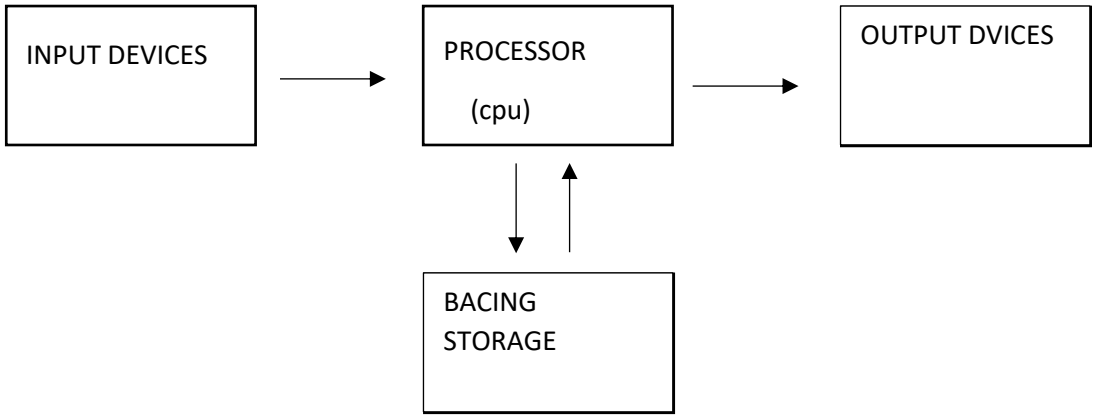
CCA-101: FUNDAMENTAL of IT & Programing

Assignment -1

Q.1: What are the four fundamentals parts of computer ? Explain it with the help of diagram.

Ans:- The four fundamentals parts of computer are: - i) Input devices ,ii) Processor(CPU) ,iii) Output devices, iv) Backing storage .



Q.2: Discuss about the classification of computers Based on size and capacity.

Ans:- Based on size and capacity, computers are classified as follows:

- Super computers
- Mainframe Computer
- Mini Computers
- Micro Computers

1. Super computes

- Super computers are the most powerful and physically the largest by size.
- These are the systems designed to process huge amounts of data.
- The fastest supercomputers can perform over one trillion calculation in a second.
- Supercomputer have thousands of processors.
- Because of their extraordinary speed, accuracy and processing power, supercomputers are well suited for solving highly complex problems & huge amounts of calculations.
- Example: JAGUAR, ROADRUNNER etc.

2. Mainframe Computer

- Mainframe computers are very large often filling an entire room and can process thousand of million of instructions per second.
- In a mainframe environment, users connect to the mainframe through the many terminals wired to the mainframe.

- Mainframes are able of supporting hundreds to thousands of users simultaneously.
- Some of the functions performed by a mainframe include: flight scheduling, reservations and ticketing for and airline etc
  Example: IBM mainframes Z13,IBM System z9 mainframe.

3. Minicomputers

- Minicomputers are much smaller than mainframes.
- These computers are also less expensive.
- Sometimes referred to as Midrange Severor Midrange Computer.
- They are typically larger, more powerful and more expensive than desktop computers.
- Midrange computers are usually used by small and medium-size business as their servers
- Users connect to the saver through a network by using desktop computers.
  Example: Apple iPod , CDC 160A

4. Microcomputers

- Microcomputers are the most frequently used type of compouter.
- It is also, known as Personal Computer system designed to be used by one person at a time .
  Example: Desktop computers , laptops.

Q.3: What is the meaning of computer generation? How many Computer Generation are defined ? What technologies were/ are used?

Ans:- Generation in computer technology is a change in technology of a computer which were being used.

In the first computer system, Vaccum tubes are used.

Transistor are used in the second generation.

Integrated circuit technology were used in the third generation.

In the fourth generation microprocessors are used.

Q.4: Differentiate between Volatile &Non-Volatile memories.

Ans	Volatile memory	Non- volatile memory
	1. It is a computer storage that only maintains its data while the device is Powered. 2. E.g. RAM 3. Primary memory has limited storage Capacity and Is volatile .	1. It is a type of computes memory that has the capability to hold saved data even if the computer is turn off. 2. E.g. ROM, hard disk, floppy disk, etc. 3. Secondary memory provides permanent storage of data and in bulk quantity.

Q.5: Distinguish among system software, application software and open source software on the basis of their features.

Ans:- System software : It is a type of software that has designed to run a computer's hardware and application programs. Software like operating systems, compliers, editors and drivers etc. come under this category. A computer cannot function without the presence of system software .

Application software: It is a software created for specific purpose used by end users. It can be called an application or simply an app.

Example: word processer app etc.

Open source software: It is a type of computer in which source code is released under a lincense in which the copyright holder grants users rights to study, change and distribute the software to anyone and for any purpose.

E.g. the Linux operating system.

Q.6: a) Create a file in MS-word to insert a paragraph about yourself and save it while name **"yourself"** . Describe all steps involved in it.

b) Write the steps regarding the followings

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

Ans:- a) "Yourself"

My name is Maison Ningombam. I am 19 years old. I love to play and study. I am a student of Arts at KAKCHING KHUNOU COLLEGE , UMATHEL, MANIOUR. Current I am learning computer CCA course at RGI TRANING INSTITUTION.

<u>The steps involved are:</u>

1. We click the Microsoft office button.
2. We select new. The new document dialog box appears.
3. We select blank document under the blank and recent section. It will be highlighted by default.
4. We click create. A new blank documents appear in the word window.
5. To save the document, we click again the Microsoft office button.
6. We select save as → word document. The save as dialog box appears.
7. We select the location where we want to save the document using the drop down menu.
8. We enter the file name " yourself" for the document.
9. We click the save button.

b) <u>steps to change the font style:</u>

1. We select the text we want to modify.
2. Left click the drop-down arrow next to the font style on the home tab. The font style drop-down menu appears.
3. We move cursor over the various font styles. A live preview of the font size will appear on the document.
4. Left click the font size we want to us. The font size will change the document.

Steps to change the font color

1. We select the text we want to modify.
2. Left click the drop-down arrows next to the font color box on the home tab. The font color menu appears.
3. We move cursor on the various font colors. A live preview of the color will appear in the document.
4. Left click the font color we want to use. The font color will change in the document.

Steps to highlighted the line

1. We select the line that reads " needs to gets IMS's address"
2. We click the highlight command and select yellow color in the font group on the home tab.

Q.7: Create a file in MS- Word for the following document and save it with file name **"ms-word".** Describe all steps involved in it.

Ans:- MS word is a wisely 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

The steps involved are :

1. We click the Microsoft office button.
2. We select new. The new document dialog box appears.
3. We select blank document under the blank and recent section. It will be highlighted by default.
4. We click created. A new blank document appears in the word window.
5. We create the given documents from the question.
6. We select the text "MS word" and change the font size by clicking on the font size box on the home tab.
7. We select the text " MS word" to change the font the font color into red by clicking on the font color menu.
8. We select the text word processor and underline command in the font group the home tab.

9. We select the text “MS word” to change the font style into by clicking italic command.
10. We change the font we want to format as a list and click on the bullets command on the home tab.
11. We change the font color of the text “creating” and “saving” into blue and red resp by clicking on the font color command, again we select the text “and” click on strikethrough command.
12. We select the text “printing any type of document” and change the font style into bold by clicking on the font style command.
13. We save the file name as “ms-word” by clicking the Microsoft office button and select save as
14. We select the location where we want save the document using drop-down memu
15. We click the save button.

Q.8: Create a file in MS- word for the following document and save it with file name ‘equation’. Describe all steps involved in it.

Equatios

$X_2 + Y_5 = 30$

$Z^3 + Q^4$ `=50

$A_2 + B_8 = X_2 + Y^8$

Ans:- Equations

$X_2 + Y_5 = 30$

$Z^3 + Q^4 = 50$

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

The steps are :

1. We create the given documents in MS-word
2. We select the text where we want to format and click on the subscript and superscript command on the home tab.
3. We save the file name as “equation” by clicking the Microsoft office button and select save as
4. We select the location where we want to save the document using the drop down menu
5. WE click the save button.

Q.9: Create a file in MS- Word that convert existing highlighted text tom the table as shown below and save it as file name ‘text_to _table’. Describe all steps involved in it.

Select the text you want to convert .
Select the **Insert** tab.
Click on **Table** command. A dialog box appears.
Click on **Convert Text to Table, a new** dialog box appears here set number of columns.
Click on OK Finally Selected text convert in a table

Select the text you want to convert.	Select the **Insert** tab.
Click on **Table** command. A dialog box appears.	Click on **Convert Text to Table, a new** dialog box appears.
Here set number of columns.	Click on OK Finally Selected text convert in a table

Ans:- To convert existing text to ma table:

1. We select the existing highlighted text that we want to convert.
2. We select the insert tab
3. WE click the table command
4. WE select convert text to table from the menu. A dialog box appears
5. We click ok. Then the text appears in a table.

Q.10: Create a file in MS-Word to insert a table in the document. Describe all steps involved in it.

Ans:-

The steps are:

1. We place our insertion point in the document where we want our table to appear
2. We select the insert tab
3. We click the table command
4. We drag our mouse over the diagram squares to the select the numbers of columns and rows in the table.
5. Left click our mouse and the table appears in the document.
6. We enter the text into the table.

Q.11: Create a following worksheet in MS-excel and save it with name 'book1'.

Roll No.	Name	Marks
1	n1	60
2	n2	70
3	n3	80
4	n4	90
5	n5	40
6	n6	50
7	n7	77
8	n8	44
9	n9	88
10	n10	55

Ans:-

	Name	Marks
1	n1	60
2	n2	70
3	n3	80
4	n4	90
5	n5	40
6	n6	50
7	n7	77
8	n8	44
9	n9	88
10	n10	55

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

- The sum of the marks using AutoSum in a range of cells (C2:C11)
- Average of the marks in a range of cells (C2: C11)
- Highest marks in a range of cells (C2:C11)
- Minimum marks in a range of cells (C2: C11)

Ans:-

No.	Name	Marks	Sum	Average	Maximum	Minimum
1	n1	60	654	65.4	90	40
2	n2	70				
3	n3	80				
4	n4	90				
5	n5	40				
6	n6	50				
7	n7	77				
8	n8	44				
9	n9	88				
10	n10	55				

Q.13: a) Describe the 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

b) Describe following terms in the worksheet

- Absolute reference and relative reference in formula
- Cell address.

Ans:- a)

- To modify width of a worksheet:
  i. Select a column or a range of columns.
  ii. Select a **Home** tab and inn the **Cells** group, select **Format.**

iii. Click on **Column width** and type the width for column.
iv. Select **OK.**

- To modify the row height of a worksheet.
  i. Select a row or a range of rows.
  ii. Select a **Home** tab in the **Cells** group, select **Format.**
  iii. Click on **Row Height** and in the **Cells** group, select **Format.**
  iv. Select **OK.**
- To delete rows and columns of a worksheet.
  i. Select the cell you want to delete within the column or row.
  ii. Select **Home** tab. And in cells group click on **Delete Sheet Column** or **Row** .

OR

i. Select the desire row and column.

b) :-

- **Absolute Reference:**

  An absolute reference in Excel means there is a fixed point of reference applied to a cell or a formula. This is so the return value will always stay the same no matter where the cell or formula moves to – within the same sheet or across different sheet.

  This refers to a fixed point of reference is a constant, and involves the use of dollar sign $ in the formula (i.e., everyone is to receive the same bonus payout, so the amount $1500 is constant in this situation).

- **Relative Reference :**

  It is the default cell reference in Excel. It is simply the combination of column of name and row number without any dollar ($) sign. When you copy the formula from one cell to another the relative cell address changes depending on the relative cell references. Relative references are used when we want to perform a similar operation on multiple cells and the formula must change according to the relative address of column and row.

  This refers to a relative point of reference, is constantly changing and dollar sign ($) is absent in the formula (i.e., when each unit price and quantity are difference variables, there's no constant in the calculation).

- **Cell Address:**

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

  For example, A1 refers to the cell at the intersection of column A and row 1; B2 refers to the second cell in column b, and so on.

  When sed in formula, cell references help Excel find the values the formula should calculate. For instance,

  - To pull the value of A1 to another cell, you use this simple formula : = A1
  - To add the value in cells A1 and A2, you use this one: =A1+A2.

Q.14: a) What tools are available to customize our Power Point presentation?

b) Write the steps for the following action creation of power point presentation

- Open a Blank presentation
- Save the presentation as Lab1. Pptx
- Add a Title to the first slide: the name of your college
- Type your first name and last name in the Subtitle section
- Add a New Slide which has a Title and Content.

Ans:- a)

Tools available to customize our Power Point presentation are :

a) Presentation
b) Pivot Viewer
c) Autodesk 3DS max
d) VisualBee Power Point Add-in
e) SmartArt
f) Animations and Transition
g) Wordle
h) CA coo
i) Oomfo
j) Clip champ

b):-

- To open blank presentation:
  i. Open PowerPoint presentation using 'Run' command (window key + R).
  ii. Select the 'Blank Presentation'. It is Opened.
- Save the presentation as Lab1.pptx.:
  i. Select the 'File' om the Tab bar.
  ii. Click on 'Save As' option.
  iii. Click on the document/Desktop as your choice.
  iv. Type the name 'Lab1.pptx'.
  v. Click the 'Save' button.

- Add a Title to the first slide: the name of your college.
  i. Left click on the 'Click to Add Title' section on the first slide.
  ii. Type the name of your college.
- Type your first name and last name in the subtitle section:
  i. Left click on the 'Click to Add Subtitle' section
  ii. Type your first name and last name.
- Add a New slide which has a Title and content.
  i. Select the Home tab.
  ii. Click on the dropdown button of the 'New Slide' on toolbar.
  iii. Select the slide having 'Title and Content'. It is added.

Q.15: Write steps for creation of a set PowerPoint slide that demonstrates your skill to use the tools of PowerPoint. It should include the following things

- Title slide & bullet list
- Inserting Excel Sheet
- Clip art and Text
- Slide show effects

Ans:-

- Title slide and bullet list:
  i. Open PowerPoint Presentation
  ii. Select the Home tab.
  iii. Click at the dropdown button on 'New Slide' at toolbar.
  iv. Select the slide having Title slide and Bullet list.

- Inserting Excel sheet:
  i. Open the slide where you want to insert the Excel sheet.
  ii. Select the 'Inert tab'. And click on 'Object' on tool bar.
  iii. Select the 'Microsoft Excel Worksheet' object type.
  iv. Click the 'OK' button.
- ClipArt and Text:
  i. Select the Insert Tab.
  ii. Select the 'Pictures' or 'Online pictures' tool bar.
  iii. Choose the appropriate art for the topic.
  iv. Click on the 'Insert button.
- Slide show effects:
  i. Select 'Design Tab' for Themes, Variants and Slide size.
  ii. Select 'Transition Tab' for Cut, Fade, push, Wipe, Split, Reveal, Shape, Flash, etc. for slide effects.

Q.16: What is the difference between Machine Language and High Level Language?

Ans:-

Machine language	High level language
1. A computer programming language consisting of binary instructions which a computer can respond to directly 2. It requires no translator to translate the code. It is directly understood by the computer. 3. This language makes fast and efficient use of the computer.	1. It is a programming language that enables development of a program in a much more user friendly programming context. 2. It takes additional translation time to translate the source code to machine code 3. They are programmer friendly.

Q.17: Discuss about difference data type of C programing Language.

Ans:- The different data types of C programming languages are:

Char: the most basic data type in C. it store a single character and requires a single bite of memory in almost all compilers.

Int: as the name suggests, an int variable is used to store an integer.

Float: it is used to store decimal numbers

Double: it is used to store decimal numbers(number with floating point value but its range of value is high in comparison to float)

Q.18: Find the output of the following expression

a) X=20/5*2+30-5 b) Y =30 – (40/10+6) +10 c) Z= 40*2/10-2+10

Ans:- A) X=33

B) Y=30

C) =16

Q.19: Describe the syntax of the following statements

a) If – else statement b) for loop c) while loop d) do-while loop

Ans:- a) if- else statement:

If statement can be followed by an optional else block of statements, which executes when the Bootcan expression false.

Syntax

If (expression)

{

True block of statements;

}

Else

{

Else block of statements ;

}

b) For loop is similar to while loop. Basic syntax of for loop is as follows:

For (expression 1; expression 2; expression 3)

{

Block of statement

}

In the above syntax

Expression 1-initializes variables.

Expression2 – condition expression as long as this condition is true, loop will keep executing.

Expression 3- it is the modifier which will increase or decrease the value of the variable.

c) While loop.

Basic syntax of while loop is as follows

```
While (condition)
        Single statement.
```

OR while (condition)

```
{
Block of statements
}
```

d) Do- while loop.

Do- while loop is just like a while loop except that the text condition is checked at the end of the loop rather than the start. This has the effect that the body of the loop are always executed at least once

Basic syntax of do-while loop is as follows

```
Do
{
Single statement
    OR
Block of statements
} while(condition);
```

Q.20:Find the output of the following program segments

a)	b)	C)

#include <stdio.h>
Void main()
{
Int i;
for (i=1; i<2; i++)
{
Printf(" IMS Ghaziabad\n");
}
}
	#include <stdio.h>
	Void main()
	{
	Int I = 1;
	While(I <=2)
	{
	Printf("IMS Ghaziabad\n");
	i = i+1;
	}
	}
		#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:- A) IMS Ghaziabad

B) IMS Ghaziabad

IMS Ghaziabad

C) Largest number is 100