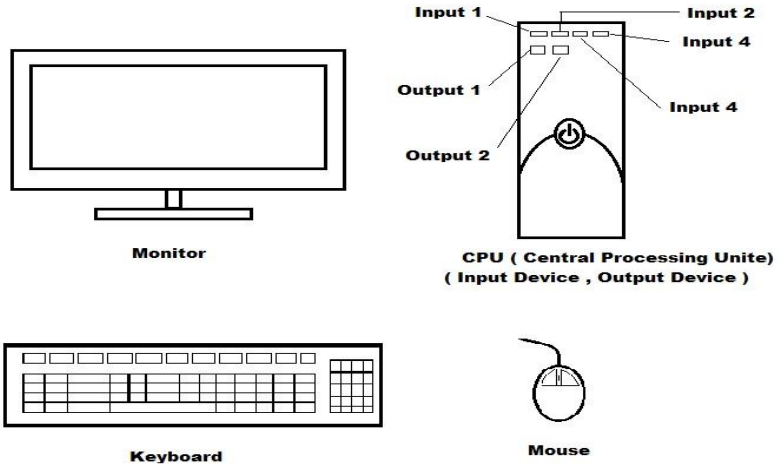
CCA-101: Fundamentals of IT & Programming

Assignment – 1

Q1: What are the four fundamental parts of computer? Explain it with the help of diagram.

Ans: -



Q2: Discuss about the classification of computers based on size and capacity.

Ans: -

Classification of computer based on size and capacity is in Five Types:

1) **Supercomputer**
2) **Mainframe Computer**
3) **Minicomputer**
4) **Microcomputer**
5) **PC (Personal Computer)**

Q3: What is the meaning of computer generation? How many Computer Generations are defined? What technologies were/are used?

Ans: -

The evolution of computing is divided into a generation.

Computer generations are defined in five generation:

1) **First generation (Vacuum Tube)**
2) **Second generation (Transistors)**
3) **Third generation (Integrated Circuits)**
4) **Fourth generation (Microprocessors)**
5) **Fifth generation (Artificial Intelligence)**

Quantum computation and Nanotechnology were used.

Q4: Differentiate between Volatile & Non- Volatile memories.

Ans: -

Volatile	Non-Volatile
Volatile memory is a main memory of computer.	Non-Volatile memory is secondary memory of computer.
Volatile memory is Fast.	Non-Volatile memory is slower than volatile memory.
Volatile memory is Temperary memory of computer.	Non-Volatile memory is Permanent memory of computer.
Volatile memory is known as RAM.	Non-Volatile memory is known as ROM.

Q5: Distinguish among system software, application software and open-source software based on their features.

Ans: - **It is a type of software that is design to run a computer's hardware and application programs.**

System Software	Application Software	Open-source Software
System software mainly design for managing system resources.	Application software are design to accomplish tasks for specific purposes.	It is customizable depending on software license.
Programming of system software is complex.	Programming of application software is comparatively easy.	It is available for zero licensing and usage charges.
A computer cannot run without system software.	A computer can easily run without application software.	The user-friendliness depends on the projects and the community maintaining them.
System software do not depend on application software.	Application software depend on system software and cannot run without system software.	As mainly users continuously analyze the open-source software, it is easy to detect the bug and rectify them.

Q6. 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: - <u>Myself</u>

My name is Manish. My mother and father give me this name. I love my name. I am Twenty years old and studying in diploma. I live in Maharashtra; it is counted among the richest and prosperous state of India. In my family, we are Five members. I have two younger brothers. My father is businessman, and My mother is homemaker. I love my family with the core of my heart. My hobbies are drawing, hangout with best friend and playing online games. My aim is Master the coding and making a best software in the world.

Q6 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 IMS's address".**

Ans: -

- **To change the font style:**
  1. **Select the text you want to change their font.**
  2. **Select home from menu bar.**
  3. **Select font column.**
  4. **Select font column.**
  5. **Select which font you want, and press Enter.**
- **To Change the font size:**
  1. **Select the text you want to change their font size.**
  2. **Select home from menu bar.**
  3. **Select font column.**
  4. **Select size column.**
  5. **Change size and press Enter.**
- **To change the font colour:**
  1. **Select the text you want to change their font colour.**
  2. **Select home from menu bar.**
  3. **Select font column.**
  4. **Select font colour and press Enter.**
- **To highlight (in yellow) the line that reads "need to get IMS's address":**
  1. **Select the line you want to highlight.**
  2. **Select home from menu bar.**
  3. **Select font column.**
  4. **Select which colour you want, and press Enter.**

Q7. 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

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**

Q8. Create a file in MS-word for the following document and save it with file name 'equations'. Describe all steps involved in it.

Ans: -

Equations

$X_2 + Y_5 = 30$

$Z^3 + Q^4 = 50$

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

Q9. 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: -

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 numbers of columns.
Click on OK Finally Selected text converted 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 numbers of columns.	Click on OK Finally Selected text converted in a table.

Q10. Create a file in MS-Word to insert a table in the document. Describe all steps involved in it.

Ans: -

First step to add table: -

1) **Select the Insert tab from menu bar.**
2) **Select the table column.**
3) **Select insert table option.**
4) **Select Table size.**
5) **Then select number of column and number of rows you want to add.**
6) **Then click OK now your table is inserted.**

OR

Second step to add table: -

1) **Select the Insert tab from menu bar.**
2) **Select the table column.**
3) **Select Draw the table.**
4) **Then draw your table.**

OR

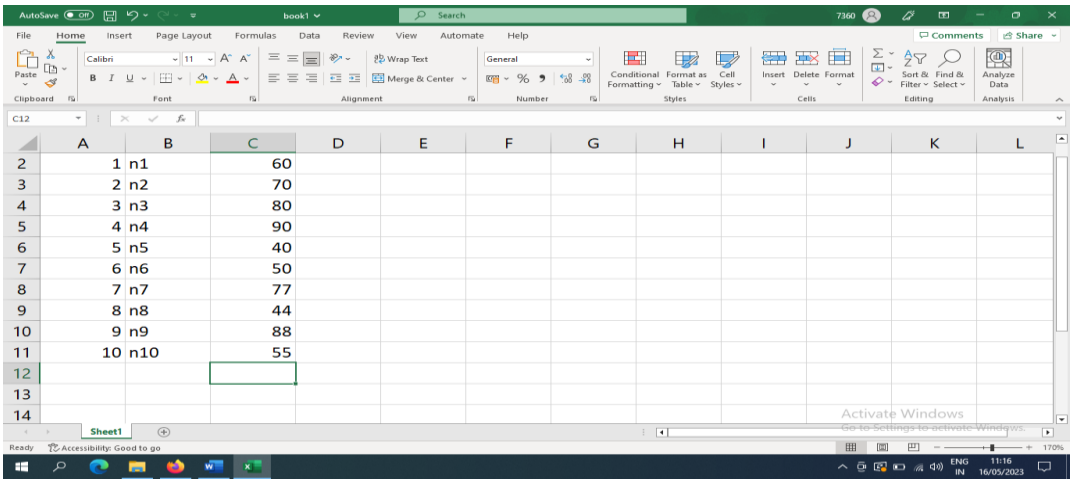
Third step to add table: -

1) **Select the Insert tab from menu bar.**

2) **Select the table column.**
3) **Select how many tables you want to add.**

Q11. Create a following worksheet in MS-excel and save it with name 'book1'.

Ans: -

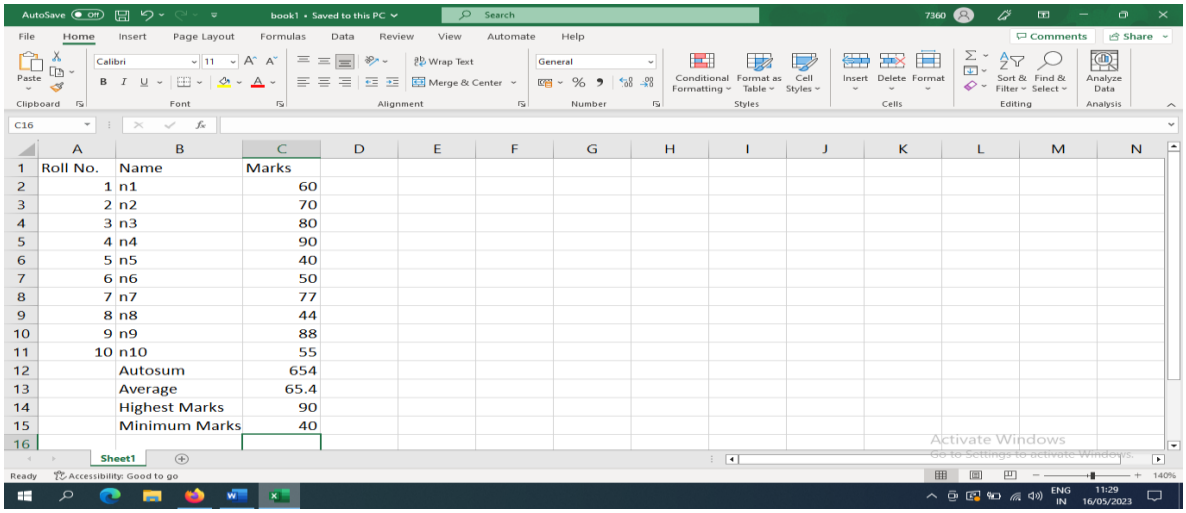


	A	B	C
2	1	n1	60
3	2	n2	70
4	3	n3	80
5	4	n4	90
6	5	n5	40
7	6	n6	50
8	7	n7	77
9	8	n8	44
10	9	n9	88
11	10	n10	55
12			
13			
14			

Q12. 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: -



	A	B	C
1	Roll No.	Name	Marks
2	1	n1	60
3	2	n2	70
4	3	n3	80
5	4	n4	90
6	5	n5	40
7	6	n6	50
8	7	n7	77
9	8	n8	44
10	9	n9	88
11	10	n10	55
12		Autosum	654
13		Average	65.4
14		Highest Marks	90
15		Minimum Marks	40
16			

Q13 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: -

- **To modify column width of a worksheet.**
  1) **Select the Home tab from menu bar.**
  2) **Select the Cells column.**
  3) **Select Format option on cells column.**
  4) **Select column width.**
  5) **Enter the width.**
  6) **Then click OK now your column width is changed.**

- **To modify the row height of a worksheet.**
  1) **Select the Home tab from menu bar.**
  2) **Select the Cells column.**
  3) **Select Format option on cells column.**
  4) **Select row height.**
  5) **Enter the height.**
  6) **Then click OK now your row height is changed.**

- **To delete rows and columns of a worksheet.**
  1) **Select which row or column you want to delete.**
  2) **Select the Home tab from menu bar.**
  3) **Select the Cells column.**
  4) **Select Delete option on cells column.**
  5) **Click on delete row or delete column you want to delete.**
  6) **Now your row or column was deleted.**

Q13 b) Describe following terms in the worksheet.

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

Ans: -

- **Absolute reference and relative reference in formula: -**

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.

- **Cell address**

A reference is a cell's address. It identifies a cell or range of cells by referring to the column letter and row number of the cells.

Q14. a) What tools are available to customize our PowerPoint presentation?

Ans: -

1) **Templates and Themes.**
2) **Slides Layouts.**
3) **Colour Themes.**
4) **Icons and Shapes.**
5) **Charts and Graphs.**
6) **Tables.**
7) **Radials.**
8) **Animation.**
9) **Transitions.**
10) **Audio and Video.**

Q14 b) Write the steps for the following action for 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: -

- **Open a Blank presentation.**
  1) **Click on File tab from menu bar.**
  2) **Select blank presentation.**
  3) **Now your blank presentation is open.**

- **Save the presentation as Lab1.pptx.**
  1) **Click on File tab from menu bar.**

2) **Select save option and choose in which folder your want to save your file.**
3) **Give the name for your file and click OK.**
4) **Now your file is saved.**

- **Add a Title to the first slide: the name of your college.**
  1) **Click on Power-point and open blank presentation.**
  2) **Now click on "click to Add title" option.**
  3) **Write what title you want to write.**

- **Type your first name and last name in the Subtitle section.**
  1) **Click on power-point and open blank presentation.**
  2) **Now click on "click to add subtitle" option.**
  3) **Write what subtitle you want to write.**

- **Add a New Slide which has a Title and Content.**
  1) **Click on Home tab from menu bar.**
  2) **Select slides column.**
  3) **Then select new slides option on Slides.**
  4) **Click on Title and Content.**
  5) **Now your Title and Content slide is added to your presentation.**

Q15. Write steps for creation of a set of PowerPoint slides 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 & bullet list**
  - **Title Slide**
    1) **Select Home tab from menu bar.**
    2) **Select Slide column.**

3) **Then select new slide option on slides.**
4) **Click on Title slide now your title slide is open.**

- **Bullet list**
  1) **Select Home tab from menu bar.**
  2) **Select paragraph column.**
  3) **Select bullet list now your bullet list is added.**

➢ Inserting Excel Sheet

1) **Select Insert tab from menu bar.**
2) **Select Tables column.**
3) **Select on table and click excel spreadsheet.**
4) **Now your excel sheet is added.**

➢ Clip art and Text

- **Clip art**
  1) **Click in the slide where you want to insert a clip art.**
  2) **Select insert tab from menu bar.**
  3) **Select Images column and click on pictures.**
  4) **Select where you saved your clip art.**
  5) **Click OK Now your clip art is added.**
- **Text**
  1) **Select insert tab from menu bar.**
  2) **Select Text column.**
  3) **Select text box in text column.**
  4) **Then click on your slide now your text box is added.**

➢ Slide show effects

1) **Select slide your want to add animate.**
2) **Select Transitions tab on menu bar.**
3) **Add which transition you want to add.**
4) **Now your slide show effects is added.**

Part – 2

Q16. What is the difference between Machine Language and High-Level Language?

Ans: -

Low-Level Language	High-Level Language
Direct memory management.	These are interpreted.
Hardware has extremely little abstraction which is actually close to having none.	They have open classes and message-style method which is known as Dynamic constructs.
Much faster than High-level language.	Poor performance.
Statement corresponds directly to clock cycle.	Code is concise.
Superb performance but hard to write.	Flexible syntax and easy to read.
Few supports and hard learn.	Is object oriented and functional.

Q17. Discuss about different data types of C programming Language.

Ans: -

Each variable in C has an associated data type. Each data type requires different amounts of memory and has some specific operations which can be performed over it. It specific the type of data that the variable can store like integer, character, floating, double, etc. The data type is a collection of data with values having fixed values meaning as well as its characteristics.

Some data types: -

Type	Specification	Format Specifier	Range of values
Integer	int	%d	-32,768 to 32,767
Floating Point	Float	%f	3.4E +/-38
Character	Char	%c	-128 to 127
Double	double	%lf	1.7E +/-308

Q18. Find the output of the following expressions.

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

b) Y=30 – (40/10+6) +10

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

Ans: -

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

X = 4*2+30-5

X = 8+30-5

X = 38-5

X = 33

b) Y= 30 – (40/10+6) +10

Y = 30 – (4 + 6) + 10

Y = 30 – 10 + 10

Y = 30 – 0

Y = 30

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

Z = 40 * 0.2 – 2 + 10

Z = 8 – 2 + 10

Z = 18 - 2

Z = 16

Q19. 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(expression)
```

```
    {
      Block of Statement
    }
  Else
    {
      Block of Statement
    }
```

b) for loop:

```
  for (expression 1; expression 2; expression 3)
    {
      Single statement
      Or
      Block Statement
    }
```

c) while loop:

```
  While(expression)
    {
      Single statement
      Or
      Block Statement
    }
```

d) do-while loop:

```
  do
    {
     Single statement
```

Or

Block Statement

}

While(expression);

Q20. Find the output of the following program segments.

a)	b)	c)

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