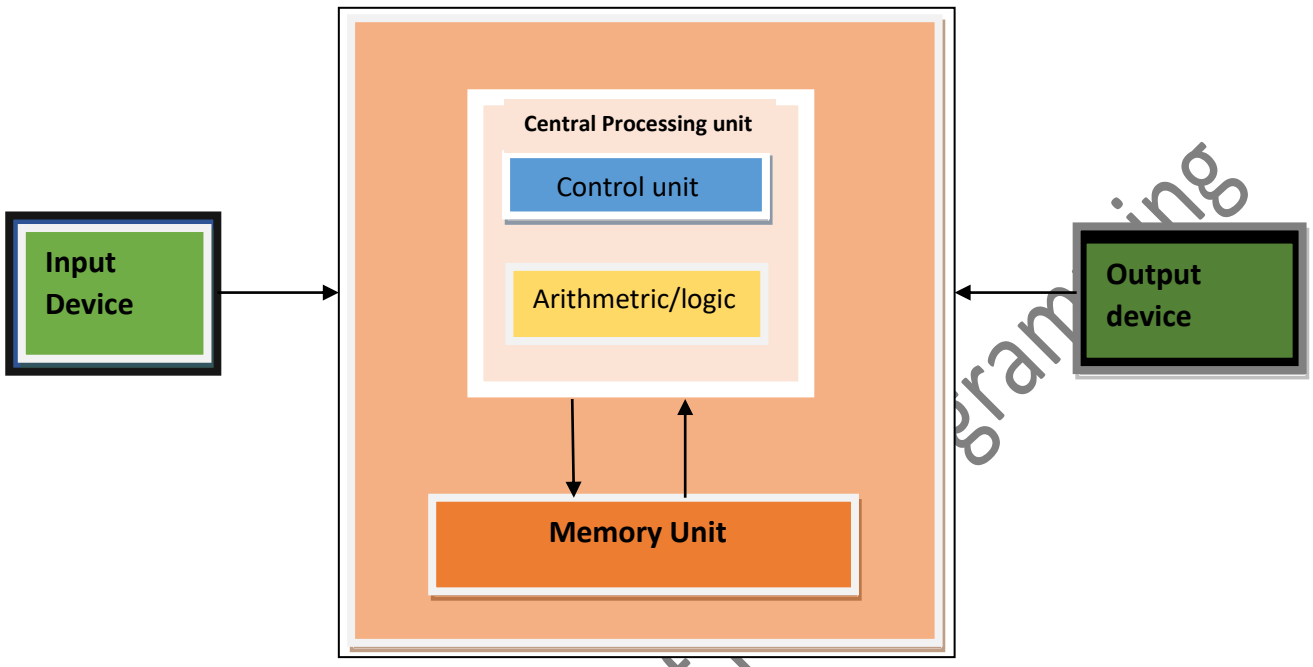
CCA- Fundamentals of IT & Programming

Assignment - 1

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

Ans.



The four fundamental parts of computer are:

1.Input Devices: Computer systems use many devices for input purpose. Input devices include the mouse, input pen touch screen, microphone. Regardless of the type of device used, all are components for interpretation and communication between people and computer systems.

2. Central Processing Unit (CPU): It is the brain of the computer without this unit computer unable to process.

3. Output device: Output device is used to show the result of the instructions. Example Monitor, Printer, Headphones etc.

4. Memory unit: A memory unit is the collection of storage units or device together.

The memory unit stores the binary information in the form of bits.

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

Ans. Based on size and capacity, computers are classified as

1) Super computers: They have thousands of process, Because of their extraordinary speed, accuracy and processing power, supercomputers are well suited for solving highly complex problems and huge amount of calculations.
E.g. JAGUAR, ROADRUNNER etc.

2) Mainframe computers: They are very large often filling an entire room and process thousands of millions of instructions per second. They are capable of supporting hundreds to thousands of users simultaneously. Functions performed by mainframes include flight scheduling, reservations and ticketing for an airline etc.

3) <u>minicomputers:</u> They are much smaller than mainframes. They are typically larger, more powerful and more expensive than desktop computers. Users connect to the server through a network by using desktop computers.

e.g. apple I pod, CDC 160A.

4) <u>Microcomputers:</u> They are the most frequently used type of computers. It is also known as personal computers.

e.g. Desktop computer, laptop.

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

Ans. Generation in computer terminology is a change in technology of a computer which were being used. There are four computer generation such as 1st generation, 2nd generation, 3rd generation and 4th generation.

In the first computer generation system, vaccum tubes are used.

Transistors are used in the Second generation.

Integrated circuit technology were used in the third generation.

In the fourth generation microprocessors are used.

Q4. Differentiate between volatile and non- volatile memories.

Ans.

Volatile memory	**Non- Volatile memory**
1. It is a computer storage that only maintains its data while the device is powered. 2. E.g. RAM. 3. Primary memory has limited storage capacity and is volatile.	1. It is a type of computer memory that has the capability to hold saved data even if the power is turned off. 2. E.g. ROM, hard disk, floppy disk, etc. 3. Secondary memory provides permanent storage of data and in bulk quantity.

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

Ans. System software: Its is a type of software that is designed to run a computer's hardware and application programs. Software like operating systems, compilers, editors and drives etc. come under this category. A computer cannot function without the presence of system software.

Q6. a) Create a file in MS-Word to insert a paragraph about yourself and save it with film name "yourself". Describe all step involved in it.

Ans. "Yourself" My name is Oinam Radharani Devi. I am 20 years old. . I am a student of Arts stream at IMPHAL COLLEGE, IMPHAL,MANIPUR. Currently I am learning computer CCA course at RGI TRAINING INSTITUTION.

The steps involved are;

- We click the Microsoft office button.
- We select new. The new documents dialog box appears.
- We select blank document under the blank and recent section. I will be highlighted by default.
- We click create. A new blank documents appear in the word window.
- To save the document, We click again the Microsoft office button.
- We select save as → word document. The save as dialog box appears.
- We select the location where we want to save the document using the drop down menu.
- We enter the file "yourself" for the document.
- We click the save button.

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. Steps to change the font style:

1. We select the text we want to modify.
2. Left click the drop-down arrow next to the font style box on the home tab. The font style drop-down menu appears.
3. We move cursor over the various font styles. A live preview of the font will appear in the document.
4. Left click the style we want to use. The font style will change in the document.

Steps to change the font size:

1. We select the text we want to modify.
2. Left click the drop-down arrow next to the font size box on the home tab. The font size drop-down menu appears.
3. We move cursor over the various font sizes. A live preview of the font size will appear on the document.
4. 4. Left click the font size we want to use. The font size will change in the document.

Steps to change the font colour:

1. We select the text we want to modify.
2. Left click the drop-down arrows next to the font colour box on the home tab. The font colour menu appears.
3. We move cursors on various font colours. A live preview of the colour will appear in the document.
4. Left click the font colour we want used. The font colour will change in the document.

Steps to highlight the line:

1. We select the line that reads “needs to get IMS’s address”
2. We click the highlight command and select yellow colour un the font group on the home tab.

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.

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,
- Printing any type of document,

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
- Editiong
- Saving
- Printing any type of document

<u>The steps involved are:</u>

1. We click the Microsoft office button.
2. We select new. The new document dialog box appears.
3. We select blank document under the blank and recent section. If will be highlighted by default.
4. We click create. A new blank document appears in the word window.
5. We create the give documents from the question.
6. We select the text “MS-Word” to change the font size by clicking on the font size box on the home tab.
7. We select the text “MS-Word” to change the font colour into red by clicking on the font colour menu.
8. We select the text word processor and underline it by clicking underline command in the font group the home tab.
9. We select the text “MS-Word” to change the font style into italic by clicking italic command.
10. We select the text we want to format as a list and click on the bullets command on the home tab.
11. We change the font colour of the text “creating” and “saving” into blue and red resp. By clicking on the font colour command, again we select the text “and” and click on strikethrough command.
12. We select the text “printing any type of document” and change the font style into bold by clicking on the font style command.

13. We save the file name as " ms-word" by clicking the Microsoft office button and select save as
14. We select the location where we want to save the document using drop-down menu
15. We click the save button.

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

Equations:

$X_{2-}+y_2=30$

$z^3+q^4=50$

$a_2+b^8=x_2+y_2$

Ans. Equations

$X_2 + y_5 =30$

$Z^3 + q^4 =50$

$A_2 + b^8 = x_2 + y^8$

The steps are:

1. We create the given documents in MS-Word
2. We select the text where we want to format and click on the subscript and superscript command on the home tab
3. We save the file name as "equation" by clicking the Microsoft office button and select save as
4. We select the location where we want to save the document using the drop down menu
5. We click the save button.

Q9. Create a file in MS-Word that convert existing highlight text to table as show below and save it as file name 'text to table '. Describe all steps involved in it.

Select the text you 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

Select the text convert you want to.	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 columns.	Click on OK Finally Selected text convert in atable

Ans. <u>To convert existing text to table:</u>

1. We select the existing highlight text that we want to convert.
2. We select the insert tab
3. We click the table command
4. We select convert text to table form the menu. A dialog box appears
5. We click ok. Them the text appears in a table.

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

Ans.

<u>The steps are:</u>

1. We place our insertion point in the document where we want our table to appear
2. We select the insert tab
3. We click the table command
4. We drag our mouse over the diagram square to select the numbers of columns and rows in the table
5. Left click our mouse and the table appears in the document.
6. We enter the text into the table.

Q11. Create a following worksheet in MS-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
	Sum	654
	average	65.5
	maximum	90

Ans. Minimum 40

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 range of cells (c2:c11)
- Average of the marks in range of cells (c2:c11)
- Highest marks in range of cells (c2:c11)
- Minimum marks in a range of cells (c2:c11)

Roll No.	Name	Marks
1	n 1	60
2	n 2	70
3	n 3	80
4	n 4	90
5	n 5	40
6	n 6	50
7	n 7	77
8	n 8	44
9	n 9	88
10	n 10	55
	Sum	654

Average 65.5
Maximum 90

Ans. Minimum 40

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.

I. Select s column or a range of columns.
II. Select a Home tab and in the cells group, select format.
III. Click on column width and the width for column.
IV. Select Ok.

- To modify the row height of a worksheet.
  I. Select a row or a range of rows.
  II. Select a Home tab and in the cells group, select format.
  III. Click on Row height and Type the height for row.
  IV. Select OK
- To delete rows and columns of a worksheet.
  I. Select the cell you want to delete within the column or row.
  II. Select Home tab. And in cell group click on Delete Sheet Column or Row.

OR

i. Select the desire row or column.

Q13 b) Describe the following terms in the worksheet

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

Ans.

- Absolute Reference:
  An absolute reference in Excel means there is a fixed point of reference applied to a cell or a formula. This is so the return value will always stay the same no matter where the cell or formula moves to – within the same sheet or across different sheet.

  This refers to a fixed point of reference is a constant, and involves the use of dollar sign € in the formula (i.e, everyone is to receive the same bonus payout, so the amount €1500 is constant in this situation).

- Relative Reference :

  It is the default cell reference in Excel. It is simply the combination of column name and row number without any dollar € sign. When you copy the formula from one cell to another the relative cell address changes depending on the relative position of column and row. C1, D2,

  E4, etc. are examples of relative cell references. Relative references are used when we want to perform a similar operation on multiple cells and the formula must change according to the relative address of column and row.

  This refers to a relative point of reference, is constantly change and dollar sign (€) is absent in the formula (i.e., When each unit price and quantity are difference variable, there's no constant in the calculation).

- Cell Address:
  A cell address is a combination of column letter and a row number that identifies a cell on a worksheet.
  For example, A1 refers to the cell at the intersection of column A and row 1; B2 refers to the second cell in the column B, and so on.
  When used in formula, cell references help Excel find the values the formula should calculate. For instance,
  . To pull the value of A1 to another cell, you use this simple formula:
  =A1
  . To add up the value in cells A1 and A2, you use this one:

  =A1+A2

Q14.a) What tools are available to customize our PowerPoint presention are:

Ans.

Tools available to customize our Power Point presentation are:

a. Perspector

b. Pivot viewer
c. Autodesk 3DS Max
d. VisualBee Power Pointg Add-in
e. SmartArt
f. Animiations and Transition
g. Wordle
h. CA coo
i. Oomfo
j. Clip Champ

b) Write the steps for the following action for the 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.

- To open blank presentation;
  i. Open PowerPoint presentation using 'Run' command (window key + R)
  ii. Select the 'Blank Presentation'. It is opened.
- Save the presentation on Lab1.pptx;
  I. Select the 'File' on tab bar.
  II. Click on 'Save As' option.
  III. Click on document/Desktop as your choice.
  IV. Type the name 'Lsb1.pptx'.
  V. Click the 'Save' button.
- Add a Title to the first slide; the name of your college.
  I. Left click on the 'Click to add title' section on the first slide.
  II. Type the name of your college.
- Type your first name and last name in the subtitle section:
  I. Left click on the 'Click to add Subtitle' section.
  II. Type your first name and last name.
- Add a new slide which has a Title and content.
  I. Select the Home tab.
  II. Click on the dropdown button of the 'New Slide' on toolbar.
  III. Select the side having 'Title and Content'. It is a added.

Q15. Write steps for creation of a set of PowerPoint slide that demonstrates your skill to use the tools of PowerPoint. It should include the following things

- Titles slide & bullet list
- Inserting Excel Sheet
- Clip art and text
- Slide show effects

Ans.

- Title slide and bullet list:

I. Open PowerPoint presentation.
II. Select the Home tab.
III. Click at the dropdown button on 'New Slide' at toolbar.
IV. Select the slide having Title slide and Bullet list.

- Inserting Excel sheet:

I. Open the slide where yiu want to insert the Excel sheet.
II. Select the 'insert tab'. And click on 'Object' on toolbar.
III. Select the 'Microsoft Excel Worksheet' object type.
IV. Click the 'OK' button.

- Clip Art and text:

I. Selection the insert tab.
II. Select the 'Pictures' or 'Online Pictures' on tool bar.
III. Choose the appropriate art for the topic.
IV. Click on the 'insert' button.

- Slide show effects:

I. Select 'Design Tab' for themes,Variants and slide size.
II. Select 'Transition Tab' for cut, fade, push, wipe, split, Reveal, shape, Flash, etc. for slide effects.

Q16. What is the difference Machine language and High level Language?

Ans.

Machine language	High level language
1. A computer programming language consisting of binary instruction which a computer can respond to directly. 2. It require no translator to translate the code. It is directly understood by the computer. 3. This language makes fast and efficient use of the computer.	1. It is a programming language that enables development of a program much more user friendly programming context. 2. It takes additional translation time to translate the source code to machine code. 3. The takes additional translation time to translate the source code to machine code 4. They are programmer friendly.

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

Ans. The different data types in C programming language are:

Char: The most basic data type in C. It store a single character and requires a single bite of memory in almost all compilers.

Int: As the name suggests, an Int variable is used to store an integer.

Float: It is used to store decimal numbers,

Double: It is used to store decimal numbers (number with floating point value but of memory in high in comparison to float)

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=33

b) Y=30
c) Z=16

Q19. Describe the syntax of the following statement.

a) If – else statement b) For loop c) White loop d) Do- while loop

Ans. a) If – else statement:

If statements can be followed by an optional else block of statements, which executes when the Boot can expression is false.

Syntax

If (expression)

{

True block of statements;

}

else

{

else block of statements;

}

b) For loop is similar to while loop. Basic syntax of loop is as follows:
For (expression 1; expression 2; expression 3)
{
Block of statement
}
In the above syntx
Expression 1- initialize variable
Expression 2- conditional expression as long as this condition is true, loop will keep executing.
Expression 3- itis the modifier which will increase or decrease the value of the variable.

c) While loop
Basic syntax of while loop is as follows
While (condition)
Single statements
OR while (condition)
{
Block of statements

}

d) Do- while loop.

Do- while loop is just like a while loop except that text condition is checked at the end of the loop rather thn the start. This has the effect that the body of the loop are always executed at least once

Basic syntax of do- while loop is as follows.

Do

{

Single statements

OR

} while (condition);

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 (1<=2)
	{
	Printf("IMS Ghaziabad\n");
	}
	}
		#include <stdio.h>
		Vold main()
		{
		Int a=10, b=100;
		If (a>b)
		Printf("Largest number is %\n",a);
		else
		Printf("Largest number is %d\n",b);
		}

Ans. a) 1

b) 2

C) b=100