

CCA-101: Fundamentals of IT & Programming

Assignment - 1

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

Input device:- an input device is a piece of equipment used to provide data and control signals to an information processing system such as a computer or information appliance. Examples of input devices include keyboard, mouse, scanners, [digital camera] the Joys, joysticks, and microphones.

Central Processing unit (CPU):- central processing unit (CPU) also called a central processor, main processor or just processor is the electronic circuitry within a computer that executes instructions that make up a computer program. The CPU performs basic arithmetic logic, controlling and input/output (I/O) operations specified by the instructions in the program. The computer industry used the term "central processing unit" as early as 1955.

Primary memory:- Primary memory is computer memory that is accessed directly by the CPU. This includes several types of memory such as the processor cache and system ROM. However in most cases primary memory refers to system RAM.

Output:- An output device is any piece of computer hardware equipment which converts information into human-readable form. It can be text, graphics, tactile, audio, and video. Some of the output devices are visual display units, a monitor, and a printer.

output devices: plotters, speakers etc

Q2 Discuss about the classification of computer based on size and capacity? classification of computer based on size and capacity microcomputer (P.C)

A) A microcomputer is the smallest general purpose processing system. The older PC started 8bit processor with speed of 3-7mb and current PC 64 bit processor with speed of 4-66.6MB
Examples:- IBM PCs, Apple computers

B) Mini computers:- A mini computer is a medium-sized computers. That is more powerful than a designed to serve multiple users simultaneously executed processing. They are more expensive than microcomputers
Examples:- Digital Alpha, Sun, Ultra

C) Mainframe computers:- computers with large storage capacities are very high speed of processing compared to mini-or micro computers are known as mainframe computers. They support a large number of terminals for simultaneous of terminals for simultaneous use by a number of users like ATM transactions. They are also used as central host. Computers in distributed data processing system.
Examples:- IBM 370, S/390

D) Supercomputer:- Supercomputers have extremely large storage capacity and computing speed which are many times faster than other computers. A supercomputer is measured in terms of tens of millions instructions per second (MIPS) an operation is made up of numerous instructions. The super computer is mainly used for large scale numerical problem in scientific and engineering disciplines such as weather analysis.
Examples:- IBM Deep Blue.

Q3 What is the meaning of computer generation? How many computer generations are defined what technologies were used?

Generation in computer terminology is a change in technology a computer is/was being used. Initially the generation term was used to distinguish between varying shared were technologies. Nowadays generation includes both hardware and software which together make up an entire computer system. The first integrated circuits contained only a few transistors, and so were called "Small-Scale Integration (SSI)". They used circuits containing transistors numbering in the tens. They were very crucial in development of early computers. SSI was followed by introductions of the devices on which contained hundreds of transistors on each chip, and so were called "Medium-Scale Integration (MSI)" were attractive economically because which they cost little more system to be produced using smaller circuit boards less assembly work and a number of other advantage. Microprocessor chips produced in 1974 contained more than three million transistors. VLSI refer to "Ultra-Large Scale Integration" and correspond to more than 1 million of transistors. However there is no qualitative leap between MSI and VLSI, hence normally in between in technical texts the "VLSI" term over VLSI.

Q4 Differentiate between Volatile & Non-Volatile memories.

S.No	Volatile memory	Non-Volatile memory
1	Volatile memory is the type of memory in which data is lost as it is powered-off	1 Non-Volatile memory is the type of memory in which data remains stored even if it is powered-off
2	Contents of Volatile memory are stored temporarily	2 Contents of Non-Volatile memory are stored permanently
3	It is faster than non-Volatile memory	3 It is slower than Volatile memory
4	Ram (Random Access memory) is an example of Volatile memory	4 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	5 In non-Volatile memory, data cannot be easily transferred in comparison to Volatile memory
6	In Volatile memory, process can read and write	6 In Non-Volatile memory, process can only read
7	Volatile memory is more costly per unit size	7 Non-Volatile memory is less costly per unit size

Q5 Distinguish among system software application software and open source software on the basis of their features?

System Software :- System Software :- is a type of computer program that is designed to run a computer hardware and application programs. if we think of the computer system as a layered model, the system software is the interface between the hardware and user application.

Features of System Software:- System Software is closer to the system. Generally written in a low-level language. the system software is difficult to design and understand.

Fast in speed.

Less interactive

Smaller in size

Hard to manipulate

Application Software:- Application Software is a program or group of programs designed for end users. Examples of an application include a word processor, a spreadsheet, an accounting application, a web browser, an email client, a media player, a file viewer, simulators, a console game or a photo editor.

Features of application software:- Perform more specialized tasks like word processing, spreadsheets, email, photo editing etc. It needs more storage space as it is bigger in size. Easy to design and more interactive for the user. Generally written in a high level language.

Open Source Software:- Open-Source Software is a type of computer software in which source code is released under a license in which the copyright holder grants users the rights to use, study, change and distribute the software to anyone and for any purpose. Open-Source Software may be developed in a collaborative public manner.

Features of open source software:-

Lesser hardware costs - - - - -

High-quality software - - - - -

No Vendor lock-in - - - - -

Integrated management - - - - -

Simple license management
 Lower license software costs
 Abundant support.
 Sealing and consolidating

Q6

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?

a To open Microsoft Word, click on the word icon ("W") on the toolbar or desktop. An open (and blank) Word document will open on the screen. Enter a paragraph about yourself. When document is finished, click on "File" on the standard toolbar at the top of screen, click on "Save as"

b Write steps regarding following

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":

Steps to change the font style.

Go to Format > Font. You can also press and hold $\text{Ctrl} + \text{D}$ to open the Font dialog box.

Select the font and size you want to use. Select Default, and then select Yes. Select OK.

Steps to change the font size.

Select the text or cells with text you want to change.

To select all text in a Word document, press $\text{Ctrl} + \text{A}$ on the Home tab click the font size in the font size box.

Steps to change font color:

Select the text that you want to change. on the Home tabe, in the font group, choose the arrow next to font color and then select a colour.

- Q7 Create a file in MS-Word for the following document and save it with file name msword. Describe all steps involved in it.

Steps of create a file in ms-word :-

1. The Start button in the lower-left corner of your screen gives you access to all programs on your PC word included to word & stored word:

Choose stored $\rightarrow$ All Programs $\rightarrow$ Microsoft Office $\rightarrow$ Microsoft office word.

2. And then enter the data.

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

MS Word is application software, which is capable of

Creating

Editing

Saving

Printing and type of document and save this file name "MS word"

- Q8 Create a file in MS-Word for the following document and save it with file name "equations. Describe? All steps involved in it.

Choose Insert $\rightarrow$ Equation and choose the equation you want from the gallery

After you insert the equation the equation tools - Design tab opens with symbols and structures that can be added to your equation

$$x^2 + y^5 = 30$$

$$z_3 + q_u = 50$$

$$a_2 + b_8 = 4_2 + y_8$$

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 stated MS word?

1 Click on start button and click then run option run dialog box will be appear on screen

2 click Start Programs - all programs - Microsoft office word 2007

Select the text that you want

Select the text that you want to convert and then

Insert > Table > Convert Text to Table in.

In the convert Text to Table box, choose the options you want, under Table size - make sure the numbers match the numbers of columns and rows you want under.

Auto fit behavior. Choose how you want your table to look Word automatically chooses a width for the table columns

if you want a different column width. Choose one of these options. Under separate text at choose the separator character you used in the text. Click ok.

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

In the top ribbon, Press Insert.

Click on the table button.

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. The blank table will now appear on the page.

Q11 Create a following worksheet in MS-Word Excel and save it with name "book1".

Roll-No	Name	Marks
1	N1	60
2	N2	70
3	N3	80
4	N4	90
5	N5	40
6	N6	50
7	N7	77
8	N8	44
9	N9	88
10	N10	55

Q12 Calculate the following things of a range (C2:(11)) of data in the worksheet created in question No10

The sum of the marks using Autosum in a range of cells (C2:(11))
Average of the marks in range of cells (C2:(11))

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

Q13(A) Describe various steps involved in the following.

To modify columns with of a worksheet to modify to row height of a worksheet to delete rows and columns of a worksheet

Ans:- Steps of modify column with of worksheet:-

Select the columns you want to modify. Click the Format Command on the Home tab. The Format drop-down menu appears.

Select Column width. Increasing the column width.

The column width dialog box appears. Enter a specific measurement. Click OK.

Steps of modify column height of a worksheet

Locate and click the Select All button just below the name box to select every cell in the worksheet.

Position the mouse over a row line so the cursor becomes a double arrow.

Click and drag the mouse to increase or decrease the row height. Then release the mouse when you are satisfied. Steps of delete rows and column in worksheet. Right click in a table cell. Row or column you want to delete on the menu. Click Delete. Cells. 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 Absolute of reference and relative

Ve-reference in formula?

There are two types of cell references: 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 is an alphanumeric value used to identify a specific cell in a spreadsheet. Each cell reference contains one or more letters followed by a number. This letter or letters identify the column and the number represents the row.

Q14

What tools are available to customize our Power Point Presentation?

The tools are available to customize our Power Point Presentation are -

3D Bevel is a tool used by design to create 3D on Power Point Presentations. --- Pivot viewer. The Silver Light Pivot viewer is yet another tool frequently used by Power Point Presentation designers. ---

Autodesk 3D S max. ---

Visual Bee Power Point Add-in. ---

Smart Art. ---

Animations and Transitions.

Q14C6) Write the steps for the following action for creation of Power Point Presentation open a Blank Presentation?

Steps of open a blank document :-

If you already have a file open in Word you can create a new document by clicking File > New.

You can also use the shortcut Ctrl+N (Command for Mac) to open blank document, double click the blank document option.

Save the presentation as Lab 1 ppx.

Step to save the presentation:

To save the presentation go to the file click on Save as option and save the presentation giving the name.

Add a title to the first slide the name of your college
Steps of add a title to the slide.

Go to the first slide of presentation add the title name "abc collage" and save it by Press "Ctrl+S"

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

There are many free software package (such as Pegasus or Subtitle Workshop) that allow you to type in the subtitles yourself and lock them to a specific time code (e.g. 00:00:01)

There is a thing you should keep in mind - adding the subtitles manually is a very time consuming process moreover you will have to dedicate some time to learn the interface and shortcuts of the software of your choice.

Add a new slide which has a title and content

Steps of add a new slide :-

In the slide preview pane on the left - click with your mouse.

in-between two slides where you want to insert a slide

In the Power Point Ribbon on the Home or insert tab, click the New Slide option. In the drop-down menu that opens, select the type of slide to insert

Q15 Write steps for creation of a set of Power Point slides that demonstrates your skill to use the tools of Power-Point. It should include the following things:

Title slide bullet list inserting Excel sheet

clip art and Text

Slide show effects

Click the start button

Click the All programs option. from the menu search for Microsoft office from the submenu and click it

Search for Microsoft Powerpoint from the submenu and click it. Go to the "paragraph" icon and select the bullet where you want to insert clip art and text go to the insert tab and click on clipart and choose the picture you want appear on page. and then do slide show effect select the entire slide and go to the "format" and select the slide show effect and click on that

Q16 What is the difference between Machine language and High level language?

Sp. No. Machine language

1 It is a machine friendly language

2 Machine language is high memory efficient

3 It is tough to understand

4 It is complex to debug comparatively

5 It is complex to maintain comparatively

High level language

1> It is programmer friendly language

2> High level language is less memory efficient

3> It is easy to understand

4> It is simple to debug

5> It is simple to maintain

For C initialization statement: test expression: Update statement

// Statement inside the body of loop

while loop

Syntax

while (condition-test)

// Statements to be executed repeatedly.

// increment (+1) or Decrement (-1) operation.

Do-while loop - A do-while loop is similar to a while loop. except the fact that it is guaranteed to execute at least one time.

while (test expression)

// Statements inside the body of the loop.

Q20 Find the output of the following program segments?

A	B	C
#include <stdio.h>	#include <stdio.h>	#include <stdio.h>
int main()	void main()	void main()
int i;	£	£
for (i=1; i<2; i++)	int i=1;	int a=10, b=100;
£	while (i<=2)	if (a>b)
printf("IMS	£	printf("Largest %d\n",
Ghaziabad\n");	printf("/MS	a.);
£	Ghaziabad\n");	else
£	i=i+1; £	printf("Largest number is
IMS Ghaziabad	£	%d\n", b);
	IMS Ghaziabad	Compilation failed
	IMS Ghaziabad	due to following
		math C: 14: warning: missing
		terminating character