CCA-101: Fundamentals of IT & Programming

Assignment - 1

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

Ans: Monitor, Keyboard, Mouse, CPU.

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

Ans: 1. Super Computer: The most efficient computers in terms of processing data & performance are supercomputer. They are exceedingly large and highly expensive. They are the fastest and strongest. They process information at rapid rate.

2.Mainframe Computer: Despite being less than super computer. They have enormous amounts of memory. They have significant number of CPUs with powerful processing speed.

3.Mini Computer: This computers are small in size, less costly. It is able to perform many jobs at once. It also used in business.

4.Micro Computer: They are smaller and comparably less expensive. It has limited computational capacity. It is also called Personal Computer (PC).

Q3: What is the meaning of computer generation? How many Computer Generations are

defined? What technologies were/are used?

Ans: Computer gen based on the major technological changes in the hardware of computer. There are five generation of computer like 1.Vacuum tube(1940-1956) 2. Transistor (1956- 1963) 3. Integrated Circuit (1964- 1971) 4. Microprocessor (1971- 2010) 5. Artificial Intelligence {AI} (2010 Present & Beyond)

Q4: Differentiate between Volatile & Non- Volatile memories.

Ans:

	Volatile	Non- Volatile
1.	Loses its contents when the power is turned off.	Does not lose contents when power is turned off.
2.	Requires consistent flow of power to retain data.	Does not require consistent flow of power to retain data.
3.	Affects the system performance.	Affects the system storage.
4.	Faster. Ex. RAM	Slower. Ex. ROM, hard disk, floppy memory.

Q5: Distinguish among system software, application software and open-source software on the

basis of their features.

Ans:

System Software	Application Software	Open- Source Software
System Software is written in low level language.	Application software is written in high level language.	Historically evolved from free software.
The size of system software is smaller.	Application software requires more storage space than system software.	Opensource grants 4-freedom (run, study, distribute & modify).
System software is complex to understand.	Application software is easy to build in comparison to system software.	Opensource Initiative License (OSI).
System software is present near hardware components.	Only single task is performed by each application software.	Open source has a copyright holder.

Q6. a) 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.

Q6 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: My name is ***Pranay Ganesh Shigwan***. In family we are three members including me. My father name is Ganesh Shigwan & mother name is ***Sheetal Shigwan***. My father works at PNVL in Shivam medical. My mother is housewife. I pass 12th exam in 2023. I like to play cricket & other games. ***My dream is become a successful person in future***. My current address is At. Ladiwali post.Gulsunde, tal.Panvel, dist.Raigad.

Q7. Create a file in MS-Word for the following document and save it with file name ‘MS-word’. Describe

ISRO Organisation
Present

SCIENCE EXHIBITION
(SCIENCE MODELS)

Date: 21/ 06/ 2023
Time: 11:00 am

The main aim of this exhibition is inspired to students and give chance to make their future bright. In this exhibition we placed best of best science models. We try to spread information about universe in students. In this exhibition there are practical for students, ques game and many more. From this exhibition they should understand new things, knowing information. Information about India’s great scientist also give in this exhibition. To know more information come to this exhibition on given date.

Address:
Mumbai East ,22
Andheri West 410 207
ISRO Centre
Near Anand Hotel.
ISRO@GMAIL.COM

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

Equation
X2 + Y5 = 30
Z3 + Q 4 = 50
A2+ B8= X2+Y8

ANS: Equation

$X_2 + Y_5 = 30$
$Z^3 + Q^4 = 50$
$A_2 + B^8 = X_2 + Y^8$

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.
Ans:

Computer gen based on the major technological changes in the hardware of computer. There are five generation of computers.

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

Ans: Open the MS – word and click on insert (table command). There are two types of choosing table first one is select table row or column wise & second is Draw the table using pencil.

Q11. Create a following worksheet in MS-excel and save it with name 'book1'.
{Answer of this question is complete in excel}

Q12. Q12. Calculate the following things of a range (C2:C11) of data in the worksheet created in question no
11.
- the sum of the marks using AutoSum in a range of cells (C2:C11)
- average of the marks in a range of cells (C2:C11)
- highest marks in a range of cells (C2:C11)
- minimum marks in a range of cells (C2:C11)

{Answer is completed in Excel}

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

Q13 b) Describe following terms in the worksheet

- Absolute reference and relative reference in formula
- Cell address

Ans:

Absolute reference	Relative reference
Absolute reference is cell reference made constant by adding the dollar ($) sign before column name & row no.	**Relative reference is the default cell reference in Excel.**
If either the row or the column is made constant then it is known as a mixed reference.	**Relative reference change when a formula is copied or dragged to another cell, while absolute reference remains constant.**
A1, B3 are examples of absolute cell reference.	**C1, D2, E4, etc are examples of relative cell references.**

b) Cell address: A cell address is an alphanumeric value used to identify a specific cell in worksheet. It consists of one or more followed by a number. Ex, A1 is the cell address of the first cell in first column & row of a spreadsheet.

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

Q14 b) Write the steps for the following action for 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: a) There are several tools available to customize power point presentation, ex; templates & themes, slide layouts, fonts, colour themes, icons, shapes, stock photos, charts & graphs. {Answer of (b) is complete in PPT}.

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**
- **Inserting Excel Sheet**
- **Clip art and Text**
- **Slide show effects**

Ans:

1. Open PowerPoint and click on the **Home** tab.
2. Click on **New Slide** and select **Title Slide**.
3. Add a title and bullet list by clicking on the **Text Box** icon in the **Insert** tab.
4. To insert an Excel sheet, you can either copy and paste the data from Excel worksheet into PowerPoint slide or link/embed an Excel worksheet into PowerPoint. Here are the steps for both:
    - Copy and paste Excel data into PowerPoint:
        1. Copy the data from Excel worksheet.
        2. Go to PowerPoint slide where you want to insert the data.
        3. Click on **Paste** in the **Home** tab.
    - Link/embed an Excel worksheet into PowerPoint:

1. Open both Excel worksheet and PowerPoint presentation you want to edit at the same time.
2. Select the cell range in Excel worksheet that you want to link/embed.
3. Right-click on the selected cell range and click on **Copy**.
4. Go to PowerPoint slide where you want to insert the data.
5. Click on **Paste** in the **Home** tab and select one of the following options:
    - Use Destination Styles: copy the data as a PowerPoint table using format of presentation
    - Keep Source Formatting: copy the data as an Excel object with its original formatting
    - Picture: copy the data as an image

- Insert clip art in Excel worksheet:
    1. Go to **Insert** tab in Excel worksheet.
    2. Click on **Online Pictures** (in Excel 2007/2010, this option is called Clip Art).
    3. Type in your search word(s) and press Return

5.

-
    1. View the results of your search.
    2. Double-click one of the results to add it to your worksheet.
- Insert clip art in PowerPoint slide:
    1. Go to **Insert** tab in PowerPoint slide.
    2. Select **Pictures**, choose **Online Pictures**, and then in the Filters select Clip Art.
    3. Choose your preferred Clip Art and add it into the Slide.
- Go to **Animations** tab and select any animation effect from there.
- Go to **Transitions** tab and select any transition effect from there.

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

Ans:

Machine language	High level language
Machine Language is the only language that is directly understood by the computer.	**High Level Language uses English and mathematical symbols in its instructions.**
It consists of binary strings of 0s and 1s.	**It is closer to a human language like English and does not need to be translated.**
Machine Language is machine-dependent, meaning it varies from one computer to another	**While High Level Language is machine-independent, meaning it can run on different computers**

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

Ans: C programming language has several data types that are used to define variables. Each data type requires different amounts of memory and has some specific operations which can be performed over it.

6. **int**: It is used to store integer values. It requires 2 or 4 bytes of memory depending on the system architecture.

7. **Char**: It is used to store a single character. It requires 1 byte of memory.
8. **float**: It is used to store floating-point numbers. It requires 4 bytes of memory.
9. **double**: It is used to store double-precision floating-point numbers. It requires 8 bytes of memory.
10. **void**: It is used to represent the absence of type.

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=20/5*2+30-5 b) Y=30-(40/10+6) +10 c) z=40*2/10-2+10

=4*2+30-5 = 30 – (4+ 6) + 10 = 80/10-2+10

=8+30-5 = 30 – 10 = 8-2+10

=8+33 *= 20* = 6+10

= 41 ***= 16***

Q19. Describe the syntax of the following statements

a) If – else statement b) for loop c) while loop d) do-while loop

Ans: a) if {

Block of statement

}

else {

Block of statement

}

b) for {

Block of statement

}

c) while {

Block of statements

}

d) do {

Block of statements

} while

Q20. Find the output of the following program segments

Ans: a) output = IMS Ghaziabad

b) output = IMS Ghaziabad

IMS Ghaziabad

c) output = Largest number is 100