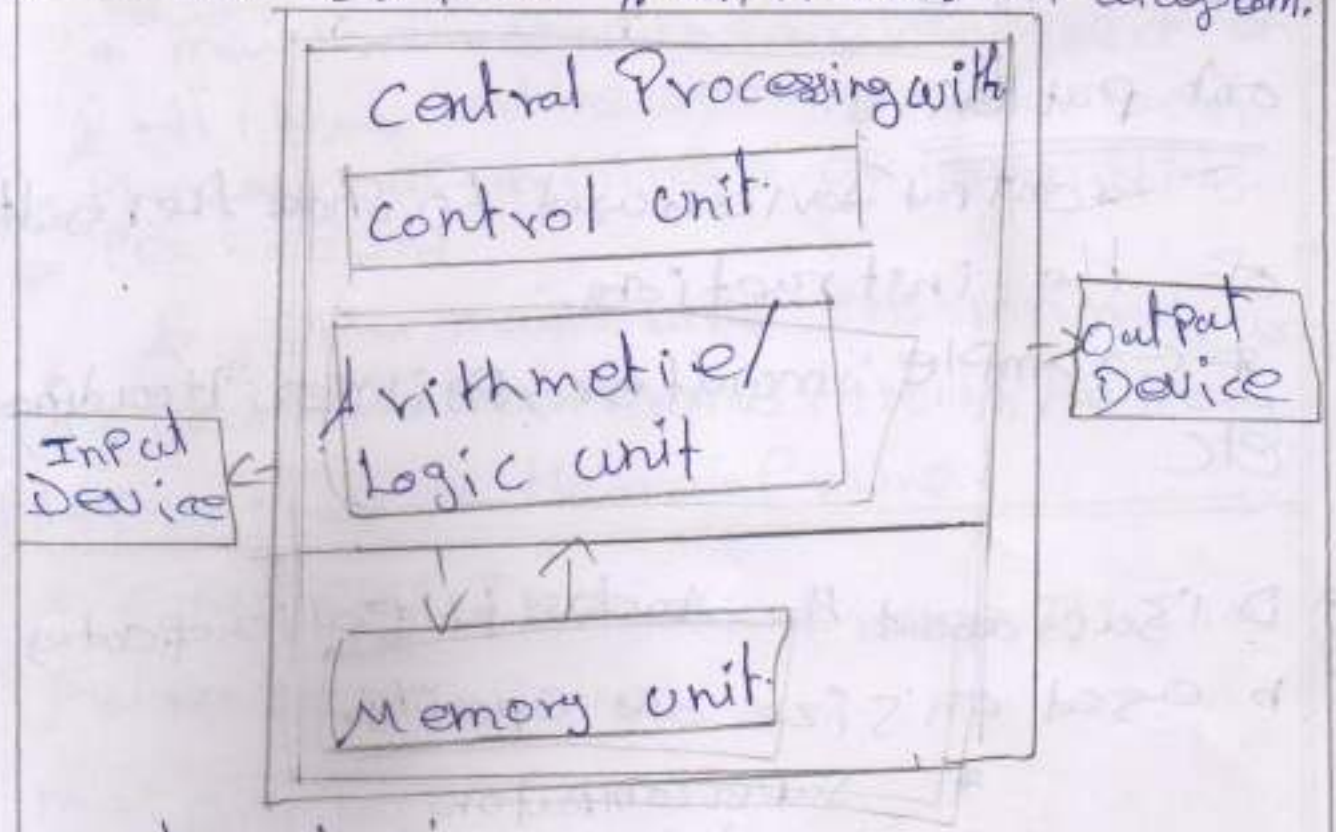
CCA -101 :
FUNDAMENTALS of IT & PROGRAMming

ASSIGNMENT-1

01. what are the four Fundamental Parts of computer: Explain it with the help of diagram.



Input devices:

* computer systems use many devices.

For input purpose.

* Input devices include the mouse input pen, touchscreen and microphone
* Regardless to the type of devices of all are components for interpretation and communication between people of computer systems,

Central Processing unit (CPU):-

* It is the brain to the computer. Can not process without it

memory unit:-

* * memory unit it the collection of storage units or devices together the

memory unit stores the binary information in the form of bits.

Out put devices:

* Output devices used to show the result of the instructions.
* Example: monitor, Printer, Headphone etc

(2) Discuss about the classification of computers based on size and capacity.

* Super computers.
* main frame computers
* mini computers.
* Micro Computer

Super computer.

* Super computer are the most powerful and physically the largest by size.
* These are system designed to process huge amounts of data.
* The fastest super computer can perform over one trillion calculations
* Super computers have thousands of processors

Example: JAGUAR, ROADRUNNER etc

main Frame Computer

* main Frame Computers are very large often all in a room and can process thousands of millions of instructions per second.
* In a main Frame environment, users connect to the main Frame through the many terminals to the main Frame.

Example: IBM main Frame Z13, IBM System z9 main Frame

mini Computers:

* mini Computer are much smaller than main Frames.
* These Computers are also capable
* Sometimes referred to as midrange server or midrange Computer.
* They are typically larger, more powerful and more expensive than desktop computer.

Eg: apple iPod CDC 1604

micro computer:

* Microcomputer are the most frequently used type of computer.
* It is also known as personal computer system designed to be used by one person at a time.

Eg: Desk top Computers, Laptops

(3) What is the meaning of computer generation? How many computer generation are defined? What technology is used/are used?

Five generation of computer.

* First generation
* Second generation
* Third generation
* Fourth generation
* Fifth generation

First generation: Vacuum tubes (1940-1956):

* The first computer system used vacuum tubes for circuitry and magnetic drums for memory. They were often enormous, taking up entire rooms. The computer were very expensive to operate and in addition to using a great deal of electricity the first computer generation often caused malfunction. First computer system used vacuum tubes for circuitry and magnetic drums for memory. The lowest level programming language

Second generation: Transistors (1956-1963)

* The world see transistors replace vacuum tubes in the second generation of computer. The transistor was invented at Bell labs in 1947 but did not see widespread use in computer until the late 1950s

* The transistor was far superior to the vacuum tube allowing computer to become smaller, faster, allowing more energy efficient and more reliable than their first generation predecessors. Though the first still generated a great deal of heat that subject computer to damage it was a vast improvement over the vacuum tube.

The 3rd generation: integrated circuits (1964-1971)

* The development of the integrated circuit was the hallmark of the third generation of computer. Transistors were miniaturized and placed on silicon chips, called semiconductors which drastically increased the speed and efficiency of computer.

Fourth generation: microprocessor. (1971-present)

* The microprocessor brought the fourth generation of computer as thousands of integrated circuits were built onto a single silicon chip what in the first generation filled an entire room could now fit in the palm of the hand. The Intel 4004 chip, developed in 1971, located all the components of the computer.

Fifth generation: Artificial intelligence (present and beyond)

* Fifth generation computer devices, based on artificial intelligence, are still in development though there are

some application, such as voice recognition that are being used today Trough of parallel processed and superconductors is helping to make artificial intelligence a reality

4) Difference between volatile & non volatile memory.

S.No	Volatile memories	Non-volatile memories.
1.	volatile memory is a computer storage that only maintains data while the device is powered	It is a type of computer memory that has the capability to hold saved data even if the power is turned off
2	Eg: RAM (Random access memory) is volatile what we are working on a document once document computer loses power, your work will be lost	Eg: Read only memory (ROM), Hard Disk, Floppy disk, etc.

5) Distinguish among system software application software and open source software on the basis of their feature

System software

* It is a type of software that is design to run a computer's hardware and application programs
* Software like printing system, compiler, editors, drivers etc. come under this category.
* A computer cannot function without the presence of system software.

Application software.

* It is software created for a specific purpose used by the user. It can

he called an application or simply an app

* Eg: word processor, accounting application, web browsers, general drawing media player etc,

Open source software (OSS)

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

* The Linux operating system (OS) is the best-known example of open source software

(6) a) Create a file in ms word to write a paragraph about yourself save it with filename yourself; Describe all steps involved in it.

ms word is a widely commercial word processing developed by microsoft.

* Ms word is application software which is capable of
  * Creating
  * editing
  * saving and
  * printing any type of document

Opening ms word

* Click the start icon
* Then point to all programs.
* Then click microsoft office and
* The click microsft word

b) i) To change the Font style

* Select the text you want to modify
* Click on Font style chart on the Home tab the font style drop-down menu appears.
* move your caser over the various Font style.
* Left - click the Font style you want to use.
* Then Font style will change in the document

ii) To change the Font size.

* Select the text you want to modify
* click on increase/decrease Font size Commands in the Ford group on the Home tab
* Then font size will change in document.

OR) i) To Create a New document :-

★ click the Microsoft Office button / File tab.

★ select NEW the New document dialog box appears.

★ select Blank document appears on the work window

★ Now you can Creat document by inseting texts.

★ Firally save document

ii) To save document using save as comand

★ click the microsoft office button, File tab

★ select save as - word document

★ select the location where you want to save the document enter the name of the document

★ click the save button

iii) To change for Font ~~Color~~ color.

★ select the text you want to modify

★ click on the Font color box on the Home tab The Font color menu opened.

★ move your cursor that color you to use.

★ Then Font color will change in the document

iv) To highlight colors:-

As select text
* Click on the text highlight colour in font group on the home tab.
* Various will appears
* move your cursor over the various colors
* Click on colour you want to use.
* Then text highlight color will change in the document

8) Create a File

* Create a document in word on the file tab
* click New
* in the search for online templates box
* Enter the specific document you want to create.
* press enter

Save with file name equation:
* Click on the file menu
* Click on the save or save as button provided the file to be save
* select the location where you want
* provide a name to the file or use the name caution
* click on the save button

9) Table to text

* Select the rows or table you want to convert to convert to text
* On the layout tab, in the data selection, click convert to text.
* In the convert to text box under separated text with, click the separator character you want to use in place of the column boundaries rows will be separated with paragraph marks.
* click ok

10) MS word to insert a table

* Place the cursor where you want to insert the table
* Select the Insert tab.
* In table group click the table command
* It display different different options to insert the table.
* select the desired option to insert the table.

11) Create a work sheet:

1. open excel.
2. select Blank work sheet or press ctrl + n.

Save with name book1

1. Click File > Save as
2. under save AS, pick the place where you want to save your worksheet.
3. click Browse to find the location you want in your document folder.

* In the File name box, enter a name book 1
* To save your workbook in a different file format
* click Save.

(9) * The sum of Homarks using Auto Sum in a range of cells (c2:c11)

$C_2 : C_{11} = 76 + 55 = 125$

* Average of Homarks in range of cells:

$(c_2 : c_{11}) = 62.5$

* Highest marks in a range of cell $(c_2 : c_{11})$

$= 70$

* minimum marks in a range of cells $(c_2 : c_{11})$

$= 55$

13)a) To modify Column width of a worksheet

1. select the column or columns that you want to change.
2. On the Home tab, In the Cells group, click format
3. under cell Size, click Column width
4. In the column width box type the value that you want
5. Click OK.

To modify the row height of a worksheet.

1. Select the rows that you want to change.
2. on the Home tab, In the Cells group click Format
3. under cell Size, click Row height
4. In the row height box, type the value that you want
5. click OK.

To delete rows and columns of work sheet

1. select the cells rows or colums that you want to delete.
2. Right-click, and then select the appropriate delete option.
3. Click OK.

(13) b) Absolute and relative reference

* Relative and absolute reference behave differently when copied and applied to other cells
* Relative reference changes when formula is copied to another cell
* Absolute reference, on the other hand remains constant whether or not they are copied

Cell address: Cell address is a combination of a column letter and/or and a row number that indicates a cell uniquely.

14) a) Power point presentation:

* It is an excellent way of presenting information to an audience in visual form
* The software is easy use and offers a lot of cool effects for slideshows
* It helps one speak while easily to learn about the topic more easily

b) Open a blank presentation:

* Click on start.
* Select MS OFFICE POWERPOINT OPTN.
* Double click on it

Save the presentation

* It's a good idea to keep saving our work periodically as we never know when we will lose power or when our computer is likely to crash.

Add a title to the first slide name of your College:

1. Select the slide whose layout you will change & let it can have a title
2. Click Home > Layout
3. Select title slide for a standalone title page or select title and content for a slide that has a title as well as slide text box
4. Select the click to add title text box.

Type your first name and last name in the subtitle section:

* On the layout tab
* Stree insert caption, and then select insert caption
* In the insert captions dialog box select the file or files and then click Insert

Add a new slide which have a title and content:-

1. In the slide thumbnail pane on the life click the slide that you want your new slide to follow
2. On the home tab, click New slide
3. In the new slide dialog box select the layout that you want for your new slide learn more about slide layout
4. select add slide.

(5) Title slide bullet list

1. Go to the slide that you want to add list formatting to
2. On the slide select line of text in a text placeholder table you want to add bullets to

3) On the home tab in the paragraph group, click bullets or numbering

inserting Excel sheet

~~On budget to~~

On the insert tab, click object

2. In the insert object dialog box. Select Create From file.

3. Click on tab browse. and in the Brows box, find that excel workbook with the data, you want to insert into.

4. click OK

clipart and text:

1. Select insert portal pictures.

2. Type a word or phrase to describe what you are looking for or to Phrase enter.

3. File the result by type for.

Clipart

4. select a picture

5. select insert

Slide show effect:

1. Select the object you want animate
2. Select animation and choose animation effect
3. Select effect option and choose an effect.

16) What is the difference between machine language and High level language?

Machine language:-

* A computer processible language consisting of binary instruction which a computer can respond directly
* Machine language is a collection of binary digits or bit that computers can interpret.

Advantage:-

* This language makes fast and efficient use of the computer.

* It requires no translator to translate the code It is directly executed by the computer

Disadvantage:

* All memory addresses have to be remembered

* All operation codes have to be remembered

17) Data types:

* C Language is rich in its data types storage representation and machine instructions differ from machine to machine. The programmer to select the type appropriate to the needs of the application as well as the machine.

01. Primary data types
02. Derived data types
03. User-defined data types

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

= 33

b) $y = 36 - (40/10 + 6) + 10$

= 30

c) $z = 40 * 2/10 - 2 + 10$

= 16

19) a) If-else statment

Syntax

If (test expression)

{

True block statment(s)

else

}

~~False block st~~

Falseblock statment(s)

}

Statment -x

b) For Loop

Syntax

for(Initialisation; test-condition; increment Or decrement)

{

body of the Loop

}

c) while Loop

Syntax

while(test condition)

{

body of the Loop

}

d) do loop

Syntax

```
do
{
  body of the loop
}
while(test condition)
```

2) a) Program

```
# include<stdio.h>
int main()
{
  int i;
for (i=1; i<2; i++)
{ printf("ims Ghaziabad\n");
}
```

Output :

IMS Ghaziabad

b) Program

```
# include<stdio.h>
int main ()
{ int i=1;
while(i<=2)
{
 printf("ims ghaziabad\n");
```

```
        i = i + 1;
      }
    }
```

Output:

I MS Ghaziabad
I MS Ghaziabad.

c) Program

```
#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);
}
```

output:

Largest number is 100.