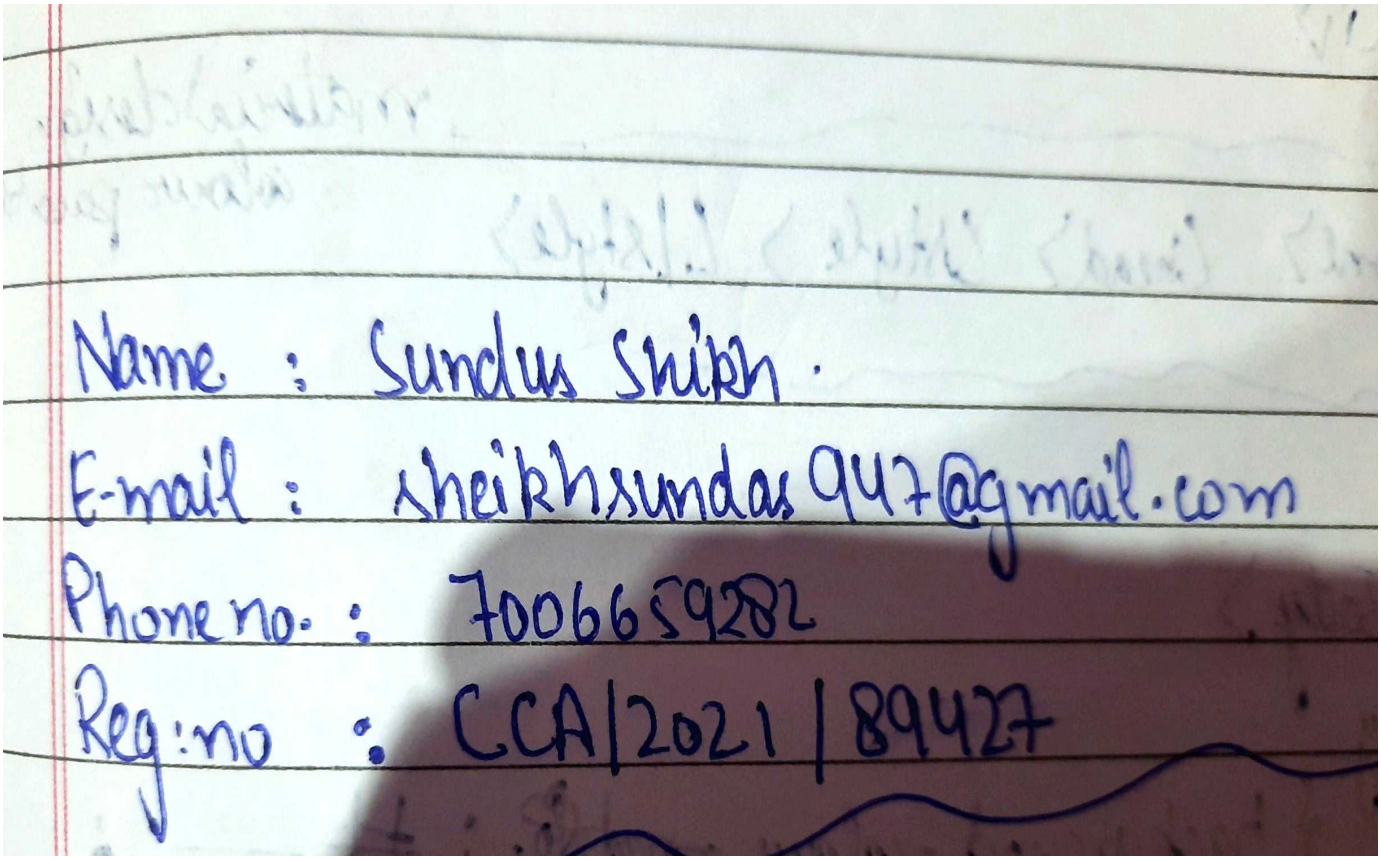

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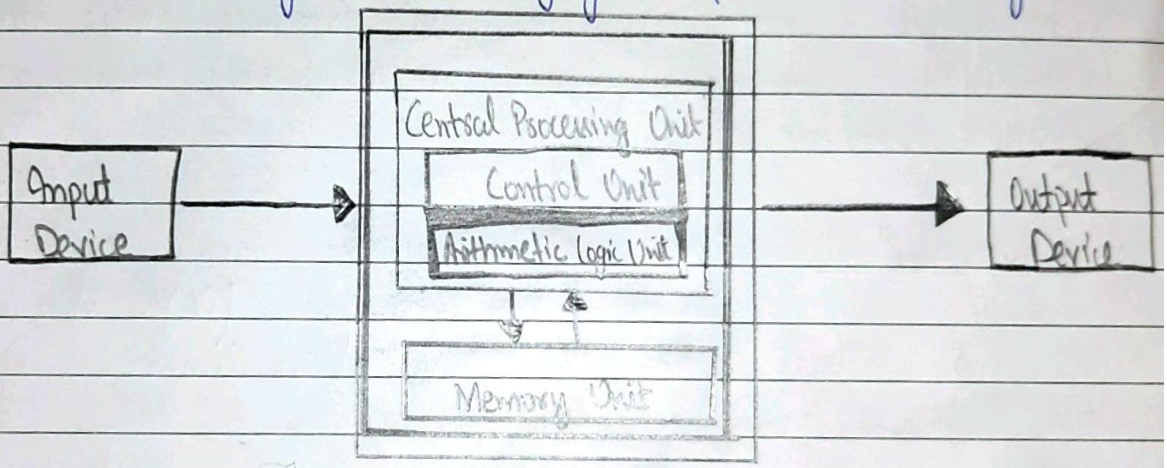
CCA-101 : Fundamentals of IT and Programming
Assignment - 1

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

Ans: The four fundamental parts of computer are central processing unit or CPU, the primary memory, input units and output units. A system bus connects all four components, passing and relaying information among them.



Q:2: Discuss about the classification of computers based on size and capacity.

Ans: Based on size and capacity, computers are classified as follows:

- Super Computers
- Mainframe Computers
- Mini Computers
- Micro Computers.

➢ Super Computers:- These are the most powerful and physically the largest by size. These are systems designed to process huge amounts of data and the fastest super-computers can perform over one trillion calculations in a second.

➢ Mainframe Computer:- These computers are very large often filling an entire room and can process thousands of millions of instructions per second.

➢ Mini Computers:- Minicomputers are much smaller than mainframes. These are also less expensive. These are usually used by small and medium-sized businesses as their servers.

➢ Microcomputers:- These are the most frequently used type of computer. Also known as Personal Computer (PC), it is designed to be used by one person at a time.

Q.3:- 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 a computer is/was being used. Initially, the generation term was used to distinguish between varying hardware technologies. Nowadays, generation includes both hardware and software, which together make up an entire computer system.

There are five computer generations known till date:-

➢ First Generation (1940-1956): It used vacuum tubes for circuitry and magnetic drums for memory.

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- Second Generation (1956-1963) :⇒ The world would see transistors replacing vacuum tubes which was far superior to the vacuum tubes.

- Third Generation (1964-1971) :⇒ The development of the integrated circuit was the hallmark of this generation.

- Fourth Generation (1971-Present) :⇒ The microprocessor brought the fourth generation of computer.

- Fifth Generation (Present-Beyond) :⇒ It is based on artificial intelligence, are still in development.

Q:4:⇒ Differentiate between Volatile and Non-Volatile memories.

Ans Volatile Memory :⇒

1) It gets erased when the system shuts down.
2) It is temporary in nature.
3) It stores data in MBs.

Non-Volatile Memory :⇒

1) It doesnot stores programmes intact without losing any data. when system is switched on and off.
2) It is permanent in nature.

3. It stores data in GBs.

Q:5:→ Distinguish among system software, application software and open source software on the basis of their features.

Ans:→ **System Software:→** It is a type of software that is designed to run a computer's hardware and application programs. Software like OS, compilers, editors and drivers etc. come under this category.

Application Software:→ It is software created for a specific purpose, used by end users. It can be called an application or simply an app. Example:- word processor, accounting application, a web browser, an email client, media player etc.

Open Source Software:→ OSS is a type of software in which source code is released under a license in which a copyright holder grants users the rights to study, change, and distribute the software to anyone and for any purpose.
e.g:→ The Linux operating system.

Q6 Create file in MS-word to insert a paragraph about yourself and save it with file name "yourself". Describe all steps involved.

Ans: i) Opened MS-Word from Microsoft Office Suite.
ii) Clicked 'new file' on the Home-tab or press Ctrl+N.
iii) Started writing about self in a paragraph like name, age, personal information etc.
iv) Open the ~~Home~~ File-tab and go to Save option or simply press Ctrl+S.
v) Rename the file in the dialogue box by 'yourself'.
vi) Click on 'save' file. And the file gets saved.

Q7:. Create file in MS-Word for given document and save it with name 'ms_word'. Describe steps involved.

Ans: i) First, open the Word application from app-list.
ii) Next click on New Blank Document under File section.
iii) Start writing in the steps below:.
a) MS Word heading with large font.
b) Change the font size to small and font color to red to write:.
'MS Word' (in red).
c) Again change font color to black and continue writing:,
'is a widely used commercial'.
d) Now open the home-tab and click on 'U' for

underling 'word processor'.

→ Next continue with default font and write 'developed by Microsoft'.

→ Now, under the paragraph, click on bullets to introduce bullet points to write.

- creating, (Using blue font)
- editing, (black font)
- saving, and (using red font and strikethrough 'and' under font section)
- printing any type of document (Using Bold command by clicking Ctrl+B)

At last, click Ctrl+S and save with 'ms word' file name.

Q8. Equations

$X_2 + Y_5 = 30$

$Z^3 + Q^4 = 50$

$A_2 + B^8 = X_2 + Y^9$

Ans: i) Open MS-Word from app list

ii) Click on Blank Document.

iii) Write 'Equation' with underline command 'Ctrl+U'.

iv) $X_2 + Y_5$ can be put by writing 2 and 5 in subscript. Press (Ctrl+=)

v) $Z^3 + Q^4$ can also be written by using superscript tool in font section (denoted by X^2) or clicking (Ctrl+Shift++).

vi) The third equation can be written in similar manner using subscript and superscript combined.

vii) Save the file and rename it with equations.

Q9:- Create file in MS-Word that converts existing highlight text to table and save it with name 'text-to-table'.

Ans:- i) Open the MS-Word application.
ii) Create New Blank Document
iii) Write the given text in highlighted format.
iv) Select the whole text by pressing Ctrl+A
v) Select Insert tab and click on Table command.
vi) Now click 'Convert Text to Table.
vii) A dialogue box appears, set number of columns to 2.
viii) Click on 'Ok' and save the displayed table with name 'text_to_table' by pressing Ctrl+S.

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

Ans:- To create a table:
i) Open MS-Word application and click on 'Blank Document'
ii) Now on the tool bar, click on the Insert command, a drop down menu appears
iii) Left click the mouse on the 'Table' font to add a table.
iv) Select Insert table to choose number of columns and rows as per requirement and click OK
Thus, table is displayed on the word-document.

Q12:- Calculate the following things of a range (C2:C11) of data in the worksheet created in Q11.

i) Sum of marks using Autosum in C2:C11 is 599

ii) Average of marks in range C2:C11 is 65.4 marks.

iii) Highest marks in range C2:C11 is 90

iv) Minimum marks in range C2:C11 is 40

Q13:- Describe steps involved in following:-

→ To modify column width of worksheet.

Ans: i) Select all the cells or the cells required to be adjusted.

ii) In the toolbar, above 'Cells' section, click on 'Format'.

iii) In the options, select 'Column Width' and write the size desired. Press Enter.

→ To modify row height of worksheet.

i) Select the cells to be modified.

ii) Click on Format in toolbar and go to 'Row Height'.

iii) Enter the size of cell height required. Press Enter.

→ To delete rows and columns of worksheet.

i) In the Cells section in toolbar, press 'Delete' command

ii) Now, select the cells to be deleted and click Delete Cells.

iii) We can also ~~drop~~ delete the whole sheet with the dropdown menu option.

Q14) a) What are the tools available to customize our Powerpoint Presentation.

Ans: The tools to customize our presentations are:
i) Insert: To add picture, image etc.
ii) Design → To add design to the slide.
iii) Transitions → To display slides in different styles.
iv) Animations
v) Slideshow
vi) Review etc.

Q14
b) → Open a blank presentation.
→ Save it with name Lab1.pptx by pressing Ctrl+S
→ Click on 'Click to add title' and write the College name.
→ Now click on 'Add subtitle' below and write your first and last name.
→ To add new slide, click on 'New Slide' command in Home menu.
→ A drop down menu appears to show different types of slides.
→ Press "Title and Content" to display new slide.

Q15:
Ans: Open powerpoint 'Blank Presentation', a 'Title Slide' opens by default.
Click on any section of the title to start writing
In Home tab, under Paragraph section, select 'Bullets' command to add a bullet list. It can be added in 'Content Slide' or 'Sub-Title' section of slide.

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Qno16:- What is the difference between machine language and High Level Language?

Ans **Machine language** :- A computer programming language consisting of binary instructions which a computer can respond to directly. Sometimes it is referred to machine code or object code, machine language is collection of binary digits or bits.
e.g:- 01001000, 01100101, etc.

High Level Language:- It is any programming language that enables development of a program in a much more user-friendly programming context. e.g:- C, C++, Java, etc.

Qno17:- Discuss about different data types of C programming language.

Ans:- Following are some of the data types of C programming language:-

Type	Keyword	Value Range
Character	char	-128 to 127 or 0 to 255
Number	int	-32,768 to 32,767
Small Number	short	-32,768 to 32,767
Long Number	long	-2,147,483,648 to 2,147,483,647
Decimal Number	float	1.2E-38 to 3.4E+38

These data types are called primitive data types and you can use these to build more complex data types, which are called user-defined data types, for example a string will be a sequence of characters.

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Q:18:> Find the output of the following expressions:>

a) X = 20/5*2+30-5

Ans X = 33

b) Y = 30 - (40/10+6)+10

Ans: Y = 30

c) Z = 40*2/10-2+10

Ans. Z = 16

Q:19:> Describe the syntax of the following statements:

a) If - else statement.

Ans Syntax is -

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

b) for loop.

Ans The syntax for 'for loop' is -

```
for (expression 1; expression 2; expression 3)
{
   Single Statement
   or
   Block Statements;
}
```