A duplicate copy of the text is made and send to the clipboard
Take the insertion pointer to the new location to be moved	Take the insertion pointer to the new location to be copied
Click ctrl + v or Paste icon  or edit → paste	Click ctrl + v or Paste icon  or edit → paste
The required text is moved to new location	The required text is moved to new location

2. What are the different types of orientation?

There are two different orientations:

- **Landscape** – The width of the document is more than the height. This is best suited for displaying professional photos, invitations, albums, tables etc.
- **Portrait** – This is the most common and default orientation . Here, the height of the document is more than the width. Normally books, newspapers will be displayed in this format.

3. How do you insert rows and columns?

- ❖ Place the insertion pointer in the row or in the column where you would like to add new rows or columns and right click.
- ❖ Choose Row → Insert – to insert a row or Column → Insert – to insert a column.
- ❖ A dialog box will appear, from which you can select the number of rows or columns to insert. You can also set the position of the new rows or columns to Before or After

4. What are the different ways to save a document?

- ❖ You can save by clicking File → Save on top left corner and then click File → Save As or Ctrl+Shift+S. After that browse the location where exactly you want to save in your computer.
- ❖ You can also save by just pressing Ctrl + S and then browse the location where you want to save.
- ❖ All documents in OpenOffice writer will be stored with .odt extension. You can store your OpenOffice document as Microsoft Word document or pdf.

5. Write the steps to change the line spacing of text.

- Right click → line spacing, select the type single, 1.5 or double.
- Select the entire document by Edit → Select All
- Format → paragraph
- The paragraph dialog box appears, click Indents & Spacing tab
- In the line spacing option, select the type and click OK button.

PART-IV

EXPLAIN IN DETAIL

1. What are the different methods to change margin in writer?

Page margins are the white space around the top, bottom, left, and right of your document. Changing or setting page margins in Open office writer can be done in two ways:

- Using the **Rulers** - quick and easy, but does not have precise values.
- Using the **Page Style dialog box** – can specify precise values for the margins.

Changing page margins - using Ruler

- ❖ The shaded sections of the rulers are the margins.
- ❖ Hold the mouse pointer over the line between the gray and white sections.
- ❖ The mouse pointer turns into a double headed arrow.
- ❖ Hold down the left mouse button and drag the mouse to move the margin and release it at the required point.
- ❖ The new margin is set.

Using the Page Style dialog box

- ❖ To change margins using the Page Style dialog box
- ❖ **Right-click** anywhere on the page and select Page from the popup menu and select

page tab of page style dialog box.

- ❖ In the **Margins** group, specify the values for left, right , top and bottom margins.
- ❖ Click on ok button.

2. What is Header and Footer? How do you insert page numbers in footer area?

The **header** is a section of the document that appears in the **top margin**, which displays the title or chapter name, author name of a document.

- Select from the main menu **Insert → Header → Default**
- The header text area is separated from the normal text area.

- In the header area, Enter the text that is to be repeated in all pages or Select **Insert** → **Fields** → **Title**.

The **footer** is a section of the document that appears in the **bottom margin** of the page which displays the page number, date, time etc. which gets displayed on all the pages automatically.

- Select from the main menu **Insert** → **Footer** → **Default**
- Place the insertion pointer in the footer area of the page.
- Select **Insert** → **Fields** → **Date** to insert date in all the pages.

Inserting and Formatting page numbers

The page numbers can be inserted by performing the following steps:

- Position the insertion pointer where you want to insert the page number
- choose **Insert** → **Fields** → **Page Number**
- The page number appears with a gray background
- Normally, the page numbers appear as 1,2,3....., To change the numbering style, the following sequence of steps can be performed:
- Position the insertion pointer where the page number has to appear
- Select **Format** → **page**, which will display the page style dialog box.
- Select **page** Tab
- In the Layout settings, select the format drop down combo box
- Select the desired style and click **OK** button.

3. Write the steps to Find and Replace a word with another word in OpenOffice writer?

OpenOffice Writer has a Find and Replace feature that helps to locate for a text inside a document and replace it with another word.

- Click **Edit** → **Find & Replace** (or) **Ctrl + F**

Steps to find & replace a text

- ❖ Type the text you want to find in the **Search for** box. For Example: To search a word "Bombay" in a document and replace with "Mumbai", enter the word "Bombay" in the **Search for** box.
- ❖ To replace the text with different text, type the new text in the **Replace with** box. Enter the word " Mumbai" in the **Replace with** box and Click **Find** button , to start the search , the found word is highlighted and the first occurrence of "Bombay" is highlighted.
- ❖ To replace text, click **Replace** button.
- ❖ The highlighted word is replaced with the word given in the Replace with box.
- ❖ Click **Find All**, Writer selects all instances of the search text in the document.
- ❖ All occurrences of Bombay are highlighted.
- ❖ Click **Replace All** button, Writer replaces all matches.
- ❖ This will replace all occurrences of "Bombay" with "Mumbai".
- ❖ Enable **Match case** to perform the search case sensitively so that uppercase and lower cases are distinguished separately.
- ❖ Enable **Whole Words only** to make the search more specific to words

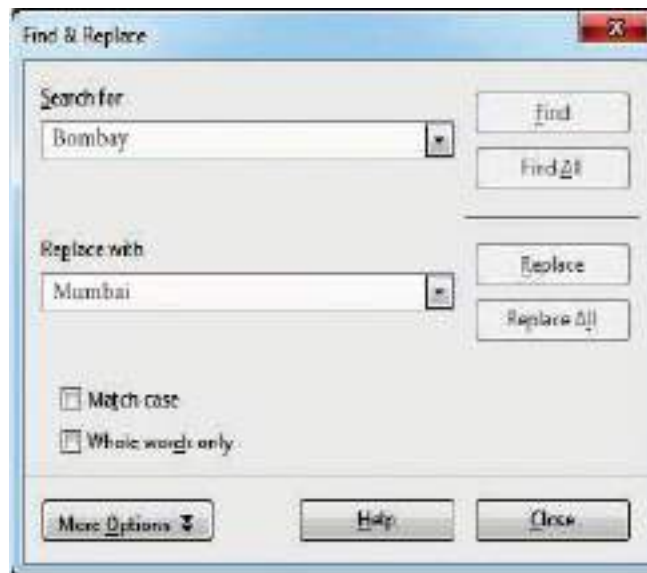


Figure 6.30 Find & Replace dialog box

4. Explain Page formatting in writer.

Page formatting

The most important thing in a word processor is how to format the page with elements such as margins, numbering, page layout, headers and footers. Formatting your pages makes it look more attractive and makes it easier to read.

Changing page size

The default page size in writer is 8.5 x 11”, the same as that of a standard A4 printing paper. However, for different types of documents, you may need to change the page size. To change the paper size:

- Select the page to be resized

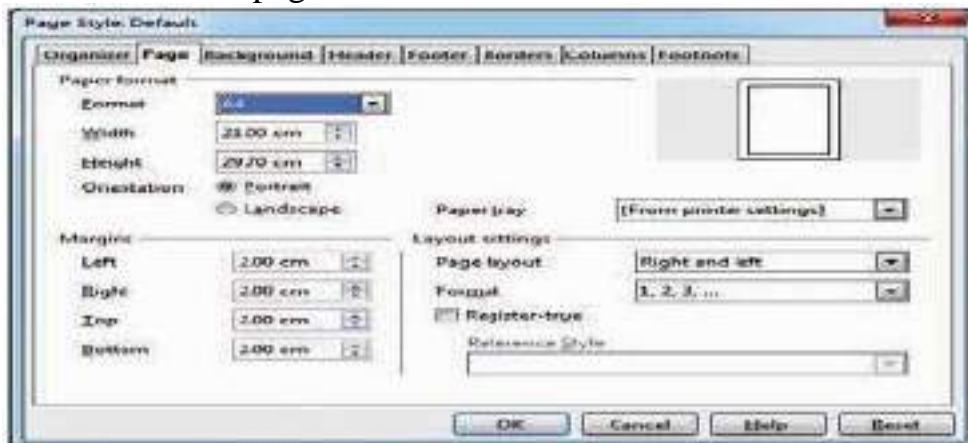


Figure 6.26 Page style dialog box

- Select **Format** → **Page**, the page style dialog box appears
- Select **Page** Tab
- In the **paper format group**, select the format like A4, legal etc
- Or the **width** and **height** option can be used to set the page size

Changing Page margins

- ❖ Page margins are the white space around the top, bottom, left, and right of your document.
- ❖ Margins let Writer know where to start placing the text at the top of a document, when to move on to the next page at the bottom, where to start typing text on the left side, and where to stop and move to the next line on the right.

- ❖ Changing or setting page margins in Openoffice writer can be done in two ways:
- ❖ Using the **Rulers** - quick and easy, but does not have precise values.
- ❖ Using the **Page Style dialog box** – can specify precise values for the margins.

Orientation

➤ Page orientation refers to how the document will be displayed on screen and printed. There are two different orientations:

- ❖ **Landscape** - The width of the document is more than the height. This is best suited for displaying professional photos, invitations, albums, tables etc.
- ❖ **Portrait** – This is the most common and default orientation. Here, the height of the document is more than the width. Normally books, newspapers will be displayed in this format.

Page colour

- ❖ Changing the page color is not quite common. To do so, in the Page style dialog box, select Background tab, In As option click on color and select the “color” from the color palette or select “graphic” to apply an image as a page background.

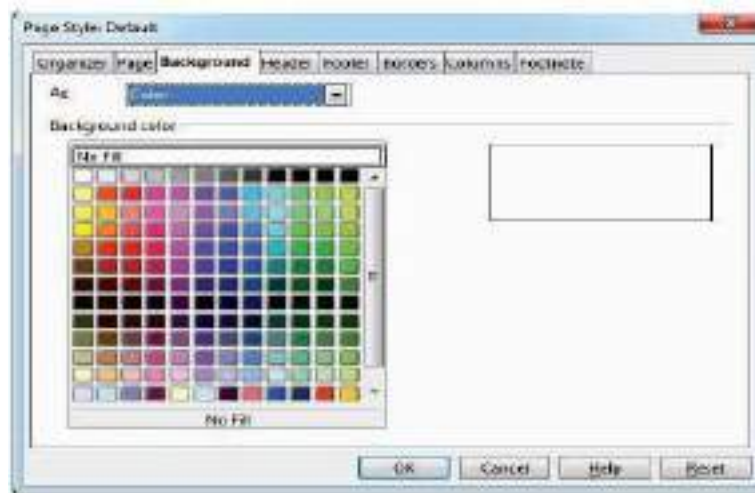


Figure 6.27 Background color

Borders

- ❖ Borders can be applied to an entire document, an entire page, paragraph, or just to certain sections of the document. From the page style dialog box, select the Border tab, the user defined area helps to define the area of borders, the line style of borders, color of borders can be selected.



Figure 6.28 Page style dialog box - Borders

7. WORKING WITH OPEN OFFICE CALC

SECTION – A

CHOOSE THE CORRECT ANSWER

1. Which is the first electronic spreadsheet?
(A) Excel (B) Lotus 1-2-3 (C) **Visicalc** (D) OpenOffice Calc
2. Which of the following applications was the parent to OpenOffice Calc?
(A) Visicalc (B) LibreCalc (C) Lotus 123 (D) **StarOffice Calc**
3. Grid of cells with a programmable calculator:
(A) **Spreadsheet** (B) Database (C) Word processor (D) Linux
4. A column heading in Calc is represented using
(A) Number (B) Symbol (C) Date (D) **Alphabet**
5. Which key is used to move the cell pointer in the forward direction within the worksheet?
(A) Enter (B) **Tab** (C) Shift + Tab (D) Delete
6. A formula in calc may begin with
(A) = (B) + (C) - (D) **All the above**
7. What will be the result from the following formula (Assume A1=5, B2=2)? + A1^B2
(A) 7 (B) **25** (C) 10 (D) 52
8. What will be the result from the following expression (Assume H1=12, H2=12)? = H1<>H2
(A) True (B) **False** (C) 24 (D) 1212
9. Which of the following symbol is used to make a cell address as an absolute reference?
(A) + (B) % (C) & (D) **\$**
10. Which of the following key combinations is used to increase the width of the current column?
(A) **Alt + Right arrow** (B) Ctrl + Right arrow
(C) Alt + Left arrow (D) Ctrl + Left arrow

SECTION-B

VERY SHORT ANSWERS

1. **What are the types of toolbars available in OpenOffice calc?**
There are three toolbars available by default. They are:
 - ❖ Standard Toolbar
 - ❖ Formatting Toolbar
 - ❖ Formula bar
2. **What is a Cell pointer?**
 - ❖ Cell pointer is a rectangle box which can be moved around the worksheet. The cell in which the cell pointer is currently located is known as “Active cell”. When you type any content, it will appear in the active cell.
3. **Write about the text operator in OpenOffice Calc.**
 - ❖ In Calc, “&” is a text operator which is used to combine two or more text. Joining two different texts is also known as “Text Concatenation” An expression using the text operator has the following syntax:
text reference1 & text reference2
4. **Write the general syntax of constructing a formula in Calc.**
General Syntax of constructing a formula is:
= cell reference1 <operator> cell reference2 <operator>
5. **What are the keyboard shortcuts to cut, copy and paste?**

- ❖ Ctrl + X is used to cut the cell
- ❖ Ctrl + C is used to copy the cell
- ❖ Ctrl + V is used to paste the cell

6. Can you edit the contents of a cell? If yes, explain any one of the method of editing the cell content.

- ❖ Yes, we can edit the contents of a cell.
- ❖ Using keyboard, after selecting the cell, Press the F2 key and the cursor is placed at the end of the cell. The use the keyboard arrow keys to move the cursor through the text in the cell.

7. What are the options available in “Insert Cells” dialog box?

There are four options available in Insert cells

- ❖ Shift cells down
- ❖ Shift cells right
- ❖ Entire row
- ❖ Entire Column

8. Match the following

A	B
Cut, Copy, Paste	Standard Toolbar
Cell Pointer	Active Cell
Selection Mode	Status Bar
\$A\$5	Absolute Cell

9. Define the following (i) Text Operator (ii) Rows and Columns of spreadsheet (i)Text Operator

- ❖ In Calc, “&” is a text operator which is used to combine two or more text. Joining two different texts is also known as “Text Concatenation” An expression using the text operator has the following syntax:
text reference1 & text reference2

(ii)Rows and Columns of spreadsheet

- A row is a horizontal group of values within a table. It contains values for multiple fields, which are defined by columns. The rows are numbered from 1, 2, 3.... OpenOffice Calc version 4.1.5 contains 10,48,576 rows.
- A column is a vertical group of values within a table. It contains values from a single field in multiple rows. Each column is labelled as A, B, C, D AA, AB, ACIt contains 1024 columns.

10. Differentiate between Copy -Paste and Cut-Paste

Copy –Paste	Cut-Paste
Select the cell or group of cells you want to copy, then using Select Edit→ Copy or Click “Copy” icon from the standard toolbar or Press Ctrl + C	Select the cell or group of cells you want to cut, then using Edit → Cut or Click “Cut” icon from the standard toolbar or Press Ctrl + X
Copy leaves the cell information in its original location and makes copy of the cell information when pasted it	But in Moving it removes the information and pastes it in another location
Move the cell pointer to the cell in which you want to paste. Edit → Paste or Click	Move the cell pointer to the cell in which you want to paste. Edit → Paste or Click

PART-III

SHORT ANSWERS:

1. Write a short note on OpenOffice Calc.

- OpenOffice Calc is a popular open source spreadsheet application maintained by Apache Foundation.
- StarOffice calc was the parent application of OpenOffice Calc which was developed by a German Company namely, Star Division in 1985.
- Calc is the spreadsheet component of OpenOffice. You can enter any kind of data in a spreadsheet and then manipulate this data to produce certain results.

2. Write about inserting columns and rows in Calc.

Inserting Rows - In Calc, we can insert a new row anywhere in the worksheet.

Step 1: Select the row where a new row to be inserted.

Step 2: Right-click on the row number, a pop-up menu appears

Step 3: click “Insert Rows” option from the menu.

Now, a new row will be inserted to above the current row. Insert →Rows command is used to insert a new row.

Inserting a Column - In Calc, we can insert a new column anywhere in the worksheet.

Step 1: Select the column where a new column should be inserted.

Step 2: Right-click on the selected column name that you selected. A pop-up menu appears.

Step 3: click the “Insert Columns” option from the menu.

Now, a new column will be inserted to the left of the current column. A new column can also be inserted using Insert →Columns command.

3. Differentiate Deleting data using Backspace and Delete

Backspace	Delete
Backspace key is used to delete the character left of the insertion pointer of the cell.	Delete key is used to delete the character right of the insertion pointer of the cell.

4. Write any three formatting options.

Formatting Option	Keyboard Shortcut	Description
Bold	Ctrl + B	Used to make the data as Bold
Italic	Ctrl + I	Used to Italicize data
Underline	Ctrl + U	Used to Underline the data

5. In cell A1=34 A2=65 A3=89 write the formula to find the average.

To find the average, using anyone of the following way:

$$\text{➤} = \text{AVERAGE (A1:A3)} = 62.7\%$$

PART-IV

EXPLAIN IN DETAIL:

1. Explain about changing the column width in Calc.

Resize the width of a column using the mouse

- ❖ Use the right hand border to increase or decrease the width of a column.

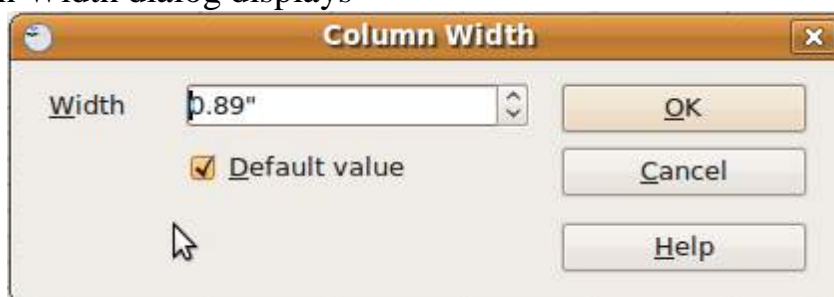
- ❖ Position the cursor on the right hand border of the column letter box, until you see a double headed arrow.
- ❖ Hold down the left hand mouse button and drag the border to the left or right to make the column narrower or wider as required.
- ❖ As you carry out this action, the width of the column displays.



Using the mouse to widen a column

Resize one or more columns using Format

- ❖ Select the column(s) whose width you wish to change
- ❖ Select **Format** **Column** **Width...**
- ❖ The Column Width dialog displays

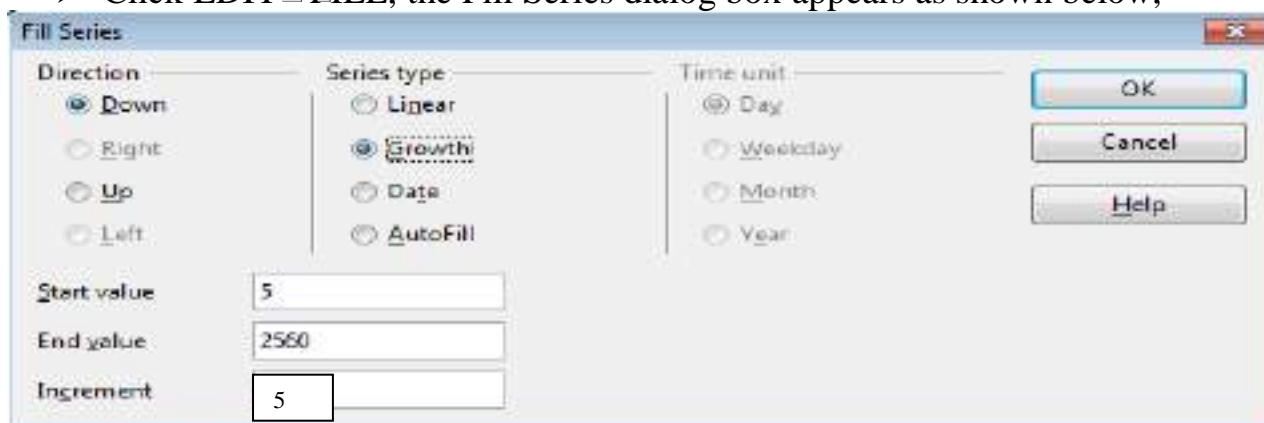


- ❖ Enter a value in the Width window or check the Default value check box to select the default column width.
- ❖ Click OK.
- ❖ The selected columns display with the new width.

2. Write the steps to generate the following series. 5, 10, 20 2560

STEPS TO GENERATE THE SERIES 5,10,20,...2560

- Select the required number of cells to generate the series.
- Click EDIT \Rightarrow FILL, the Fill Series dialog box appears as shown below,



- Select the Direction as **Down** in fill series dialog box.
- Select the Series type **Growth**.
- Initial value of the series 5 should be typed in Start Value box.
- Maximum value of the series 2560 should be typed in End Value box.
- The value 5 should be typed in Increment box .

➤ Click OK. Now the series is generated as given below,

B
5
10
20
40
80
160
320
640
1280
2560

3. Read the following table

	A	B	C	D	E
1	Year	Chennai	Madurai	Tiruchi	Coimbatore
2	2012	1500	1250	1000	500
3	2013	1600	1000	950	350
4	2014	1900	1320	750	300
5	2015	1850	1415	820	200
6	2016	1950	1240	920	250

Above table shows the sales figures for “Air Cooler” sold in four major cities of TamilNadu from the year 2012 to 2016. Based on this data, write the formula to calculate the following.

- (1) Total sales in the year 2015.
- (2) Total sales in Coimbatore from 2012 to 2016.
- (3) Total sales in Madurai and Tiruchi during 2015 and 2016.
- (4) Average sales in Chennai from 2012 to 2016
- (5) In 2016, how many “Air Coolers” are sold in Chennai compared to Coimbatore?

ANSWER:

SL.NO	QUESTION	FORMULA	ANSWER
1	Total sales in the year 2015.	=SUM(B5:E5)	4285
2	Total sales in Coimbatore from 2012 to 2016.	=SUM(E2:E6)	1600
3	Total sales in Madurai and Tiruchi during 2015 and 2016.	=SUM(C5:D6)	4395
4	Average sales in Chennai from 2012 to 2016	=AVERAGE(B2:B6)	1760
5	In 2016, how many “Air Coolers” are sold in Chennai compared to Coimbatore?	=B6-E6	1700

8. PRESENTATION BASICS

PART-I

CHOOSE THE CORRECT ANSWER

- Which is used to move quickly from one slide to another?
A) Compass B) **Navigator** C) Fill color D) Page border
- Which is the shortcut key to view the slideshow?
A) F6 B) F9 C) **F5** D) F10
- In Impress, which view shows thumbnail versions of all your slides arranged in horizontal rows.
A) Notes B) Outline C) Handout D) **Slide Sorter**
- Identify the default view in Impress.
A) **Normal** B) Slide Sorter C) Handout D) Notes
- Which menu contains the Slide Transition option?
A) **Slide Show** B) View C) Tools D) Format
- Identify the extension of the Impress presentation.
A) **.odp** B) .ppt C) .odb D) .ood
- In presentation tools, the entry effect as one slide replaces another slide in a slide show. Identify the option that suits after reading the statement.
A) Animation B) **Slide Transition** C) Custom animation D) Rehearse Timing
- Vanya has made a presentation on “Global Warming”. She wants to progress her slide show automatically while speaks on the topic in the class. Which features of Impress would she use?
A) Custom Animation B) **Rehearse Timing**
C) Slide Transition D) Either (a) or (b).

PART-II

SHORT ANSWERS:

1. What is the difference between a slide and a slide show?

Slide	Slide Show
A slide is an editable format that contains different elements like text, tables, charts, clip-art etc.	A slide show is a combination of a number of slides that run one after the other

2. How many in-built slide layouts does Impress consist of?

- ❖ In-built the open office Impress consists of 12 different layouts of slides.

3. What do you understand by a presentation?

- ❖ A **presentation** program is a software package used to show information in the form of a slide show.
- ❖ It has three major functions: an editor that allows text to be inserted and formatted, a method for inserting and manipulating graphic images, and a slide-show system to display the content.

4. Define a template in Impress.

- ❖ A template is a premade design you can use to lend cohesiveness, visual organization and appeal to your presentation. Even though individual slides can have different layouts and graphics, templates help the whole presentation go together as an attractive package.

5. What do you understand by the slide layout?

- ❖ Slide layouts are pre-packaged layouts which contain formatting, positioning, and placeholders for all of the content that appears on a slide.
- ❖ Placeholders are the containers in layouts that hold such content as text, tables, charts, SmartArt graphics, movies, sounds, pictures, and clip art.

PART-III

SHORT ANSWERS:

1. How many types of views are provided by Impress to its users?

There are 5 types of views are provided by Impress. They are

- ❖ **Normal view** - Normal view is the main view for creating individual slides.
- ❖ **Outline view** - Outline view shows topic titles, bulleted lists and numbered lists for each slide in outline format.
- ❖ **Notes view**- Notes view lets you add notes to each slide that are not seen when the presentation is shown.
- ❖ **Slide Sorter view** - Slide Sorter view shows a thumbnail of each slide in order.
- ❖ **Handout view** - Handout view lets you print your slides for a handout.

2. Who uses the presentation software and why?

- ❖ Businesses and professional firms use presentations to inform, educate, motivate and persuade internal and external audiences.
- ❖ They build presentations into sales, training and internal communication programs, using the power of words and images to engage their audience and retain attention. Presentation software is used to create presentations, quizzes, e-learning packages and multimedia products.

3. Define the Slide Sorter view and its significance.

- ❖ The Slide Sorter view contains all of the slide thumbnails.
- ❖ Use Slide Sorter view to work with a group of slides or with only one slide.
- ❖ Use Slide Sorter view to reorganize, insert, delete and copy the slides, produce a timed slide show or add transitions between selected slides.

4. What is a Normal view? Explain.

- ❖ Normal view is the main view for creating individual slides.
- ❖ Use this view to format and design slides and to add text, graphics and animation effects.
- ❖ There are two ways to place a slide in the Slide Design area of the Normal view: clicking the slide thumbnail in the Slides pane or using the Navigator.

5. How are transition effects helpful in creating an effective presentation in Impress?

- ❖ Slide transitions are the effects that occur when you move from one slide to the next during a presentation.
- ❖ You can control the speed, add sound, and customize the properties using the transition effects.
- ❖ You can also choose between an automatic or manual transition.

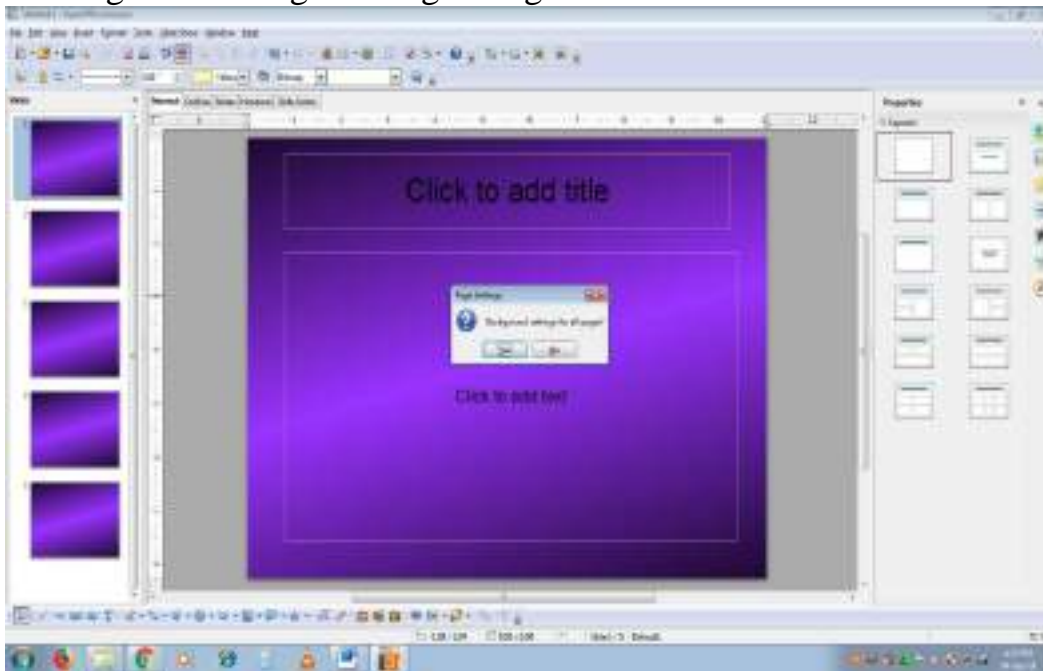
PART-IV

EXPLAIN IN DETAIL:

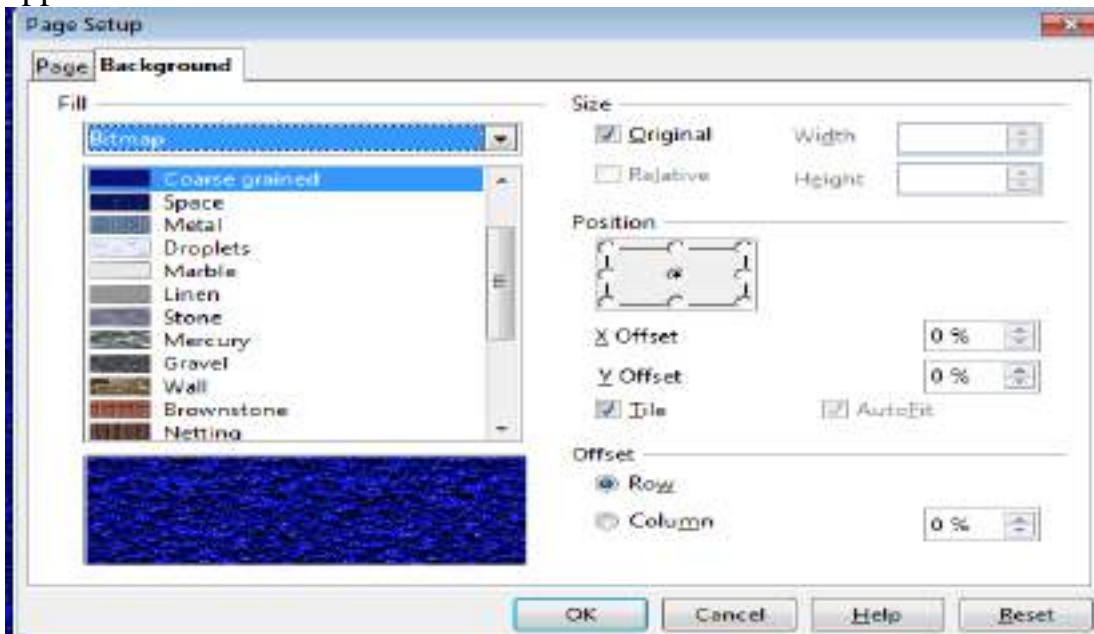
- 1. Valarmathi's teacher asks her to create a presentation in OpenOffice Impress. As Valarmathi has never worked in Impress before, help her to perform the following tasks:**

(a)She wants that except for the first slide, all the slides should have the same design. For this, what does she need to do?

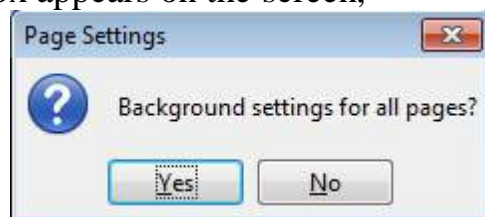
- ✓ Create the presentation with same design for all slides using master page option, by clicking YES in Page Setting dialog box



- ✓ Click the Master slide and choose Format →Page menu. The Page setup dialog box appears on the screen.

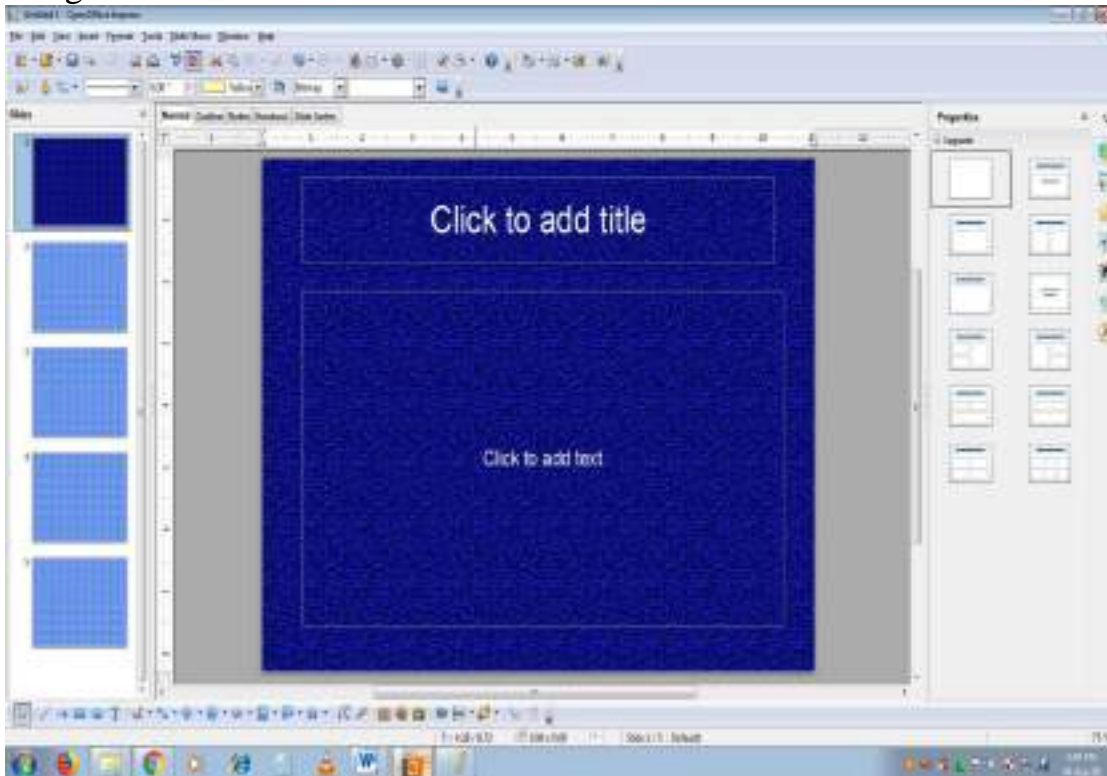


- ✓ Click Background and choose any one of the Fill option (Colour, Gradient, Bitmap, Hatching) for changing the background of the master slide.
- ✓ The Page Setting dialog box appears on the screen,



- ✓ Click NO in the Page Setting dialog box.

- ✓ Now you can see the changes except for the first slide, all the slides will have the same design.



b) To easily communicate with her audience, she wants to provide them with a hard copy of the slides of the presentation. What should she create for it?

- ✓ Handout view is used for setting up the layout of your slides for a printed handout.

c) She wants to insert some pictures and movie files in some slides. How can she do that?

- ✓ Select the slide to insert the picture.
- ✓ Choose Insert → Picture → From File option, and choose the required picture that has to be inserted into the slide.

d) Suggest her view that would be the most suitable for showing the presentation to the audience.

- ✓ Use Slide Show view to deliver your presentation to your audience. Slide Show view occupies the full computer screen, exactly the way your presentation will look on a big screen when your audience sees it.

e) To make her presentation more attractive, she wants to add some effects in it. How can she do it? Suggest.

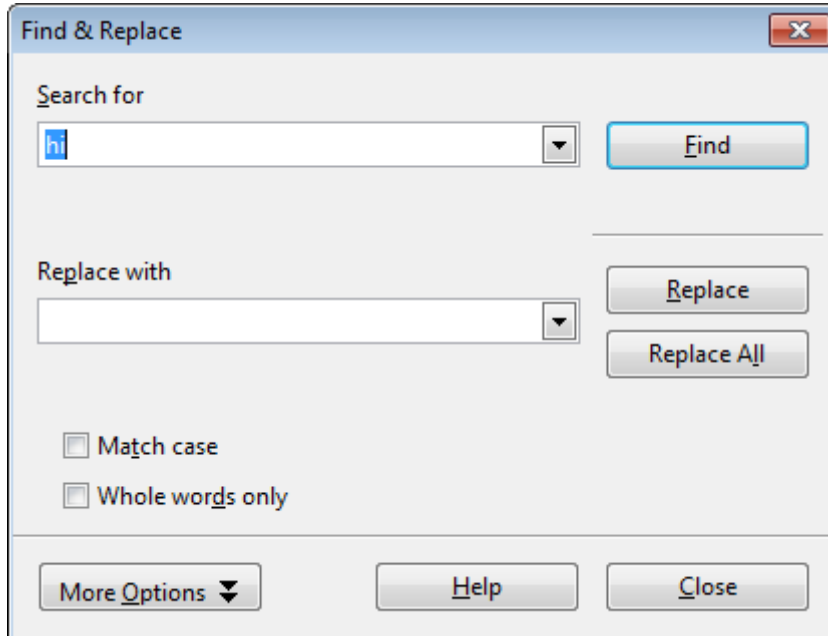
- ✓ To make her presentation attractive, she needs to add animation and transition effects to the slides.

2. Explain how a presentation can help a salesperson to promote his/her products.

- Presentation is helpful for a sales person to promote his/her products effectively.
- Presentation will give visual video, pictures to understand a goodness of the product.
- By using presentation, sales person can make audience to understand easier and he can get more response from the people.
- Presentation help sales person to present prospect challenges easier.
- Sales person can explain with physical demonstration by shocking animations. It helps to increase the sales.

3. Sivabalan created a presentation to be shown at his school's Annual Function. Just 5 minutes before the presentation, he noticed that he has misspelt the name of the school, which is appearing in all the 30 slides of the presentation. How can he rectify this mistake in all the slides in one-shot?

- ❖ The slide master will be helpful in this situation. Select the Master slide,
- ❖ Choose Edit → Find & Replace option from the menu bar. The Find & Replace Dialog box appears on the screen,



- ❖ In the search for box type the misspelt word.
- ❖ Type the correct word in the Replace with box.
- ❖ Click the Find option to find the misspelt word.
- ❖ Click the Replace All option to replace the correct word in all the slides. You can see the replacement in all the slides.

4. List some advantages of using templates.

- ❖ **Professional Graphic Design:** Templates will give professional Graphic Design which helps you to create branded PowerPoint presentation.
- ❖ **Branding:** Templates can easily be modified by changing colors, fonts, graphics, or even add your own logo to the mix.
- ❖ **Speed:** With a good starting point in each slide, your presentation is made in a snap.
- ❖ **Quick Customization:** It's much easier to edit the template in its original form, not as a copy of a copy.
- ❖ **Consistency:** A consistent design scheme will avoid jarring transitions and the sneaking suspicion that the presentation was pasted together as a ransom note.

9. INTRODUCTION TO INTERNET AND EMAIL PART-I

CHOOSE THE CORRECT ANSWER:

1. What is the expansion of WLAN?
a) **Wireless Local Area Network** b) Wired local Area Network
c) Wireless Local Area Netware d) Wireless Area Netbande
2. Range of Campus Network is
a) 10 KM b) **5 KM** c) 25 KM d) 20 KM
3. Each computer on net is called
a) **host** b) server c) workstation d) node
4. The internet is governed by
a) ICANM b) **ICANN** c) ICMA d) ICNNA
5. Expansion of W3C
a) **World Wide Web Consortium** b) Wide World Web Consortium
c) World Web Wide Consortium d) World Wide Web Consortium
6. W3C was established in 1994 by
a) **Tim Berners-Lee** b) Tim Burnard Lee c) Kim Berners d) Kim Bernard Lee
7. Hotspot uses which type of network services?
a) LAN b) **PAN** c) WLAN d) CAN
8. USB WiFi adapters are often called as
a) Data Card b) Pen Drive c) **Dongles** d) Memory Card
9. Looking for information on the internet is called
a) **Surfing** b) Searching c) Finding d) glancing
10. Safari web browser was developed by
a) Google b) **Apple** c) Microsoft d) Linux Corpn.
11. How many types of websites are available?
a) 3 b) **2** c) 4 d) 6

PART-II

VERY SHORT ANSWERS:

1. Name the two important protocols for internet?

- ❖ The internet uses TCP/IP(Transmission Control Protocol/ Internet Protocol) to transmit data via various types of media.
- ❖ TCP/IP is not a single networking protocol – it is a suite of protocols named after the two most important protocols or layers within it – TCP and IP.
- ❖ As with any form of communication, two things are needed: a message to transmit and the means to reliably transmit the message.
- ❖ The internet protocol (IP) addressing system is used to keep track of the millions of users.

2. What is a network?

- ❖ A network is a collection of interconnected devices (such as computers printers).

3. What is the role of ICANN?

- ❖ Internet Corporation for Assigned Names and Numbers (ICANN) administers the domain name registration. It helps to avoid a name which is already registered.

4. What is a search engine?

- ❖ A search engine is a software system that is designed to search for information on the World Wide Web. Examples of popular search engines are Yahoo, Lycos, Altavista, Hotbot, Google and Askjeeves.

5. What is a browser?

- ❖ A browser is used to access websites and web pages whereas a search engine issued to search for particular information. Internet Explorer, Chrome, Firefox, Safari, and yahoo are the most popular web browsers while Google and Yahoo are the most popular search engines.

6. What are the components of URL addressing?

- ❖ A webpage is a page of a Website. Every page has a unique address called the Uniform
- ❖ Resource Locator (URL). The URL locates the pages on the internet.



7. What is a website?

- ❖ A website is a collection of webpages. For example if there is a company that owns sricompany.com then this website will have several Webpages like Home, About Us, Contact Us, Testimonials, Products, Services, FAQ's, and others. The first page of the website is called a Home Page. All of these pages together make up a Website.

8. What is CC and BCC in an email?

- ❖ The **CC (Carbon Copy)** field allows you to specify recipients who are not direct addressees (listed in the "To" field). This field is optional.
- ❖ The **BCC (Blind Carbon Copy)** field is similar to **CC**, except the recipients are secret.
- ❖ Each **BCC** recipient will receive the e-mail, but will not see who else received a copy.
- ❖ The addressees (anyone listed in the "To" field) remain visible to all recipients. This field is optional.

9. What is a Static web Page?

- ❖ Web pages are called Static websites as they remain the same whenever it is visited. Examples of static Websites are website owned by Small business organizations, School websites etc.

10. What is a Dynamic web page?

- ❖ Websites that displays marks of Public Examinations and Entrance Examinations changes when different register numbers are given. Such websites are called as Dynamic Websites. Eg., Websites of Government and Entrance Exams.

11. What are the benefits of e-governance?

Benefits of E-governance

- ❖ Reduced corruption

- ❖ High transparency
- ❖ Increased convenience
- ❖ Reduction in overall cost.
- ❖ Expanded reach of government

12. What is Phishing?

- ❖ Phishing scams are fraudulent attempts by cybercriminals to obtain private information. Phishing scams often appear in the guise of email messages designed to appear as though they are from legitimate sources.

PART-II

SHORT ANSWERS:

1. What is TCP/IP ?

- ❖ The internet uses TCP/IP(Transmission Control Protocol/ Internet Protocol)to transmit data via various types of media.
- ❖ TCP/IP is not a single networking protocol .As with any form of communication, two things are needed: A message to transmit and the means to reliably transmit the message.
- ❖ The internet protocol (IP) addressing system is used to keep track of the millions of users. Each computer on net is called as **host**. The internet is the most cost-effective method of communications in the world.

2. Write a note on Hotspot internet service.

- ❖ Hotspots are sites that offer Internet access over a wireless local area network (WLAN) by way of a router that then connects to an Internet service provider.
- ❖ Hotspots utilize Wi-Fi technology, which allows electronic devices to connect to the Internet or exchange data wirelessly through radio waves. Hotspots can be phone-based or free-standing, commercial or free to the public.

3. Differentiate Data Card and Dongles

Dongle	Data Card
Refers to any removable component used for enabling extra security. USB Dongles can be divided into <ul style="list-style-type: none"> • WiFi Dongles • BlueTooth Dongle • Memory Dongle 	It is a removable electronic card which is used for storing for data. Types of datacard are <ul style="list-style-type: none"> • Expansion Card • Memory Card or Flash Card • Identification Card

4. Write a note on two access methods of connecting to internet.

- ❖ **Indirect Access** This is most common method used in home and office networks. The device e.g. computer connects to a network using Ethernet or WiFi and the network connects to the Internet using Asymmetric digital subscriber line ADSL (cable or fibre.)
- ❖ **Direct Access** This is most common method used when travelling. The device e.g. smart phone connects directly to the Internet using 3G/4G mobile networks /public WiFi.

5. Differentiate browser and a search engine with suitable examples.

- ❖ **Search Engine:** “A search engine is a software system that is designed to search for information on the World Wide Web”.
- ❖ Examples of popular search engines are Yahoo, Lycos, AltaVista, Hotbot, Google, askjeeves.

- ❖ **Browser** : “A browser is used to access websites and web pages whereas a search engine issued to search for particular information”
- ❖ Examples: Internet Explorer, Chrome, Firefox, Safari, and Google and Yahoo are the most popular search engines.

6. Differentiate Website and Webpage.

Webpage	Website
Consists of a Single document displayed by a browser	A collection of multiple documents displayable by a browser
Shares a unique domain name	Has its own unique domain name
Makes up a website	Contains one or more webpages

7. What is the difference between Static and dynamic web page.

Static Web Page	Dynamic Web Page
The content and layout of a web page is fixed	The content and layout may change during run time
Static Web pages never use databases	Databases is used to generate dynamic content through queries
Static web pages directly run on the browser and do not require any server side application program	Dynamic web pages runs on the server side application programs and displays the results
Static Web pages are easy to develop	Dynamic web page development requires programming skills

8. What are Advantages of email?

- **Free delivery** - Sending an e-mail is virtually free, outside the cost of Internet service. There is no need to buy a postage stamp to send a letter.
- **Global delivery** - E-mail can be sent to nearly anywhere around the world, to any country.
- **Instant delivery** - An e-mail can be instantly sent and received by the recipient over the Internet.
- **File attachment** - An e-mail can include one or more file attachments, allowing a person to send documents, pictures, or other files with an e-mail.
- **Long-term storage** - E-mails are stored electronically, which allows for storage and archival over long periods of time.
- **Environmentally friendly** - Sending an e-mail does not require paper (Paperless) cardboard, or packing tape, conserving paper resources.

PART-IV

EXPLAIN IN DETAIL:

1. Explain any five types of internet services.

Wireless

- ❖ Radio frequency bands are used in place of telephone or cable networks. One of the greatest advantages of wireless Internet connections is the "always-on" connection that can be accessed from any location that falls within network coverage.

Mobile

- ❖ Many cell phone and Smartphone providers offer voice plans with Internet access. Mobile Internet connections provide good speeds and allow you to access the Internet.

Hotspots

- ❖ Hotspots are sites that offer Internet access over a wireless local area network (WLAN) by way of a router that then connects to an Internet service provider.
- ❖ Hotspots utilize Wi-Fi technology, which allows electronic devices to connect to the Internet or exchange data wirelessly through radio waves.

Broadband

- ❖ This high-speed Internet connection is provided through either cable or telephone companies. One of the fastest options available, broadband Internet uses multiple data channels to send large quantities of information. Broadband Internet connections such as DSL and cable are considered high-bandwidth connections.

DSL

- ❖ DSL, which stands for Digital Subscriber Line, uses existing 2-wire copper telephone line connected to one's home so service is delivered at the same time as landline telephone service. Customers can still place calls while surfing the Internet.

Cable

- ❖ Cable Internet connection is a form of broadband access. Through use of a cable modem, users can access the Internet over cable TV lines. Cable modems can provide extremely fast access to the Internet.

Satellite

- ❖ In certain areas where broadband connection is not yet offered, a satellite Internet option may be available. Similar to wireless access, satellite connection utilizes a modem.

ISDN

- ❖ ISDN (Integrated Services Digital Network) allows users to send data, voice and video content over digital telephone lines or standard telephone wires. The installation of an ISDN adapter is required at both ends of the transmission—on the part of the user as well as the Internet access provider.

2. Explain any five internet applications with suitable examples.

- 1. Internet telephony** Internet telephony (e.g. Skype) is another common communications service made possible by the creation of the Internet. VoIP stands for Voice-over-Internet Protocol, referring to the protocol that underlies all Internet communication.
- 2. Job search** Nowadays, many people search for their jobs online as it is quicker. Some of the web sites providing this service are naukri.com, monster.com, summerjob.com, recuritmentindia.com etc.
- 3. Online Shopping** The internet has also facilitated the introduction of a new market concept consisting of virtual shops.
- 4. Stock market updates** Selling or buying shares sitting on computer through internet. Several websites like ndtvprofit.com, moneypore.com, provide information regarding investment.

5. Travel: One can use internet to gather information about various tourist place .it can be used for booking Holiday tours, hotels, train, bus, flights and cabs. Some of the web sites providing this service are goibibo.com, makemytrip.com, olacabs.com.

6. Research Research papers are present online which helps in the researcher doing a literature review

7. Video conferencing: It enables direct face-to-face communication across networks via web cameras, microphones, and other communication tools.

8. e-commerce e-commerce (electronic commerce or EC) is the buying and selling of goods and services, or the transmitting of funds or data. Largest e-commerce companies in India are Flipkart, Snapdeal, Amazon India, Paytm.

9. Online payments The rising boom of online payments in India has given way to many new entrants in the industry such as Paytm etc who are majorly wallet driven payment companies.

10. Social Networking: Social networking is the use of internet-based social media programs to make connections with friends, family, classmates, customers and clients. Examples of social networking includes Facebook

11. Voicemail: Voicemail is a system of sending messages over the phone.

12. Chatting On the Internet, chatting is talking to other people who are using the Internet at the same time you are.

13. e-banking : E-banking (Online banking) , also known as internet banking, it is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. The online banking system will typically connect to or be part of the core banking system operated by a bank and is in contrast to branch banking which was the traditional way customers accessed banking services.

14. e-learning:-e-Learning are courses that are specifically delivered via the internet to somewhere other than the classroom where the professor is teaching. It is not a course delivered via a DVD or CD-ROM, video tape or over a television channel.

3. Write a note on any five Internet browsers other than that given in the book.

- Looking for information on the internet is called **surfing or browsing**. To browse the internet, software called the **web browser or browser** is used.
- E-commerce, social media, and many other things we take for granted today would be impossible without internet browsers. A web browser translates HTML documents of the website and allows viewing it on the screen.

Familiar Internet Browser

- ❖ **Google Chrome** is a freeware familiar web browser **developed by Google Inc.** It is best for its speed, simplicity, security, privacy and customization features. Google Chrome supports on Android 4.0 or higher, iOS 6.0 or higher, Mac OSX 10.6 or higher and Windows (XP sp2 or higher) and Linux system.
- ❖ **Mozilla Firefox** is a free and open source web browser **developed by Mozilla Foundation and Mozilla Corporation.** FireFox is **default browser in Ubuntu** . It supports Windows, Mac OS X, Linux and Android system.
- ❖ **Internet Explorer** commonly known as Microsoft Internet Explorer or Windows Internet Explorer is the first or default browser for a Windows PC. It is **developed by Microsoft.**
- ❖ **Safari** is a web browser **developed by Apple Inc.** and comes with OS X and iOS.

Some version of safari browser also supports in Windows Operating System.

Exclusively used in Apple Mac system.

4. Explain the do's and don't of safe surfing on internet.

Following is the do's and don't of safe Surfing on Internet

- ❖ Don't give out your personal information – Don't put personal details such as your home address, telephone numbers or parent's work address online as cybercriminals can use this information to create a fake profile with your details
- ❖ What goes online stays online – Use privacy settings to make sure only your friends and family can see photos you post. Avoid posting holiday plans as criminals have been known to track your movements
- ❖ Check your security and privacy settings – Make sure your social network privacy settings are secured so only your friends can see your personal information and use your privacy settings to restrict who can see your posts, videos and photos
- ❖ Password safety – Sharing your password with your parents is a sensible idea, but avoids sharing your password with your friends, even if they promise they won't tell anyone! Also, when setting your password, make sure it isn't something people may guess such as your pet's name. Use a mixture of letters, numbers and upper and lower case characters
- ❖ Always protect your mobile device – Make sure your mobile phone is pin-protected so all your personal information stored on it is safe. Download a security app which allows you to remotely wipe any personal data, should your mobile be lost or stolen
- ❖ Don't talk to strangers online or offline – Don't meet up with strangers and let your parents know if a stranger has tried to get in contact with you online.
- ❖ Listen to the adults who know – Adults will always be worried about you. Help set their mind at rest and avoid chatting online with strangers.
- ❖ Be wary of unsecured or unknown websites – When shopping online, use reputable and known retailers.
- ❖ Be careful what links you click on – Avoid clicking links in an email, Instant Message or on your social network unless you are sure the message is from someone you know.

10. HTML - Structural Tags

PART-I

CHOOSE THE BEST ANSWER:

- HTML is acronym for
(a) Hyper Transfer Markup Language **(b) Hyper Text Markup Language**
(c) Hyper Transfer Makeup Language (d) Hyper Text Makeup Language
- The coded HTML keywords that indicates how web browser should format and display the content is called.....
(a) Tags (b) Attributes (c) Headings (d) Body
- Which of the following is a special word used inside tag to specify additional information to the tag?
(a) Tags **(b) Attributes** (c) Headings (d) Body
- HTML tags should be specified within:
(a) [] (b) { } (c) () **(d) < >**
- An HTML document is bounded within a pair of tags
(a) <body> </body> (b) <title> </title>
(c) <html> </html> (d) <head> </head>
- Which of the following symbol is used to define a closing tag?
(a) < > (b) % (c) / (d) \
- Which section of the browser window displays the main contents?
(a) Head **(b) Body** (c) Title (d) Heading
- Which of the following tag is a structural tag?
(a) <html> (b) <h1> (c)
 (d) <p>
- In HTML, colours are represented as
(a) Binary values (b) Octal values (c) Decimal values **(d) Hexadecimal values**
- Which of the following symbol is used to prefix with hexadecimal value representing colour in HTML?
(a) % **(b) #** (c) @ (d) &
- Which of the following attribute is used to change text colour within body tag?
(a) bgcolor (b) background (c) text (d) color
- Within body section, which of the following attribute is used to set top margin?
(a) margin (b) top **(c) topmargin** (d) leftmargin
- How many levels of heading tags available in HTML?
(a) 6 (b) 4 (c) 8 (d) 3
- The tag used to insert a line break:
(a) <h1> **(b)
** (c) <html> (d) <p>
- The tag used to define a paragraph in HTML:
(a) <para> **(b) <p>** (c) <q> (d)

PART – II

VERY SHORT ANSWERS:

- Sandhiya is creating a webpage. She is entering HTML code on her computer. In between, she keeps pressing “Refresh” / “Reload” button on her browser. What is the purpose?**

Reload / Refresh the changes:

- After modify and save the source file, minimize your source file. Go to the browser. Click **Refresh** (Internet Explorer) / **Reload Current Page** (Firefox) / **Reload this page** (Chrome) icons on the address bar. Press **Ctrl + R** or **F5** will be used to refresh / reload the modifications.

2. Explain with the help of an example the difference between container and empty elements of HTML.

- **Container Elements:** The tags which are required opening and closing is known as container elements or tags. For example: <html>, <body>, <title>, <p> etc.,
- **Empty Elements:** The tags which are required only opening tag is known as empty elements or tags. For example:

3. What is the wrong in the following coding?

```
<html>
<my web page>
<title> Welcome to my web page
</head>
</title>
```

SOLUTION:

```
<html>
<head> <title>my web page</title>
</head>
<body> Welcome to my web page</body></html>
```

4. How do you define comments in HTML?

- Comments are used to describe the page or provide some kind of indication of the status of the page. The tag <!--> is used to create comments. Comments never show up onscreen. Comments can be placed anywhere in HTML document.
- The general form of comments: <!-- Comments -->

5. How do you include an image as your web page background?

- An image or picture can be applied as background to a webpage. When you insert an image as background, the text will be displayed on top of the image. Background images can be a texture or bitmap or even a photo.
- The tag to apply an image as background:
<body background = "image_name_with_extenstion">

PART – III

SHORT ANSWERS:

1. Explain the attributes available with <body> tag.

(i) Background Colour: bgcolor = color

- By default all the browsers display the text on white background. However, the background color of the browser can be changed by using bgcolor tag.
- The tag to change background colour: <body bgcolor = color_name/color_code>

(ii) Body text Colour: text = color

- The default text colour of body section is "black", it is often called as automatic color. text attribute within body tag is used to change the text colour.
- The tag to change body text colour: <body text = color_name/color_code>

(iii) Background image: background=image

- An image or picture can be applied as background to a webpage. When you insert an image as background, the text will be displayed on top of the image. Background images can be a texture or bitmap or even a photo.
- The tag to apply an image as background: **<body background = "image_name_with_extenstion">**

2. What are the attributes available in <html> tags?

<html> tag has two attributes viz. **dir** and **lang** to specify the **text direction** and **language setting** respectively

Dir:

- dir attribute specifies the direction of the text to be aligned within the entire document. It is global attribute.
- ltr is the default value
- rtl is used for Arabian languages.

Lang:

- lang attribute specify the language used with in the document. Predefined language code will be used for this purpose.
- Malayalam – ml; Kannada – kn; Hindi – hi; French – fr; German – de.

3. How do you view the source file?

- ❖ Right click on the browser
- ❖ Select **View Page Source (Firefox and Chrome) / View Source (Internet Explorer)** or Press **Ctrl + U** (all browser)
- ❖ Source file will be displayed.
- ❖ In Internet Explorer, **View** → **Source** is also used to open source file.

4. How do you save a file as HTML file?

- Click File → Save (or) Press Ctrl + S
- Save as dialog box appears as shown in the Figure
- In “File Name” text box, type a file name with .htm or .html extension. Select “All Files” from “Save as type” list box. Click “Save” button.

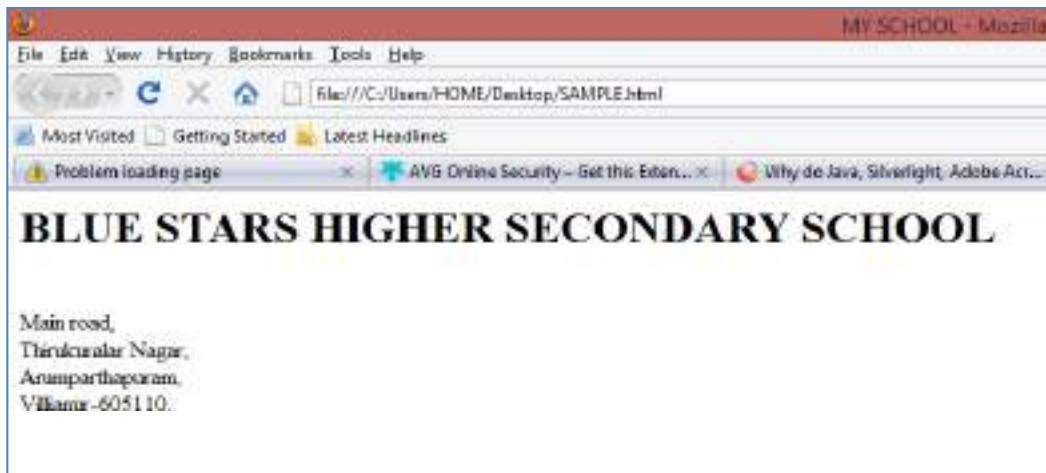
PART-IV

EXPLAIN IN DETAIL:

1. Write a HTML program to display your school name and address using heading level tags.

```
<html>
<head>
<title>MY SCHOOL</title>
</head>
<body>
<h1>BLUE STARS HIGHER SECONDARY SCHOOL</h1><br>
Main road, <br>
Thirukuralar Nagar, <br>
Arumparthapuram, <br>
Villianur-605110.
</body>
</html>
```

OUTPUT:



2. Write the basic structure of a HTML program.

- ❖ An HTML document contains the text of the page itself and HTML tags, which defined the structure and appearance of the document. It also contains hyperlinks to other pages or to include multimedia elements such as audio, video, animations etc. Entire HTML document is bounded within a pair of `<html>` and `</html>` tags.

All HTML documents should follow this general format

```
<html>
```

```
<head>
```

```
<title> My First Web Page </title>
```

```
</head>
```

```
<body>
```

```
This is my First Web Page
```

```
</body>
```

```
</html>
```

- ❖ HTML tags are generally have an opening and closing tag surrounding the text they affect. Opening tag turn-on a feature such as heading, bold, center etc., and closing tag turn-off its features. Opening and closing tags are the same name, but closing tag name preceded by a slash (/). For example, `<html>` is an opening tag, `</html>` is a closing tag.
- ❖ Every web document has two sections viz. **Heading Section** and **Body Section**. The heading section is used to show the title of a webpage in title bar or tag heading in browser. The head section should begin with `<head>` tag and end with `</head>` tag. The tag `<title>` is used to specify the title of the webpage.
- ❖ The body section is used to display the main content on the browser window. The body section should defined within `<body>` and `</body>` tags. Whatever the text you specify between these tags will display on the browser window.

11.HTML - Formatting text, Creating Tables, List and Links

PART-I

CHOOSE THE BEST ANSWER:

1. Which of the following tags are called as physical style tags?

(A) <html>, ,
 (B) ,
, <u>

(C) <A>, , <i> (D) , <i>, <u>

2. Which feature is used to call attention to the reader?

(A) **Highlight** (B) Bold (C) Italics (D) Underline

3. The tags <sub> and <sup> used for:

(A) Subject and Super (B) Subscript and Super

(C) Subject and Superscript (D) **Subscript and Superscript**

4. A named set of certain style of character and number is:

(A) Style (B) Character (C) **Font** (D) List

5. Pick odd one from the list

(A) <tr> (B) <th> (C) **<dh>** (D) <td>

6. Match the following:

(a) tfoot - (1) Order list

(b) start - (2) Hyperlink

(c) href - (3) Highlight

(d) mark - (4) Table

(a) (b) (c) (d)

(A) **4 1 2 3**

(B) 1 4 3 2

(C) 4 3 2 1

(D) 1 2 4 3

7. Definition list has how many parts?

(A)5 (B) 4 (C) 3 (D)**2**

8. A list block can be defined inside another list is

(A) Inner List (B) **Nested List** (C) Outer List (D) Listing List

9. Read the following statement and choose the correct statement(s):

(I) Link in HTML is used to create hyperlinks to web content.

(II) HREF is abbreviated as Hypertext Markup File

(A) **I is correct** (B) II is correct (C) I and II is correct (D) Both are wrong

10. To create internal link, which of the following attribute should be used?

(A) link (B) **name** (C) local (D) Inter

PART-II

VERY SHORT ANSWERS:

1. Write a short note on (i) (ii)

❖ **Important text** :The tag is a phrase tag. It is used to define important text. This tag displays the text as bold.

❖ - **Emphasized text** :The tag is used to emphasize the text. That means, when you use this tag, the text will be in italics.

2. What is the use of <mark> tag?

❖ The <mark> tag is used to highlight the text in HTML. This is also a container tag. Whatever the text given between <mark> and </mark> will be displayed as highlighting with default color (mostly yellow).

3. Write the following equation as HTML notation: $Pd = 2s - Q^2$

```
<Html>
<head>
<title>html notation</title>
</head>
<body>
Pd=2s-Q<sup>2</sup>
</body>
</html>
```

4. Write about any two attributes of font tag.

- ❖ The **face** is an attribute to set different font style. The name of a font has multiple words it should be specified within double quote.
- ❖ The **size** attribute is used to set size of the text. The size can have an absolute value from 1 to 7. These predefined sizes are known as virtual size. Each virtual size is successively 20% larger than the previous one.
- ❖ The **color** attribute is used to set the color to the text. As you learnt earlier color name or color code in hexadecimal may be used.

5. What is thematic break?

- ❖ The **<hr>** (Horizontal Rules) tag, which is known as “Thematic Breaks” separate sections of an HTML document visually. It produces a horizontal line spread across the width of the browser. This is an empty tag, which means the tag has no closing tag.

6. What is pixel?

- ❖ A pixel is one of the tiny dots that make up the display on computer. Generally, 72 pixels equal to an inch. Pixel is usually referred as points.
- ❖ For example: The code **<hr size = 72>** display a horizontal line with 1 inch thickness. The default size is 3 pixels.

7. What are the types of list in HTML?

- ❖ HTML supports three types of lists viz. numbered, unnumbered and definition. These lists are called as Ordered List, Unordered List and Definition List respectively.

8. How will you define numbered list?

- ❖ Numbered list is created within the tag pair ** ** tag. The tag **** is used to present the list item in the list. Ordered list displays items in a numerical or alphabetical order. Both **** and **** tags are container tags.

PART – III

SHORT ANSWERS:

1. Write an HTML code to display the following text in exactly the same way as given below. I am studying Computer Science Application.

```
<html>
<head><title> Computer Application</title>
</head>
<body>
<h3> I am studying Computer Science Application</h3>
</body>
</html>
```


2. Briefly explain the attributes of <hr> tag.

- ❖ The <hr> tag having four attributes viz. **size**, **width**, **noshade** and **color**. These attributes are used to set size, width, 3D appearance and color to the horizontal line respectively.
- ❖ The general syntax of <hr> tag with attributes: **<hr size=value width=value noshade, color=color_name/code>**

3. What are the core tags used to create table in HTML?

- ❖ There are five core tags are used to create a table in HTML. They are,
 - **<table>** tag is used to create a table.
 - **<tr>** tag defines table rows
 - **<th>** tag defined table columns
 - **<td>** tag is used to specify the data in a cell
 - **<caption>** tag defines title for the table

4. Write an HTML code to provide hyperlink to <https://www.w3schools.com>

```
<html>
  <head><title> hyperlink</title>
  </head>
  <body>
    <A href= "http://www.w3schools.com"> Click </A>
  </body>
</html>
```

5. Difference between and tags.

- ❖ **Ordered lists:** Numbered list is created within the tag pair ** ** tag. The tag **** is used to present the list item in the list. Ordered list displays items in a numerical or alphabetical order. Both **** and **** tags are container tags.
- ❖ **Unordered lists:** Unordered lists are often referred as bulleted lists. Instead of numbers, each element in the list has prefixed with a special bullet symbol. Unordered list is surrounded within ** ** tags. Each list element is defined by **** tag.

6. Write HTML code to produce the following Table:

A	B
	C

SOLUTION:

```
<table border=1 cellspacing=0 cellpadding=12>
  <tr VAlign =top>
  <td rowspan=2>A</td><td> B</td>
  </tr>
  <tr><td> C</td>
  </tr>
</table>
```

PART-IV

EXPLAIN IN DETAIL:

1. Write an HTML code the show the following text:

MODERN ATOMIC THEORY

The findings of modern atomic theory are given as follows:

- An atom is the smallest particle which takes part in chemical reaction.
- An atom is considered to be a divisible particle.
- The atoms of the same element may not be similar in all respects.
eg. Isotopes (${}_{17}\text{Cl}^{35}$, ${}_{17}\text{Cl}^{37}$)
- The atoms of different elements may be similar in some respects.
eg. Isobars (${}_{18}\text{Ar}^{40}$, ${}_{20}\text{Ca}^{40}$)

Program:

```
<html><head><title>table program</title></head>
<body>
<center>MODERN ATOMIC THEORY</center>
<b>The findings of modern atomic theory are given as follows:</b>
<ul >
<li>An atom is the smallest particle which takes part in chemical reaction.
<li>An atom is considered to be a divisible particle.
<li>The atoms of the same element may not be similar in all respects.
<dl>
<dd>eg: Isotopes (<sub>17</sub>Cl<sup>35</sup>,
<sub>17</sub>Cl<sup>37</sup>)
</dl> </ul>
<ul>
<li>The atoms of different elements may be similar in some respects.
<dl>
<dd>eg. Isobars (<sub>18</sub>Ar<sup>40</sup>,
<sub>20</sub>Ca<sup>40</sup>)
</dl>
</ul>
</body>
</html>
```

2. Explain the attributes used with <table> tag in HTML.

The <table> is a container tag. There are several attributes to improve the layout of the table. They are listed below:

- ❖ **Cellspacing:** It is used to set the space between cells in a table. The value should be in pixels.
- ❖ **Cellpadding:** It is used to set the space between the contents of a cell and its border. the value should be in pixels
- ❖ **Border:** Border attribute with <table> tag is used to specify the thickness of the border lines around the table.
- ❖ The value of the border attribute should be a non-zero value in pixels. (If its value is zero, HTML displays the table without border). The default value is Zero in most the browsers.
- ❖ **Bordercolor:** It is used to apply the colour to the border lines.

- ❖ **Align:** It is used to set the position of the table within the browser window. **Left** is the default position. **Right** or **center** may be the value of align attribute.
 - ❖ **BGcolor:** It is used to apply background colour to the table.
 - ❖ **Height and Width:** These two attributes are used to specify the height and width of a table in terms of **pixels** or **percentage**.
- 3. Explain the types of list with suitable HTML code.**
- ❖ HTML supports three types of lists viz. numbered, unnumbered and definition.
 - ❖ These lists are called as Ordered List, Unordered List and Definition List respectively.

Numbered List / Ordered List

- Numbered list is created within the tag pair ` ` tag.
- The tag `` is used to present the list item in the list.
- Ordered list displays items in a numerical or alphabetical order.
- Both `` and `` tags are container tags. closing tag `` never be used.

Un-numbered List / Unordered List

- Unordered lists are often referred as **bulleted** lists. Instead of numbers, each element in the list has prefixed with a special bullet symbol. Using `` tag
- Unordered list is surrounded within ` ` tags

Definition List

- ❖ Definition list is different from other two types of list. No bullet or number is provided for the list items. The list element has two parts.

(1) A definition term

(2) The definition description

- Definition list is surrounded within `<DL>.....</DL>` tags.
- Definition term is presented in between `<DT>.....</DT>` tag and
- Definition description should be surrounded within `<DD></DD>` tag.

Example:

```
<html> <head> <title> list in Html</title></head>
<body>
<ol type=A>
<li> hardware
<li> software
</ol>
<ul type= B>
<li> network
<li> mail
</ul>
<dl>
<dt> HTML
<dd> Hypertext markup Lanaguage
</dl>
</body></html>
```

OUTPUT:

- A**
1. hardware
 2. software
- B**

- network
- mail

HTML

Hypertext markup Language

4. What is Link and explain the types of links.

- ❖ Link is an important feature of HTML to connect web resources.
- ❖ **Link** in HTML is used to create **hyperlinks** to web content.
- ❖ Web content may be an HTML document(**internal**) or an **external** webpage or any multimedia content such as an image, video, audio, animation etc., or even a part of the current document.
- ❖ There are **two** important things needs to create a link in HTML,
 - (1) The name of the **file** or **URL** to which you want to link
 - (2) The text that will serve as the **clickable** link.
- ❖ The anchor tag <A> is used to create links along with **HREF** attribute. **HREF** is abbreviated as “**Hypertext Reference**”.
- ❖ Structure of an anchor tag with href:

 Text – **Clickable link**

Example: **SCERT**

5. Write HTML code to create the following table:

A	B			
	C	D	E	G
	F			

</table>

<table border=1 cellspacing=0 cellpadding=16>

<tr>

<td rowspan=3 VAlign=top>A</td>

<th colspan=4>B</th>

</tr>

<tr>

<td>C</td>

<td>D</td>

<td>E</td>

<td rowspan=2 VAlign=top>G</td>

</tr>

<tr> <th colspan=3>F</th></table>

12. HTML – Adding multimedia elements and Forms

PART-I

CHOOSE THE BEST ANSWER:

1. Which image format was standardized by W3C?
(A) JPEG (B) **SVG** (C) GIF (D) PNG
2. The tag used to insert an image in HTML:
(A) Image (B) Picture (C) **Img** (D) Pic
3. In HTML, a piece of text or image can be moved horizontally or vertically by using:
(A) **<marquee>** (B) (C) <embed> (D) <text>
4. Inline sound can be inserted using which of the following tag?
(A) <inline> (B) **<backgroundsound>** (C) <bgsound> (D) <sound>
5. Which value causes the audio play as long as the page is in view?
(A) Stop (B) Never Stop (C) Continue (D) **Infinite**
6. The important attributes used with the <form> tag are
(A) **method and action** (B) name and size
(C) post and get (D) type and name
7. The tag is used to create dropdown list box in HTML is:
(A) <dropdown> (B) **<select>** (C) <list box> (D) <input>
8. Match the following:
(a) <textarea> - (1) inline
(b) <input> - (2) Video
(c) <bgsound> - (3) Multiline input
(d) <embed> - (4) Password
(a) (b) (c) (d)
(A) 3 1 4 2
(B) **3 4 1 2**
(C) 2 3 4 1
(D) 2 1 3 4

PART – II

SHORT ANSWER:

1. List out the popular image formats.

Most of the browsers support, GIF, JPEG and PNG image formats

- ❖ GIF (Graphical Interchange Format)
- ❖ JPEG (Joint Photographic Experts Group)
- ❖ PNG (Portable Network Graphics)

2. Write down the general format of marquee

General format:

<marquee> Text or image to be scroll </marquee>

3. What is inline sound or movie?

- ❖ Music can be played in the background to a webpage, while the page is viewed. This is known as 'inline' sound or movie.

4. What is the purpose of <input> tag?

- ❖ The purpose of <input> tag is to form controls, form controls are created by using <input> tag. The <input> is an empty tag used to create different form elements or controls such as text box, radio buttons, etc.

5. Which tag is used to specify the list of items in dropdown list box?

- ❖ The <select> tag is used to create dropdown list box in HTML.
- ❖ It provides a list of various options as a dropdown list.

6. What are the major attributes are available in <textarea> tag?

- ❖ The <Textarea> tag used to receive multi line text data as input. It is a container tag.
- ❖ The main attributes of <Textarea> are
 - **Name** – Used to define name to the control
 - **Rows** – Specifies the number of rows in the text area control
 - **Cols** – Specifies the number of columns in the text area. (number of characters in a line)

PART – III

SHORT ANSWERS:

1. Write a short note on familiar images format.

i. GIF (Graphical Interchange Format)

- This format is one of the popular format for **animated images**.
- It was developed by **CompuServe**.
- This format is suitable for presenting tiny animated images, logos, icons, lineart etc.,
- It is not suitable for photographic work, because it uses maximum of **256** colours.
- Animated **GIF** do not support sound or playback control.

ii. JPEG (Joint Photographic Experts Group)

- JPEG is the most popular image format supported by all web browsers.
- This format is suitable for photographic images.
- JPEG can include any number of colours.(supported Full color)

iii. PNG (Portable Network Graphics)

- PNG is designed as a replacement for **GIF**.
- It is also supported by all browsers.

iv. SVG (Scalable Vector Graphics) -----SVG images.

- SVG is a graphics format that was developed for web.
- It was standardized by World Wide Web Consortium (**W3C**) in **2001**.

2. How will you scroll the text in HTML?

- ❖ The HTML <marquee> tag is used for scrolling piece of text or image either horizontally or vertically. This feature makes a web page as more attractive.

General format:

<marquee> **Text or image to be scroll** </marquee>

- ❖ **Attributes of <marquee> :** Behavior, direction, Height & Width, loop, scrolldelay, scrollamount, Vspace & Hspace, bgcolor .

3. Explain the main attributes used with <form> tag.

Main Attributes used with <form> tag

- ❖ The important attributes used with the <form> tag are method and action attributes.

Method

- ❖ The method attribute of the **form** tag is used to identify how the form element names and values will be sent to the server.

- ❖ The **get** method will append the names of the form elements and their values to the URL.
- ❖ The **post** method will send the names and values of the form elements as packets.

Action

- ❖ The **action** attribute identifies the server side program or script that will process the form.
- ❖ The action will be the name of a Common Gateway Interface (CGI) program written in programming languages like Perl, JavaScript, PHP or Active Server Pages (ASP).

4. Explain the values of <input> tag's type attribute.

Value of type attribute	Description
Text	Create a Text Box. The element used to get all kind of text input such as name, address etc.,
Password	Similar as Text box. But, while entering data, the characters are appearing as coded symbols such as asterisk.
Checkbox	Check box is an element appearing like a small square box. When the user click on the square a tiny tick mark will appear inside the square. This element is used to select multiple options.
Radio Button	Radio button is used to select any one of the multiple options from the list. This element looks like a small circle, when the user select an item, a tiny dot will appear within the circle. If the user selects another option, previously selected option will be deselected. This means, user can select any one of the given option form a group.
Reset	It is a special command button used to clear all the entries made in the form.
Submit	It is also a special command button used to submit all the entries made in the form to the backend server.
Button	This is a standard graphical button on the form used to call functions on click.

5. Explain the attributes of <select> and <option> tags

- ❖ The <select> tag is used to create dropdown list box in HTML. It provides a list of various options as a dropdown list. This element is more helpful when a number of options are to be displayed in a limited space. The <option> tag is used to specify list items.

Attributes of <Select> tag:	Attributes of <Option> tag:
Name - Provide the name to the control, which is sent to the server.	Selected - Indicate default selection
Size - Determine the style of dropdown list box. Size = 1 dropdown list box Size = 2 List box	Value - Value to be submitted to server
Multiple - Allows user to select multiple values.	

13. CSS-CASCADING STYLE SHEETS

PART-1

CHOOSE THE BEST ANSWER:

1. Expansion of CSS

- (A) Cascading Style Schools (B) Cascading Style Scheme
(C) **Cascading Style Sheets** (D) Cascading Style Shares

2. Which of the following is the page level style?

- (A) <Page> (B) **<Style>** (C) <Link> (D) <H>

3. CSS is also called as:

- (A) **Sitewide Style Sheets** (B) Internal Style Sheets
(C) Inline Style Sheets (D) Internal Inline Sheets

4. The extension of CSS file is

- (A) .ssc (B) **.css** (C) .csc (D) .htm

5. What is selector?

- (A) Property (B) Value (C) **HTML tag** (D) name

6. The Declaration block of CSS is surrounded by

- (A) () (B) [] (C) **{ }** (D) <>

7. The declaration should be terminated by

- (A) : (B) **;** (C) . (D) ,

8. What is the property to set text as bold?

- (A) Font-Style (B) **Font-Weight** (C) Font-Property (D) Font-Bold

9. Which of the following indicates that the text included is a comment ?

- (A) /* */ (B) **! * !** (C) < * > (D) \ * \

10. Which of the following ways below is correct to write a CSS?

- (A) p{color:red; text-align:center}; (B) p {color:red; text-align:center}
(C) **p {color:red; text-align:center;}** (D) p (color:red;text-align:center;)

PART – II

VERY SHORT ANSWERS:

1. What is the use of <style> tag?

- A **style** tag is used to change the default characteristics of a particular tag in the entire web document wherever that tag is used.
- The **<style>** tag controls the presentation styles of a particular HTML document. If you want to use a particular tag with the same style applied in one HTML document to another is not possible.
- Thus, the <style> tags are called as “**Page-Level Styles**” or “**Internal Style sheets**”.

2. What is CSS?

Cascading Style Sheets (CSS)

- CSS is a style sheet language used for describing the formatting of a document written in HTML.
- You can control the font colour, font style, spacing between pages, columns size, border colour, background image or colour and various other effects in a web page.

3. Write the general format of linking CSS with HTML.

General format of <Link> tag

<Link rel = “**stylesheet**” type = “text/css” href = CSS_File_Name_with_Extension>

ATTRIBUTE	VALUE	DESCRIPTION
href	URL	Specifies the location of the linked document.

rel	stylesheet	Specifies the relationship between the current document and the related document.
type	media_type	Specifies the media type of the linked document

4. What is Inline Style?

- ❖ Inline style is used to define style for a particular tag anywhere in an HTML doc.
- ❖ You can define styles for any tag within an HTML document.
- ❖ But it is applicable only on that line where it is defined

5. Write down general format of CSS declaration.

CSS – Style definition rules

The body of the style sheet consists of a series of rules.

Selector	Declaration
HTML Tag	{ Properties : Values; }

PART – III

SHORT ANSWERS

1. What are the advantages of using CSS?

Advantages of CSS

- ❖ **Maintainability** -CSS are also defined and stored as separate files. So, the style and appearance of a web page can be dynamically changed and maintain with less effort.
- ❖ **Reusability** - The styles defined in CSS can be reused in multiple HTML pages.
- ❖ **Easy to understand** - The tags in web pages are well organized with style specifications and therefore it is easy to understand

2. Write a short note on rule of CSS.

- ❖ CSS style declaration consists of two major parts; Selector and Declaration.
- ❖ The Selector refers an HTML tag in which you want to apply styles.
- ❖ The Declaration is a block of code contains style definition.
- ❖ It should be surrounded by curly braces.
- ❖ You can include any number of properties for each selector, and they must be separated by semicolons(;).
- ❖ The property name and its value should be separated by a colon.
- ❖ Each declaration should be terminated by a semicolon (;).

3. Write a CSS file to define text color and alignment to <p> tag.

Mystyle.css - CSS file

```
P
{
    color: pink; Text-align : center;
}
```

NOTE: Save the css file with extension .css

4. Write a CSS file to define font type, style and size to <h1> tag.

Mystyle.css - CSS file

```
H1
{
    Font-family : "Times New Roman"; Font-style : Italic; Font-size : 14px;
}
```

NOTE: Save the css file with extension .css

PART – IV

EXPLAIN IN DETAIL:

1. Write an HTML document to display the following paragraph as per the given description Using CSS:

- Font Name : Cooper Black
- Style : Bold Italics
- Color : Blue

“The State Institute of Education (SIE) was established in 1965 to provide for systematic study of problems relating to School Education under the administration of Directorate of School Education.”

```
<html>
<head><title> CSS DOCUMENT</title>
<style>
P
{
Font-family: “Cooper Black”; Font-weight: Bold ; Font-style: Italics; Color: Blue;
}
</style>
<body>
<p>
The State Institute of Education (SIE) was established in 1965 to provide for systematic
study of problems relating to School Education under the administration of Directorate of
School Education.
</p>
</body>
</html>
```

2. List and explain the Font and text element properties and values used CSS

Formatting	Properties	Values	Example
Text Colour	Color	Predefined_Color _Name	P { color: pink; } H1 { color : MediumSeaGreen ; }
Text Alignment	Text-align	Center / Left / Right / Justify	P { Text-align : center; } }

Font type	Font-family	Font_name	P { Font-family : “Times New Roman”; }
Font Style	Font-style	Normal / Italic	P { Font-family : “Times New Roman”; Font-style : Italic; }
Font Style (Bold)	Font-weight	Normal / Bold	P { Font-family : “Times New Roman”; Font-style : Italic; Font-weight : bold; }
Font size	Font-size	Size in pixels	P { Font-family : “Times New Roman”; Font-style : Italic; Font-size : 14px; }
Background Colour	Background Colour	Predefined_Color _Name	Body { background-color : violet; }
Border Colour	Border	Border thickness <space> border style <space> Predefined_border Color_Name	H2 { border : 2px solid red; }
Background Image	Background-image	URL (“image name with extension”)	Body { background-image : url (“Flower.gif”); }

	Background-repeat	norepeat	Body { background-image : url ("Flower.gif"); background-repeat : norepeat; }
	Background-position	Direction	Body { background-image : url ("Flower.gif"); background-repeat : norepeat; background-position : right top; }
Paragraph Margin	Margin-top Margin-bottom Margin-left Margin-right	Margin size in pixels	P { Margin-top : 50px; Margin-left : 50px; }

14. INTRODUCTION TO JAVASCRIPT

PART-I

CHOOSE THE FOLLOWING:

- Which provided a common scripting language to web developers to design, test and deploy Internet Application?
A) C B) C++ C) Java **D) JavaScript**
- Expand CGI
A) **Common Gateway Interface** B) Complex Gateway Information
C) Common Gateway Information D) Complex Gateway Interface
- JavaScript programming language is used to develop the
A) **Dynamic Web Page** B) Window C) Web Page D) Home Page
- The Dynamic Web Page help to save server's
A) Work B) Route **C) Traffic** D) Path
- User entered data, is validated before sending it to server is called
A) Server traffic **B) Dynamic Web Page**
C) Server Route D) Web server
- Java Scripts can be implemented using which statements?
A) <head> B) <Java> **C) <script>** D) <text>
- Expand DHTML
A) Distance Hyper Text Markup language **B) Dynamic Hyper Text Markup language**
C) Distance High Text Markup language D) Dynamic High Text Markup language
- How many attributes specifies that <script> tag in the scripting
A) **2** B) 3 C) 4 D) 5
- Which attribute is used to indicate the scripting language and its value should be sent to “Text/JavaScript”
A) **Language** B) Text1 C) Type D) Body
- The file reload into the browser use the shortcut key is
A) F2 B) F3 C) F4 **D) F5**
- JavaScript ignores spaces that appear between
A) Command B) Scripts **C) Tokens** D) Text
- A Data value for variable that appears directly in a program by using a
A) loop **B) Literal** C) Statement D) Text
- Which is mostly used to give a warning message to users?
A) **Alert Dialog Box** B) Confirm box C) Prompt box D) Display box
- In the below snippet, value of x is `var x = 250 + 2 - 200;`
A) 50 **B) 52** C) 48 D) 42

PART-II

VERY SHORT ANSWERS:

1. Write a syntax of <script> tag

❖ The syntax of JavaScript segment in Hyper Text Markup Language (HTML) or Dynamic Hyper Text Markup Language (DHTML) is as follows:

```
<script language="javascript" type="text/javascript">
```

JavaScript code

```
</script>
```

2. What is scope of variables and types of scope variable?

The scope of a variable is the life time of a variable of source code in which it is defined.

- ❖ **Global:** A global variable has global scope; it can be defined everywhere in the JavaScript code.
 - ❖ **Local:** Variables declared within a function are defined only within the body of the function. They are local variables and have local scope.
- 3. Write a notes to type casting in JavaScript**
- ❖ Type conversion is the act of converting one data type into a different data type which is also called as casting. In JavaScript there are two type of **casting**,
 - ❖ **Implicit** casting and **Explicit** casting
 - ❖ **Implicit** casting occurs automatically in JavaScript when you change the data stored in a variable
- 4. How many Literals in JavaScript and mention its types.**
- Literals**
- ❖ A literal is a fixed value given to a variable in source code.
 - ❖ Literals are often used to initialize variables.
 - ❖ Values may be Integer, Floating point, Character, String and Boolean. For Example, write statement: Display Statement
- General Syntax:** Document.write ("string " + var);
- 5. What is conditional operator give suitable example.**
- ❖ The?: is the conditional operator in JavaScript, which requires three operands, hence it is called the ternary operator.
 - ❖ The syntax is **var variablename=(condition) ? value1 : value2;**
 - ❖ For example, var result=(10>15) ?100 :150;
- 6. What are the comments in Java Script?**
- ❖ There are two types of comments, **Single line** and **Multiple lines** comments.
 - ❖ Single-line comments begin with a double slash (//), causing the interpreter to ignore everything from that point to the end of the line.
 - ❖ Multiple line comments begins with /* and ends with */.
- 7. Write note on types of Operator.**
- ❖ The **typeof** operator is used to get the data type (returns a string) of its operand.
 - ❖ The operand can be either a literal or a data structure such as a variable, a function, an object.
 - ❖ The operator returns the data type.

Syntax:

typeof operand or typeof(operand)

typeof returns: boolean, function, number, string, and undefined

8. Write the rules of variable in JavaScript.

- ❖ The first character must be a letter or an underscore (_). Number cannot be as the first character.
- ❖ The rest of the variable name can include any letter, any number, or the underscore.
- ❖ JavaScript variable names are case sensitive. That is, a variable named **RegNum** is different variable than named **regnum**.

- ❖ There is no limit to the length of the variable name.
 - ❖ JavaScript's reserved words cannot be used as a variable name.
- 9. What is the uses of prompt dialog box?**
- ❖ The prompt dialog box is very useful when the user want to pop-up a text box to get user input. It enables you to interact with the user.
 - ❖ The user needs to fill in the text box field and then click OK.

PART-III

SHORT ANSWERS:

1. What are the advantages of programming language?

- ❖ To develop **interactive** pages (Dynamic Web page), JavaScript programming language is used.
- ❖ User entered data in the Dynamic Web page can be **validated** before sending it to the server.
- ❖ This **saves** server traffic, which means **less load** on your server.
- ❖ JavaScript includes such items as Textboxes, Buttons, drag-and-drop, components and sliders to give a Rich Interface to site visitors.

2. Brief the basic data types in Java Scripts.

The basic data types in JavaScript are Strings, Numbers, and Booleans.

String:

- String is a list of characters.
- A string literal is indicated by enclosing the characters in single(single character) or double quotes (multiple characters). Including whitespace and special characters such as \n (the newline).

Numbers:

- **Number** can be integer or floating-point numerical value and numeric literals are specified in the natural way.

Boolean:

- **Boolean** can be any one of two values: **true** or **false**.
- Boolean literals are indicated by using true or false directly in the source code.

3. Write note on string Operator.

- ❖ One of the built-in features of JavaScript is the ability to concatenate strings.
- ❖ The + operator performs addition on numbers but also serves as the concatenation operator for strings.
- ❖ + operator which is also called as the string concatenation operator.

4. Write about <script> tag

- ❖ JavaScript can be implemented using <script>... </script> tags.
- ❖ The <script> tag containing JavaScript can be placed anywhere within in the web page, but it is normally recommended that should be kept it within the <head> tags.
- ❖ The <script> tag alerts the browser program to start interpreting all the text between these tags as a script commands

The syntax of JavaScript segment in Hyper Text Markup Language (**HTML**) or Dynamic Hyper Text Markup Language (**DHTML**) is as follows:

```
<script language="javascript" type="text/javascript">
```

JavaScript code

```
</script>
```

The <SCRIPT> tag takes **two** important attributes –

- ❖ **Language** – This attribute specifies that the scripting language. Typically, its value will be **javascript**. Although recent versions of HTML (EXtensible HyperText Markup Language -XHTML, its successor) have phased out the use of this attribute is optional.
- ❖ **Type** – This attribute is used to indicate the scripting language and its value should be set to "text/javascript".

5. What are the uses of Logical Operators?

- ❖ Logical operators combine or invert boolean values.
- ❖ Once comparisons are made, the logical operators && (AND), || (OR) and ! (NOT) can be used to create more complex conditions. Use logical operators on boolean operands for good practice.

6. Difference between the increment and Decrement operator.

Increment operator	Decrement operator
The ++ operator increments its single operand.	The -- operator decrements its single operand
Its converts its operand to a number, adds 1 to that number, and assigns the incremented value back into the variable	Its converts its operand to a number, subtracts 1 to that number, and assigns the decremented value back into the operand
Post increment: var m=3, n=m++; Pre increment: var m=3, n=++;	Post decrement: var m=3, n=m--; Pre decrement: var m=3, n=m--;

PART –IV

EXPLAIN IN DETAIL:

1. Explain about the popup dialog boxes in JavaScript.

JavaScript supports three kind of popup boxes: 1. Alert box 2. Confirm box 3. Prompt box. These dialog boxes can be used to raise an alert, or to get confirmation on any input or to have a kind of input from the users.

1. Alert Dialog Box:

- ❖ An **alert dialog box** is mostly used to give a warning message to the users.
- ❖ For example, Some fields are incomplete in form, then as a part of validation, you can use an alert box to give a warning message.
- ❖ Alert box gives only one button "**OK**" to select and proceed.
- ❖ **The syntax of alert box is**
- ❖ Alert("Message"); (or) Window.alert("Message");
- ❖ **Example:** alert("Name is compulsory entry"); (or) window.alert("Name is compulsory entry");

2. Confirm Dialog Box:

- ❖ A confirmation dialog box is mostly used to take user's consent on any option.
- ❖ It displays a dialog box with two buttons: **OK** and **Cancel**.
- ❖ If the user clicks on the **OK** button, the confirm() will return **true**.
- ❖ If the user clicks on the **Cancel** button, then confirm() returns **false**.
- ❖ **The syntax of confirm dialog box is**
- ❖ confirm("message"); (or) window.confirm("message");
- ❖ **Example:** confirm("Do you want to continue:"); (or) window.confirm("Do you want to continue:");

3. Prompt Dialog Box:

- ❖ The prompt dialog box is very useful when the user want to pop-up a text box to get user input. Thus, it enables you to **interact** with the user.
- ❖ The user needs to fill in the text box field and then click OK.
- ❖ The prompt dialog box is displayed using a method called prompt() which takes two parameters:
- ❖ **(i) label** which you want to display in the text box and a **(ii)default** string to display in the text box.
- ❖ This dialog box has **two** buttons: OK and Cancel.
- ❖ If the user clicks the **OK** button, it will return the entered value from the text box.
- ❖ If the user clicks the **Cancel** button, it returns null.
- ❖ **The Syntax of prompt dialog box is, Prompt("Message","defaultValue"); (or) window.prompt("sometext","defaultText");**
- ❖ **Example:** prompt("Enter Your Name:","Name"); (or) window.prompt("Enter Your Name:","Name");

2. Explain about the Arithmetic operator with suitable example.

JavaScript supports all the basic arithmetic operators like addition (+), subtraction (-), multiplication (*), division (/), and modulus (%), also known as the remainder operator).

Arithmetic Operator	Meaning	Example	Result
+	Addition	var sum = 20 + 120	Variable sum = 140
-	Subtraction	var diff = 20 - 120	Variable diff = 100
*	Multiplication	var prod = 10 * 100	Variable prod = 1000
/	Division	var res = 100/522	Variable res = 5.22
%	Modulus operator	var rem = 100 % 522	Variable rem = 22 (remainder)

Example:

```
<Html>
<Head>
<Title>Demo Program – To test Arithmetic Operators in JavaScript </Title>
</Head>
<Body>
<script language="javascript" type="text/javascript">
var value1 = 522, value2=10;
document.write("<br>Data1 : "+value1);
document.write("<br>Data2 : "+value2);
document.write("<br><br>The Sum of Data1 and Data2 : " var sum = value1+value2);
document.write("<br>The Difference of Data1 and Data2 : " var diff = value1-value2);
document.write("<br>The Product of Data1 and Data2 : " var prod = value1*value2);
document.write("<br>The Result after Division of Data1 and Data2 : "var res =
value1/value2);
document.write("<br>The Remainder after Division of Data1 and Data2 : "var rem =
value1% value2);
</script>
</Body>
</Html>
```

15. CONTROL STRUCTURE IN JAVASCRIPT

PART-I

CHOOSE THE BEST ANSWER:

1. Which conditional statement is used to transfer control from current statement to another statement?
(a) **Branching** (b) Sequencing (c) Looping (d) Interating
2. _____ statement can be used as alternative to if-else statement. (LOT)
(a) While (b) If (c) Else-if (d) **Switch**
3. Which statement in switch case is used to exit the statement once the appropriate choice is found?
(a) Exit (b) Default (c) Case (d) **Break**
4. Which of the following is not a looping statement? (LOT)
(a) **Switch** (b) While (c) Do-While (d) For
5. Which part of the loop statement determines the number of times, the loop will be iterated? (MOT)
(a) First (b) **Second** (c) Third (d) Final
6. Which of the following is not a branching statement? (LOT)
(a) Loop (b) **If-else** (c) Switch (d) For
7. What will be the output for the following snippet: (HOT)
For (var n=0; n<10; n+1)
{
if (n==3)
{
break;
}
document write (n+"
");
}
(a) **0 1 2** (b) 0 1 2 3 (c) 0 1 2 3 4 (d) 0, 1, 3
8. In which loop the condition is evaluated, before executing a statement? (MOT)
(a) **While** (b) Do while (c) Break (d) Continue
9. The _____ statement is especially useful when testing all the possible results of an expression. (LOT)
(a) While (b) Do while (c) **Switch** (d) If
10. In the _____ loop, body of the loop always executed at least once before the condition can be executed. (LOT)
(a) For (b) While (c) If (d) **Do while**
11. <script type = "text / javascript">
x = 6 + "3";
document write (x);
</script> what will be the output?
(a) 6 (b) 9 (c) 63 (d) **Error**

PART - II

VERY SHORT ANSWERS:

1. What are the different types of control statement used in JavaScript?

There are **two** types of controls,

- Branching / Selection

➤ Looping / repetitive

2. What is meant by conditional statements in JavaScript?

➤ Statements are executed in the order they are found in a script.

➤ Conditional statements execute or skip one or set of statements depending on the value of a specified conditional expression.

3. List out the various branching statements in JavaScript?

There are different branching statements. They are,

- **if** statement (Single way branch) **if ... else** statement (Two way branch)
- **switch** statement (Multi way branch), **else if** statement (Two way branch),

4. Write the general syntax for switch statement

```
switch(expression)
{
case label1: statements1; break;
case label2: statements2; break;
case labeln; statements - N; break;
default: (optional)
statements;
}
```

5. Differentiate the break and continue statement.

break statement	continue statement
The break statement will terminate the loop early	The continue statement will skip back to the loop condition check.

PART - III

SHORT ANSWERS:

1. What is if statement and write its types.

- ✓ The if statement is the fundamental control statement that allows JavaScript to make decisions to execute statements conditionally.
- ✓ This statement has two forms. The form is for only true condition.
- ✓ Types of if statement if
(condition) if else statement
{ else if statement
True block; nested if statement
}

2. Write the syntax for else-if statement.

```
if (Condition 1)
{ block 1; }
else if (condition 2)
{ block 2; }
else if (condition 3)
{ block 3; }
else
{ block 4; }
```

3. What is called a loop and what are its types?

- ✓ In JavaScript there are times when the same portion of code needs to be executed many times with slightly different values is called Loops. .

- ✓ JavaScript supports three kinds of looping statements. They are **for** loop, **while** loop and **do..while** loop

4. Differentiate between while and do while statements

while statements	do while statements
first condition will be evaluated and then only based on the result of the condition the body of the loop will be executed or not.	do..while loop body of the loop always executed at least once before the condition can be executed.
Entry check loop	Exit check loop
Checking and execution time of loop is differ in while loop	Checking and execution time of loop is same in do while loop

5. What message will be displayed, if the input for age is given as 20, for the following snippet.

```
if (age >= 18 )
```

```
{
```

```
  alert ("you are eligible to get Driving licence")
```

```
}
```

```
else
```

```
  alert ("you are not eligible to get driving licence");
```

```
}
```

Message will be display like you are eligible to get Driving licence

PART - IV

EXPLAIN IN DETAIL:

1. Explain for loop with example

- The **for** loop is a very rigid structure that loops for a pre-set number of times.
- In JavaScript **for** structure is very flexible, which makes this type is very useful.

The syntax:

```
for (initialization; condition; increment/decrement)
```

```
{
```

```
  Body of the loop;
```

```
}
```

The for structure within parenthesis there are **three** parts each separated by **semicolon**;

They are,

- The **first** part of the loop initializes a variable which is also called as **control** variable.
- The **second** part is the conditional statement that determines how many times the loop will be iterated (executed).
- The **third** and final part determines how the value of control variable is changed (Incremented/Decrement)

Example:

```
for (var x=0;x<3;x++)
```

```
{
```

```
  document.write(x+ "<br>");
```

```
}
```

2. Explain switch case statement with example

- ❖ JavaScripts offers the **switch** statement as an alternate to using **if...else** structure.

- ❖ The switch statement is especially useful when testing all the possible results of an expression.

The syntax of a switch structure as the following:

```
switch(expression)
{
case label1: statements1; break;
case label2: statements2; break;
case labeln; statements - N; break;
default: (optional)
statements;
}
```

The **default** structure is can be at the end of a switch structure if the result of the expression that do not match any of the case labels.

Example:

```
var ch=2;
switch(ch)
{
case 1: document.write("Your Grade is Outstanding.."); break;
case 2: document.write("Your Grade is Excellent.."); break;
case 3: document.write("Your Grade is Good.."); break;
case 4: document.write("Your Grade is Satisfactory.."); break;
default: document.write("Your Grade Poor and have to re-appear Exam..");
}
```

3. Write the output for the following program

```
<Html>
<Head>
<Title> for statement</title>
<Head>
<Body>
<script language= "java Script" type = "text / javaScript">
var no1= prompt ("please enter table you want:", "0" );
document write ("<h2> multiplication for your need </h2>")
for (Var no2= 0; no2<=10; no2++)
{
document write (no1+ "x" + no2+ "=" + no1*no2+ "<br>");
}
</script>
</body>
</Html>
```

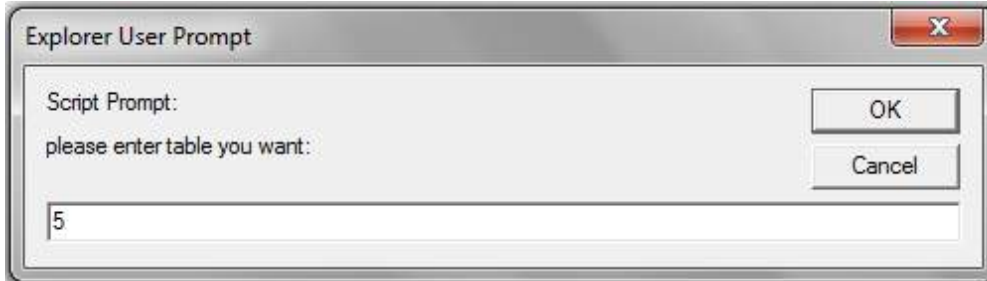
SOLUTION:

Output:

Multiplication for your need

```
5x0=0
5x1=5
5x2=10
5x3=15
```

5x4=20
5x5=25
5x6=30
5x7=35
5x8=40
5x9=45
5x10=50



4. Write a Java Script program using while statement to display 10 numbers.

```
<Html>  
<Head> <Title>Program - To test while statement in JavaScript </Title> </Head>  
<Body>  
<script language="javascript" type="text/javascript">  
document.write("<h2> Using while Statement </h2>");  
var no2=0;  
while(no2<10)  
{  
document.write(no2+" ");  
no2=no2+1;  
}  
</script>  
</Body>  
</Html>
```

OUTPUT:

0 1 2 3 4 5 6 7 8 9

16. JAVASCRIPT FUNCTIONS

PART-I

CHOOSE THE CORRECT ANSWER:

- The parameters work as
A) **Local variable** B) Global Variable
C) File variable D) block variable
- Predefined functions are also called as
A) **Library functions** B) storage functions
C) instructions D) commands
- Larger programs are divided into smaller are called
A) **modules** B) block
C) sets D) Group
- Which of the following is used to enhance reusability and program clarity.
A) **functions** B) modules
C) sets D) instructions
- Which of the following allow the programmer to modularize a program
A) Library functions **B) user defined functions**
C) Normal functions D) Ordinary functions

PART-II

VERY SHORT ANSWERS:

1. **What is a function in JavaScript?**

- ❖ A function is a block of JavaScript code that is defined once but may be executed or invoked any number of times. Functions are used to encapsulate code that performs a specific task.

2. **What is the use of function?**

- ❖ Function is used to keep code that performs a particular job in one place in order to enhance **reusability** and **program clarity**.

3. **Write a note on Library functions.**

- ❖ Pre-defined functions are already defined in the JavaScript library which are also called Library functions. For example toUpperCase(), toLowerCase() etc., are pre-defined functions.

4. **Write a note on user defined functions.**

- ❖ User-defined functions allow the programmer to modularize a program.
- ❖ This eliminates the need of writing the same code again and again.

5. **Write the syntax of functions.**

```
Function function-name(parameters list)
{
    Function Body ;
}
```

Note: Function body include Declaration of variable and Executable statements.

PART III

SHORT ANSWERS:

1. **Write a program in JavaScript to find the cube of a number using function**

```
<html>
<body>
<script language="javascript" type="text/javascript">
```

```
var n=prompt("enter value:","0");
var c=cube(n);
document.writeln("the value is "+n+" the cube of given value is "+c);
function cube(x)
{
var c=x*x*x;
return c;
}
</script>
</body>
</html>
```

2. Write a program in JavaScript to find the sum of 10 numbers using function.

```
<html>
<head>
<title>Javascript</title>
<script language="javascript" type="text/javascript">
var n=9,sum=0,tot=add(n);
function add(j)
{
for (var i = 0; i <= j; i++)
{ sum += i; }
return sum;
} document.write("result"+sum);
</script>
</head>
<body>
</body>
</html>
```


17. COMPUTER ETHICS AND CYBER SECURITY

PART-I

Choose the best Answer.

1. Which of the following is a set moral principles that regulates the use of computers
a. piracy b. programs c. virus **d. computer ethics**
2. Commercial programs made available to the public illegally are known as
a. freeware **b. warez** c. free software d. software
3. Which one of the following are self-repeating and do not require a computer program to attach themselves?
a. viruses **b. worms** c. spyware d. Trojans
4. Which one of the following tracks a user visits a website?
a. spyware **b. cookies** c. worms d. Trojans
5. Which of the following is not a malicious program on computer systems?
a. worms b. Trojans c. spyware **d. cookies**
6. A computer network security that monitors and controls incoming and outgoing traffic is
a. Cookies b. Virus **c. Firewall** d. worms
7. The process of converting cipher text to plain text is called
a. Encryption **b. Decryption** c. key d. proxy server
8. e-commerce means
a. **electronic commerce** b. electronic data exchange
c. electric data exchange d. electronic commercialization.
9. Distributing unwanted e-mail to others is called.
a. scam **b. spam** c. fraud d. spoofing
10. Legal recognition for transactions are carried out by
a. Electronic Data Interchange b. Electronic Data Exchange
c. Electronic Data Transfer d. Electrical Data Interchange

PART-II

VERY SHORT ANSWERS:

1. What is harvesting?

- ❖ A person or program collects login and password information from a legitimate user to illegally gain access to others' accounts is called harvesting.

2. What are Warez?

- ❖ Commercial programs that are made available to the public illegally are often called warez.

3. Write a short note on cracking.

- ❖ "Cracking" means trying to get into computer systems in order to steal, corrupt, or illegitimately view data.
- ❖ Cracking is where someone edits a program source so that the code can be exploited or modified.

4. Write two types of cyber-attacks.

- ❖ Pharming
- ❖ Phishing

5. What is a Cookie?

- ❖ A cookie is a small piece of data sent from a website and stored on the user's computer memory

PART-III

SHORT ANSWERS:

1. What is the role of firewalls?

- To monitor and control incoming and outgoing network traffic based on predefined security rules.
- To establish a block between a trusted internal computer network and an untrusted computer outside the network.

2. Write about encryption and decryption.

- **Encryption:** Encryption is the process of translating the plain text data (plaintext) into random and mangled data (called cipher-text).
- **Decryption:** Decryption is the reverse process of converting the cipher-text back to plaintext.

3. What are the guidelines to be followed by any computer user?

- Complex password setting can make your surfing secured.
- When the internet is not in use, disconnect it.
- Do NOT open spam mail or emails that have an unfamiliar sender.
- When using anti-virus software, keep it up-to-date.

4. What are ethical issues? Name some.

An Ethical issue is a problem or issue that requires a person or organization to choose between alternatives that must be evaluated as right or wrong. Some of the common ethical issues are listed below:

- Cyber crime
- Software Piracy
- Unauthorized Access
- Hacking
- Use of computers to commit fraud

PART-IV

EXPLAIN IN DETAIL:

1. What are the various crimes happening using computer?

Crime	Function
Cyber Terrorism	Hacking, threats, and blackmailing towards a business or a person.
Cyber stalking	Harassing through online.
Malware	Malware or malicious software is any program or file that is harmful to a computer user.
Denial of service attack	Overloading a system with fake requests
Fraud	Computer fraud is the act of using a computer to take or alter electronic data

Harvesting	A person or program collects login and password information from a legitimate user to illegally gain access to others' account(s).
Identity theft	It is a crime where the criminals impersonate individuals, usually for financial gain.
Intellectual property theft	Stealing practical or conceptual information developed by another person or company.
Salami slicing	Stealing tiny amounts of money from each transaction.
Scam	Tricking people into believing something that is not true.
Spam	Distribute unwanted e-mail to a large number of internet users.
Spoofing	It is a malicious practice in which communication is sent from unknown source disguised as a source known to the receiver.

2. What is piracy? Mention the types of piracy? How can it be prevented?

- ❖ Software Piracy is about the copyright violation of software created originally by an individual or an institution.
- ❖ It includes stealing of codes / programs and other information illegally and creating duplicate copies by unauthorized means and utilizing this data either for one's own benefit or for commercial profit.
- ❖ Software Piracy is "unauthorized copying of software".
- ❖ An entirely different approach to software piracy is called Shareware; this acknowledges the futility of trying to stop people from copying software and instead relies on people's honesty.
- ❖ Commercial programs that are made available to the public illegally are often called Warez.



3. Write the different types of cyber-attacks.

S.No.	Cyber Attack	Function
1.	Virus	<p>A virus is a small piece of computer code that can repeat itself and spreads from one computer to another by attaching itself to another computer file. One of the most common virus is Trojan.</p> <p>A Trojan virus is a program that appears to perform one function (for example, virus removal) but actually performs malicious activity when executed.</p>
2.	Worms	<p>Worms are self- repeating and do not require a computer program to attach themselves. Worms continually look for vulnerabilities and report back to the author of the worm when weaknesses are discovered.</p>
3.	Spyware	<p>Spyware can be installed on the computer automatically when the attachments are open, by clicking on links or by downloading infected software.</p>
4.	Ransomware	<p>Ransomware is a type of malicious program that demands payment after launching a cyber-attack on a computer system. This type of malware has become increasingly popular among criminals and costs the organizations millions each year.</p>

18. TAMIL COMPUTING

VERY SHORT ANSWERS:

1. List the search engines supported by Tamil language.

- ❖ In the top ten search engines, Google, Bing and Yahoo take first three places respectively.

2. What are the keyboard layouts used in Android?

- ❖ Sellinam and Ponmadal – are familiar Tamil keyboard layouts that work on Android operating system in Smart phone using phonetics.

3. Write a short note about Tamil Programming Language.

- ❖ Programming languages to develop software in computers and smart phones are available only in English.
- ❖ Now, efforts are taken to develop programming languages in Tamil. Based on Python programming language, the first Tamil programming language “Ezhil” (எழில்) is designed. With the help of this programming language, you can write simple programs in Tamil.

4. What is TSCII?

- ❖ TSCII (Tamil Script Code for Information Interchange) is the first coding system to handle our Tamil language in an analysis of an encoding scheme that is easily handled in electronic devices, including non-English computers.
- ❖ This encoding scheme was registered in IANA (Internet Assigned Numbers Authority) a unit of ICANN.

5. Write a short note on Tamil Virtual Academy.

- ❖ With the objectives of spreading Tamil to the entire world through internet, Tamil Virtual University was established on 17th February 2001 by the Govt. of Tamilnadu.
- ❖ This organization is functioning with the name of “Tamil Virtual Academy”.
- ❖ This organization offers different courses regarding Tamil language, Culture, heritage etc., from kindergarten to under graduation level.