

# 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. Keyboard:-Keyboard is a human interface device which is represented as a layout of buttons. Each button or key can be used to either input a character to a computer, or to call upon a particular function of the computer



Mouse: - A mouse is a small handheld input device that controls a computer screen's cursor or pointer in combination with the way it is moved on a flat surface.





Monitor: - A computer monitor is an output device that displays information in user understandable form

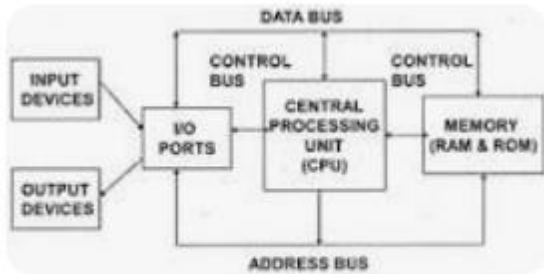
CPU: - It is the brain of the computer.  
Computer can not process without it.



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

**Ans.** Computers are classified on different parameters, such as, storage capacity, processing speed and component (CPU) used in computers. Depending upon the components used and

features of different computers, they are classified into four groups, Microcomputers, Minicomputers, Mainframe computers and Supercomputers.



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

**Ans.** First Generation: Vacuum Tubes (1940-1956):

- The first computer systems used vacuum tubes for circuitry and magnetic drums for memory
- These computers were very expensive to operate
- Computers of this generation consumed a lot of electricity

Certificate in Computer Applications (CCA)

© CSC Academy 2020 10

cause of malfunctions

Example:

☐The UNIVAC (Universal Automatic Computer) The UNIVAC was the first commercial computer delivered to a business client, the U.S. Census• First generation computers relied on machine language, the lowest-level programming language understood by computers to perform operations

- They could only solve one problem at a time. It would take operators days or even weeks to set-up a new problem
- Input was based on punched cards and paper tape, and output was displayed on printouts
- First computers generated a lot of heat ,which was often the s Bureau in 1951

☐ENIAC (Electronic Numerical Integrator and Computer) computers

Certificate in Computer Applications (CCA)

© CSC Academy 2020 11

Second Generation: Transistors

(1956-1963):

- Transistors replaced vacuum tubes in the second generation of computers.

- The transistor was far superior to the vacuum tube, allowing computers to become smaller, faster, cheaper, more energy-efficient and more reliable than their first-generation predecessors
- Second-generation computers still relied on punched cards for input and printouts for output
- Second-generation computers moved from binary machine language to symbolic, or assembly language

Certificate in Computer Applications (CCA)

© CSC Academy 2020 12

### Third Generation: Integrated Circuits

(1964-1971)

- The development of the integrated circuit was the hallmark of the third generation of computers
- Transistors were replaced by integrated circuits, which drastically increased the speed and efficiency of computers.
- Instead of punched cards and printouts, users interacted with third generation computers through keyboards and monitors
- Computers for the first time became accessible to a mass audience because they were smaller and cheaper than their predecessors.

## Certificate in Computer Applications (CCA)

© CSC Academy 2020 13

### Fourth Generation: Microprocessors

(1971-Present):

- The microprocessor brought the fourth generation of computers 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
- In 1981, IBM introduced its first computer for the home user
- in 1984, Apple introduced the Macintosh.
- Microprocessors also moved out to the desktop computers
- Fourth generation computers also covered the development of Graphical User Interface (GUIs), mouse and hand held devices

## Certificate in Computer Applications (CCA)

© CSC Academy 2020 14

- Quantum computation and nanotechnology will radically change the face of computers in years to come

- The goal of fifth-generation computing is to develop devices that respond to natural language input and are capable of learning and self-organization.

**Q4: Differentiate between Volatile & Non- Volatile memories.**

**Ans.** Volatile memory:- Volatile memory is a computer storage that only maintains its data while the device is powered.

Non volatile:- Non volatile memory is a type of computer memory that has the capability to hold saved data even if the power is turned off.

**Q5: Distinguish among system software, application software and open source software on the basis of their features.**

**Ans.** Software: - Software is a set of instructions used to operate computers and execute specific tasks.

The software is used extensively for different purpose in several domains. It can be categorized into different types. Software has mainly divided into two Categories:

1)System Software

2) Application Software

1)System Software

It is a type of software that is designed to run a computer's hardware and application programs.

- Software like operating systems, compilers , editors and drivers etc., come under this category.
- A computer cannot function without the presence of system software.

If we think of the computer system as a layered model, the system software is the interface between the hardware and user applications.

## 2) Application Software

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

- Examples: Word processor, accounting application, a web browser, an email client, media player etc.

**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.** To create a new blank document:

- Click the Microsoft Office button.
- Select New. The New Document dialog box appears.



- Select Blank document under the Blank and recent section. It will be highlighted

by default.

- Click Create. A new blank document appears in the Word window

Click the Microsoft Office button.

- Select Save As Word Document. The Save As dialog box appears.

Select the location where you want to save the document using the drop-down

menu.

- Enter a name for the document.

- Select Save from the menu.

Click the Save button.

To use the Save command:

- Click the Microsoft Office button.

**Q6 b) Write steps regarding 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. To change the font style

To format font size:

- Select the text you want to modify.
- Left-click the drop-down arrow next to the font size box on the Home tab. The font size drop-down menu appears.
- Move your cursor over the various font sizes. A live preview of the font size will appear in the document.
- Left-click the font size you want to use. The font size will change in the document.

To format font style:

- Select the text you want to modify.

- Left-click the drop-down arrow next to the font style box on the Home tab. The font style drop-down menu appears.
- Move your cursor over the various font styles. A live preview of the font will appear in the document.
- Left-click the font style you want to use. The font style will change in the document.

To format font color:

- Select the text you want to modify.
- Left-click the drop-down arrow next to the font color box on the Home tab. The font color menu appears.
- Move your cursor over the various font colors. A live preview of the color will appear in the document.

**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 widely used commercial word processor developed by Microsoft

Ms word is application software, which it capable of

- . Creating
- . editing
- . **saving** ~~and~~
- . printing any type of documents.

**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**

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

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

Ans Place your insertion point in the document where you want the table to appear.

- Select the Insert tab.
- Click the Table command.
- Drag your mouse over the diagram squares to select the number of columns and rows in the table.

- Left-click your mouse, and the table appears in the document.
- Enter text into the table.

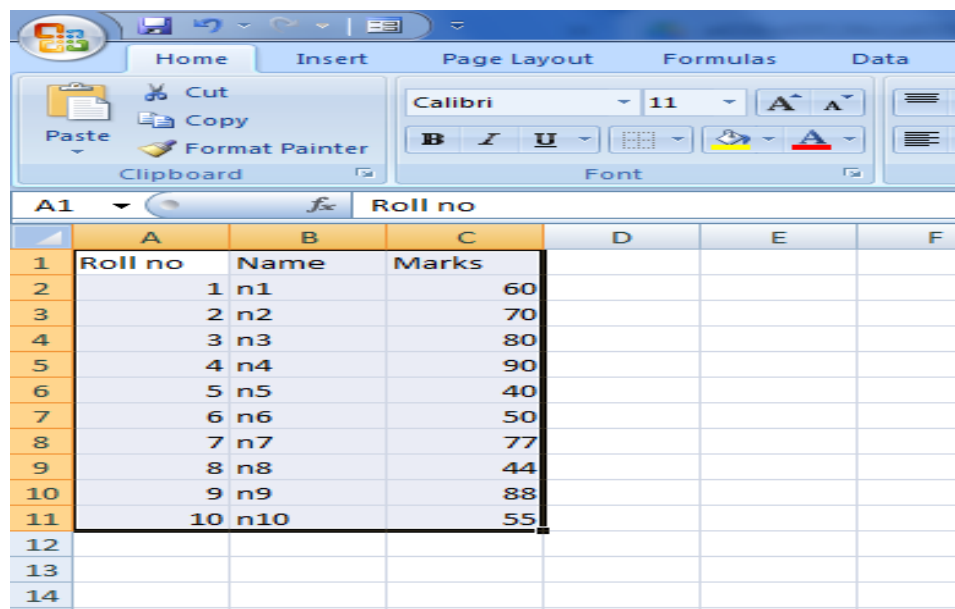
to insert a blank spreadsheet in Microsoft excel

create a file in ms excel

click here to office button

click to save button under office button

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



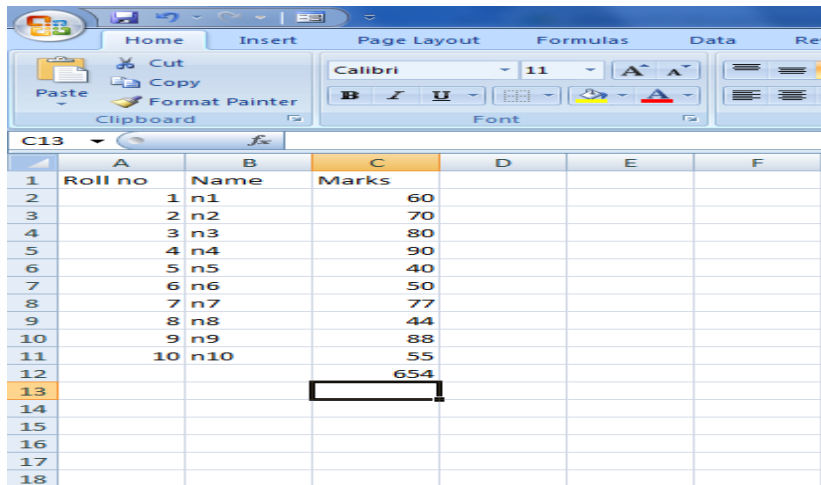
The screenshot shows the Microsoft Excel interface. The 'Home' tab is selected in the ribbon. The 'Clipboard' group contains 'Paste', 'Cut', 'Copy', and 'Format Painter'. The 'Font' group shows 'Calibri' font, size '11', and options for bold, italic, underline, and text color. The worksheet has a table with the following data:

	A	B	C	D	E	F
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						
13						
14						

**Q12. Calculate the following things of a range (C2:C11) of data in the worksheet created in question no**

**10.**

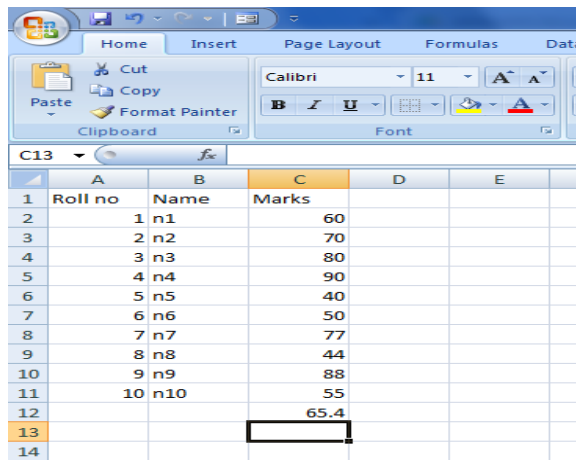
Find the sum of the marks using AutoSum in a range of cells (C2:C11)



	A	B	C	D	E	F
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			654			
13						
14						
15						
16						
17						
18						

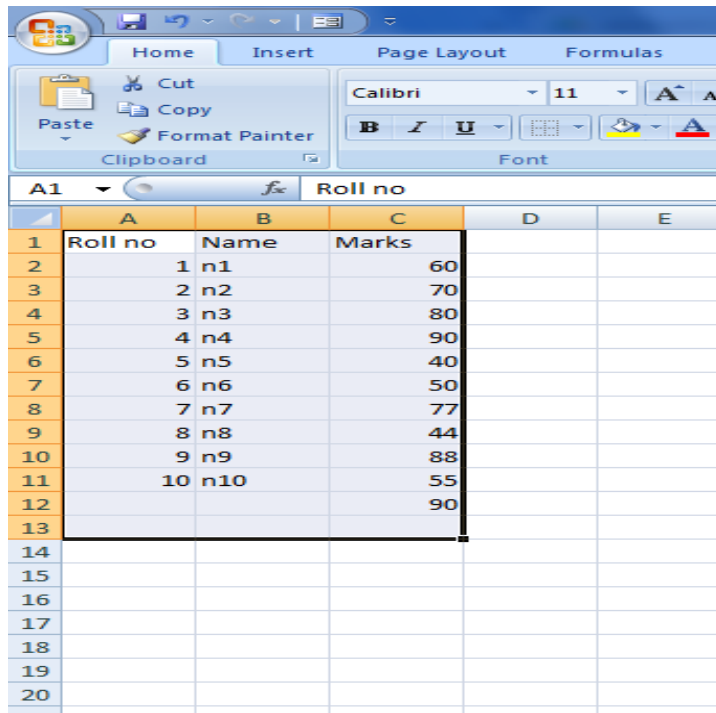
Ans. 654

Find average of the marks in a range of cells (C2:C11)



	A	B	C	D	E
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			65.4		
13					
14					

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



	A	B	C	D	E
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			90		
13					
14					
15					
16					
17					
18					
19					
20					

Ans. 90

☐ minimum marks in a range of cells (C2:C11)



	A	B	C	D	E
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			40		
13					
14					
15					

Ans. 40

**Q13 a) Describe various steps involved in the following**

**☐ To modify column width of a worksheet**

**Ans. Set a column to a specific width**

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**

**Ans. Select the row or rows that you want to change.** On the Home tab, in the Cells group, click Format. Under Cell Size, click Row Height. In the Row height box, type the value that you want.

**☐ To delete rows and columns of a worksheet**

**Ans. To do this, select the row or column and then press the Delete key.**

1. Right-click in a table cell, row, or column you want to delete.
2. On the menu, click Delete Cells.
3. To delete one cell, choose Shift cells left or Shift cells up. To delete the row, click Delete entire row. To delete the column, click Delete entire column.

**Q13 b) Describe following terms in the worksheet**

**☐ Absolute reference and relative reference in formula**

**Ans.** There are two types 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.

**☐ Cell address**

Ans. 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 cell(s). For example, A1 refers to the cell at the intersection of column A and row 1. The reference tells Formula One for Java to use the contents of the referenced cell(s) in the formula.

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

**In this guide, we will discuss how you can make the most of some of the tools like:**

- Templates and themes.
- Slide layouts.
- Fonts.
- Color themes.
- Many more.

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

**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

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

**Ans.** To conclude, high-level languages are more friendly for the programmer because they use English-like statements in the codes, whereas low-level languages are more machine-friendly because they use binary language codes to write the computer instructions.

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

**Ans.** Types of C programming language

There are four basic data types in C programming, namely **Char, Int, Float, and Double**.

**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 - has symmetry, no lines, order 3. B - has symmetry, 1 line, no order. C - has symmetry, 1 line, no order.