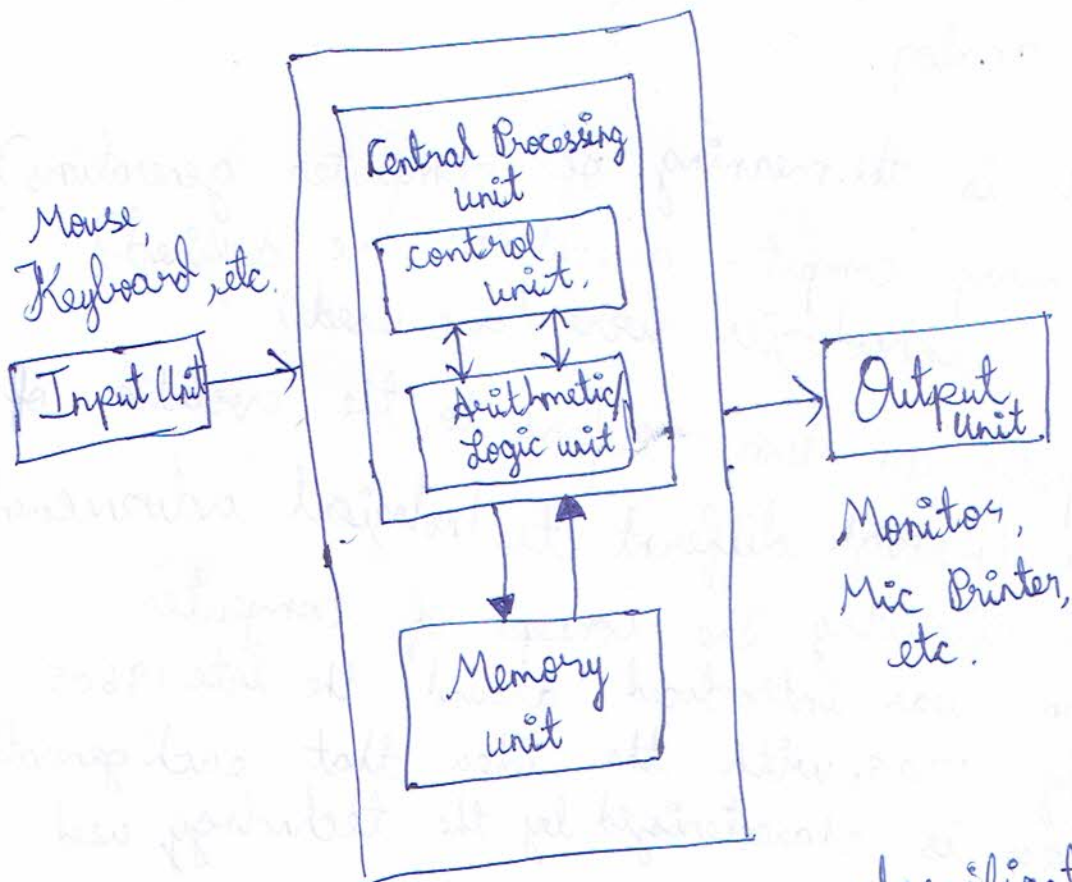


Assignment-1

1) What are the four fundamental parts of computer?
Explain it with the help of diagram.

Ans: *

- * Central Processing unit (CPU)
- * Memory unit
- * Control unit.
- * Arithmetic and Logical unit.



2) Discuss about the ~~four fundamental parts~~ ^{classification} of computer based on ~~size~~ and capacity.

Ans: There are five main kinds of computer based on size: PC (Personal Computer),
Minicomputer,
Microcomputer,
Supercomputer,
Mainframe.

Additionally, there are three different kinds of computer based on their capacity to manage data: A computer can be digital, hybrid, or analog.

3) What is the meaning of computer generations?
How many computer generations are defined?
What technologies were / are used?

Ans: Computer generation refers to the evolution of computers through different technological advancements in their circuitry. The concept of computer generation was introduced around the late 1960s and early 1970s, with the idea that each generation of computer is characterized by the technology used in their circuitry.

The Five generations of Computers.

* First generation: Vacuum Tubes.

- * Second generation: Transistors.
- * Third generation: Integrated circuits.
- * Fourth generation: Microprocessors.
- * Fifth generation: Artificial Intelligence.

4) Differentiate between volatile & Non-Volatile memories.

Volatile

- * Volatile memory is the type of memory where data is lost when power is turned off.
- * Data temporarily stored in volatile memory.
- * It is faster than non-volatile memory.
- * It has less storage capacity.
- * Data can be easily transferred.
- * CPU has directly access to data.
- * Process can read and write.

Non-Volatile

- * Non-Volatile Memory is a type of memory where the data is not lost when a computer is switched off.
- * Data permanently stored in non-volatile memory.
- * It is slower than volatile memory.
- * It has more storage capacity than volatile memory.
- * Data cannot be easily transferred.
- * CPU has no directly access to data.
- * Process can only read.

5) Distinguish ^{among} between system software, application software and open source software on the basis on their features.

Ans: System Software.

- * It is designed to manage the resources of the computer system, like memory and process management, etc.

- * Written in a low-level language.

- * Less interactive for the users.

- * System software plays vital role for the effective functioning of a system.

- * It is independent of the application software to run.

Application Software.

- * It is designed to fulfil the requirements of the user for performing specific tasks.

- * Written in a high-level language.

- * More interactive for the users.

- * Application software is not so important for the functioning of the system, as it is task specific.

- * It needs system software to run.

Open Software

- * Open ^{source} software is software in which the source.

code is also available along with the software.

- * The results are quite high quality.
- * Users can easily change the software according to requirement.
- * It is more secure.
- * Long term use.
- * Transparency
- * Affordable.
- * Help in developing skills.

b) a) Create a file in MS- word to insert a paragraph about yourself and save it with file name "yourself". Describe all steps involved in it.

Ans: (i) Go to M-S word.

(ii) Select new document.

(iii) Fix Layout, Page colour, Page borders.

(iv) insert or type a paragraph about yourself.

(v) ~~click~~ Click file.

(vi) Give ~~name~~ a name for it as "yourself".

(vii) Select the place where you are going to save.

(viii) And then save.

b) b) Write steps regarding followings.
→ To change the font style.

- To change the font size.
- To change the font colour.
- To highlight (in yellow) the line that reads "need to get MS's address".

Ans: go to MS-word.

→ To change the font style.

- (i) Right click on the word or letter.
- (ii) In home there will the font style in calibri (Body) click that and then change font style as we want.

→ To change the font size.

- (i) Right click on the word or letter.
- (ii) In home there will the font size after the place of (calibri (Body)) font style there we can change the size.

→ To change the font colour.

- (i) Right click on the word or letter.
- (ii) In home there will the font size under that there will be a 'A' like this icon. 
- (iii) click on that and you want you can change that.

→ To highlight (in yellow) the line that reads
"need to get IMS's address".

(i) Right click of the word present in the
line that we want to highlight.

(ii) Before the font color it will be there
like  this icon.

(iii) We can select any colour as we need
from that.

7) Create a file in MS word for the following
document save it with file name 'ms-word'.
describe all steps involved in it.

MS Word.

MS word is a widely used commercial
word processor developed by Microsoft.

MS word is application software, which is capable of

- * creating,
- * editing.
- * saving, and
- * Printing any type of document.

Ans: 1) Go the MS Word

(i) Select new document.

(ii) click Insert and select header and click blank.

(iii) Type the heading as MS word.

(iv) As they shown there write the remaining lines down wards.

(v) Right click the word "MS word" and change the colour through font colour.

(vi) Right click the "word processor" and click U this icon.

(vii) In home in Paragraph there will be bullet  click that so that you can get the dots.

(viii) As we done earlier click the word and change the colour of font as they shown.

(ix) Right click "and" the word and click the icon  which is place after the underline icon.

8) Create a file in MS-word for the following document and save it with file name 'equations'. Describe all steps involved in it.

Equations.

$$X_2 + Y_5 = 30.$$

$$Z_3 + Q_4 = 50.$$

$$A_2 + B^8 = X_2 + Y^8.$$

Ans: go to MS word.

(i) Write "equations." as a heading

(ii) Underline it by Right click on it and  click this icon.

(iii) Write $X_2 + Y_5 = 30.$

$$Z_3 + Q_4 = 50.$$

$$A_2 + B^8 = X_2 + Y^8.$$

(iv) Then right click on the  which is placed after the X.

(v) If we right click on that it shows many choice we want that Font

(vi) Click Font there will be a option of Subscript. then ok. As a result X_2 .

(vii) As a same way right click  which is placed after the Q. click font then superscript As a result it form .

(viii) like this complete all and then it in a document  as the filename equation. select the place where you want to save and press save.

9) Create a file in MS-word that convert existing highlight text to table as shown below and save it as file name "text to table". Describe all steps involved in it.

Ans: Go to MS-word.

(i) Select the text which you want to convert.

(ii) Go to insert

(iii) Select Draw table in that icon there will be a option "text to table"

(iv) click text to table.

(v) Save it as "text to table".

10) Create a file in MS-word to insert a table in the document. Describe all steps involved in it.

Ans: To insert a basic table in Microsoft word, click the insert tab at the top and select Table. Hover over the squares to create the dimension you want for your table, and then click to insert it. click Insert.

11) Create a following worksheet in MS-Excel and save it with name "book1".

- Ans:
- * Open Excel.
 - * Select Blank workbook
 - * Start typing
 - * type as they given.
 - * Right-click the worksheet name tab.
 - * Click file and save in new workbook with name "book1".

12) Calculate the following things of a range (C2:C11) of data in the worksheet create in question no 10.

→ the sum of marks using Auto Sum in a range of cells (C2:C11).

Ans:

- * Type : = Sum (in the C12)
- *  (C2:C11).

* Select enter.

We will get answer 654.

→ Average of the mark in a range of cells (C2:C11)

Ans:

- * Type : = Average (C2:C11) (in the C13)
- select enter.

→ highest marks in a range of cells (C2:C11)

Ans: * Type : = Max (C2:C11) (in C14)
Enter.

→ Minimum marks in a range of cells (C2:C11)

Ans: * Type : = Min (C2:C11) (in C15).
Enter.

13) a) Describe various steps involved in the following.

→ To modify column width of a worksheet.

→ To modify the row height of a worksheet.

→ To delete rows and columns of a worksheet.

Ans: → * Select the column (or) width that you want to change.

* Go to Home > Cells > Format.

* Under cell size, select column width.

* In the column width box, type the value that you want.

* Select ok.

→ * Select the row or rows that you want to change.

* Go to home > Cell > Format.

* Under Cell Size, Select Row Height.

* In the Row height box type the value that you want and select OK.

→ * Select a row or column that you want to delete.

* Press Backspace, or Select the Table Tools layout tab > Delete, and then select an option.

Note: In Excel, select a row or column that you want to delete, right-click and select Delete and choose the option that you want.

13) b) Describe various steps involved in the following

→ Absolute reference and relative reference in formula.

→ Cell address.

There are two type of cell references: relative and absolute. Relative and absolute references behave differently when copied and filled to other cells. Relative references change when a formula is copied to another cell. Absolute references, on the other hand, remain constant.

no matter where they are copied.

A cell reference or cell address is a combination of column letter and a row number that identifies a cell on a worksheet.

14) a) What tools are available to customize our Power Point Presentation?

Ans: Create a Presentation

- * Open Power Point.
- * In the left pane, select New.
- * Select an option:
 - * To create a presentation from scratch, select Blank Presentation.
 - * To use a prepared design, select one of the templates.
 - * To see tips for using Power Point, select Take a tour, and then select create.

Add a slide.

- * In the thumbnails on left pane, select the slide the you want your new slide to follow.

* In the Home tab, in the Slides section, select New slide.

* In the Slides section, select Layout, and then select the layout you want from the menu.

Add And Format text

14) b) Write the steps for the for following action.
of point presentation.

Ans: * Open a blank presentation

* Save the presentation go to file tab
Select save as give the name as Lab 1.pptx.

* Select the slide: The name of your college.

* Add the title. ←

* In down type your first name and last name in the subtitle section.

* Select a New slide which has a title and content.

15. Write steps for creation of a set of Power Point Slides that demonstrates your skill to use the tools of Power point. It should include the following things.

- Title slide & Bullet list.
- Inserting Excel sheet.
- Clip art and Text.
- slide show effects.

Ans:

- * Open Power point.
- * Create a new presentation.
- * Add a title slide and click inside the text boxes to add a subtitle and Bullet list.
- * Add a new slide.
- * Create a bulleted list.
- * Insert an Excel sheet.
- * Insert clipart and text.
- * Add slide show effects.
- * Save the presentation.

Part - 2 .

16. What is the difference between Machine Language and high level language?

Ans:

- * Level of abstraction: Machine language is low-level and directly interacts with the computer's hardware, whereas high-level language is more abstract and focuses on the logic of the program rather than hardware details.

- * Readability: Machine language, consisting of

Binary code, is difficult for humans to read and understand. High-level languages use syntax closer to human language, making them easier to read and write.

* Portability: Machine language is specific to the type of computer hardware it's designed for, making it non-portable. High-level languages can run on different platforms with the help of compilers.

* Execution: Machine language is directly executable by the processor. High-level languages need to be translated into machine code before execution, using a compiler.

* Efficiency and Speed: Low-level languages are faster and more efficient since they directly access the computer's hardware.

17) Discuss about different data types of C programming language.

Ans: These are the fundamental types that are built-in to the C language.

* int: Used for storing whole numbers.

* char: Used for storing single character.

* float: Used for storing single-precision floating-point numbers.

* double: Used for storing double-precision floating-point numbers, offering more precision than float.

* Void: Represents the absence of a value and is often used with functions pointers.

18) Find the output of the following expressions

a) $X = 20/5 * 2 + 30 - 5$.

Ans: Step 1: Perform the division.

$$X = \frac{20}{5} * 2 + 30 - 5$$

$$X = 4 * 2 + 30 - 5$$

Step 2: Perform the multiplication.

$$X = 4 * 2 + 30 - 5$$

$$X = 8 + 30 - 5$$

Step 3: Perform the addition.

$$X = 8 + 30 - 5$$

$$X = 38 - 5$$

Step 4: Perform the subtraction.

$$X = 38 - 5$$

$$X = 33$$

b) $Y = 30 - (40/10 + 6) + 10$.

Ans: Step 1: Calculate the division.

$$\frac{40}{10} = 4$$

Step 2: Perform the addition inside the parentheses

$$4 + 6 = 10$$

Step 3: Perform the subtraction.

$$30 - 10 = 20$$

Step 4: Perform the addition.

$$20 + 10 = 30$$

$$Y = 30$$

c) $Z = 40 * 2 / 10 - 2 + 10.$

Ans: Step 1: Perform the division.

$$\frac{2}{10} = \frac{1}{5}$$

Step 2: Perform the multiplication.

$$40 * \frac{1}{5} = \frac{40}{5}$$

Step 3: Again Perform the division.

$$\frac{40}{5} = 8$$

Step 4: Perform the subtraction.

$$8 - 2 = 6$$

Step 5: Perform the addition.

$$6 + 10 = 16$$

$$\boxed{Z = 16}$$

19) Describe the syntax of the following statements.

a) If - else statement.

Ans: If the condition is true, then the code inside the if block is executed, otherwise the code inside the else block is executed. Any non-zero and non-null values are assumed to be true and zero (or) null values are assumed to be false.

b) for loop.

Ans: The for loop syntax is for (initialization; condition; increment) { //code }. Jump statements alter control flow. A flowchart for a for loop includes initialization, condition check, execution, and update. The while statement executes code while a condition is true e.g., while (i < 5) { //code }.

c) While loop.

Ans: Before executing the statement it check whether the condition is true / false, if condition is true it execute the statement present in body of the loop. If condition is false it comes out of while loop.

d) do-while loop.

A do-while loop will always execute the code block at least once because the condition is checked after the first iteration.

20) Find the output of the following program segments.

a) #include <stdio.h>

int main()

{ int i;

for (i = 1; i < 2; i++)

{ printf("IMS Ghazialod\n");

}

}

Ans: IMS Ghazialod.

20) a) Ans: The for loop iterates only once because the condition is $i < 2$. $\therefore$, "IMS yhanziabad" is printed only once.

```
b) #include <stdio.h>
    int main()
    {
        int i = 1;
        while (i <= 2)
        {
            printf("IMS yhanziabad\n");
            i = i + 1;
        }
    }
```

Ans: The while loop iterates twice because the condition is $i <= 2$. In each iteration, "IMS yhanziabad" is printed, and i is incremented.

```
c) #include <stdio.h>
    void main()
    {
        int a = 10, b = 100;
        if (a > b)
            printf("Largest number is %d\n", a);
        else
            printf("Largest number is %d\n", b);
    }
```

Ans: The if statement checks if $a > b$. Since 10 is not greater than 100, the else block is executed, and "Largest number is 100" is printed.