

Assignment - 1

CCA - 101

Fundamentals of IT and Programming

DECLARATION

I Koneti prasanthi csc Id: **272443730011** hereby declare that the assignment submitted on the entitled "**Fundamentals of IT and Programming**" is a bonfires work done by me.

QUESTION - 01

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

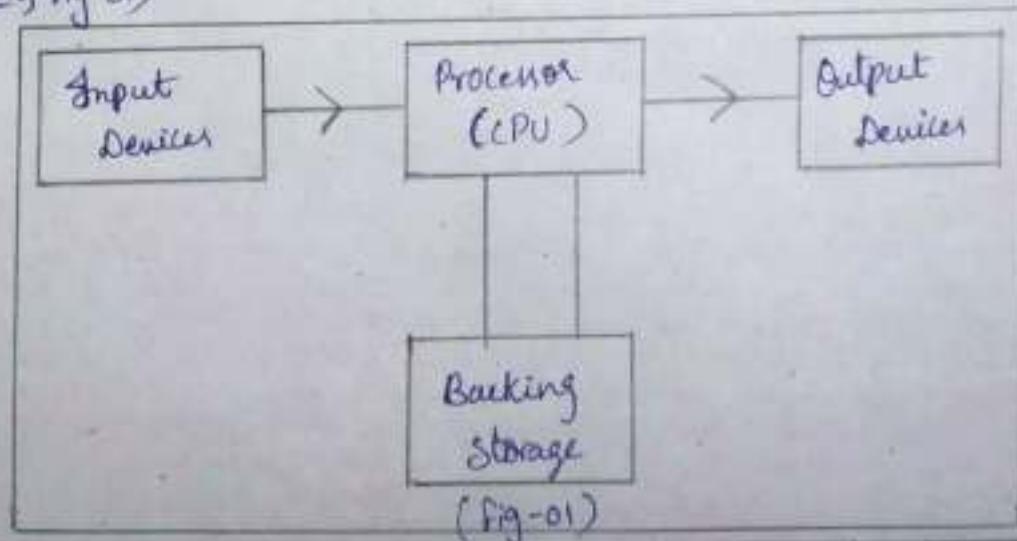
Answer:

COMPUTER:- It is a programmable electronic device designed for storing and processing data, based on sequence of instruction.

Fundamental parts of Computer:- There are four fundamental parts of computer.

1. Input devices
2. Processor
3. Output devices
4. Backing storage

These fundamental parts of Computer can be explained in the following diagram called Block diagram of Computer (fig., fig-01)



1. INPUT DEVICES :-

This is the process of entering data and programs in to the computer system. You should know that computer is an electronic machine like any other machine which takes as inputs your data and performs some processing giving out processed data. Therefore, the input unit takes data from us to the computer in an organized manner for processing.

Example:- Keyboard, mouse, input port, touch screen, microphone etc.

2. PROCESSOR:-

The task of performing operations like arithmetic and logical operations is called processing. The central processing unit (CPU) takes data and instructions from the storage unit and makes all sorts of calculations based on the instructions given and the type of data provided it is then sent back to the storage unit.

3. OUTPUT DEVICES:-

This is the process of producing results from the data for getting useful information. Similarly the output produced by the computer after processing must also be kept somewhere inside the computer before being given to you in human readable form.

Again the output is also stored inside the computer for further processing.

Examples:- Monitor, printer, Headphones etc..

4. Backing storage :-

The process of storing data and instructions permanently is known as storage. Data has to be fed into the system before the actual processing starts. A storage provides space for storing data and instructions. All data and instructions are stored here before and after processing. Intermediate results of processing are also stored here.

QUESTION -2

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

Answer:-

CLASSIFICATION OF COMPUTERS:-

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

1. Super Computers
2. Mainframe computers
3. Mini computers
4. Micro computers

1. SUPER COMPUTERS:-

Supercomputers are the most powerful and physically the largest by size. They are systems designed to process huge amounts of data and the fastest supercomputers can perform over one trillion calculations in a second. Super computers have thousands of processors. Because of their extraordinary speed, accuracy and processing power, super computers are well suited for solving highly complex problems and performing tasks that demand huge amounts of calculations.

2. MAINFRAME COMPUTERS:-

Mainframe computers are very large often filling an entire room and can process thousands or millions of instructions per second. In a mainframe environment, users connect to the mainframe through the many terminals wired to the mainframe. Mainframes are capable of supporting hundreds to the thousands of users simultaneously. Some of the functions performed by a mainframe include : flight scheduling, reservations and ticketing for an airline etc.

3. MICRO COMPUTERS:-

Micro computers are the most frequently used types of computer. Also known as Personal Computer (PC), a micro computer is a small computer system designed to be used by one person at a time.

4. MINI COMPUTERS:-

Minicomputers are much smaller than mainframes. These computers are also less expensive. Sometimes referred to as Midrange Server or Midrange Computer, they are typically larger, more powerful and more expensive than desktop computers. Midrange computers are usually used by small and medium-sized business as their servers. Users connect to the server through a network by using desktop computers.

Question: 3

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

Answer:-

COMPUTER GENERATION :-

The evolution of digital computing is often divided into generations. Each generation is characterized by dramatic improvements over the previous generation in the technology used to build computers, in terms of the internal organization of computer and programming languages. There are 5 generations of computers.

Five Generations of Computers :-

1. First Generation
2. Second Generation
3. Third Generation
4. Fourth Generation
5. Fifth Generation

1. FIRST GENERATION :-

The first generation computer period is from 1940-56. The first computer systems used vacuum tubes for circuitry and magnetic drums for memory, and were often enormous, taking up entire rooms. These computers were very expensive to operate and in addition to using a great deal of

electricity, the first computers generated a lot of heat. This was often the cause of malfunctions.

First generation computers relied on machine language, the lowest-level programming language understood by computers, to perform operations, and they could only solve one problem at a time. It would take operators days or even weeks to set up a new problem. Input was based on punched cards and paper tape, and output was displayed on printers.

The UNIVAC (Universal Automatic Computer) and ENIAC (Electronic Numerical Integrator and Computer) computers are examples of first generation computing devices. The UNIVAC was the first commercial computer delivered to a business client, the U.S. Census Bureau in 1951.

2. SECOND GENERATION:-

The second generation computers period is 1956 - 1963. The world would see transistors replace vacuum tubes in the second generation computers. The transistor was invented at Bell Labs in 1947 but did not see widespread use in computers until the late 1950s.

The transistor was far superior to the vacuum tube, allowing computers to become smaller, faster, cheaper, more energy-efficient and more reliable than their first-

generation predecessors. Though the transistor still generated a great deal of heat that subjected the computer to damage, it was a vast improvement over the vacuum tube. Second-generation computers still relied on punched cards for input and printsouts for output. Second-generation computers moved from cryptic binary machine language to symbolic, or assembly, language.

3. THIRD GENERATION :-

The third generation computers period is 1964 - 1971. The development of the integrated circuit was the hallmark of the third generation of computer. Transistors were miniaturized and placed on silicon chips, called Semiconductors, which drastically increased the speed and efficiency of computers. Instead of punched cards and printsouts, users interacted with third generation computers through keyboards and monitors and interfaced with an operating system, which allowed the device to run many different applications at one time with a viral program that monitored the memory. Computers for the first time became accessible to a mass audience because they were smaller and cheaper than their predecessors.

4. FOURTH GENERATION :-

The fourth generation computer's period is 1971 to present. The microprocessor brought the fourth generation of computers, as thousands of integrated circuits were built onto a single silicon chip. What in the first generation filled an entire room could now fit in the palm of the hand. The Intel 4004 chip, developed in 1971, located all the components of the computer - from the unit and memory to input / output controls - on a single chip.

In 1981 IBM introduced its first computer for the home user, and in 1984 Apple introduced the Macintosh. Microprocessors also moved out of the realm of desktop computers and into many areas of life as more and more everyday products began to use microprocessors.

As these small computers became more powerful, they could be linked together to form networks, which eventually led to the development of the internet. Fourth Generation computers also saw the development of GUI's, the mouse and handheld devices.

5. FIFTH GENERATION :-

This fifth generation computers are for present generations and for the future professors. Fifth generation computing devices, based on Artificial Intelligence,

are still in development, though there are some applications, such as voice recognition, that are being used today. The use of parallel processing and superconductors is helping to make artificial intelligence a reality.

Quantum computation and molecular and nano-technology will radically change the face of computers in years to come. The goal of fifth-generation computing is to develop devices that respond to natural language input and are capable of learning and self-organization.

Question: 4

Q. Differentiate between Volatile and Non-volatile memories.

Answer:-

VOLATILE MEMORY :-

This is also called as "Primary Memory".
Volatile memory is a computer storage that only maintains its data while the device is powered.

Example :- RAM (Random access Memory) is volatile.
When we are working on a document, it is kept in RAM, and if the computer loses power, your work will be lost.

NON-VOLATILE MEMORY :-

This is also called as "Secondary Memory".
Non-volatile memory is a type of computer memory that a type has the capability to hold saved data even if the power is turned off.

Examples :- ROM (Read Only Memory), Hard disk,
Floppy disk etc - - -

sNo	Key	Volatile Memory	Non-Volatile Memory
1.	Data Retention	Data is present till power supply is present	Data remains even after power supply is not present
2.	Persistence	Volatile memory data is not permanent	Non-volatile memory data is permanent
3.	Speed	It is faster than Non-volatile memory	Non-volatile memory access is slower.
4.	Example	RAM is an example of volatile memory	ROM is an example of non-volatile memory
5.	Data Transfer	Data transfer is easy	Data transfer is difficult
6.	CPU Access	Can access data stored on volatile memory	Data to be copied from non-volatile memory to volatile memory so that CPU can access its data
7.	Storage	It has low storage capacity	Non-volatile memory like HDD has very high storage capacity.
8.	Cost	Volatile memory is costly per unit size.	Non-volatile memory is cheap per unit size.
9.	Impact	High impact on system's performance.	No impact on system's performance.

Question: 5

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

Answer:-

SYSTEM SOFTWARE :-

This is a type of software that is designed to run on computer hardware and application programs. A computer cannot function without presence of these. If we think of the computer system as a layered model the system software is the interface between the hardware and user applications.

Examples:- Compiler, assembler, debugger, driver etc.

APPLICATION SOFTWARE :-

It is a computer program designed to carry out a specific task other than relating to the operation of the computer itself. This is typically to be used by end users. The term "app" often refers to

applications for mobile devices such as phones, tabs etc ---

Examples:- WordProcessor , Web browser , media ,
player , etc ---

OPEN SOURCE SOFTWARE :- (OSS)

This is a type of computer software in which source code is released under a license in which the copyright holder grants user the rights to study , change and distribute the software to anyone and for any purpose .

Example:- The "Linux" operating software is the best known example of open source software technology .

Question : 6 (a)

Q. 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.

Answer :-

From the given question, to work on file "yourself", the following steps are involved :

1. To create a new document
2. To insert paragraph text
3. To save the document.

1. To create a new document :-

- * Click the Microsoft Office button
- * Select New. The New document dialog box appears
- * Select Blank document under the Blank and recent section. It will be highlighted by default
- * Click Create. A new blank document appears in the word window.

2. To insert paragraph text :-

The following paragraph text should be inserted.

YOURSELF

My name is Koneki Prasanthi. I'm from Kolhanabu village in vizianagaram district. My Father's name is Satya Iengam, he is a business man owning a small textile business located near to my village. My mother's name is Savithri, she is an housewife. I completed my graduation with b.com degree. I'm pursuing CCA program from ESE Academy.

Steps:-

- * Move your mouse to the location where you want text to appear in the document.
- * Left-click the mouse. The insertion point appears.
- * Type the text or paragraph text above.

3. To save the document :-

- * Click the Microsoft Office button
- * Select Save As → word document. The Save As dialog box appears.
- * Select the location
- * Enter Name "Yourself" of the document and
- * Click "Save" button.

A screenshot of a Microsoft Word document. The title 'YOURSELF' is centered at the top in a large, bold, black font. Below the title is a paragraph of text. The Microsoft Word ribbon is visible at the top, showing tabs like File, Home, Insert, Design, Layout, References, Mailings, Review, View, and Help. The Home tab is selected. The ribbon also includes a 'Font' dropdown set to 'Times New Roman', a 'FontSize' dropdown set to '14pt', and a 'Style' dropdown showing 'Normal'. The main content area contains the following text:

My name is Koneti Prasanthi. I'm from kothavalasa village in Vizianagaram district. My father's name is Satya lingam, he is a business man owning a small textile business located near to my village. My mother's name is Savithri, she is a housewife. I completed my graduation with b.com degree. I'm pursuing CCA program from CSC Academy.

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Question : 6(b)

Q. Write steps regarding following:-

- 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 TNS's address".

Answer :-

1. To change the font style :-

- * Select the text you want to modify.
- * Left-click the "drop-down arrow" next to the "font style box" on the Home tab. The font style drop-down menu appears.
- * Move your cursor over the various font styles. A "live preview" of the font will appear in the document.
- * Left-click the font style you want to use. The font style will change in the document.

2. To change the font size:-

- * Select the text you want to modify.
- * left-click the drop-down arrow next to the font size box on the Home tab. The font size drop-down menu appears.
- * Move your cursor over the various font sizes. A live preview of the font size will appear in the document.
- * left-click the font size you want to use. The font size will change in the document.

3. To change the font colour:-

- * Select the text you want to modify.
- * left-click the drop-down arrow next to the font color box on the Home tab. The font color menu appears.
- * Move your cursor over the various font colors. A live preview of the color will appear in the document.
- * left-click the font color you want to use. The font color will change in the document.

4. To highlight (in yellow) the line that reads
"need to get IHS's address". :-

- * Select the text "need to get IHS's address".
- * Left click the "drop down arrow" next to the "Text highlight Color box" on the home tab. The text highlight color drop-down menu appears.
- * Move your cursor over the "yellow" Text highlight colour.
- * Left-click on the yellow Text highlight color. The text highlight color will change in the document.

Question :-

Q. 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.

Answer :-

There are total 3 steps involved in "ms-word"

document preparation and file creation and save.

1. Create a New document
2. Making or typing the document.
3. Save the document.

① Create a New document :- (Step -1)

* Click the Microsoft Office button

* Select New. The New document dialog box appears

* Select Blank document under the Blank and recent

- 2.1
- * Selection. It will be highlighted by default.
 - * Click Create. A new blank document appears in the word window.

② Making or typing the document :-

- * Move the cursor to the point where we want to start the document and start typing.
- * The given text of the document includes the different types of steps as follows:-
 1. Font Size
 2. Font color
 3. Underline
 4. Italic
 5. Bullets
 6. Strikethrough
 7. Bold.

Explanation:-

- 1. MS Word : - This text includes the steps of font size.
 - * Click on the text "MS Word" and select it.
 - * Go to home tab in that move to the font command.

* Move the cursor to the font size and click on the drop-down arrow or left click on the mouse.

Then the font size menu appears

* Select the size required i.e., 22 and click on it. The font size will change in the document.

2. **MSWord** :- This text involves the steps of font color change.

* Select the text "MSWord".

* Left-click the drop-down arrow next to the font color box on the home tab. The font color menu appears.

* Move your cursor to the "red" color.

* Left-click the red color, the font color will change in the document.

3. Word Processor :- This text involves the steps of underlining the text. (a) "Underline your text"

* Select the text "word processor".

* Left-click the drop-down arrow next to the "underline your text" on the home tab. The underline menu appears.

* Move your cursor to the "thin underline".

- * Left click the "thin underline", the text will get underlined in the document.

4. MS word : This text involves the steps of "italic text" change & italicize your text

- * Select the text "MS word"
- * Left-click the icon "I" on the Home tab which defines italicize your text.
- * The text will be italicized in the document.

5. BULLETS (•) :- This includes of insert a new list

- * Select the text from "Creating to Printing any type of document" to format as a list.
- * Click the Bullets Commands on the Home tab.
- * Left-click the bullet style. It will appear in the document.

6. Creating :- This includes of steps of change in font color.

- * Select the text "Creating"
- * Left click the drop-down arrow next to the font color box on the Home tab.

The font color menu appears.

- * Move your cursor to the "blue" color.
- * Left click the blue color; the font color will change in the document.

7. Saving : - This text involves the steps of font color change.

- * Select the text "saving".
- * Left-click the drop-down arrow next to the font color box on the home tab. The font color menu appears.
- * Move your cursor to the "red" color.
- * Left click the red color, the font color will change in the document.

8. and :- This text involves the steps of.

strike through.

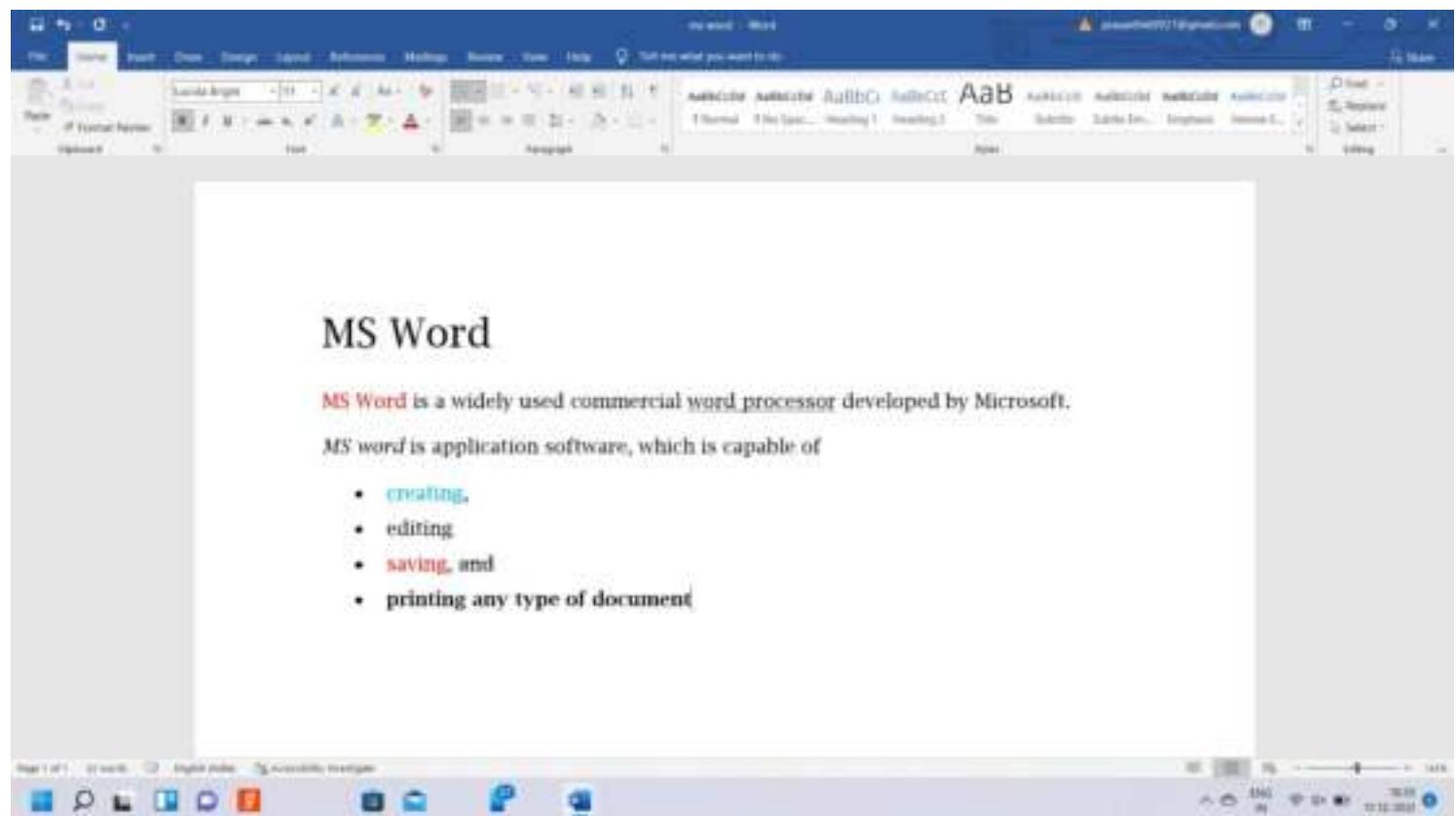
- * Select the text "and".
- * Left click on the strike through command in the font group of home tab.
- * The text will change in the document as "and".

9. Printing any type of document :- This involves the steps of Making your text Bold.

- * Select the text "Printing any type of document".
- * Left click on the Bold command in the font group of home tab.
- * The text will change in the document.

③ Save the document :-

- * Click on the File tab.
- * Select the save, the save as dialog box will appear.
- * Select the Name and type as "ms-word" for the document.
- * Select the location where you want to save the document using the drop-down menu.
- + Click the save button.



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Question : 8

Q. Create a file in Ms-word for the following document and save it with file name "equations". Describe all steps involved in it.

Equations

$$x_2 + y_5 = 30$$

$$z^3 + a^4 = 50$$

$$A_2 + B^3 = x_2 + y^8$$

Answer :- The given document involves 3 steps of preparation of file "equations".

1. Create a file (or) New document
2. Insert the text given.
3. Save the document.

① Create a file (or) New document :-

- * Click the Microsoft Office button
- * Select New . The New document dialog box appears
- * Select Blank document under the Blank and recent section. It will be highlighted by default
- * Click Create . A new blank document appears.

② Insert the text given :- The insertion of text includes 3 kinds of date or text entry.

1. Underline the text

2. Subscript

3. Superscript

→ Move the cursor where you want to start the text document and click on left click of the mouse and start typing.

1. Equations:- This text includes the format of underline the text

* Select the text "Equation".

* Left-click the drop-down arrow next to the "underline your text" on the home tab, the underline menu appears.

* Move your cursor to the "thin underline"

* Left-click the "thin underline", the text will get underlined in the document.

2. x_2, y_5, A_2, X_2 :- These texts includes the format of "Subscript".

→ "Subscript" means which types very small letters just below the line of text.

Step:- * Select the text i.e., z^3, Q^4, B^8, Y^8 from Z_2, Q_5, B_2, Y_2 .

* Left click on the Subscript icon i.e., x_2 , then the subscripted texts will appear in the document.

3. Z^3, Q^4, B^8, Y^8 :- These texts includes the format of "Superscript".

→ "Superscript" means which types very small letters just above the line of the text.

Step:- * Select the text i.e., $3, 4, 8, 8$ from Z^3, Q^4, B^8, Y^8 .

* Left click on the superscript icon i.e., x^2 , then in the font group, then the superscripted texts will appear in the document.

Equation $X_2 + Y_5 = 30$:- This Equation involve the steps
of subscript command.

- Select the equation $X_2 + Y_5 = 30$, i.e., X_2, Y_5
- Then Click on subscript command on the home tab.
- Then it will change the text as subscript in the document i.e., $X_2 + Y_5 = 30$

Equation $Z^2 + Q^4 = 50$:- This Equation involve the steps of
superscript command.

- Select the equation $Z^2 + Q^4 = 50$ i.e., Z^2, Q^4
- Click on superscript command on the home tab.
- Then it will change the text as superscript in the document i.e., $Z^2 + Q^4 = 50$.

Equation $A_2 + B^2 = X_2 + Y^8$:- This Equation involve the step
of both subscript and superscript command.

- Select the text A_2 and X_2 i.e., A_2, X_2 then after
 B^2 and Y^8 i.e., $Z, 8$.
- Then click on the subscript command for A_2 & X_2
and then click of superscript for B^2 and Y^8 on home tab.
- Then it will change the text as subscript and
superscript command in the document.

$$\text{i.e., } A_2 + B^2 = X_2 + Y^8.$$

③ Save the document :-

- * Click on the file tab
- * Select the save, then save as ~~Wicdoy~~
box will appear
- * Select the location where you want to
save the document using the drop-down
menu.
- * Create the name as "Equation" for the
document
- * Click on the save button.

Equations

$$X_2 + Y_5 = 30$$

$$Z^3 + Q^4 = 50$$

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

Question : 9

Q. Create a file in MS-Word that convert existing highlight text to tables as shown below and save it as file name "text-to-table". Describe all steps involved in it.

Answer:- The given document involves 4 steps of preparation of the file "text-to-table".

1. Create a file or New document
2. Enter the text
3. Convert the selected text to table
4. Save the file.

① Create a file or New document :-

- * Click on Microsoft Office button - a file tab
- * Select New, The New document dialog box appears.
- * Select Blank document under the Blank and recent section. It will be highlighted by default
- * Click Create. A new blank document appears.

② Enter the text :-

- * Move the cursor to the point where we want to enter the text
- * Start typing the text given.

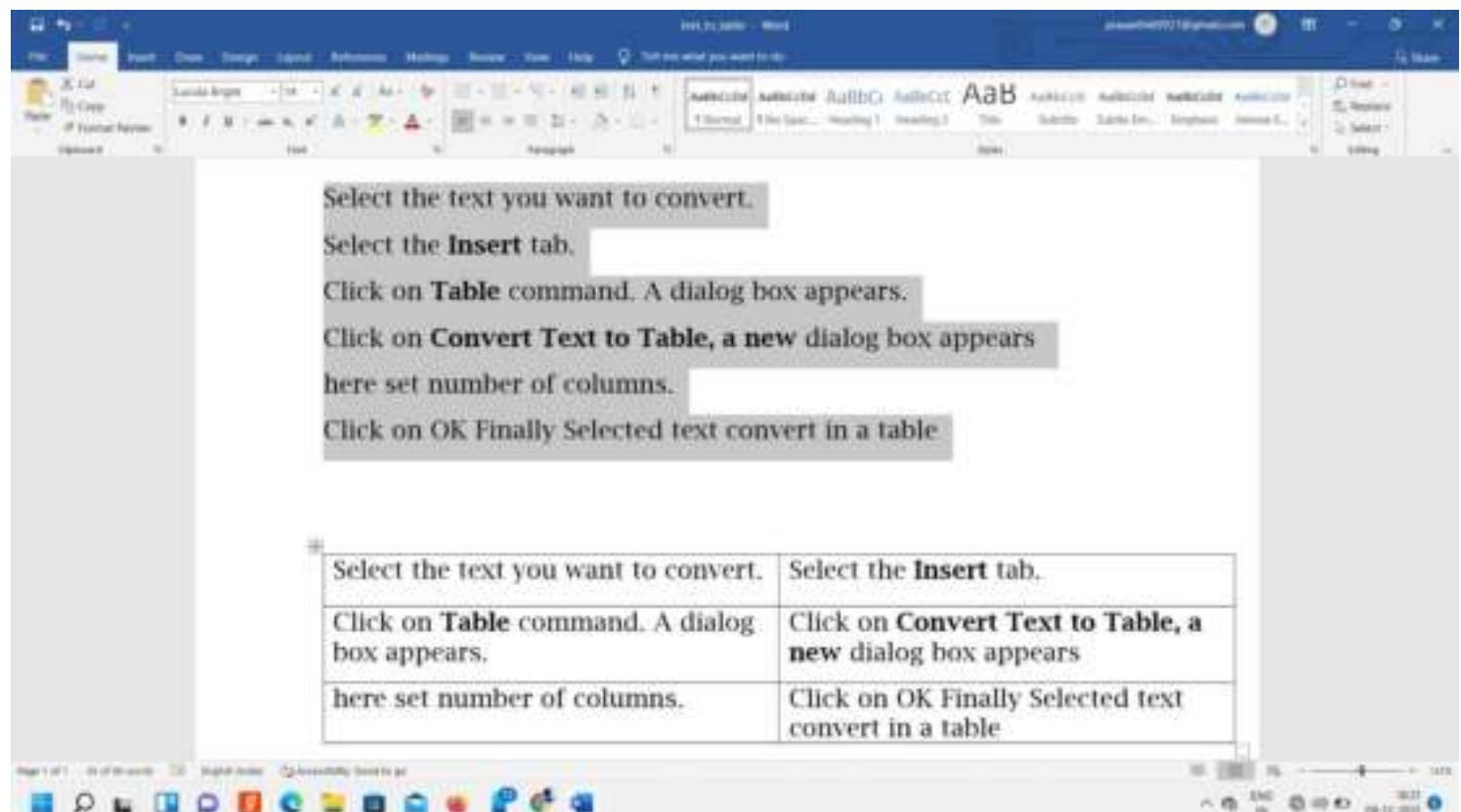
③ Convert the selected text to table :-

- * Select the all text which we want to convert into the table.
- * 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.

④ Save the file :-

- * Click on the file tab,
- * Select the save, then save as dialog box will appear.

- * Select the location where you want to save the document using the drop-down menu.
- * Create the name as "text-to-table" for the document
- * Click on the save button.



Question: 10

Q. Create a file in Ms-word to insert a table in the document
Describe all steps involved in it.

Answer:- The given task includes 2 steps

1. Create a New document 'of' file
2. Insert a table

1. Create New document 'of' file :-

- * click on Microsoft Office button 'of' file tab
- * select New, the new document dialog box appears.
- * select Blank document under the Blank and recent section. It will be highlighted by default
- * Click create. A New blank document appears.

2. Insert a table :-

- * place your insertion point in the document where you want the table to appear.
- * Click the Insert tab
- * Click the Table command.
- * Drag your mouse over the diagram squares to Select the number of columns and rows in the table.
- * left-click your mouse, and the table appears in the document
- * Enter text into the table.

Question: 11

Q) Create a following worksheet in MS-excel
and save it with name 'book1'.

Answer: - The worksheet has been prepared and saved with the name 'book1' in MS-excel as shown in the figure 1 {i.e., fig:(1)}

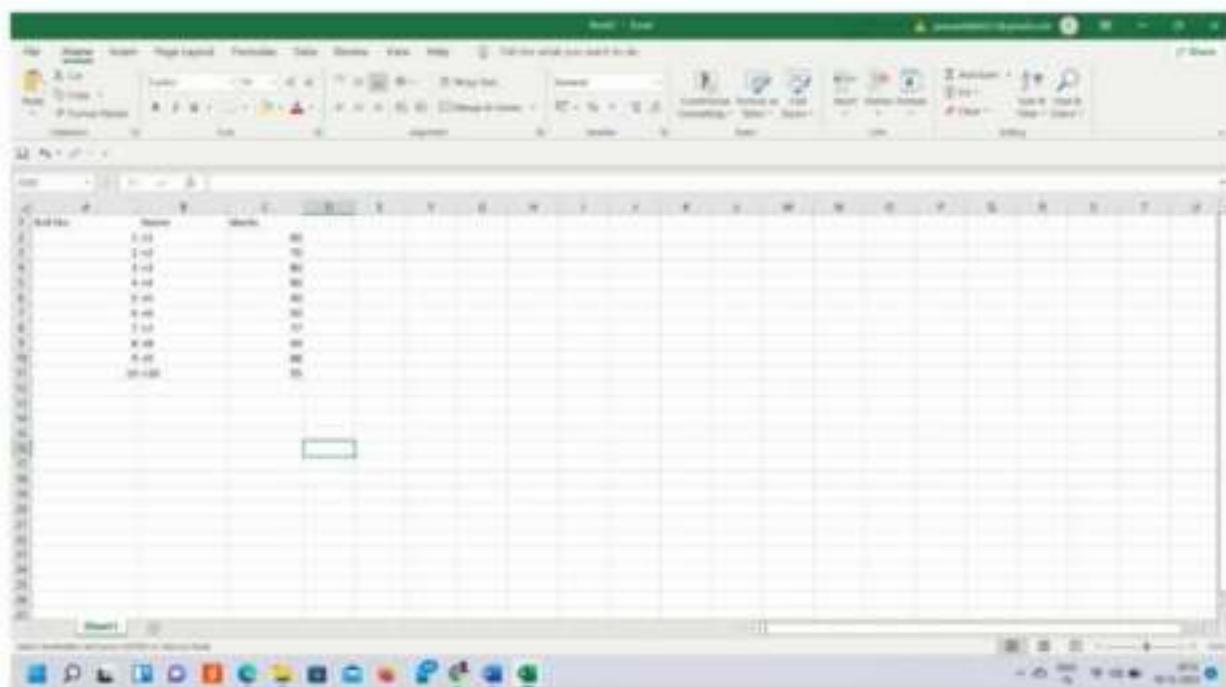


fig:(1)

Question: - 12

Q) 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: -

- A) The sum of the marks using AutoSum in a range of cells (C2:C11)
 - ❖ The autosum formula of the range of cells (C2:C11) is shown in following image 1 {i.e., fig (1)}

- ❖ The value of autosum of the range of cells (C2:C11) is shown in following image 2 {i.e., fig (2)}

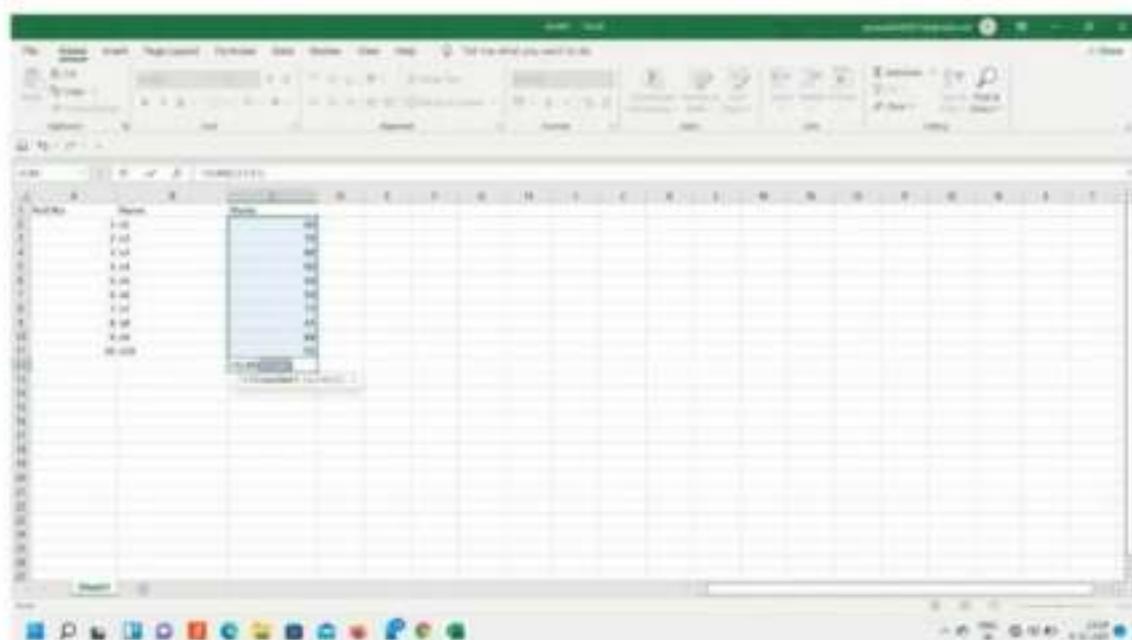


fig (1)

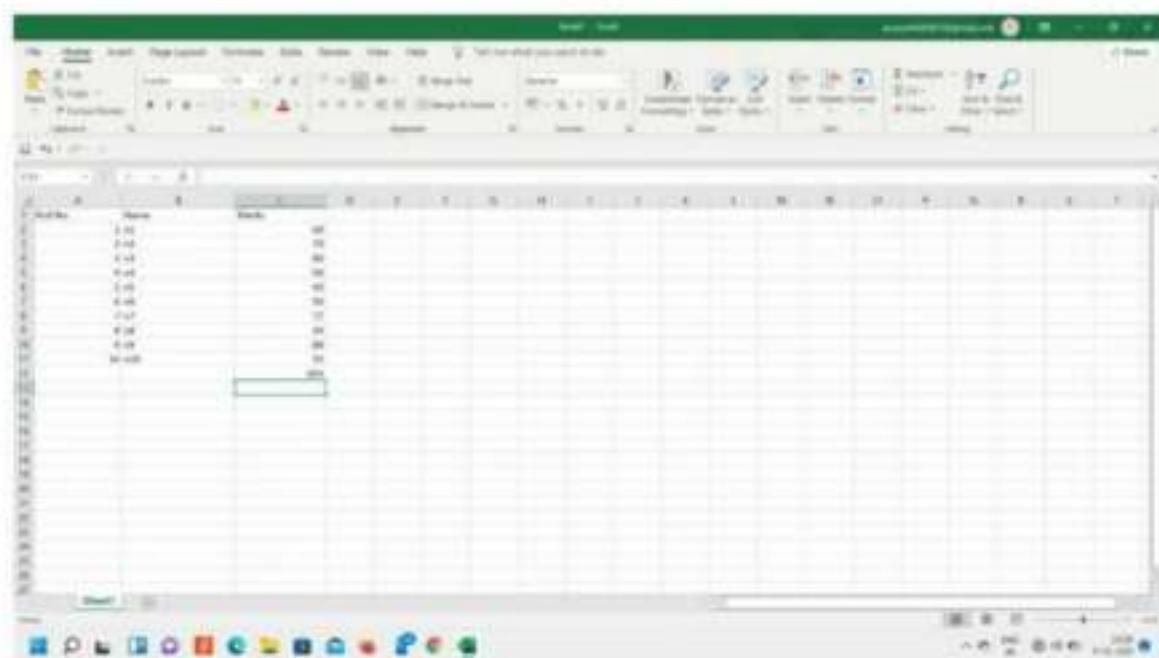


fig (2)

B) average of the marks in a range of cells (C2:C11)

- ❖ The average formula of the marks of range of cells (C2:C11) is shown in the following image 3 {i.e., fig :(3)}
- ❖ The average value of the marks of range of cells (C2:C11) is shown in the following image 4 {i.e., fig :(4)}

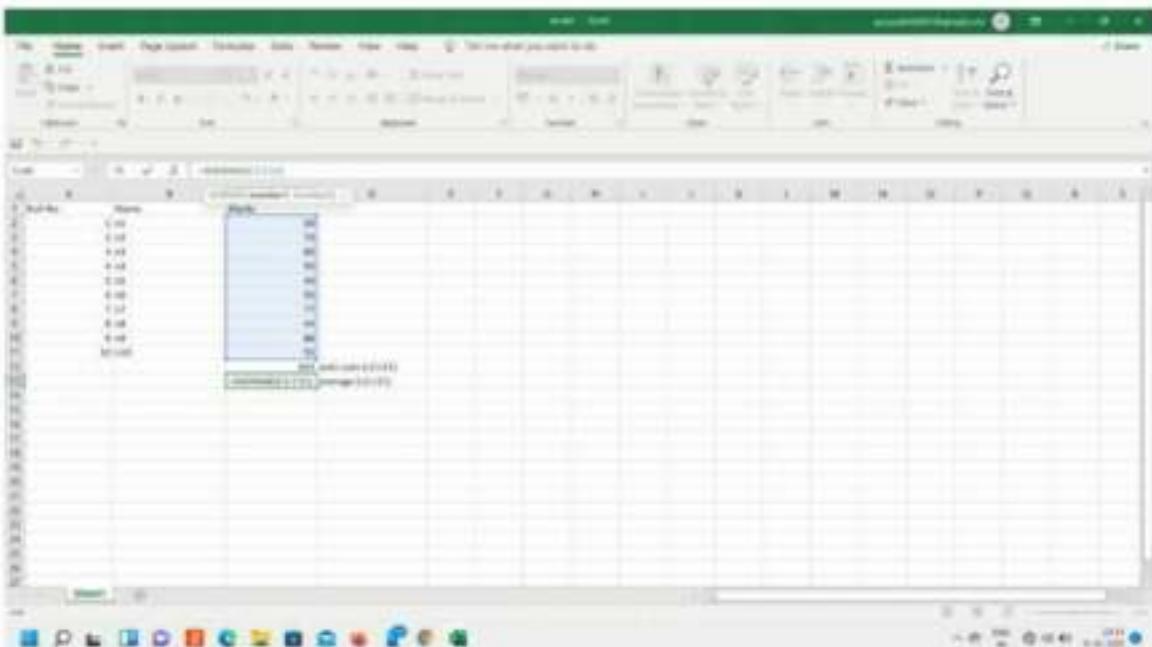


fig :(3)

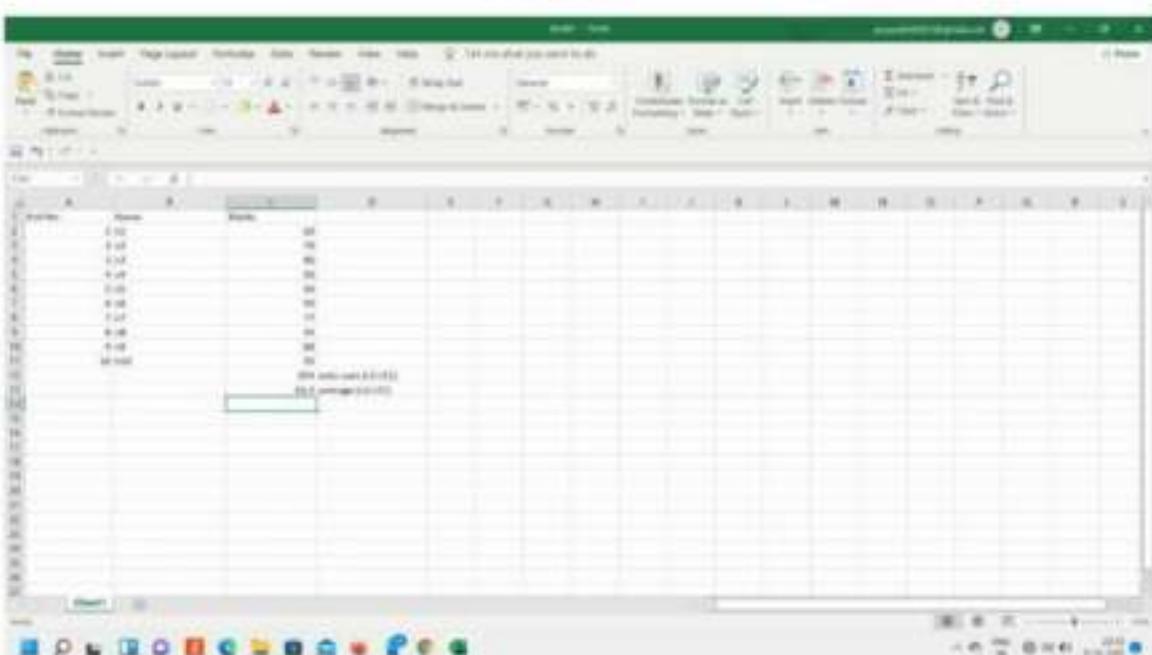


fig :(4)

C) highest marks in a range of cells (C2:C11)

- ❖ The highest marks formula in a range of cells is shown in the following image 5 {i.e., fig :(5)}
- ❖ The highest marks value in the range of cells is shown in the following image 6 {i.e., fig :(6)}

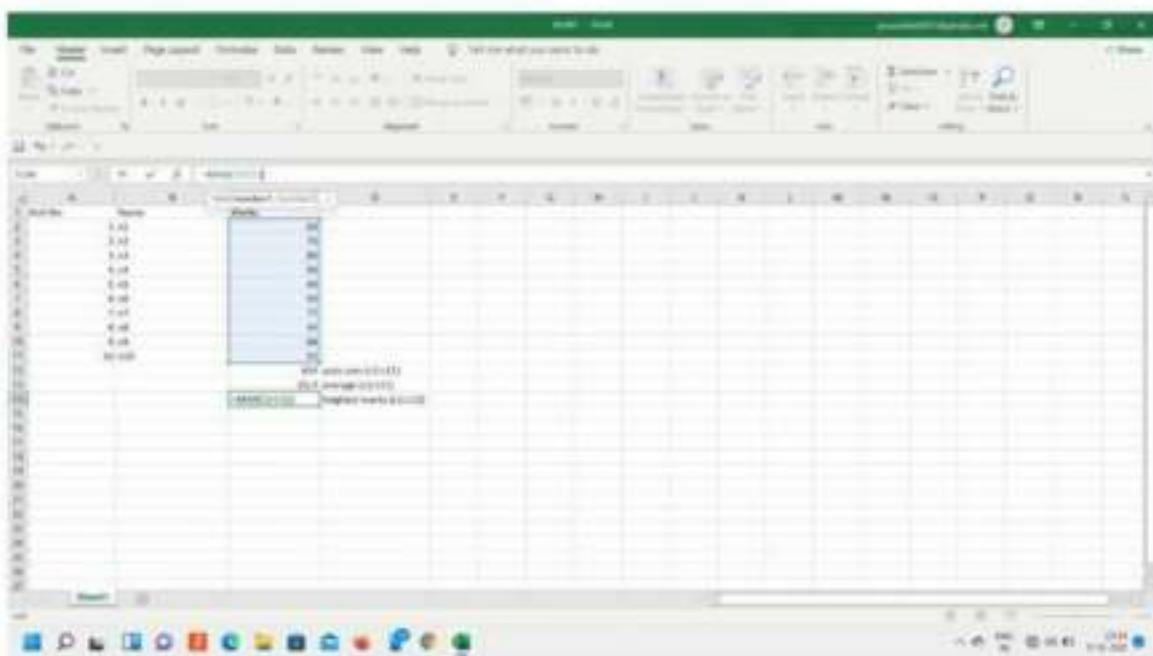


fig: (5)

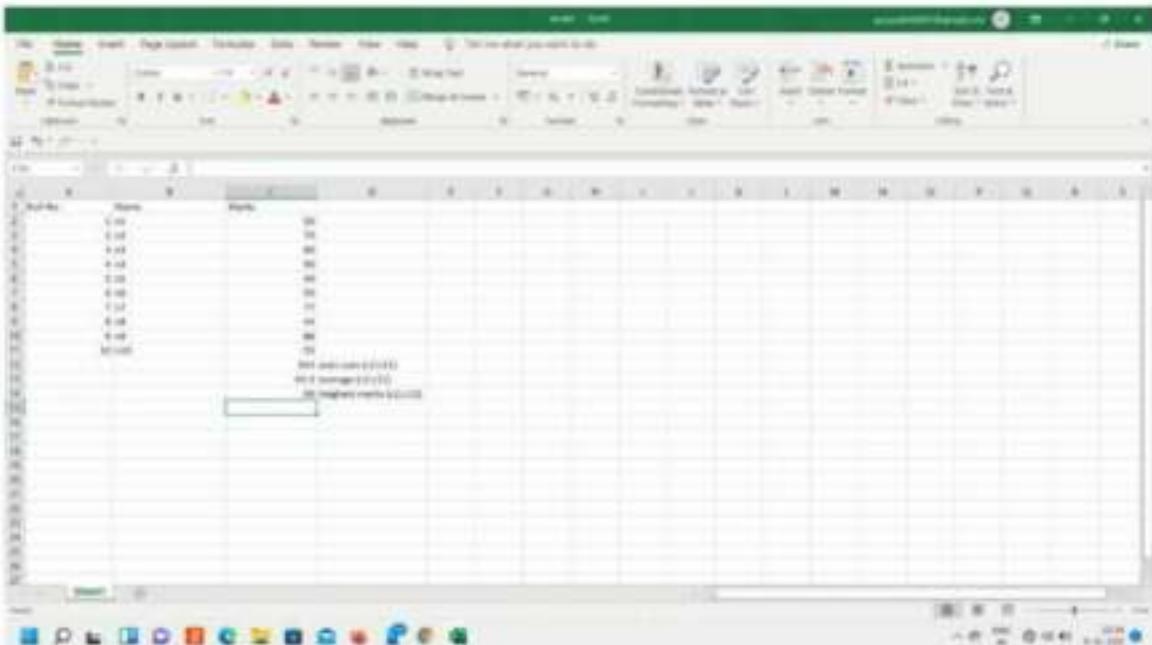


fig: (6)

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

- ❖ The minimum marks formula in a range of cells (C2:C11) is shown in the following image 7 {i.e., fig: (7)}
- ❖ The minimum marks value in a range of cells (C2:C11) is shown in the following image 8 {i.e., fig: (8)}

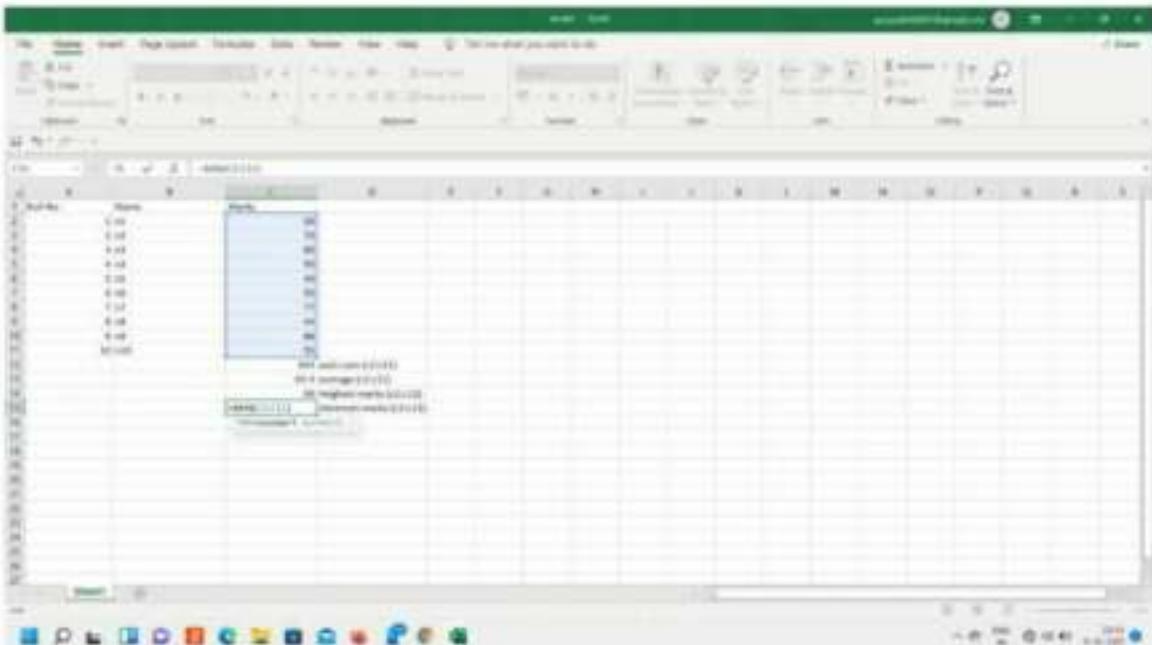


fig:(7)

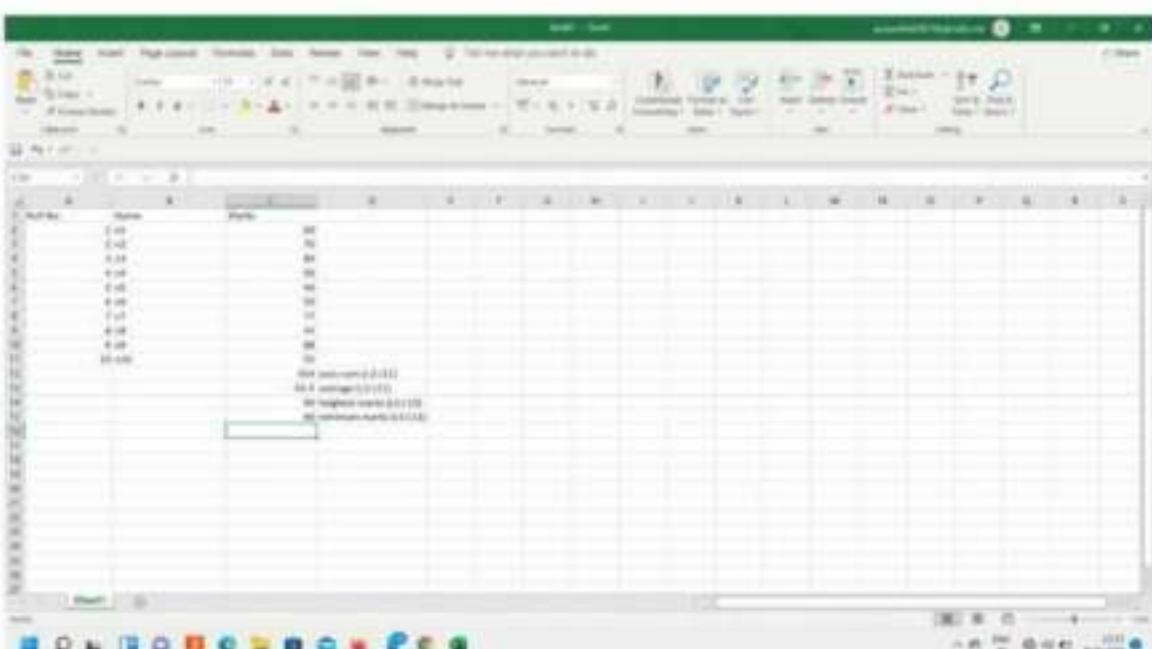


fig:(8)

57
Question - 13 (a)

Q. 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.

Answer :-

1. To Modify column width of a worksheet :-

- * Position the cursor over the column line in the column header
- * and a double arrow will appear
- * left-click the mouse, then drag the cursor to the right to increase the column width or to the left to decrease the column width.
- * Release the mouse button.

2. To Modify Row height of a worksheet :-

- * Position the cursor over the row line you want to modify, and a double arrow will appear
- * left-click the mouse, then drag the cursor upward to decrease the row height or downward to increase the row height.
- * Release the mouse button.

3. To delete the rows and columns of a worksheet :-

- * Select the row or column you want to delete.
- * Click the Delete command in the Cells group on the Home tab.
- * Selected column or row deleted.

Question : 13(b)

Q. Describe following terms in the worksheet.

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

Answer :-

ABSOLUTE REFERENCE :- It is the cell reference in which the row and column are made constant by adding the dollar (\$) sign before the column and row number. The absolute reference does not change as you copy the formula from one cell to the another.

STEPS :-

- We write the formula in any cell and press enter so that it is calculated Ex: $(A_2 + B_2) \times \$C\2
- Now click on the fill handle at the corner of cell which contains the formula.

- Drag the fill handle up to the cell you want to fill
- Now we can see that the percentage is calculated.
- You can double click on any cell to check that the operation is performed in between which cell and see that the address of cell does not change.

RELATIVE REFERENCE:- It is the default cell reference in excel. It is simply the combination of column and row number without any dollar (\$) sign when we copy the formula from one cell to another the relative cell address change depending on the relative position of column and rows. Example : $C1, D2, E3, \dots$. These are used when we want to perform a similar operation on multiple cell and the formula must change according to the relative address of column and rows.

STEPS:-

- We write the formula in any cell and press enter so that it is calculated.
- Now click on the fill handle at the corner of cell which contain the formula.
- Drag the fill handle up to the cells you want to fill.

- Now we can see that the addition operation is performed between the remaining cell.
- Now you can double click on any cell to check that the operation is performed between with cells.

CELL ADDRESS:-

- It is the reference or name of a cell or a range of cell it is combination of column name and row number. It help the software to identify the cell from where the data / value is to be used in the formula. We can reference the cell of other worksheet and also of other programs.

Question : 14(a)

Q. What tools are available to customize our powerpoint presentation?

Answer :-

POWER POINT PRESENTATION :-

A powerpoint presentation is an excellent way of presenting information or ideas to an audience. The software is easy to use and offers a lot of cool effects for your slideshows, too. Here, contents are helpful to learn about creation of presentation using Microsoft power point 2007 and upper version.

The presentation can be defined as the practice of showing the content of a topic along with explaining it to a specific audience. It is a collection of information and data which has to be delivered to an audience or learners. It helps both the speaker and the participants to learn about the topic more easily.

Tools available to customize our powerpoint presentation :-

1. Home :- The home tab holds the Cut and Paste features, Font and Paragraph options, and what you need to add and organize slides.
2. Insert :- Click Insert to add something to a slide. This includes pictures, shapes, charts, links, tables, text boxes, video and more.
3. Design :- On the Design tab, you can add a theme or color scheme, or format the slide background.
4. Transitions :- Set up how your slides change from one to the next on the Transitions tab. Find a gallery of the possible transitions in the Transition to this slide group - click more at the side of the gallery to see all of them.
5. Animations :- Use the Animations tab to choreograph the movement of things on your slides. Note that you can see many possible animations in the gallery in the Animation group, and see more of them by clicking more.

6. Slide Show :- On the slide show tab , set up the way that you want to show your presentation to others.

7. Review :- The Review tab lets you add comments , run Spell - Check , or compare one presentation with another

8. View :- View allow you to look at your presentation in different ways , depending on where you are in the creation or delivery process .

9. File

10. Tools tabs :- When you click some parts of your slides , such as pictures , shapes , SmartArt or text boxes , you might see a colorful new tab appear .

Question - 14 (b)

Q. write the steps for the following action for creation of power point presentation

- Open a Blank presentation
- Save the presentation as Lab 1.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.

Answer :-

Creation of power point presentation :-

- * Open a Blank presentation :- To use one of built-in templates to create a new presentation, follow the steps:
 - Select Office button - New . The New presentation window appears.
 - In the left side of the New presentation window, click Installed Templates.
 - Click a template to select it.
 - Click create .

* Save the presentation as Lab 1.pptx :-

It's a good idea to keep saving our work.

Periodically as we never know when we will lose power or when our computer is likely to crash. Keep saving it.

At the time of creation of new presentation, please save it with the help of following steps:

- Locate and select the Save command on the Quick Access toolbar.
- If you're saving the file for the first time, the Save as pane will appear in backstage view.
- You will need to choose where to save the file and give it a file name as "Lab 1".
- The Save as dialog box will appear.

* Add a title to the first slide : the name of your college

Adding text to a slide is very easy to do. In fact, it's almost self-explanatory. Everybody can understand by seeing the slide. Steps are as follows:

- Please click on the Title placeholder.
- Type the text "CPE CA ACADEMY".
- Press $Ctrl + S$ then it will get saved.

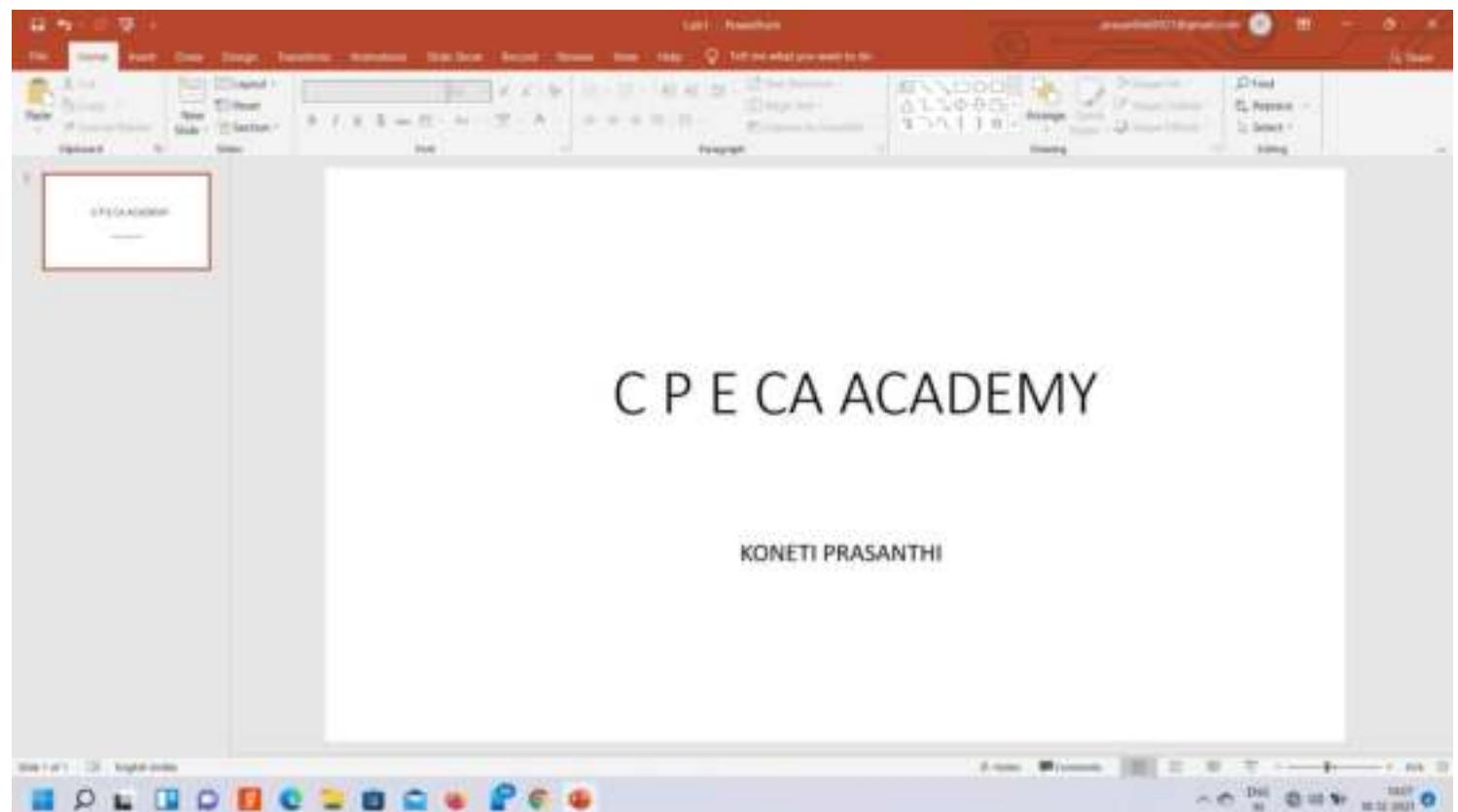
* Type your first name and last name in the Subtitle Section :-

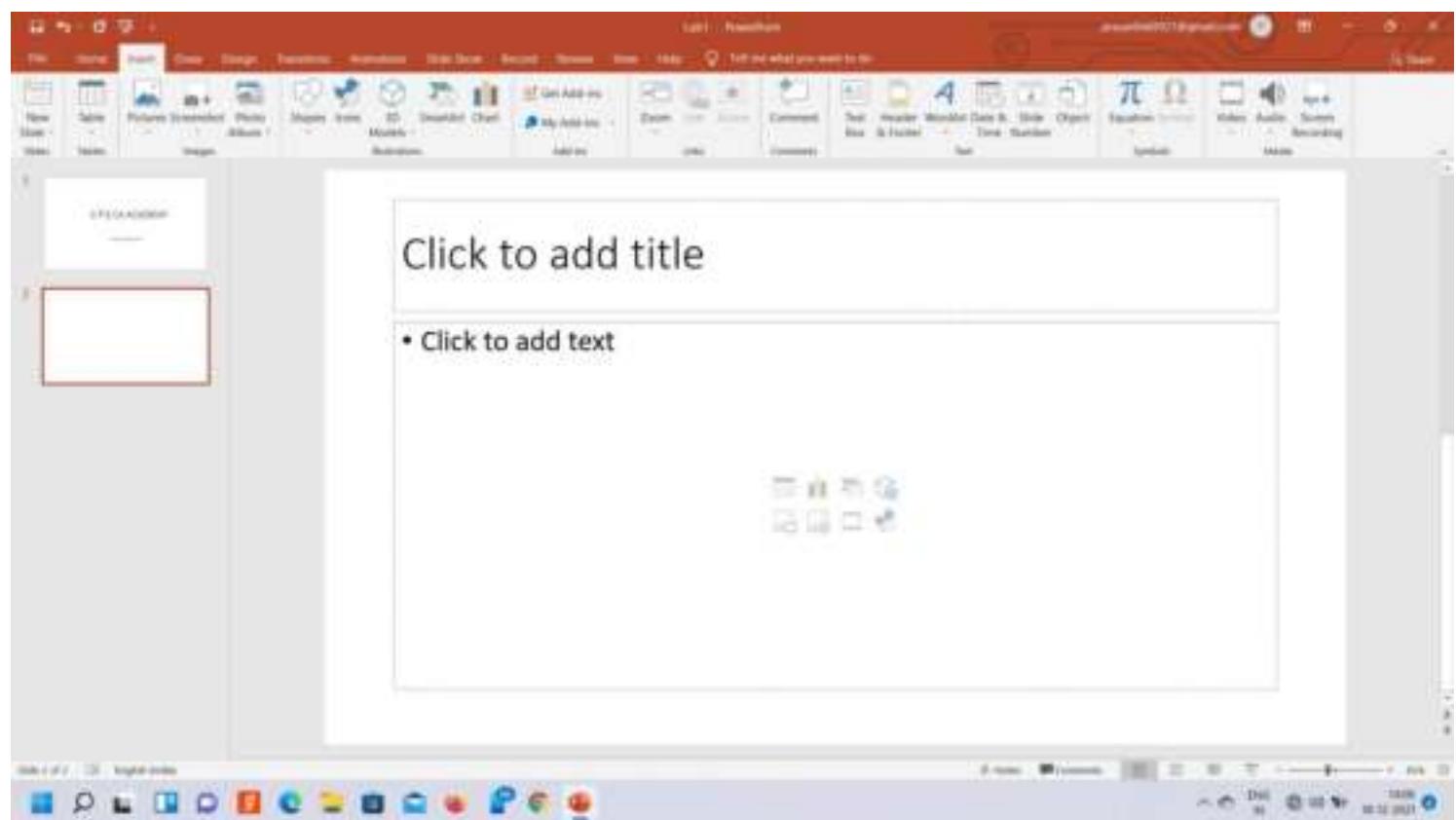
- Please click on the subtitle placeholder.
- Type the text "KONETI PRASANTHI".
- Press $ctrl+S$ then it will get saved.

* Add a new slide which has a title and content :-

This part covers how to insert a new slide. When we create a new presentation, Powerpoint gives us default slides. For insertion or addition of new slide, we can follow the steps.

- On the home tab, click the new slide button in the slides group. Powerpoint adds a blank slide to your presentation.
'or'
- Press $ctrl+M$ and again, Powerpoint adds a blank slide.
'or'
- Right-click on the slides or outline tab on the left and then choose New slide. Again, Powerpoint adds a blank slide.





Question - 15

Q. Write steps for creation of a set of powerpoint slides that demonstrates your skills to use the tools of powerpoint
It should include the following things

- Title slide & Bullet list
- Inserting Excel sheet
- Clip art & Text
- Slide Show effects

Answer:-

Steps for Creation of a set of powerpoint slides :-

1. Title Slide
2. Title and content slide
3. Bullet list or Number list
4. Blank slide
5. Inserting Excel sheet
6. Picture with caption slide
7. Clip art
8. Text
9. Transitions
10. Add Speaker notes
11. Slide show effects

1. Title slide :- While creating the New file the Power point Presentation itself gives 'it' opens by Title slide.

For Creating New title slide the following slides are useful :

1. Goto Insert tab
2. Click on the dropdown arrow on New slides which is located in Slides command.
3. There appears a Office theme dialogue box
4. Click on "Title slide". There will appear the title slide in the file.
5. Enter the title on the title slide .

2.

2. Title and content slide :- For Creating the title and content slide follow the steps -

1. Goto Insert tab -
2. Click on the dropdown arrow on New slides which is located in Slides command .
3. There appears a Office theme dialogue box
4. Click on "Title and content slide". There will appear the title and content slide in the file .
5. Enter the text of title in title area and the content in Content area .

3. Bullet list or Number list :- To create the bullet list 'or' number list follow these steps.

1. On the view tab . click normal
2. Click in the text box or placeholder where you want to add bulleted or numbered text .
3. On the home tab , in the paragraph group . click Bullets or Numbering , and begin typing your list .
4. Press enter for the continuation of series .

4. Blank slide :- For creating the blank slide follow these steps .

1. Go to Insert tab
2. Click on the dropdown arrow on New slide , which is located in slide Command .
3. There appears a Office theme dialogue box .
4. Click on 'Blank slide' . There will appear the Blank slide .
5. Enter the text we want to .

5. Inserting Excel sheet :- By creating a blank slide follow these steps to insert the excel sheet in the file slide . i.e, Blank slide .

1. In powerpoint , select the Insert tab & click the Insert tab .
2. Click the Object command in the text group .
3. A dialog box will appear .
4. Locate and select the desired file , then click on insert .
5. The file sheet will appear on the Blank slide .

6. Picture with caption slide :- For creating the picture with Caption slide which is that contains the both Picture and text area in the slide .

1. Go to insert tab .
2. Click on the dropdown arrow on Newslides , which is located in slides command .
3. There appears a Office theme dialogue box .
4. Click on "picture with caption slide" . There appears the slide .
5. Enter the picture and caption required .

7. Clip art :- From the above picture with caption slide place the cursor on the picture area where we want to insert the image .

For creating the picture follow these steps -

1. Goto Insert tab and click on Insert tab.
2. On the Insert tab Select the Pictures option on the Images command.
3. The 2 option available One is This Device and the other is Online pictures.
4. Select which picture from where we want to insert.
5. Click on insert ,there appears the picture on the slide.

8. Text :- From the above (6,7) points clipart & Picture with Caption slide . To insert the text follow the steps .

1. place the cursor on the where we want to enter the text
2. From the above points place the cursor on the Caption slide and start entering the text .

9. Transitions :- By adding slide transitions to bring your presentation to life . For creating the transition effects for slides follow the following steps .

1. Select the slide you want to add a transition to.
 2. Select the transition tab and choose a transition.
 3. Select Effect Options to choose the direction and nature of the transition.
 4. Select Preview to see what the transition looks like.
10. Add speaker Notes :- By adding the speaker notes the powerpoint presentation gets good gesture while presenting. Follow the steps to add speaker notes.
1. Select the Insert tab.
 2. Go to the Media Command and select the speakers option and click insert.
 3. There appear the speaker notes for the slides.
11. Slide Show effects :- This slide show effects includes the transition effects, animation effects, slide show tab. Following steps are useful for the slide show effects.

1. For applying the transition effects follow the steps mentioned in point no. 9.

2. For Animating the pictures follow the steps -

- * Go to animation tab.

- * Select the image or slide to apply animation effects.

- * Select the effect we want to apply , click on apply .

3. For Confirmation of the effects start the slide show by following the steps -

- * Go to Slideshow tab.

- * Click on the options available on the Start Slide Show command.

- * The preview of powerpoint presentation appears.

4. The total powerpoint slides are ready for presentation .

Part -2Quesiton :- 16

Q. what is the difference between machine language and high level language ?

Answer:-

Machine Language :- A computer programming language consisting of binary instructions which a computer can respond to directly. sometimes , it is referred to as machine code or object code . Machine language is a collection of binary digits or bits that the computer reads.

High Level Language :- A high-level language is a programming language that enables development of a program in a much more user-friendly programming context. this language is a programming language with strong abstraction. about the details of the computer in contrast to low-level programming language (Assembly language)

example:- C, C++, Java etc -

Difference between Machine and High level language :-

Parameter	Machine Language	High-level Language
Basic	There are machine-friendly languages that are very difficult to understand by human beings but easy to interpret by machines.	There are programmer-friendly languages that are manageable, easy to understand, debug, and widely used in today's times.
Ease of execution	They are very difficult to execute.	They are very easy to execute.
Portability	A user cannot port them from one device to another.	They are portable from any one device to another.
Dependency on Machines	Machine languages are machine dependent and thus very difficult to understand by a normal user.	High-level languages do not depend on machines.
Abstraction	The translators allow very little abstraction. Or No abstraction at all.	High-level languages allow a higher abstraction.
Examples	Machine understanding language 0,1 binary values	It includes Perl, BASIC, COBOL, Pascal, Ruby etc....

Question: 17

Q. Discuss about different data types of C programming language.

Answer:

Data types in C programming :-

Each variable in C has an associated data type. Each data type requires different amounts of memory and has some specific operations which can be performed over it. Let us briefly describe them one by one.

Following are the examples of some very common data types used in C:

Char :- The most basic data type in C. It stores a single character and requires a single byte 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 (numbers with floating point value).

Double :- It is used to store decimal numbers
 (numbers with floating point value but its
 range of values is high in comparison to float).

Question : 18

Q. Find the output of the following expressions.

$$a) X = 20/5 \times 2 + 30 - 5$$

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

$$c) Z = 40 \times 2 / 10 - 2 + 10$$

Answers :-

$$a) X = 20/5 \times 2 + 30 - 5$$

$$X = 4 \times 2 + 30 - 5$$

$$X = 8 + 30 - 5$$

$$X = 38 - 5$$

$$X = 33$$

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

$$Y = 30 - (4 + 6) + 10$$

$$Y = 30 - 10 + 10$$

$$Y = 30$$

$$c) Z = 40 \times 2 / 10 - 2 + 10$$

$$Z = 40 \times \frac{1}{5} - 2 + 10$$

$$Z = 8 - 2 + 10$$

$$Z = 18 - 2$$

$$Z = 16$$

Question: 19

Q. Describe the Syntax of the following statements:

- a) if - else statement
- b) for loop
- c) while loop & do while loop

Answer :-

a) if - else statement :- If statements can be followed by an optional else block of statements, which executes when the Boolean expression is false.

Syntax :-

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

b) For loop :- for loop is similar to while, its just written differently for statements are often used to process lists such as Range of numbers :

Syntax :-

```
for (expression 1; expression 2; expression 3)
{
    Single or Block of statements;
}
```

In the above syntax :-

→ Expression 1 - initializes variable

→ Expression 2 - Conditional expression , as long as this condition is true , loop will keep executing

→ Expression 3 - Expression 3 is the modifier which may be simple increment of a variable .

C) while loop :- The most basic loop in C is the while loop . A while loop statement is like a repeating if statement . Like an if statement , if the test condition is true : the statement get executed .

Syntax :-

while (expression)

{

Single Statement

or

Block of statements

}

d) do-while loop :- It is just like a while loop except that the test condition is checked at the end of the loop rather than the start. This has the effect that the content of the loop are always executed at least once.

Syntax :-

```
do
{
    Single statement
    or
    Block of statements ;
}
while (expression);
```

Question:- 20

Q) Find the output of the following program segments

a)	b)	c)
<pre>#include <stdio.h> int main() { int i; for (i=1; i<2; i++) { printf("IMS Ghaziabad\n"); } }</pre>	<pre>#include <stdio.h> int main() { int i = 1; while (i <= 2) { printf("IMS Ghaziabad\n"); i = i + 1; } }</pre>	<pre>#include <stdio.h> void main() { int a = 10, b=100; if(a > b) printf("Largest number is %d\n", a); else printf("Largest number is %d\n", b); }</pre>

Answer: -

- a) The following image is the output of the given syntax {i.e., fig:1}

The screenshot shows a terminal window titled 'Console' with the path 'C:\Users\Documents\QESTN\Bla\bin'. The window displays the following text:

```
Process finished with exit code 0 (0m 0.000s)
```

Below the terminal window, the status bar shows the command line history and the current working directory:

```
C:\Users\Documents\QESTN\Bla\bin> cd ..> cd bin> ./Bla> ./Bla
```

At the bottom of the screen, the Windows taskbar is visible with various icons.

fig: 1

b) The following image is the output of the given syntax {i.e., fig:2}

The screenshot shows a C++ development environment with the following details:

- Title Bar:** Shows "C:\Users\HP\OneDrive\Desktop\2020\2020-2021" and the standard Windows menu bar.
- Toolbars:** Standard toolbar icons for file operations like Open, Save, Print, etc.
- Code Editor:** Displays the following C++ code:

```
1 // C:\Users\HP\OneDrive\Desktop\2020\2020-2021
2 #include <iostream>
3
4 int main()
5 {
6     int a=10;
7     while (a<0)
8     {
9         cout<<"The value is : "<<a;
10    }
11 }
```
- Output Window:** Shows the terminal output:

```
Process returned 0 (0x0)   execution time : 0.001 s
Press any key to continue.
```
- Status Bar:** Shows the path "C:\Users\HP\OneDrive\Desktop\2020\2020-2021" and system information like "Windows 10 Pro 64-bit" and "1440x900".

fig: 2

C) The following image is the output for the given syntax {i.e., fig: 3}

The screenshot shows a Java development environment. On the left, the code editor displays a file named 'Ques10.java' containing the following code:

```
class Ques10 {
    public static void main(String[] args) {
        int a = 10;
        int b = 20;
        System.out.println("Value of a is " + a);
        System.out.println("Value of b is " + b);
    }
}
```

To the right of the code editor is a terminal window titled 'Terminal 1' showing the output of the program:

```
Value of a is 10
Value of b is 20
```

Below the terminal window, the status bar displays various system information and toolbars.

fig: 3