CCA-101: FUMDAENTALS OF IT & PROGRAMMING

ASSIGNMENT-1

Q1: **The four fundamental parts of computer,**

- CPU (CENTRAL PROCESSING UNIT)
- MOUSE
- MONITER
- KEYBOARD

CPU

- The **Central processing Unit (CPU)** is also called as central processor, is the electronic circuit within a computer that executes the instructions that make up a computer program.
- It stores data, the intermediate results and instructions and controls the operation of all parts of the computer.

Mouse

   Mouse is an input device used with the computer. Moving the mouse along the flat surface used to move the cursor and clicking the mouse helps to select the different items on the screen.

MONITOR

A **Computer Monitor** is an output device that displays information in the pictorial form.

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.

Q2: **Based on size and capacity, computers are classified;**

- ➢ Super computer
- ➢ Mainframe computer
- ➢ Mini computer
- ➢ Micro computer

SUPER COMPUTER

Super computers are the most powerful and physically larger in size and process a large amount of data. It has thousands of processors. Because of their extraordinary speed, accuracy and processing power these are well suited for solving highly complex problems and huge amounts of calculation.

Example: JAGUAR and ROADRUNNER

MAINFRAME COMPUTER

Mainframe computer are very large often filling an entire room and can process thousands of millions of instructions per second. Some of the functions performed by it include;

- ➢ Flight scheduling
- ➢ Reservations
- ➢ Ticketing for an airline

Example: IBM mainframes Z13 and IBM system Z9 mainframes.

MINI COMPUTER

Mini computers are much smaller than the mainframe computers and less expensive. It is referred as midrange server or midrange computer. It is highly powerful and more expensive than the desktop computer.

Example: Apple IPod and CDA 160A.

MICRO COMPUTER

It s a small computer system designed to used by one person at a time. It is also called a personal computer (PC).

Example: Desktop computer and Laptop.

Q3: **COMPUTER GENRATION**

Each generation is characterized by the dramatic improvement, over the previous generation in the technology used to build computers, in the terms of internal organization of a computer and programming language.

FOUR GENERATION OF COMPUTERS;

FIRST GENERATION (1940-1956):

- I. Vacuum tubes for circuitry and
- II. Magnetic drums for memory.

SECOND GENERATION (1956-1963):

Second generation is based on transistors. It is far superior to the vacuum tube.

THIRD GENERATION (1964-1971):

These are based on Integrated circuits. Development of IC is the hallmark of third generation computer.

FOURTH GENERATION (1971 PRESENT):

These are based on transistors. It brought thousands of IC were built on to a single silicon chip.

Q4: Differentiate between Volatile & Non-Volatile memories.

VOLATILE MEMORY	NON-VOLATILE MEMORY
✓ Random access memory (RAM) is a volatile memory. ✓ It is store data in MBs. ✓ It is a temporary storage. ✓ It is used n normal operations. ✓ The writing data is faster.	✓ Read only memory (ROM) is a non volatile memory. ✓ It is store in GBs. ✓ It is a permanent storage. ✓ It is used for start up process of computer. ✓ The writing data is slower.

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

System software	Application software	Open source software
It is used to run a computer's hardware and application program. Without this computer cannot work. **Example:** compilers, editors, drivers, etc,	It is used for a specific purpose used by end users. It is called as the application software. **Example:** word processor, accounting application, web browser, email client, media player, etc,	It is a software, in which source code is released under the license in which copyright holder grants permission rights to study, change and distribute software to anyone and for any purpose. **Example:** The Linux operating system (OS) is the best example of open source software.

Q6.a) **TO CREATE A NEW DOCUMENT**

- Click the Microsoft office button/ file tab.
- Select new. The new document dialog box appears in a word window.
- Select a blank document.
- A new blank document appears in the word window.
- Now you can create a document by inserting text.
- I am S. Subhadra from Dharmapuri. I have completed my B.A English degree in Sakthi kailash Women's college in Dharmapuri. I like to read story books and watching cartoons. My hobbies hearing songs.
- Finally, save the document.

SAVNG DOCUMENT

- Click MS office button/file tab.
- Select save as - word document.
- Select the location where you want to save the document by drop down menu.
- Enter the file name as 'YOURSELF'. Click the save button.

Q6 b)

- **To change the font style**
    - Select the text you want to modify.
    - Click the font style box on the home tab.
    - Left click the mouse from the various font style appear.
    - Select it and the text will appear.
- **To change the font size**
    - Select the text you want to modify.
    - Click the font size button on the font group in the home tab.
    - In the font group, there are different types of font sizes.
    - Then, you will select the font sizes.
    - The text of the document will change the font size which required.
- **To change the font colour**
    - Select the text you want to modify.
    - Click the font colour box on the home tab.
    - Move the cursor over the various font colour.
    - Left click the mouse the font colour you want to use.
    - The text of the font colour will change.
- **To highlight (in yellow) the line that reads "need to get IMS's address".**
    - Select the text "need to get IMS's address".
    - Click the highlight colour in the font group on the home tab.
    - Move the cursor over the various colours.
    - Left click the yellow colour.
    - The text of highlight colour will change.

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, and
- **printing any type of document**

SAVNG DOCUMENT

- Click MS office button/file tab.
- Select save as- Word document.
- Select the location where you want to save the document by drop down menu.
- Enter the file name as 'ms-word'. Click the save button.

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

Equations

$X_2 + Y_5 = 30$

$Z^3 + Q^4 = 50$

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

SAVING THE DOCUMENT

➢ Click MS office button/file tab.
➢ Select save as-Word document.
➢ Select the location where you want to save the document by drop down menu.
➢ Enter the file name 'equations'.
➢ Click the save button.

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.

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

⇩

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

- Select the text u want to modify.
- Select the insert tab.
- Click on the table command .A dialog box appear.
- Click on convert text into table, a new dialog box appears set a number of column and rows.
- Click ok. Finally the text is converted into a table.
- Now click on the save as option.
- Enter the file name as "text-to-table".
- Finally, click on the save option. The file will be saved in the word document.

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

- Click the Microsoft office button or a file tab.
- A new dialogue box appears.
- Select the insert option and select the insert table option.
- Select the number of rows and columns.

- Finally select insert. A table will appear in the screen.

Q13a) Describe various steps involved in the following.

- To modify column width of a worksheet
    1. Position the cursor over the column line on the heading column.
    2. Double arrow will appear.
    3. Left click the mouse then drag the mouse to right to increase the column width.
    4. Drag the mouse to left to decrease the column width.
    5. Release the button.
- To modify the row height of a worksheet
    1. Click the format command on the home tab.
    2. Select a row height to enter a specific row measurement.
    3. Select auto fit height and all the text will fit.
- To delete rows and columns of a worksheet
    1. Select the row or column you want to delete.
    2. Delete the command on the home tab.

Q13b) Describe following terms in the worksheet

Absolute reference:

An absolute reference is designated in the formula by the addition of a dollar sign ($). It can precede the column reference or the row reference, or both

Examples: A2: The column and the row do not change when copied.

A$2: The row does not change when copied.

$A2: The column does not change when copied.

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

There are many tools available in Microsoft power point to customize. Power point is a most excellent way of presenting to an audience in visual form. It is very different one and different way of presenting your ideas. It helps the speaker and a participant to understand the topic easily.

b) Write the steps for the following action for creation of power point presentation.
- **Open a Blank presentation**
    1. First click on the start button,
    2. Then select the power point in Microsoft office
    3. Then double click then power point page will
- **Save the presentation as Lab1.pptx**
    1. First you located or select the save command o the access toolbar.
    2. If you are saving the file for first time save as command will appears on the backstage view.
    3. Then you choose the folder where you want to save the file and give the file name afterwards file will be saved on that folder.

4. Save that file name as lab1.pptx.

- **Add a Title to the first slide: the name of your college**
  Open the power point slide show page there is a visual will appears that is "click to add title" in that place move your cursor over the caption and left click then you can add your college name as a title .

- **Type your first name and last name in the Subtitle section**
  Same as your title creating there is another caption was appears that is click to add subtitle there you can give your name as a subtitle.

- **Add a New Slide which has a Title and Content**
  Here after you want to make a content go to next slide click on the new slide then new slide will appear there about your college life and your college you can prepare that as a slide show to present in front of your students.

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**
  In your slide show power point presentation there are many will going to presented by you in that time if you want to highlight some points you can add a bullets. Click on the home tab there is many bullets are appears click on that to add a bullets.

- **Inserting Excel Sheet**
  Click on the insert tab on the home tab then click on the object command on the text group, than dialogue box will appear finally choose excel left click on that , excel sheet will appear on the mirror.

- **Clip art and Text**
  1. When you preparing a slide show you want some example pictures to explain that if you don't have those pictures in your system you can select that from a clip art which is a best option to get some pictures.
  2. Click on the clip art command there is a text bar will appears in your right side mirror there you search those arts. Click on that art that will add to your slide show.

- **Slide show effects**
  To start the presentation at the first slide in the start slide show group click from beginning, this slide show is helps you to explain very clearly about your topics, audience also can understand easily about your presentation.

PART-2:

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

MACHINE LANGUAGE:

- It consisting of binary instructions which a computer can respond directly.

- It is difficult to learn and use.
- This programming language is machine dependent.
- Program execution if fast.
- It can be converted into machine code without a compiler or interpreter.

HIGH LEVEL LANGUAGE:

- It is a programming language with strong abstraction from the details of computer.
- It is easy to learn and use.
- It is not machine dependent.
- Program execution is slow.
- It requires compiler or interpreter to convert to a machine code.

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

Each data type in C has an associated data type. Each data type requires different amounts of memory and has specific operations which can be performed over it. Some commonly used data types are as follows,

Char: It stores a single character and requires a single byte of memory.

int : It is used to store an integer.

float: It is used to store decimal numbers.

double: It is used to store decimal numbers with highest range of floating point values.

Q18. Find the output of the following expressions.

a) X=20/5*2+30-5
   = 4*2+30-5
   = 8+30-5
   =38-5
 X=33.

b) Y=30 – (40/10+6) +10
   = 30 – (4+6) + 10
   = 30 – 10 + 10
   = 30 – 20
 Y= 10.

c) Z= 40*2/10-2+10
   = 40* 0.2 – 2 + 10
   = 8 – 2 +10
   = 18 – 2
 Z= 16.

Q19. Describe the syntax of the following statements.

a) if – else statement:

```
if ( expression)
{
 true Block of statements;
 }
else
{
 else Block of statements;
}
```

b) for loop:

```
for ( expression1;expression2;expression3)
{
 Block of statements;
}
```

c) while loop:

```
while (condition)
{
 Block of statements;
}
```

d) do-while loop:

```
do
{
 Single statement;
or
 Block of statements;
}
```

Q20. Find the output of the following program segments:

a) IMS Ghaziabad
b) IMS Ghaziabad
c) Largest number is 100.