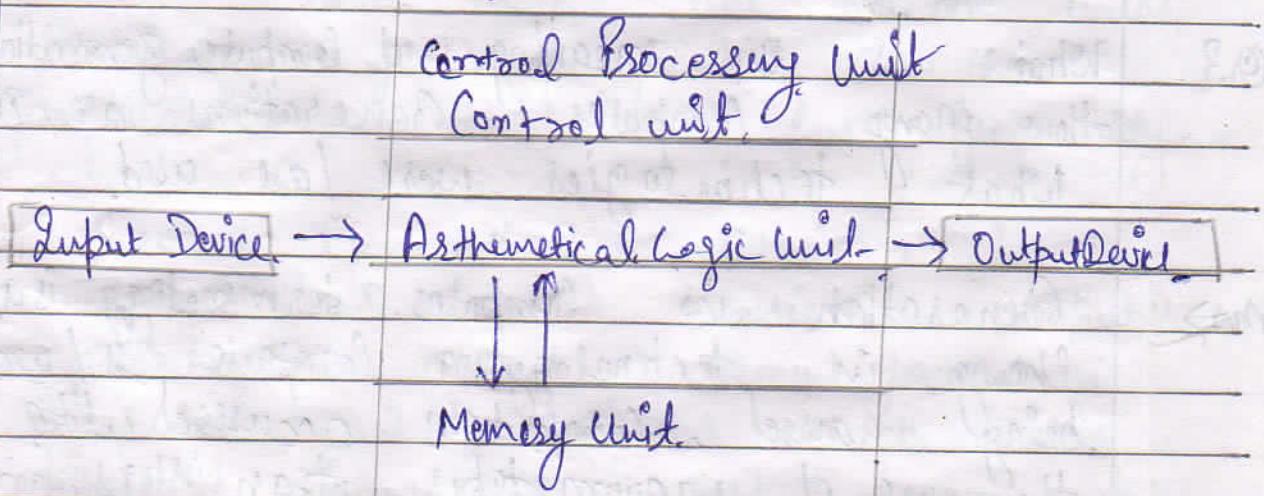
CCA - 101 : FUNDAMENTALS OF IT AND PROGRAMMING

Q.1 What are the four fundamental parts of Computer. ? Explain it with the help of Diagram.

Ans Four Parts of Computer. :
Computer Systems consist of four parts that are :> Central Processing unit (CPU) Input Device and output Device and Graphic Processing Unit (GPU)



Q.2 Discuss about the classification of computers Based on Size and Capacity.

Ans=> Classification of Computer Based on Size and Capicity is :>

Classification of Computer

By Type	By Size	By Purpose
Analog	Micro	General Purpose
Digital	Mini	
Hybrid	Mainframe	Special Purpose
	Super	

Q.3. What is the meaning of Computer generations? How many Computer Generations are Defined. What technologies were / are used.

Ans ⇒ Generation in Computer terminology is a change in technology a Computer is / was being used. Computers occurred, like the use of vacuum tubes transistors, and the microprocessor.

Computer Generations are Defined
There are five Generations of the Computers :

(1) First Generation (1940 - 1956)

(2) Second Generation (1956 - 1963)

(3) Third Generation (1964-1971)

(4) Fourth Generation (1972-2010)

(5) fifth Generation (2010 to Present.

⇒ Technology were, /are used ⇒

⇒ first Generation. (1940-1956) ⇒

Vaccuum tubes. ⇒ The computer of first generation used vaccum tubes as the the basic components for memory and circuitry for CPU (Central Processing unit). These tubes, like electric bulbs, Produced a lot of cheat and the installations used to fuse frequently

⇒ Second Generation (1956-1963)

Transistors ⇒ A transistor computer, now often called a second generation computer, is a computer which uses discrete transistors instead of vaccum tubes. The first generation of electronic computers used vacumm tubes, which generated large amounts of heat, were bulky and unreliable.

⇒ Third Generation (1964-1971)

Integrated Circuits ⇒ The computers of third generation used Integrated Circuits (ICs) in place of transistors.

A Single IC has many transistors, resistors, and Capacitors along with the associated circuitry. The IC was invented by Jack Kilby.

⇒ Fourth Generations (1972 - 2010)

Microprocessor :> The basis of the fourth generation is the microprocessor, a Computer processor contained on a single large-scale integration (LSI) MOS Integrated circuit chip.

⇒ Fifth Generations (2010 - Present)

In the fifth generation, VLSI technology became ULSI (ultra Large Scale integration technology, resulting in the production of microprocessor chips having ten million electronic components. This Generation is based on parallel processing hardware and AI (Artificial Intelligence) Software.

Q.4. Differentiate between Volatile And Non-volatile memories.

Ans. Volatile Memory: It is the memory hardware that fetches / Stores Data at a high Speed. It is also refered as temporary memory. The Data within the volatile memory is stored till the

System is capable of but once the System is turned off the Data with in the Volatile memory is deleted automatically. RAM (RANDOM Access Memory) and Cache Memory. Are Some common examples of volatile memory. Here, Data fetch / Store is fast and economical

→ Non-Volatile Memory:
It is the type of memory in which Data of Information is not lost with in the memory even power is Shut-Down. Rom (Read only memory) is the most Common example of non-volatile memory. All such information that needs to be stored for an extended amount of time is stored in non-volatile memory. Non-volatile memory has a huge impact on a system's Storage Capacity.

Below are the differences between volatile and non-volatile memory:

SR NO.	Volatile Memory	Non-Volatile Memory
(1)	Volatil memory is the types of memory in which Data is lost as it is powered-off.	Non volatil memory is the type of memory in which Data remains stored even if it is Poured off.
(2)	Contents of volatile memory is stored temporarily.	Contents of Non-volatile memory is stored permanentarly.

3	It is faster than non-volatile memory.	It is slower than volatile memory.
4.	RAM (Random Access Memory) is an example of volatile memory.	Rom (Read only Memory) is an example of non-volatile memory.
5.	In volatile memory, Data can be easily transferred in comparison to non-volatile memory. memory.	In non-volatile memory Data can not be easily transfered in comparison to volatile memory.
6.	In Volatile memory, the Programs Data are stored which are currently in Process by the CPU.	In non-volatile memory any kind of Data which has to be saved Permently are stored
7.	Volatile memory generally has less Storage capacity	Non-volatile memory generally has more Storage capcity than volatile memory
8.	In volatile memory, Process can read and write.	In Non-volatile memory, Process can only read.
9.	Volatile memory is more costly per unit size	Non-volatile memory is less costley per unit size.
10.	In Volatile memory, Processor has direct access to Data.	In non-volatile memory Processor has no Direct acess to Data.

R.	Volatile memory chips are generally kept on the ~~new~~ memory Salt.	Non-volatile memory chips are embedded on the motherboard.

Q.5. Distinguish among System software and open source software on the basis of their features.

Ans They both differ in terms of their purpose and design. System Software is meant to administer the system resources. It also serves as a kind of platform for running the application software. On the other hand, application software is meant to enable the user to carry out some specific set of tasks or functions

→ Difference blw Applications Software and System Software ⇔

Software and application software. They both differ in terms of their Purpose and design. System software is meant to administer the resources It also serves as a kind of platform for running the application software. On the other hand, application software is meant to enable the user to carry out some specific set of tasks of functions.

Difference b/w System Software and Application software

- System software is meant to manage the system resources. It serves as the platforms of user application software.	- Application software helps perform a specific set of functions for which they have been designed.
- System Software is developed in a low-level language (assembly language for example)	Application Software is developed in a high-level language such as Java, C++, .net and VB
- System software automatically starts running once the system is turned on and stoped when the system is shut down.	- Application software runs as and when the user requests it.
- A system software even start without system software	Application Software is use specific and it is not needed to run the system on the whole.
- System Software is endowed with a general purpose.	Application software carries a specific purpose.
- A typical example for a system software is windows Operating System.	Some characteristics examples for application softe. is MS office.

→ Photoshop and CorelDraw.

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

Ans
1. Open a blank Word Document.
2. In the top ribbon, Press insert.
3. Click on the table button.
4. Either use the Diagram to select the number of columns and rows you need, or click Insert Table and a Dialog box will appear where you can specify the number of columns and rows.
5. The blank table will now appear on the page.

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

→ Ans Save a word document in Open document text format

1. Click the file tab.
2. Click Save as
3. Click Browse and then select the location where you want to save your file.

④ In the save as type list, click open Document text.
⑤ Give your file a name and then save it.

MS WORD

MS WORD is a widely used commercial word processor developed by microsoft.

→ Microsoft Word :

is a widely used Commercial. Word processor. designed by microsoft. MS word is a component of the microsft office suite of productivity software, but can also be purchased as a stand-alone product. MS word was initially launched in 1983, and has since been revised numerous times

→ MS word is application software, which is capable of →

- Creating
- Editing
- Saving
- Printing any type of document

Ans MS word is application soft. is capable of Editing

Q.9. Create a file in MS-word that convert existing highlight text to label a shown below and save it as file name 'text_to_table'. Discribe all steps involved it.

Slect the text you want convert
Slect the insert tab.

Click on Table command. , a new dialog box appears here set numbers of colums.
Click on Ok finally, selected text convert in a table

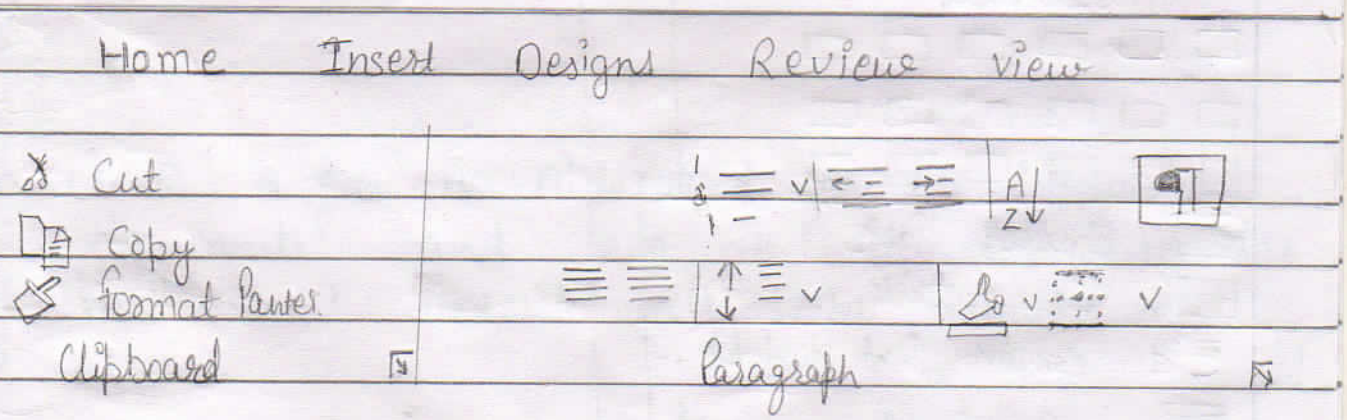
Select the text you want to convert.
click on Table command. A Dialog box appears
here set number of Colums.

selet the Insert tab
Click on Convert Text to Table, a new dialog box appears

Click on Ok finally selected text Convert in a table.

ns. Convert text _ to _ table

Start by clicking the Show/Hide paragraph mask on the Home tab so you can see how to text is spreated in your Document.



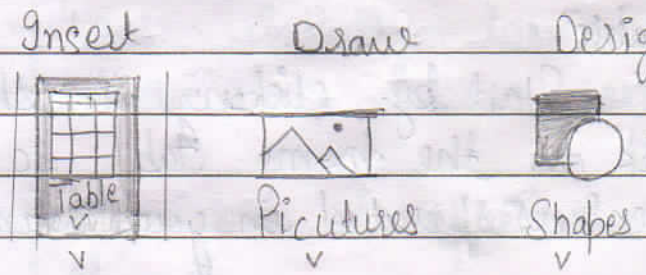
Convert text to a table.

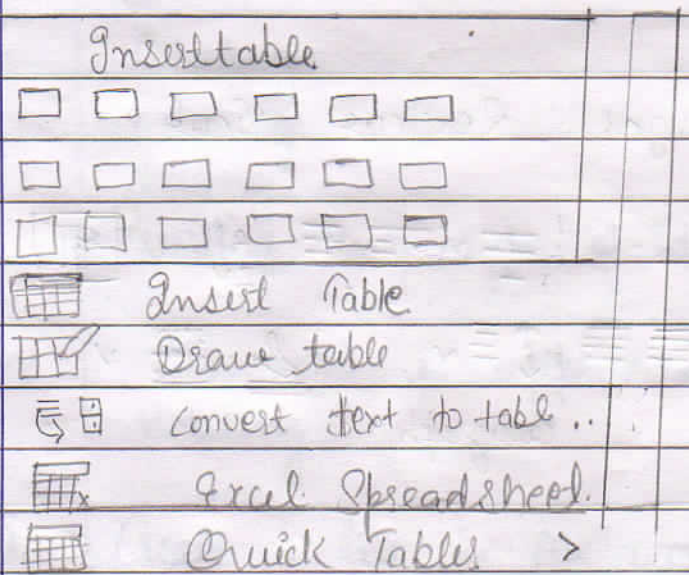
① Insert separator Characters - Such as commas or tabs - to indicate where to devide the text into table colums

2. Use paragraph marks to indicate where you want to begin a new table row.
In this example, the tabs and paragraph marks will produce a table with 3 columns and rows

Red, · yellow → blue, · green → Orange, · Purple
Red, · yellow → blue, · green → orange, · Purple

3. Select the text that you want to convert, and then click Insert > Table > Convert Text to table.





4. In the Convert Text to table box. Choose, the options you want.

Convert Text to table ? x

Table Size

Number of columns : 4

Numbers of rows : 2

Autofit behavior

◉ Fixed column width : Auto

○ Autofit to contents

○ Autofit window

Separate text at

○ Paragraphs ○ Commas

◉ Tabs ○ Other : -

OK Cancel

(5) Click OK. The text converted to a table should look something like this :

Red, yellow	blue, green	orange, purple
Red, Yellow	blue green	orange, purple

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

Book1

	A	B	C
1			
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	41
9	8	n8	44

Sheet1 Sheet2 Sheet3

Save a worksheet.

1. Right click the worksheet name tab.
2. Click select Move or Copy.
3. Click on the Move selected Sheets to book Drop-down menu. Select (new book).
4. Click Ok. Your new workbook opens with your moved worksheet.
5. Click file > Save in your new workbook.

Q.12. Calculate the following things of range of Data in the worksheet created in question no 10.

→ the sum of the marks using Autosum in a rang of cells
→ average of the marks in a rane of cells
→ highest marks in a range of cells.
→ minimum marks in range of Cells.

Sum: This functions adds all the values of the cells in the argument.
Average. This function determins the average of the values included in agguned.
Max: This function determinsthe highest cell value included in the arguments
Min : This functions determens the lowest cell value includes in the argument

Q.13a) Describe various steps involved in the following:
→ 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 row or 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, and then click OK.

→ To Delete rows and columns of a worksheets.
① Select the cells, Rows, or Columns that you want to delete
② Right-click and then select the appropriate delete option, for example, Delete cells & shift up, Delete cells & shift Left, Delete Rows, or Delete Columns.

Q.13b) Describe following terms in the worksheets

→ Absolute Referena and Relative refernce in formula

→ Absolute Refrance is the address of the cell is specified in a way that it remains constant when the formula is copied to a new cell To keep the cell value absolute Apply the '$' sign
= A1+$A2 is an example of absolute Referency

- Relative reference, the adress of then cells is specified in a way that when the formula is copied to a new cell, the corresponding cell address changes with refrence to the new cell adress. = A1 + A2 is an example of relative refrence.

⇒ Cell address is an alphanumeric specific cell in a spreadsheet. Each cell refrence contains one or more letters following by a number represents the row.

Q.4a) Cohed tools are avaable to customize our Power-Point Presentation.

- Visme, Visme is a cloud-based presentation tools that allows you to create highly visual presentation to engage viewers and communicate your ideas
- Haiku Deck: Haiku Deck is a plat form that priortize simplicity
- Pitcherfic.
- Canva.
- microsoft Events.
- Powtoon
- Vedio Scribe
- Prezi

Q.4b) write the steps for the following action for creation of power point presentation

⇒ Open a Blank presentation

① Select the file tab to go to Back stage view, then click open.

② Click Browse, Alternatively, you can choose one Drive to open files stored on your one Drive

③ The open dialog box will appears. locate and select your presentation, then click open.

Step1: Lanch the Powerpoint Programs.
Step 2: Choosing A Design.
Step3: Creatt title page
Step4: ADD MORE SLIDES
Step5: ADD Charts, Pictures, Graphe, ETC.
Step6: ADD TRANSITION
Step7: Changeng the order
Step8: PLAY THE PRESENTATION

PART-2

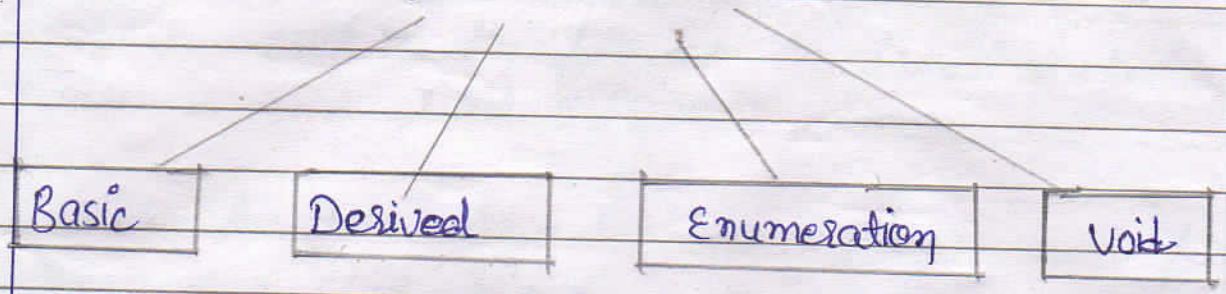
Q.16 What is the difference between Machine Language and high level language.

Machine language :→ Machine code consuts of binary code and is the only language that is directly understood by the computer. Both machine code and assembly language are hardware specific.
A High-level language is programming language that uses english and mathematical symples in its instructions

Q.17 Discuss about different data type of C programeng language.

Main types. The C language provides the four basic arithmetic type specifiers char, int, float and double, and the modifiers signed, unsigned, short, and long. The following table lists the permissible combinations in specifying a large set of storage size specific declaration

DATA TYPE IN C



Q.19 Describe the Syntax of the following statements.

a) If - else Statement :

If condition returns true then the statements inside the body of "if" are executed and the statements inside body of "else" are skipped If condition returns false than the statements inside the body of "if" are skipped and the statements in "else" are executed.

b) for loop : The initialization statement discribe the starting point of the loop, where the loop variable is initialized with a starting value The test expression is the condition until when the loop is repeated. updated statement is usually the number by which the loop variable is incremented.

c) while loop - The loop will first execute the body, then check the condition and, while it's truethy, execute it again and again

d) Do-while loop: A do-while loop is a kind of loop, which is a kind of control statement. It is a loop with the test at the bottom, rather than the more usual test at the top.