

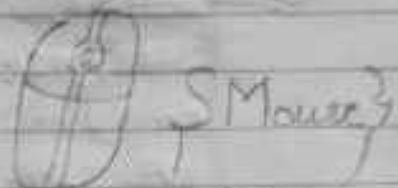
CCA - 101: FUNDAMENTALS OF IT AND PROGRAMMING
ASSIGNMENT-1

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

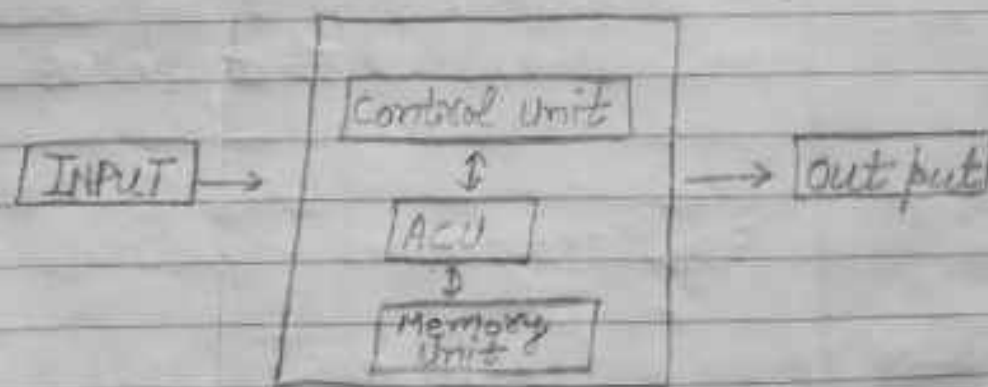
Ans: A computer has four main components:

- (1) Input unit
- (2) The central processing unit or CPU.
- (3) The primary memory and
- (4) output unit.

⇒ INPUT UNIT ⇒ The devices to input information, such as Keyboard, and mouse



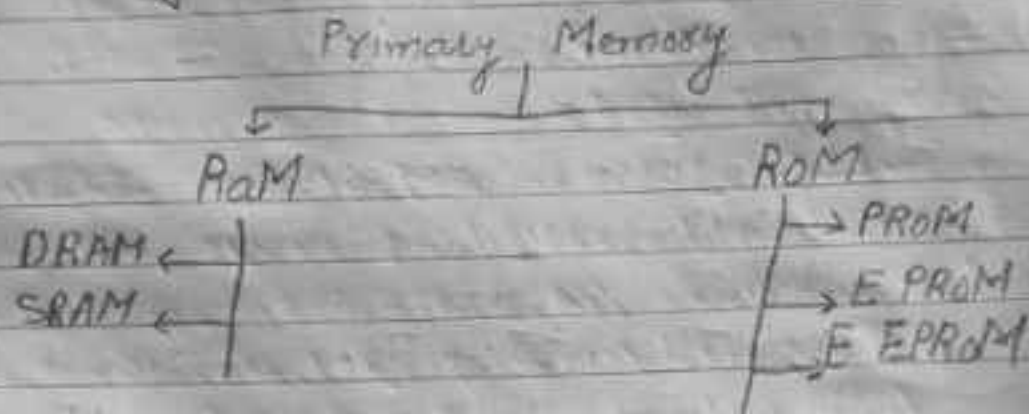
⇒ CPU ⇒ Enter processing unit ⇒ The CPU is further broken up into All control unit, and Instruction unit



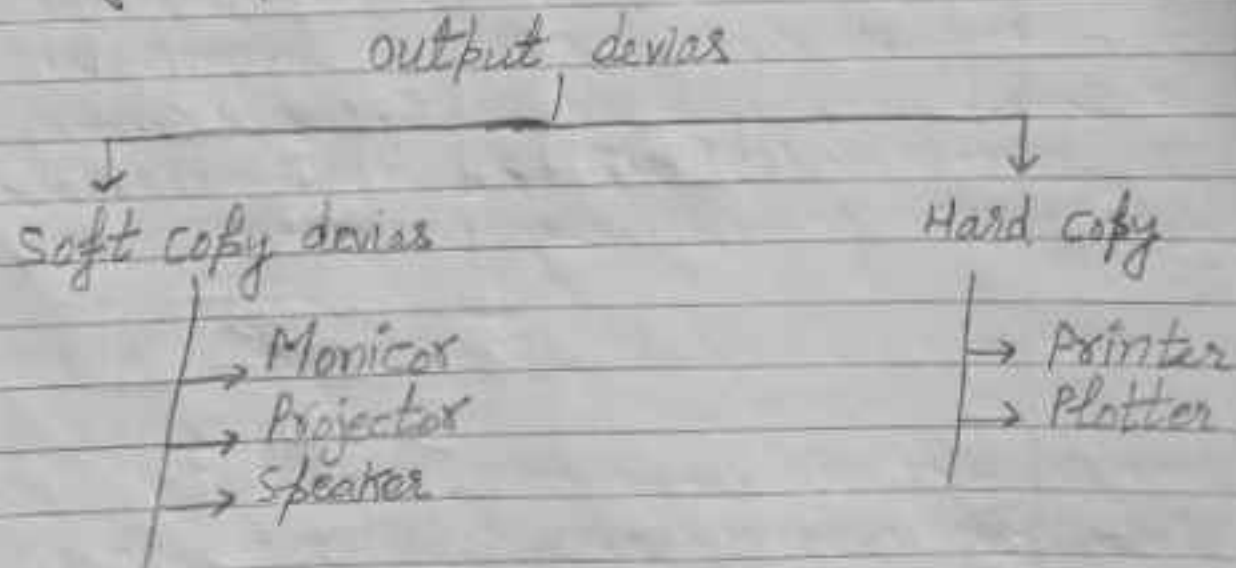
⇒ CPU

⇒ Primary main memory ⇒ Primary memory is the computer memory that is directly accessible by CPU. It is computer's computer

of DRAM and provides the actual working space to the processor. It holds the data and instructions that the processor is currently working on.



⇒ Output Device ⇒ An o/p device is any peripheral that receives data from a computer, usually for display, projection, or physical reproduction. e.g., the image shows an inkjet printer, an device that make a hard copy of anything shown on the monitor.



Q No 2 Discuss about the classification of computers based on size and capacity?

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

- ⇒ Super computer
- ⇒ Mainframe computers
- ⇒ Mini computers
- ⇒ Micro computers.

⇒ Super Computers:

A super computer is a computer with a high level of performance compared to a general-purpose computer. Performance of a super computer is measured in floating-pt.

~~Super computer is measured~~
Operations per second (FLOPS) instead of million instructions per second (MIPS).

⇒ Mainframe computers:

A mainframe computer is a large integrated machine with a lot of memory, a lot of storage capacity, and a lot of high-end processors. To such a large functioning it has a lot of computational power in comparison to normal computer systems.

⇒ Mini computers

Minicomputer, computer that was smaller, less expensive, and less powerful than a mainframe or

Supercomputers have a ~~personal~~ personal computer. Minicomputers were used for scientific and engineering computations, business transaction processing, file handling and database management.

⇒

Micro Computer:

A micro computer is a ^{etc} computer. An a small scale, designed for use by one person at a time. An antiquated thing. A microcomputer is now primarily called a personal computer (PC) or a device based on a single-chip microprocessor. Common microcomputers include laptops and desktop.

Ques: What is the meaning of computer gen. How many computer gen. are defined which technologies were/are used.

Ans: Computer gen is classification of computers into different groups according to their manufacturing date, memory device, hardware and ~~the~~ S/W technologies used in them. There is five gen. of computer.

⇒

1st GEN.

The period of first gen. was from 1946-1959. The first computer of first gen used vacuum tubes as the basic components for memory and ~~in~~ circuitry for CPU.

Date: / /
Page No.:

These ~~to~~ tubes-like electric bulbs, produced a of heat and installations used to fuse frequently.



2nd Gen

The period of second gen. was from 1959-1965. In this gen, transistors were used that were cheaper, consumed less powers, more compact in size, more reliable and faster than the first gen. machines made of vacuum ~~tubes~~ tubes.

3rd Gen

The period of Third gen. were computers that emerged due to the development of the Integrated Circuit (IC). They were the first steps toward computers as we know them today. Their main feature was the used of integrated circuits, which allowed them to be shrunk down to be as small as large to acres.



4th Gen.

The period of 4th (fourth gen) was from 1971-1980. Computers of fourth gen used very large scale Integrated (VLSI) circuits. VLSI circuits and other circuits elements with their associated circuits on a single chip made it

Possible to have microcomputers of fourth generation.

5th Gen

The fifth gen computer system (FGCS) was an initiative by Japan's Ministry of International Trade and Industry (MITI), begun in 1982, to create computers using massively parallel computing and logic programming. It was to be the result of a govt/industry research project in Japan during the 1980s.

Q No 4 Different b/w volatile and non-volatile memories:

1	Volatile memory	Non-volatile memory
①	Volatile memory is the type of memory in which data is lost as is powered off.	Non-volatile memory is the type of memory in which data remains stored even if it is.
②	It is faster than non-volatile memory.	It is slower than volatile memory.
③	RAM is an example of volatile memory [Random Access Memory]	ROM (Read only memory) is an example non-volatile memory.

Ques Distinguish among system software, app-s/w and open source s/w on the basis of their features?

⇒ System Software:

System s/w is a type of computer program that is designed to run a computer's h/w and applications. If we think of the computer system as a layered model, the system s/w is the interface b/w the h/w and user applications. The O.S (operating system) is the best-known example of system software.

⇒ Application Software:

An Application s/w program (application or app for short) is a computer program designed to carry out a specific task other than one relating to the operation of the computer itself, typically to be used by and end users. word processors, media players, and accounting s/w are example.

⇒ Open Source Software.

open-source s/w (OSS) is computer s/w that is released under a license in which the copyright holder grants users the rights to use, study, change and distribute the software and its code to anyone and for

Any purpose. open-source & may developed in a collaborative public manner.

Q No 6 Create a file in ~~ms~~ MS-word to insert a paragraph about yourself, and save it with file name 'yourself'. Describe all steps involved in it.

Ans: Open word or if word is already open select file & New

① In the search for online templates box enter a search word like letter, resume, or invoice, or select a category under the search box like Business, Personal or Education.

② Click a template to see a preview.

③ Select create.

(b) Write steps regarding following:-

(1) To change the font style.

Ans select the text you want modify.

(2) To change the font size.

Ans Select the home tab and locate the font group.

(3) To change the font color.

Ans click the drop-down arrow next to style box.

(4) To highlight (in yellow) the line that need to get IMB's address"

Ans If you want to change the font to bold or italic click the 'B' or 'I' icons on the format bar

Q No 7 Create a file in MS word for the following documents and save it with fil-'ms-word'. Describe all-steps involved in it.

MS word

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

- Creating
- editing
- Saving
- Printing any type of document.

=> Creating

Ans

(1) click the Microsoft office button / file tab.

(2) Select New. The new document dialog box appear.

3 Select Blank document, it will be highlighted by default.

4 A New blank document appears in the word window.

5 Now you can create document by inserting text.

6 Finally save document.

Editing.

(1) click. the edit tab.

- 2 Select the text you want to edit
 - 3 Using the tool in the edit toolbox, change the required formatting including font style, paragraph alignment, list formatting, and indentation options.
- ⇒ Saving

- To save doc. using save as command
- 1 click the Microsoft Office button / file tab.
 - (2) Select save as - word document.
 - 3 Select the location where you want to save the doc using the drop-down menu.
 - 4 Enter a name for the doc
 - 5 Click the save button.

⇒ Printing any type of document:

- (1) Select file Print.
- 2 To preview each page. If the text is too small to read, use the slider at the bottom of the page to enlarge it.
- 3 Choose the no. of copies, and any other options you want and select the print button.

Ques Create a file in MS word for the following document and save it with in the file name 'Equations'. Describe all steps involved in it

Eg. Eg.

$$x_2 + y_5 = 30$$

$$z' + w'' = 50$$

$$A_2 + B_1 = x_2 + y_1$$

- Ans. Select Insert > Equation or Press Alt + =
- 1 To use a built-in formula, select design > equation.
 - 2 To create your own, select or make to ink equation.
 - 3 Use your fingers, keyboard styles or more to write your equation.
 - 4 Select insert to bring your equation into the file.

Qno 9.

Ans. Select the text and make sure its property formatted.

Word will insert a new column when a tab character is found so make sure that are separated by tabs.

- (2) Click the insert tab.
- (3) Click the table button.
- (4) Select convert text to table
If the text was formatted right, some of the ~~text~~ options in the dialog box should already be filled in otherwise set the no. of columns and rows, how to separate the text into columns.
- (5) Optional Customize AutoFit behavior
- (6) Click ok.

The selected text is automatically turned into a table.

Ques 10

- Ans 10
- (1) open a blank word document.
 - (2) In the top ribbon, press Insert.
 - (3) click on the table button.
 - (4) Select the no. of columns and rows you need, or click insert table and a dialog box will appear where you can specify the no. of columns and rows.
 - (6) The blank table will now appear on the page after it is inserted. Standard features like bold, italic, align and underline are also available. Insert may be helpful for creating headings and calling out certain items in the table.

Ques 11

Create a following worksheet in MS-Excel and save it with name 'book 1'.

Ans 11

- 1 Right-click the worksheet name tab.
- 2 click select move selected sheet to book.
- 3 click on the move selected sheet to book drop-down menu select (new book).
- 4 click ok your new workbook opens with your moved worksheet.
- 5 click file > save for your new workbook.

Ques) The sum of the marks using Autosum is
 Ques) A range of cells (e.g. C2:C11).

Ans) To sum a column of numbers, select the cell immediately below the last number in the column. The sum is done by clicking the cell immediately to the right.

2. Autosum is in two locations: Home > Autosum and formulas > Autosum.

3. Once you create a formula, you can copy it to other cells instead of typing it over and over.

E.g. if you copy the formula in cell C2 to cell C3, the formula is automatically adjusted to the new location and calculates the numbers in C2:C11.

4. You can also use autosum on more than one cell at a time.

5. You can also sum numbers by creating a ~~sum~~ simple formula.

(b) Average of the marks marks in a range of cells (C2:C11).

Ans) Click a cell below the column or to the right of the ~~last~~ row of the numbers for which you want to find the average.

2. In the Home tab, click the arrow next to Autosum > Average, and then press Enter.

(9) Highest marks in a range of cells (C6:C11)

Ans) In a blank cell, type "=MAX (C6:C11)"

2. Select the cell you want to find the largest number from.

3. Close the formula with an ending parenthesis ~~and~~ enter.

4. Hit enter and the largest number from your selection will populate in the cell.

(10) Minimum marks in a range of cells (C12:C17)

Ans) Select the cell C and write the formula

2. =MIN (C12:C17) Press Enter on your keyboard

3. The presentation will return 3

4. 3 is the minimum value in the range (C12:C17)

Ques 13 Describe various steps involved in the following:

1. To modify column width of a worksheet
Ans) Select the column or columns that you want to change.

2. On the home tab, in the cells group, click on the column width icon.

3. Under cell size, click column width.

4. In the column width box, type the value you want.

5. Click OK.

2. To modify the row height of a worksheet.

Ans Select the row or rows that you want to change.

2 On the home tab in the cells group, click format.

3 Under cell home, ~~click~~ ^{right click} Row Height.

(4) In the Row Height box, type the value that you want and then click OK.

(3) To delete rows and columns of a worksheet.

~~Ans~~ (1) Select the cells row and column that you want to delete.

(2) Select click and then select the appropriate delete option.
e.g. Delete cells and shift up, Delete cells and shift left, Delete Row or Delete Column.

(b) Describe the following terms in the worksheet.

(i) Absolute reference and relative reference in formula.

Ans Select the cell that contains the formula.

2 Select the formula bar select the reference that you want to change.

3 Press F4 to switch between the reference types.

12, Cell Address.

Ans A cell address is the intersection of a row and a column. Columns are identified by letters. Rows are (A, B, C) while

identified by nos (1, 2, 3). Each cell has its own name or cell address based on its column and row.

In this eg the selected cell intersects column C and row 5 so the cell address is C5.

Q14 What tools are available to customize our power point presentation?

Ans: Templates and themes.

- | | |
|-----------------|------------------|
| 1 Slide layouts | 11 Flowcharts |
| 2 Font | 12 Icon charts |
| 3 color Themes | 13 Radial |
| 4 Icons | 14 Progress bars |
| 5 shapes | 15 Animation |
| 6 Stock Photos | 16 Transitions |
| 7 charts and | 17 Interactivity |
| 8 maps | 18 Audio |
| 9 tables | 19 Video |

Q15

Write the steps for the following action for creation of power point presentation.

(i) open a blank presentation?

Ans: select the file tab to go to backstage view.

- 2 Select New on the left, side of the window then click Blank presentation
- 3 A new presentation will appear.

- (2) Save the presentation as lab 1. pptx
- 1 Create a blank presentation.
- (3) Save a presentation.
- 3 Apply a design.
- 4 Compare presentation views.
- 5 Format Text
- 6 Insert SmartArt
- 7 Insert ~~SmartArt~~ Modify Shapes.
- 8 Edit and Duplicate Slides.

(3) Add a title to the first slide: The name of your college.

Ans (1) Select the slide whose layout you will change so that it can have a title.

1. click home layout.

(3) Select title slide for a standalone title page or select title and content for a slide that contains a title and a full slide text box.

may other layout options include titles, too. Pick the ones that's best suited for your presentations.

1. Select the click to add title text box. Enter your title for that slide.

(1) Type your first name and last name in the subtitle section:

- Ans 1
- (1) Using your mouse, mouse and cursor click inside of the top text box
 - (2) Using your keyboard, type the name of the animal you have been selecting for class
 - (3) Using your mouse and cursor click inside of the bottom text box
 - (4) Use using your keyboard, type your first and last name. Click enter and type your teacher's name.

Ques 5) Add a new slide which has a title and content.

- Ans: (1) Click the "Home" tab in the ribbon
- (2) Then click the "New Slide" button in the "Slide" button group.
 - (3) Alternatively, to add a new slide with a different slide layout.
 - (4) Click the "Home" tab in the ribbon.

Ques 15) Title slide and bullet list

Title slide

Ans

The title slide is the first slide of a presentation. It usually contains a title and a subtitle. Of all the slides in a presentation, the first slide is one of the most important, as the title slide generally sets the tone.

- (1) Click Home > layout
- (2) select title slide for a standard title page

Ques. about different data type of C programming language?

Ans. There are some common data types in C programming language.

- ① Int - used to store an integer value
- ② char - used to store a single character
- ③ float - used to store decimal no's with single precision.
- ④ double - used to store decimal no's with double precision.

e.g

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
// data types
```

```
int a = 10;
```

```
char b = 'a';
```

```
float c = 2.88;
```

```
double d = 28.888;
```

```
printf("Integer datatype: %d\n", a);
```

```
printf("Character datatype: %c\n", b);
```

```
printf("float datatype: %f\n", c);
```

```
printf("double datatype: %lf\n", d);
```

```
return 0;
```

Op

- ① Integer datatype: 10 4 Double float datatype
- ② char datatype: 5 : 2.888 000
- ③ float datatype: 2.88000

QNo18 Find the output of the following expression.

(a) $x = 20/5 * 2 + 30 - 5$
Ans $x = \frac{20 \times 2 + 30 - 5}{5}$

$$x = 4 \times 2 + 30 - 5$$

$$x = 8 + 30 - 5$$

$$x = 8 + 25$$

$$[x = 33]$$

Hence, the value of x is 33 Ans

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

Sol: $y = 30 - 4 + 6 + 10$

$$y = 30 - 0$$

$$[y = 0]$$

Hence, the value of y is 30 Ans

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

Sol: $z = \frac{40 \times 2}{10} - 2 + 10$

$$z = 8 - 2 + 10$$

$$z = 8 + 8$$

$$[z = 16]$$

Hence, the value of z is 16 Ans

QNo19 Describe the system of the following statements?

(a) If-else statement.

Ans: #include <iostream>
using namespace std;

```
int main ()  
{  
    int main number;  
    cout << "Enter an integer";  
    cin >> number;  
  
    if (number > 0)  
        cout << "you entered a positive  
        integer:" << number << endl;  
    else if (number < 0)  
        cout << "you entered a negative  
        integer:" << number << endl;  
    else  
        cout << "This line is always  
        printed";  
    return 0;  
}
```

O/P

Enter an integer;

(b) for loop.

Ans

```
#include <stdio.h>
int main ()
{
    int i;
    for (i=0; i<10; i++)
    {
        printf ("Hello world");
    }
    return 0;
}
```

O/P

10 times write Hello world.

(c) while loop.

Ans

```
#include <stdio.h>
int main ()
{
    int i=0;
    while (i<10)
    {
        printf ("Hello world");
        i++;
    }
}
```

O/P

10 times write Hello world.

(d) do-while loop

Ans

```
#include <iostream>
using namespace std;
int + main()
int i = 1;
```

```
{
    cout << i << "\n";
    while (i <= 10);
}
```

Opp

1 to 10 Ans.

Q No 20 Find the output of the following program segments.

(a) #include <stdio.h>
int main()

```
{
    int i;
```

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

```
{
    printf("IM's Ghaziabad\n");
}
```

O/P IMS Ghaziabad.

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

O/P Two times write IMS Ghaziabad:

```
(c) #include <stdio.h>
      void main()
      {
        int a=10, b=100;
        int (a>b)
        printf("Larger no is %d\n", a);
        else
        printf("Larger no is %d\n", b);
```

O/p larger number is b.