ASSIGNMENT-1

CCA-101 FUNDAMENTALS OF IT AND PROGRAMMING

BY

K. Sangeetha

CSC ID: 246132410017

CCA-101: Fundamentals of IT & Programming

Assignment - 1

① What are the Four fundamental part of Computer? Explain it with the help of diagram.

i) CPU:-

=> CPU is the brain of the Computer because this is where programs are executed.

=> The CPU is further broken up into three smaller components:

① Arithmetic Unit -> it handles Simple mathematical computations.

② Control Unit -> It Interpret the instructions in a computer Program. and the instruction

③ decoding Unit -> Converts computer Programing instructions into machine

=> with out this Unit Computer unable to Process.

Memory:-

=> CPU converts a specific set of Computer Program instructions into machine code

=> it stores that machine code in Primary Storage or memory

=> The machine code will be treated as either data or instructions.

=> The CPU fetches data and instructions from memory, uses an instruction to manipulate the data and then sends the result and the next set of instructions back to memory.

=> A memory Unit is the collection of storage units or devices together. The memory unit stores the binary information in the form of bits.

Input devices:-

* Input units are all the devices you use to feed information to the computer

⇒ such as keyboard a hard drive or a networking card, mouse, input pen, touch screen, and microphone.

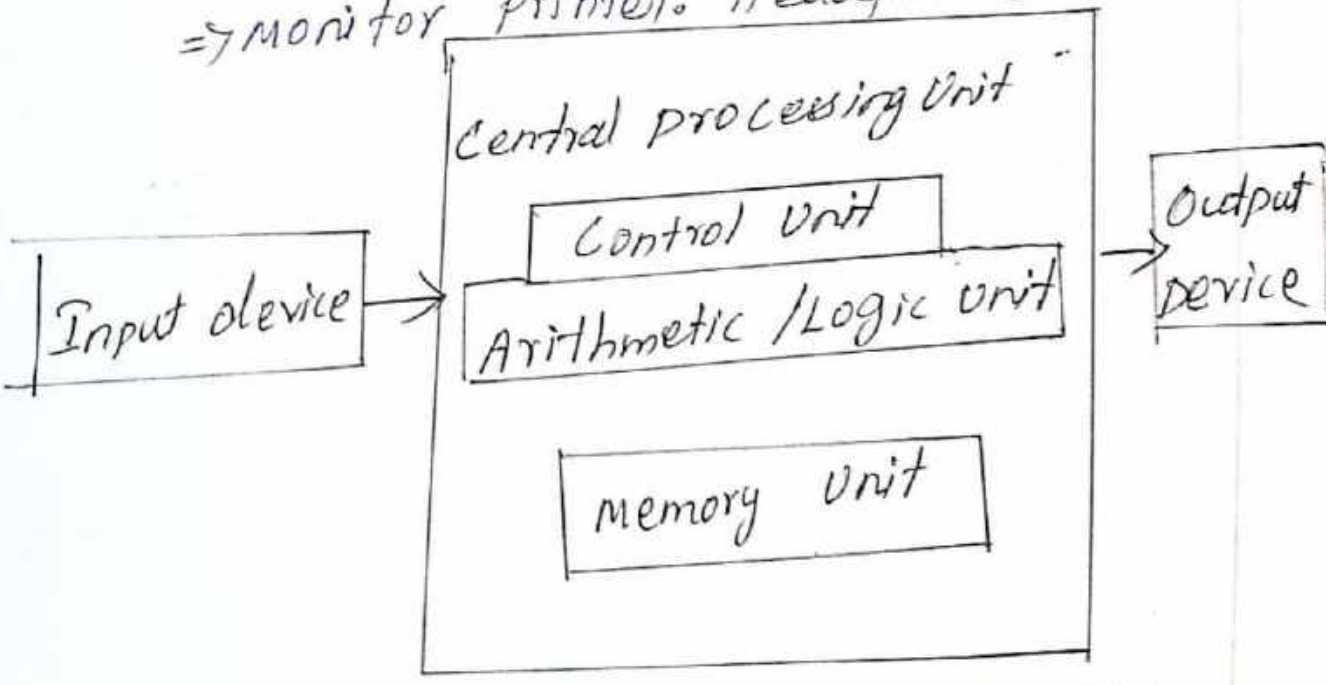
⇒ Regardless of the type of device used, all are components for interpretation and communication between people and computer System.

output device:-

⇒ Output units are the devices your computer uses to relay information to the user.

⇒ output device is used to show the result of the instructions.

⇒ Monitor Printer. Headphones.



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

Classification of computers By SIZE and CAPACITY

1. Super computer
2. Mainframe computer
3. Mini computer
4. Micro computer

Super computer

⇒ Super computers are the most powerfull and physically the largest size

⇒ Super computers are the fastest computer in current era.

⇒ The processing capabilities of super computer lies in the range of GIPS2, word length → 64-128

⇒ The memory capacity of super computer is in some gigabytes or in terabytes

=> The Storage capacity of this type of Computer is in exabytes.

=> The parallel processing of a Super Computer makes it very fast because it contains numbers of CPU that operates parallel.

Uses:-

* Weapons research and development
* Nuclear and plasma physics
* Rocket research and development
* Atomic research
* Aerodynamics.

Example:- JAGUAR, ROAD RUNNER.

Mainframe Computer:-

=> Main frame Computers are very large often filling an entire room and can process thousands of millions of Instructions per second.

=> This computers are large and expensive machines.

=> Memory capacity -> megabytes.

=> Storage capacity -> terabytes

⇒ Generally they handle huge volumes of information and data. In terms of speed, they are having significant processing capacity

⇒ They are used in research organizations

⇒ large industries,

⇒ airline reservation where a large database has to be maintained.

Example :-

IBM mainframes. Z13,

IBM System Z9 mainframe.

Micro computers :-

⇒ Micro computer much smaller than mainframes.

⇒ Micro computer is a computer whose CPU (central processing unit) is a microprocessor.

⇒ All the components of a microprocessor are on a single integrated circuit CHIP.

⇒ Micro computer can be categorized as the desktop. programmable and work station.

⇒ The microprocessor based computers are called third generation computers.

⇒ They are the backbone of the modern computer era.

Example :- Desktop computer.

PDA → programmable computer.

Mini computer:-

⇒ micro computers were introduced in early 1960s.

⇒ They were faster than micro computers.

⇒ Basically these computers were mainly multi-user systems, where many users work on the systems.

⇒ Generally these types of computers had larger memories and greater storage capacity.

⇒ They had large instruction set and address field.

⇒ These kinds of computers have efficient storage for handling of text, comparison to lower bit machines.

⇒ Due to more efficient processor, speed and memory size.

mini computer used in variety of Applications.

3. What is the meaning of computer generations? How many computer generations are defined? What technologyes were/are used?

Computer generation:-

* Generation of computers based on their hardware and software architecture.

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.

Five Generations of Computers:-

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

First Generation:-

Vacuum Tubes (1940-1956)

=> The First Generation Computer system used Vacuum tube for circuitry and magnetic drums for memory. and were often enormous. taking up entire room.

=> Vacuum tubes for their digital logic and liquid mercury for storage.

=> These computers were very expensive to operate and in addition to using a great deal of electricity,

=> It generate lot of heat,

Main First generation computers are:-

=> ENIAC: Electronic Numerical Integrator and Computer ~~built~~ built by J. Presper Eckert and John V. Mauchly was a general-purpose computer

=> It had been very heavy, large, and contained 18,000 vacuum tubes.

=> EDVAC: Electronic Discrete Variable Automatic Computer was designed by Von Neumann.

It could store data also as instruction and thus the speed was enhanced.

=> UNIVAC: Universal Automatic computer was developed in 1952 by Eckert and Mauchly

Main characteristics of First generation Computer as:-

Main electronic component	:	Vacuum tube
Programming language	:	Machine language.
Main Memory	:	Magnetic tapes and Magnetic drums.
Input/output devices	:	paper tape and Punched cards.
Speed and size	:	very slow and very large in size
Example of First generation computer	:	IBM 650, IBM 701 ENIAC, UNIVAC, etc.

Second Generation computers Transistors (1956-1963)

=> Second generation computers used the technology of transistors rather than bulky vacuum tubes.

=> Another Feature was ~~building~~ the core storage.

=> A transistor may be a device composed of semiconductor material that amplifies a sign or opens or close circuit.

=> Transistors were invented in Bell Labs. The use of transistors made it possible to perform powerfully and with due speed.

=> It reduced the dimensions and price and thankfully the warmth too, which was generated by vacuum-tubes.

Central processing Unit (CPU), memory, Programming Language and input, and output units also came into the force with in the second generation.

Languages used for programming during this era. FORTRAN (1956)
ALGOL (1958)
COBOL (1959)

Main characteristics of second generation computers are:-

Main electronic component	: Transistor
Programming Language	: machine language and assembly language.
Memory	: Magnetic core and magnetic tape / disk.
Input / output devices.	: Magnetic tape and punched cards.
power and size	: Smaller in size, low power consumption, and generate less heat (in comparison with the first generation computers).
Examples of second generation	: PDP-8, IBM 4000 series. IBM 7090, and 7094 UNIVAC 1107, CDC 3600 etc..

Third Generation Computers Integrated circuits. (1964-1971)

⇒ During the third generation, technology envisaged a shift from huge transistors to Integrated Circuits also refers to as IC.

⇒ Here variety of transistors were placed on Silicon chips, called semiconductors.

⇒ The most feature of this era's Computer was the speed and reliability.

⇒ IC was ~~the~~ made from silicon and also called Gillicon Chips.

⇒ programming was now wiped out Higher level languages like.

BASIC (Beginners All-purpose Symbolic Instruction code)

main chenachteristics of third generation computer.

main electronic component	: Integrated circuits (IC)
Programming language	: High level language.

Memory	: Large Magnetic core, magnetic tape / disk
Input & output devices	: Magnetic tape, monitor, keyboard, printer etc.,
Example of third generation	: IBM 360, IBM 370, PDP-11 NCR 395, B6500, UNIVAC1108

Fourth generation computers:-

Micro-processors (1971 - Present)

∴ ⇒ In 1971 First microprocessors were used, the large scale of integration LSI circuits build on one chip called microprocessors.

The most advantage of this technology is that one microprocessor can contain all the circuits required to perform. arithmetic, logic, and control functions on one chip

This generation provides the even smaller size of computers, with larger capacities.

The concept of private computers and computer networks came into being with in the Fourth generation

Main characteristics of Fourth generation computers are:-

Main electronic component	: Very large-scale integration (VLSI) and the microprocessor (VLSI has thousands of transistors on a single micro chip).
Memory	: Semiconductor memory (such as RAM, ROM. etc)
Input/output devices.	: pointing devices, optical scanning, keyboard, monitor, printer, etc.)
Example of Fourth Generation	: IBM PC, STAR 100 APPLE II, Apple Macintosh, Alter 8800, etc.

Fifth Generation Computers:-

⇒ The technology behind the fifth generation of computers is AI.

⇒ It allows computers to behave like human

⇒ It is often seen in programs like voice recognition, area of medicines, and entertainment

It is often said that a big improvement has been seen as far because the speed and accuracy

Main Characteristics of Fifth generation Computers are:

Main electronic Component	: Based on artificial intelligence, use the Ultra Large-Scale Integration (ULSI) technology and parallel processing method (ULSI → has millions of transistors on a single microchip)
Language	: Understand natural language (human language).
Size	: portable and small in size. Trackpad (or touchpad)
Input / output devices	: touch screen, pen, Speech input, Light Scanner, Printer, keyboard, monitor, mouse etc.,
Example of fifth generation	: Desktops, Laptops, tablets, Smartphones, etc;

(14) Differentiate between volatile & non volatile memory:-

Volatile memory:-

⇒ It is the memory hardware that fetches/stores data at a high-speed.

⇒ It is also referred as temporary memory.

⇒ RAM - Random Access memory.

Non-Volatile memory:-

⇒ It is the type of memory in which data information is not lost within the memory even power is shut-down.

⇒ It is not economical and slow in fetch/store as compared to volatile memory however stores higher volume of data

⇒ Non-volatile memory has a huge impact on system storage capacity.

⇒ ROM - Read only memory

Difference between Volatile and non-volatile.

Volatile	Non - Volatile
• Volatile memory is the type of memory in which data is lost as it is powered off	Non-volatile memory is the type of memory in which data remains store even if it is powered off
• Contents of volatile memory is stored temporarily	Store permanently.
• It is faster	Slower than volatile
• RAM - Random Access memory	ROM - Read only memory.
• data can be easily transfered in to Comparison to non-Volatile memory	can not be easily transferred in comparison to volatile memory.
• process can read and write	can only read.
• less storage capacity	more storage capacity.
• Pro grams data are stored which are. cusrently in process by the CPU	any kind of data which has to be saved permanently are stored.

• more costly per unit size	less costly per unit size
• Impact on the system's performance	huge impact on a system's storage capacity.
• processor has direct access to data	processor has no direct access to data.
• Chips are generally kept on the memory slot.	Chips are embedded on the motherboard

(5)

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

System Software :-

* System software is a program that is architected to execute and process hardware and application software development simultaneously.
* Therefore, we can say that it is an interface between hardware and application software.
* Operating System is an example of System software.
* It manages all the other programs on a computer or mobile devices.
* System software is used to manage and run mobile and computer system
* It runs in the background and maintains the essential functions of the devices.

Features of System Soft ware.

System Software is given inbuilt in the devices by the manufacturers.

Fast in Speed : System software is made to be as fast as possible to provide an effective platform for higher-level Software.

Hard to Manipulate:- as They do not directly interact with users and are written in a more complex programming language.

Written in Low-level Language:- It is written in low-level language so the CPU and other hardware can understand it.

Close to the System:- It is directly connected to the hardware and enables them to run.

Small in size:- The size of Software is petite. Compared to all other applications.

Difficult to Design:- Designing Software is a complicated task as they are written in a lower-level language.

Application software.

⇒ Application software is a program the does real work for the user. It is mostly created to perform a specific task for a user.

⇒ Application software acts as a mediator between the end-user and system software.

⇒ It is also known as an application package.

⇒ C, Java, VB, Net.

Features of Application Software.

- perform more specialized tasks like word processing. spreadsheets, email, photo editing etc.)
- It needs more storage space as it is bigger in size.
- Easy to design and more interactive for the user.
- Generally written in a high-level language.

Open Source Software:- OSS

=> Open source software is computer software that has a source code available to the general public for use as is or with modifications.

=> operating system acts as manager of all the resources of computer i.e. resource managers.

=> It provided under a license that allows users to access change, and improve its source code for their purposes.

Example Linux

Features

=> Flexibility:- The soft ware can be customized to meets specific business needs.

=> Stability:- you can use this product for long term projects with confidence.

=> Security and reliability: Numerous people with different skill levels may work on the same software, which may lead to code inconsistency.

=> Easier evaluation, Better support.

⑥ Creat file in MS-word to insert a paragraph about your self and save it with file name "yourself". Describe all steps involved in it.

b) Write steps regarding followings.

⇒ To change Font style

⇒ To Change Font size

⇒ To change the font colour.

⇒ To highlight (in yellow) the line reads "need to get IMS's address".

(7) Creat 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.

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

Equations

$x_2 + y_5 = 30$

$z^3 + e^4 = 50$

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

Q9 Creat a file in MS-word then 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 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 table.

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

By using Borders toolbar

Step 1: place the cursor where you want to place the table

Step 2: Click the Insert Table icon on the Tables and Borders toolbar at the top of the window.

Step 3: Drag the corner of the table until you have the desired number of columns and rows.

Step 4: Click the mouse to insert the table.

How to make a table from the Insert Table dialogue box:

Step 1: Click on Table from the menu bar select Insert, and then Table... A dialogue box will open.

Step 2: Enter the desired number of rows and columns.

Step 3: Choose AutoFit behavior if you want the table's cells to automatically expand to fit the text inside them. choose AutoFormat if you'd rather select a table with a specific format...

Step 4: click ok to insert your table.

Draw a table:-

Step 1: select Table from the menu bar.

Step 2: Draw Table. → select.

Step 3: Drag the pencil diagonally across the page to make a rectangle where you want to place your table.

Step 4:- Draw lines vertically and horizontally to create the columns and rows you need.

Q11 Cread a following worksheet in ms-exal and save it with name "book-1

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

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) =SUM(C2:C11)

=> average of the marks in a range of
cell (C2:C11) = AVERAGE (C2:C11)

=> highest marks in a range of cells.
(C2:C11) = MAX(C2:C11)

=> minimum marks in a range of cells.
=MIN(C2:C11)

(13) Q Describe various steps involved in the following

=> To modify column width of a worksheet

=> To modify the row height of a work sheet

=> To delete row and columns of a work sheet.

① To modify column width of a work sheet

=> Select the column or columns that you want change

=> on the Home tab, in the cells group, click Format.

=> Under cell size, click column width.

=> In the column width box, type the value that you want.

=> click ok.

To modify the row height of a worksheet.

⇒ Select the row or rows that you want to change.

⇒ On the Home tab. in the cells group. Click Format.

⇒ Under cell size click Row height.

⇒ In the Row height box, type the value that you want and then click OK.

To delete rows and columns of a worksheet.

⇒ Right-click in a table cell, row, or column you want to delet.

⇒ On the menu, Click Delete Cells.

⇒ To delete one cell, Choose Shift cells left or Shift cells UP.

⇒ To delete the row, click Delete entire row

⇒ To delete the column click Delete entire column.

(13) b) Describe the following terms in the worksheet.

⇒ Absolute reference and relative reference in formula.

⇒ cell address.

Absolute reference and relative reference in formula.

Absolute reference:

⇒ An absolute cell reference is a cell reference in a spreadsheet application

⇒ There may be times when you do not want a cell reference to change when filling cells.

⇒ absolute reference do not change when copied or filled.

⇒ you can use an absolute reference to keep a row and/or column constant.

⇒ An absolute reference is designated in a formula by the addition of a dollar sign ($) before the column and row.

⇒ you will use the relative (A2) and absolute (A2) formats in most formulas.

Relative Reference:-

=> Relative reference change when a formula is copied to another cell.

On the other hand, remain

A2 - The column and the row do not change when copied

A$2 - The row does not change when Co

$A2 - The colum does not changed.

=> when copied across multiple cells they change based on the relative position of rows and columns.

Example :-

If you copy the formula =A1+B1 from row 1 to row 2, =A2+B2.

Relative reference are especially convenient whenever you need to repeat the same calculation across multiple rows or columns.

(3) Cell Address:-

⇒ A cell reference, or cell address is an alphanumeric value used to identify a specific cell in a spreadsheet.

⇒ Each cell address contains one or more letters followed by a number.

⇒ The letter or letters identify the column.

The number represents the row.

Example = E1 - E3

(4) What tools are available to customize our Power point presentation?

⇒ power point has been the standard in Presentation software, but it hasn't remained static.

⇒ Power point is full of features to make Sales and marketing presentations dynamic and engaging

⇒ I like to think of Microsoft power point as a test of basic marketing skills. To create a passing presentation,

Home:

The Home tab holds the cut and paste features, Font and paragraph options. and what you need to add and organize slides.

Insert

Click Insert to add something to slide. This includes pictures, Shapes, Charts, links, text boxes, vedio and more.

Design:-

on the Design tab, you can add or theme or color scheme, or formate the slide background.

Transitions:-

Set up how your slides change from one to the next on the Transitions tab, Find the gallery of the possible transitions in the Transition to This slide.

Animation:-

use the Animations tab to choreograph the movement of things on your slides.

Slide Show:-

on the slide show tab set up the way that you want to show your presentation to others.

Review

The Review tab lets you add comments run Spell-check, or compare one presention with another.

View:

View allow you to look at your presention in different ways. depending on where you are in the creation or delivery proces.

File.

At one end of the ribbon is the File tab, which you use for the behind-the-scenes stuff you do with a file, such as opening, saving, sharing, exporting.

Tools tabs:

The Drawing Tools tab appears when you click a Shape or text box; when you click a picture, the picture Tools tab appears, other such tabs include Smart Art Tools, Chart Tools, Table Tools and video Tools,

(4) 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 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.

Open a Blank Presention:-

=> step 1. : Select the File tab to go to Backstage view.

=> Step 2: select New on the left side of the window, then click Blank Presentation.

=> Step 3: A new presention will appear.

Save the presentation as Lab1 - pptx

Step :1: Click the File tab.

Step 2 : Click Save As

Step 3 : In the save as type list, Click

Step 4:- open document presention

step 5: Name Type Lab1.pptx and Save file

Add a Title to The first slide : The name of your college.

⇒ Select the slide whose layout you will change so that it can have title.

⇒ Click Home.

⇒ Lay out.

⇒ Select Title slide for a standalone title page or select Title and. Type Thiyagarajar college. a slide that contains a title and a full slide text box.

⇒ many other layout options include titles.

Type your First name and last name in the subtitle section.

=> Choose the Home tab.
=> Click the new slide button in the sliders group the office Theme dialog box appears.
=> Click the Sub Title and content Layout the slide appears on the slides tab.
=> Enter K. SANGEETHA here.

Add a new slide which has a Title and content.

=> choose the Home tab.
=> Click the new slide button in the sliders group the office Theme dialog box appears.
=> Click the Title and Content Layout the slide appears on the slide tabe.

15 Write step for creation of a set of power point slides that demonstrates your skill to use the tools of powerpoint. It should include the following things.

=> Title slide and bullet list
=> Inserting Excel sheet.
=> clip art and Text
=> slide show effects.

Title slide and bullet list:-

=> Open powerpoint. you are presented with a title slide.

=> Enter the information shown her Type Title name. in the click to Add Title text box.

=> on the Home tab in ~~the~~ Type paragraph selet paragraph; ~~click~~

=> Click Bullets or Numbering.

=> We can put Pullets.

Inserting Excel Sheet:

⇒ open power point Represendation. and go to that slide on which we want to insert the Excel data.

⇒ Click Insert tab click the. object option in the Tex group.

⇒ Select the Create from file.

⇒ Click Browse. button.

⇒ Select Excel work sheet. that we want to insert in power point. from our system and click ok.

⇒ Link checkbox and Then click

⇒ ok button.

⇒ you can now see that the data has been inserted into the Excel sheet.

⇒ If you change any data in the linked Excel sheet, it will automatically reflect in power point Presentation.

clip art and Text:

⇒ Select Insert > Online Pictures.

⇒ Type a word or phrase to describe what you're looking for Then press Enter.

⇒ Filter the results by Type for clipart

Select a picture.

⇒ select insert.

⇒ on the Home tab in the Insert group click Text box

⇒ On The Slide click the location

⇒ where you want to add the text box

⇒ Type or Paste your text in the text box

The slide Show effects:-

⇒ Select Slide.

⇒ Select The Transitions tab and Choose a transition. to see preview.

⇒ select Effect options to choose the direction and nature of the transition.

⇒ Select preview to see what the transition looks like

⇒ To remove a transition, select Transitions > None.

PART-2

16. What is the difference between Machine language and High level language?

Machine language	High level language
* It can be considered as a machine-friendly language	It can be considered as a programmer-friendly language.
* It requires an assembler that would translate instructions	It requires a compiler/ interpreter to be translated into machine code
* It is not portable	It can be ported from one location to another.
* It is difficult to understand.	It is easy to understand
* It is difficult to debug.	It is easy to debug
* It consumes less memory	It is less memory efficient. i.e. it consumes more memory in comparison to low level language.

* It is also known as Low level Language. * It's not used widely in todays time.	It can be considered as a Programmer friendly language. It is used widely. Example: C, C++, Java, Pylon,

(17) Disuss about different data types of C programming language.

A data type specifies the type of data that a variable can store such as integer, floating character. etc.

DATA Types in C

* Basic → int, char, float, double
* Derived → array, pointer, structure, union
* Enumeration → enum
* Void. → void

Basic Data Types:-

⇒ The basic data types are integer-based and floating-point based.

⇒ C language supports both signed and unsigned literals.

(18) Find the output of the following expression.

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

$\Rightarrow 4 \times 2 + 30 - 5$

$\Rightarrow 8 + 30 - 5$

$\Rightarrow 38 - 5$

$\Rightarrow 33$

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

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

$= 30 - 10 + 10$

$= 40 - 10$

$= 30$ //

(15) Find the output of the following expressions.

(a) ⇒ X = 20 / 5 * 2 + 30 - 5

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

(16) Describe the syntax of the following statements.

(a) if - else statement

(b) for loop

(c) while loop

(d) do-while loop.

Describe the syntax of if-else statment

*The syntax of the if statement C programming is :-

```
if (test expression)
{
   // code
}
```

* if statement evaluates the text expression inside the parenthesis ().

If the text expression is evaluated to true statements inside the body of if are executed

* if the test expression is evaluated to false, statements inside the body of if are not executed.

• The if statement may have an optional else block. The syntax of the if...else statement is:-

```
if (test expression) {
    // run code if test expression
}
else {
    // run if test expression
}
```

if the test expression is evaluated to true.

* Statements inside the body of [if] are executed.

* Statements inside the body of [else] are skipped from execution.

if the test expression is evaluated to false.

* Statements inside the body of else are executed.

* Statements inside the body of [if] are skipped from execution.

(b) for Loop:

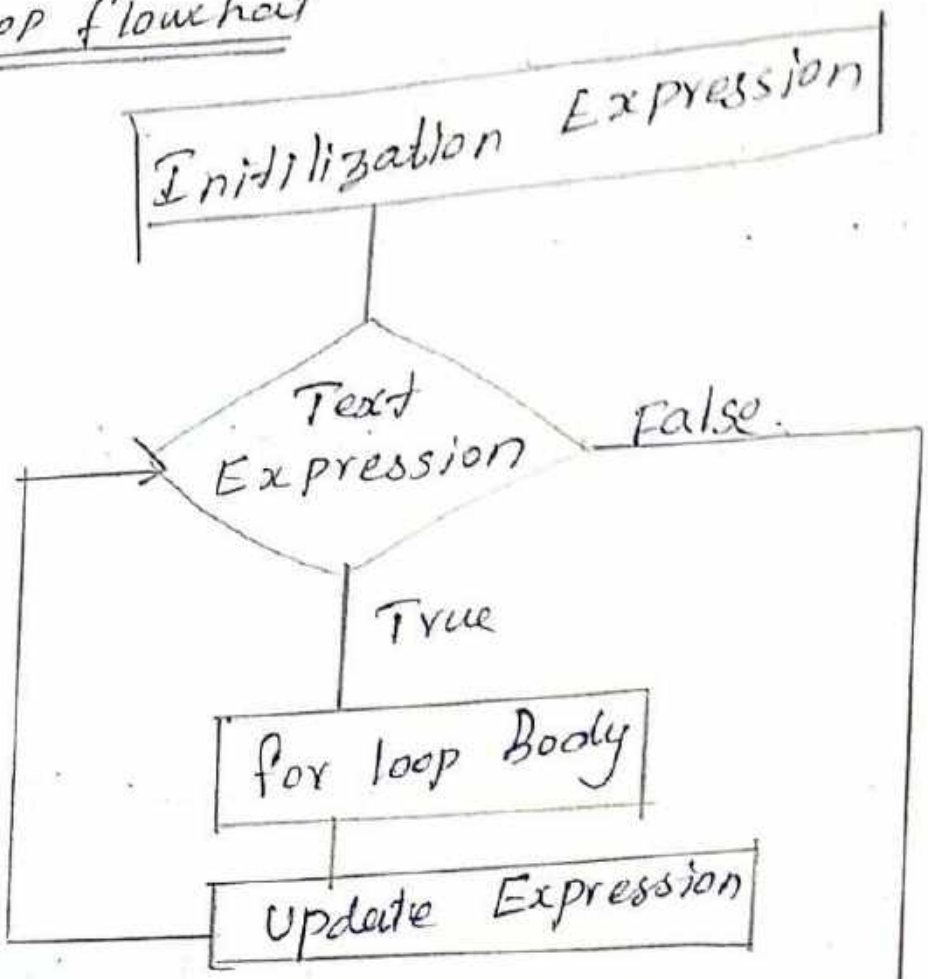
The syntax of the for loop is

```
for (intialization statement; test Expression;
     update statement)
{
  // statements inside the body of loop
}
```

How for loop works?

* The initialization statement is executed only once
* Then, the test expression is evaluated. if the test expression is evaluated to false, the for loop is terminated.
* However if the test expression is evaluated to true and the update expression is updated.
* Again the test expression is evaluated.

For loop flowchat



working of for loop

C. While Loop:-

* The Syntax of the [While] loop is:

```
While (test Expression){
  // the body of the loop
}
```

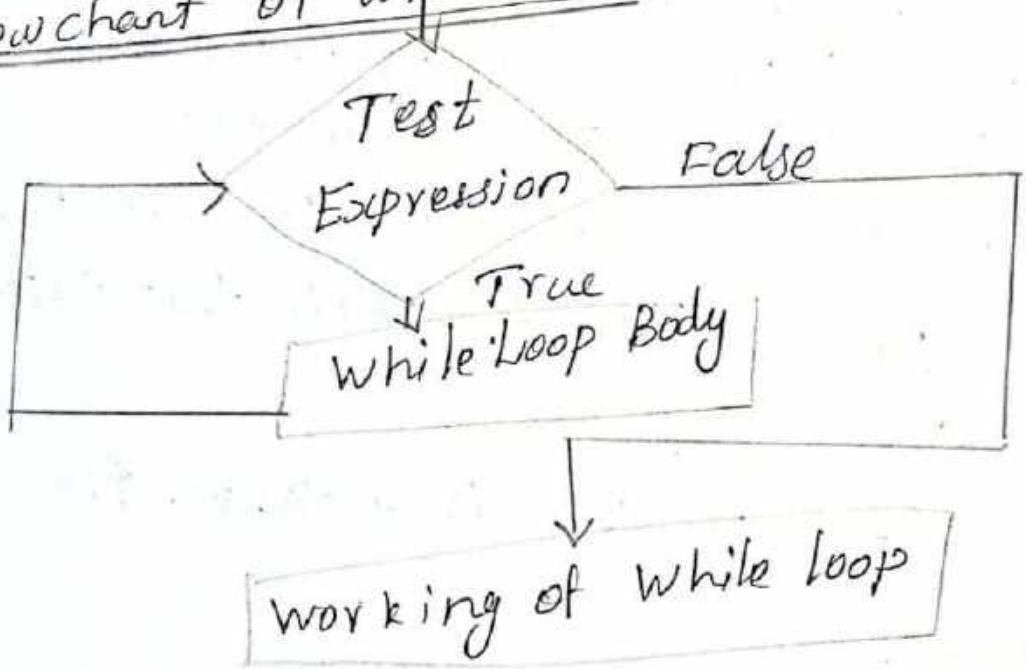
* The [While] loop evaluates the [test Expression] inside the parentheses [()].

if [test Expression] is true, statements inside the body of [while] loop are executed. Then, [test Expression] is evaluated agai

The process goes on until [test Expression] is evaluated to false.

If [test Expression] is false the loop terminates (ends).

Flowchart of while loop



do...while loop.

The [do...while] loop is similar to the [while] loop with one important difference The body of [do...while] loop is executed at least once. only then, the test expression is evaluated

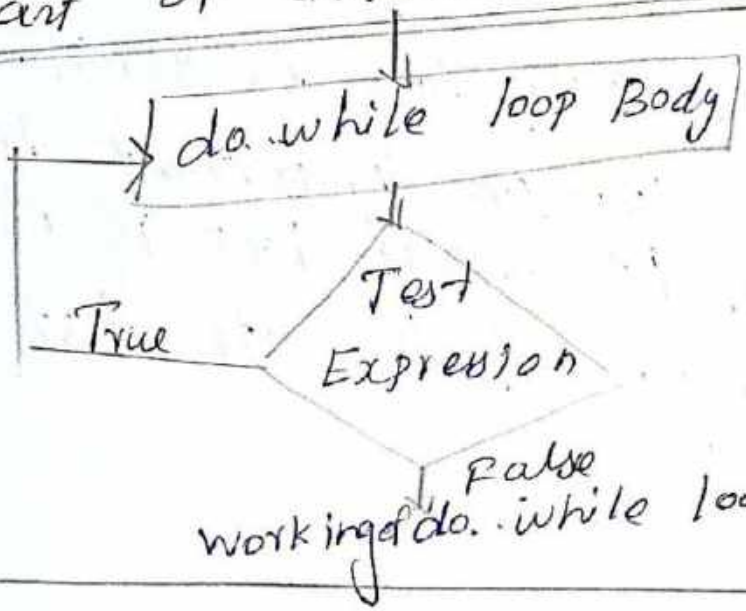
The Syntax of the do...while loop is

```
do {
    // the body of the loop
}
while (test Expression);
```

The body of dowhile loop is excuted once only then, the test Expression is evaluated if test Expression is true, the body of the loop is executed again and test Expression is evaluated one more. This proces goes on until test Expression becomes false.

If test Expression is a false, the loop ends.

Flowchart of do...while Loop



working of do..while loop

(9) Find the output of the following program segments.

(a)

```
#include<stdio.h>
int main()
{
 int i;
  for (i=1; i<2; i++)
  {
  Printf("IMS Ghaziabad\n");
  }
  }
```

Output

IMS Ghaziabad

(b)

```
#include <stdio.h>
int main()
{
  int i=1;
  while (i<=2)
  {
   printf("IMS Ghaziabad\n");
   i=i+1;
  }
}
```

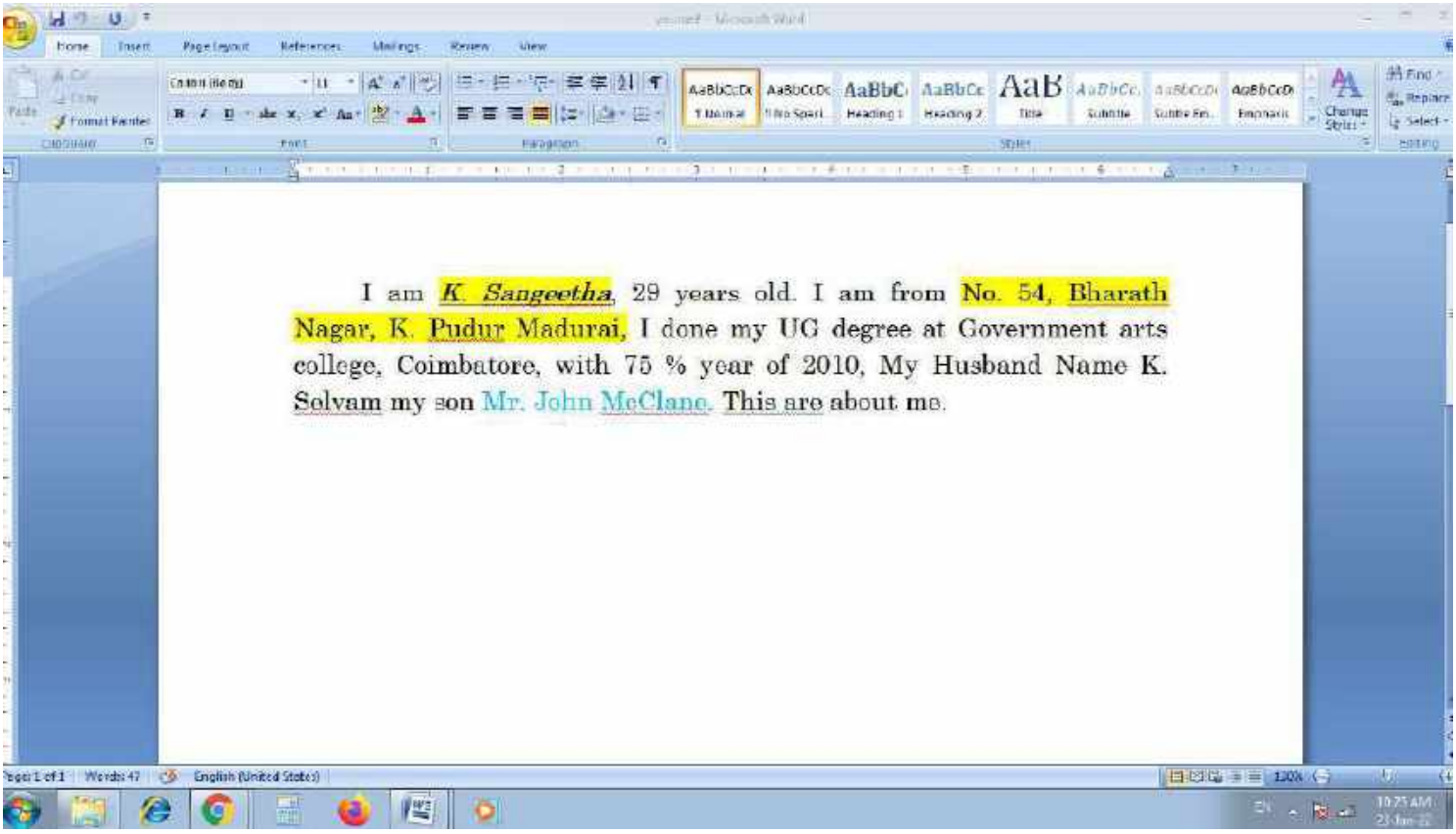
Output

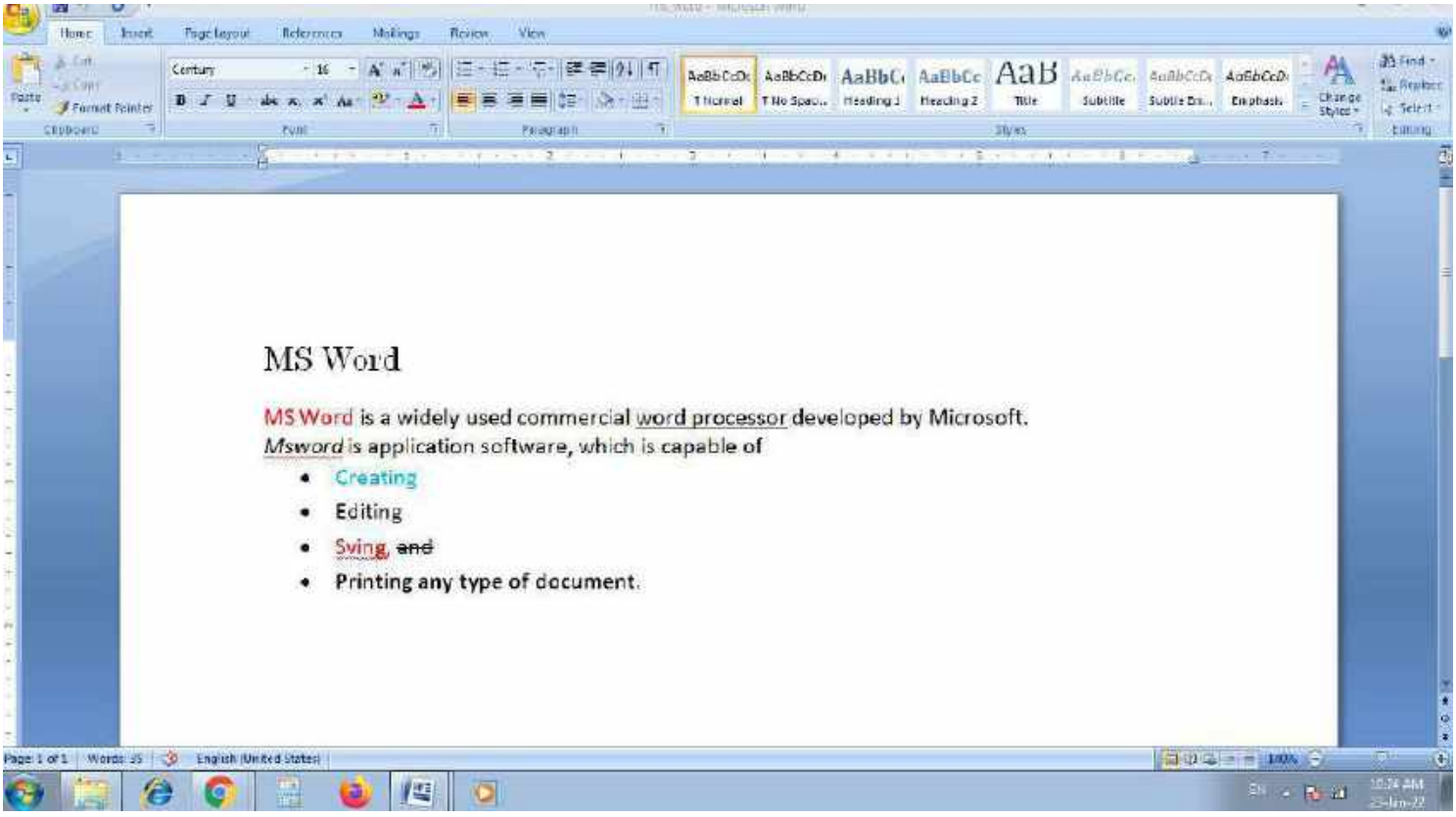
IMS Ghaziabad

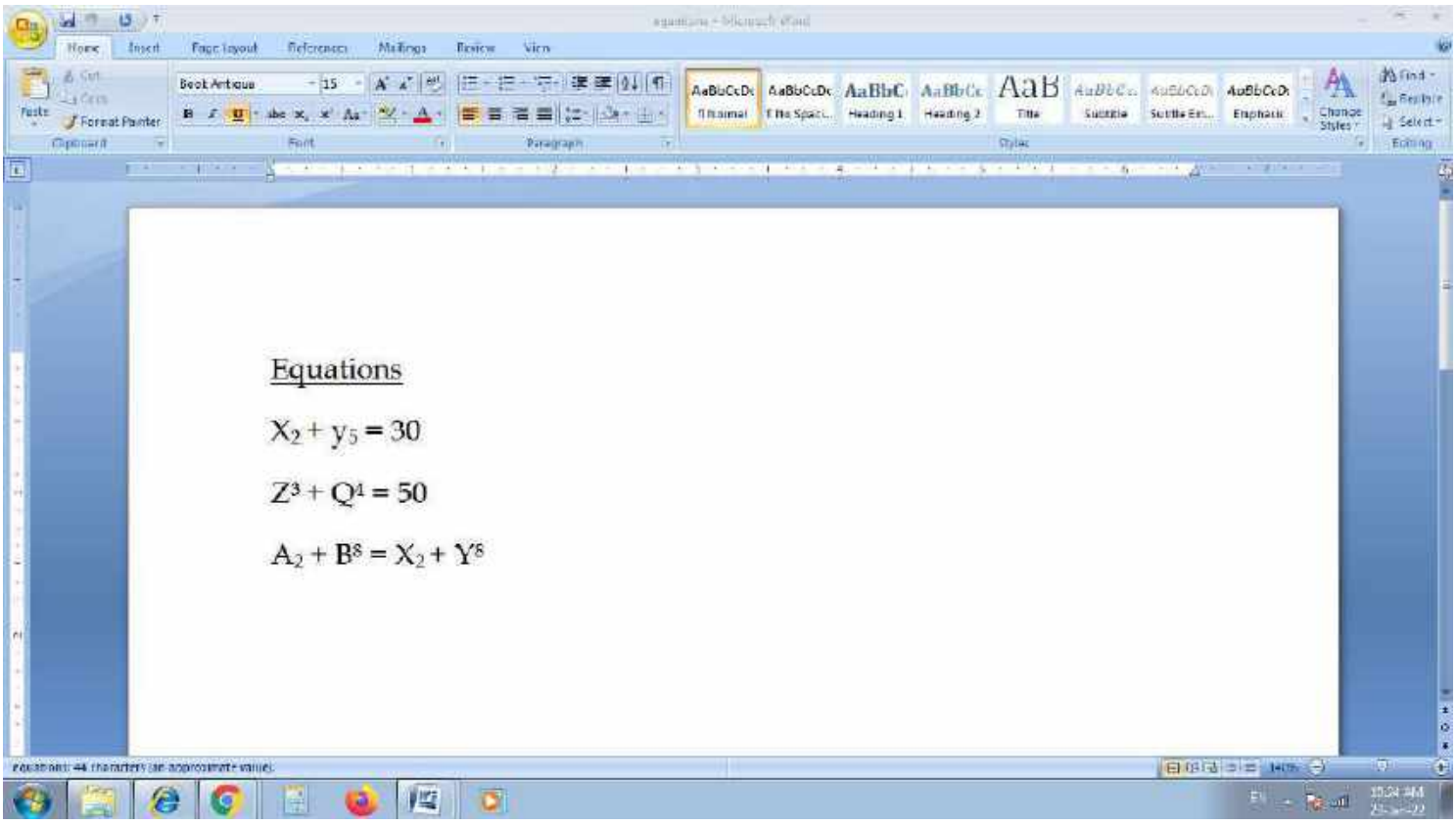
C)

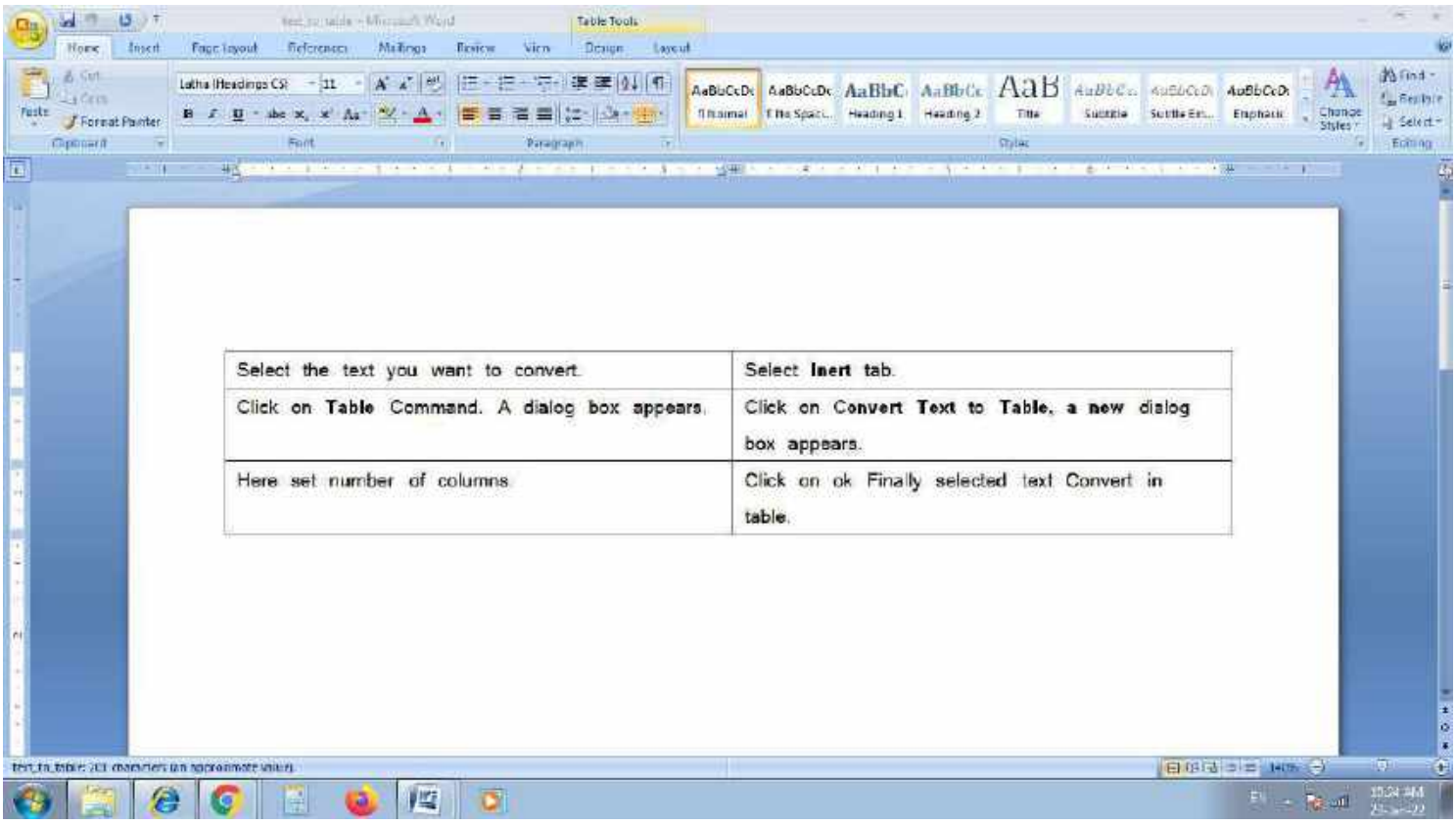
```
#include <stdio.h>
void main()
{
  int a=10, b=100;
  if(a>b)
  printf("Largest number is %d\n", a);
  else
    printf("Largest number is %d\n", b);
  }.
```

output
Largest number b=100

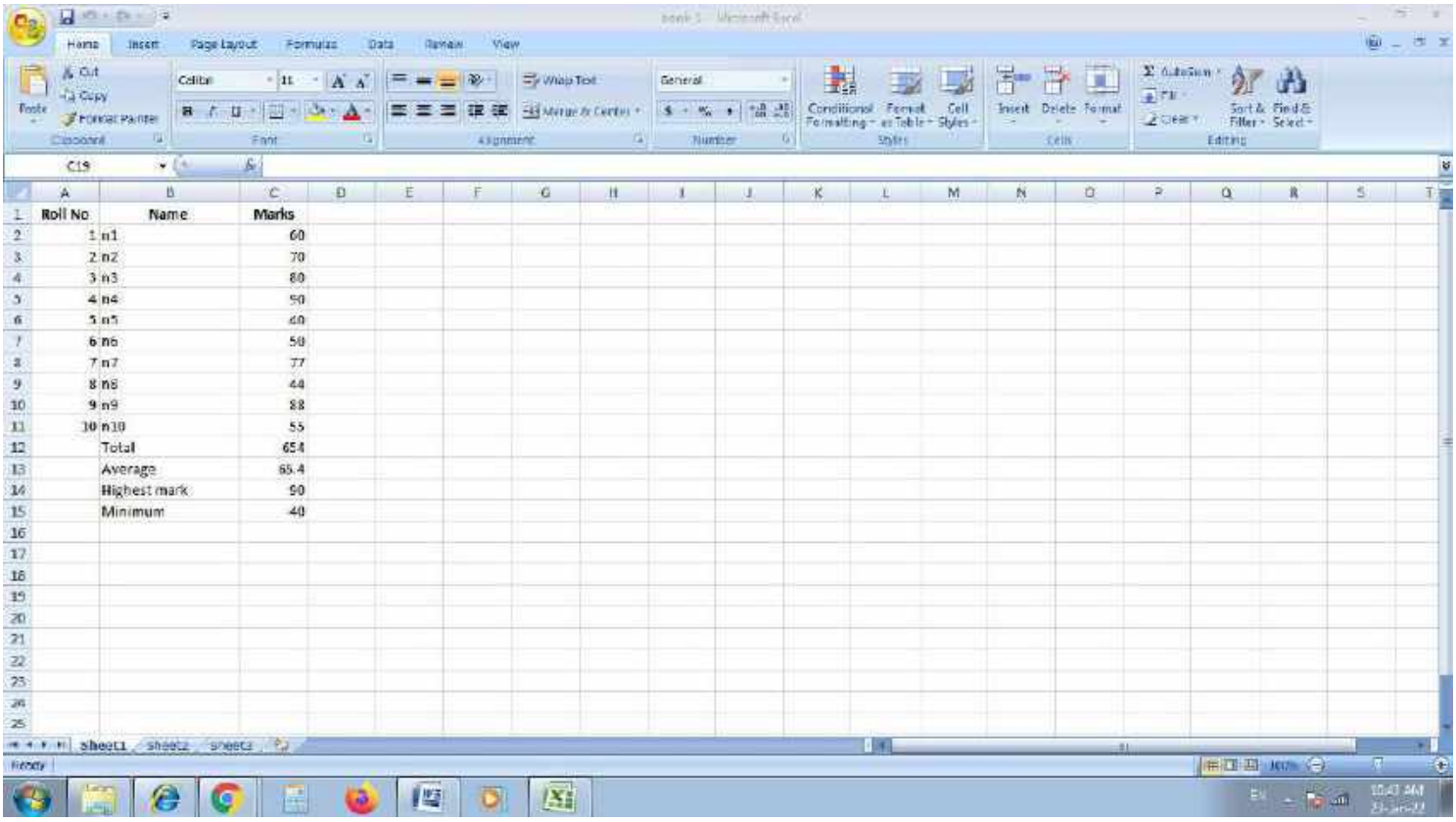

I am K. Sangeetha, 29 years old. I am from No. 54, Bharath Nagar, K. Pudur Madurai, I done my UG degree at Government arts college, Coimbatore, with 75 % year of 2010, My Husband Name K. Selvam my son Mr. John McClane. This are about me.

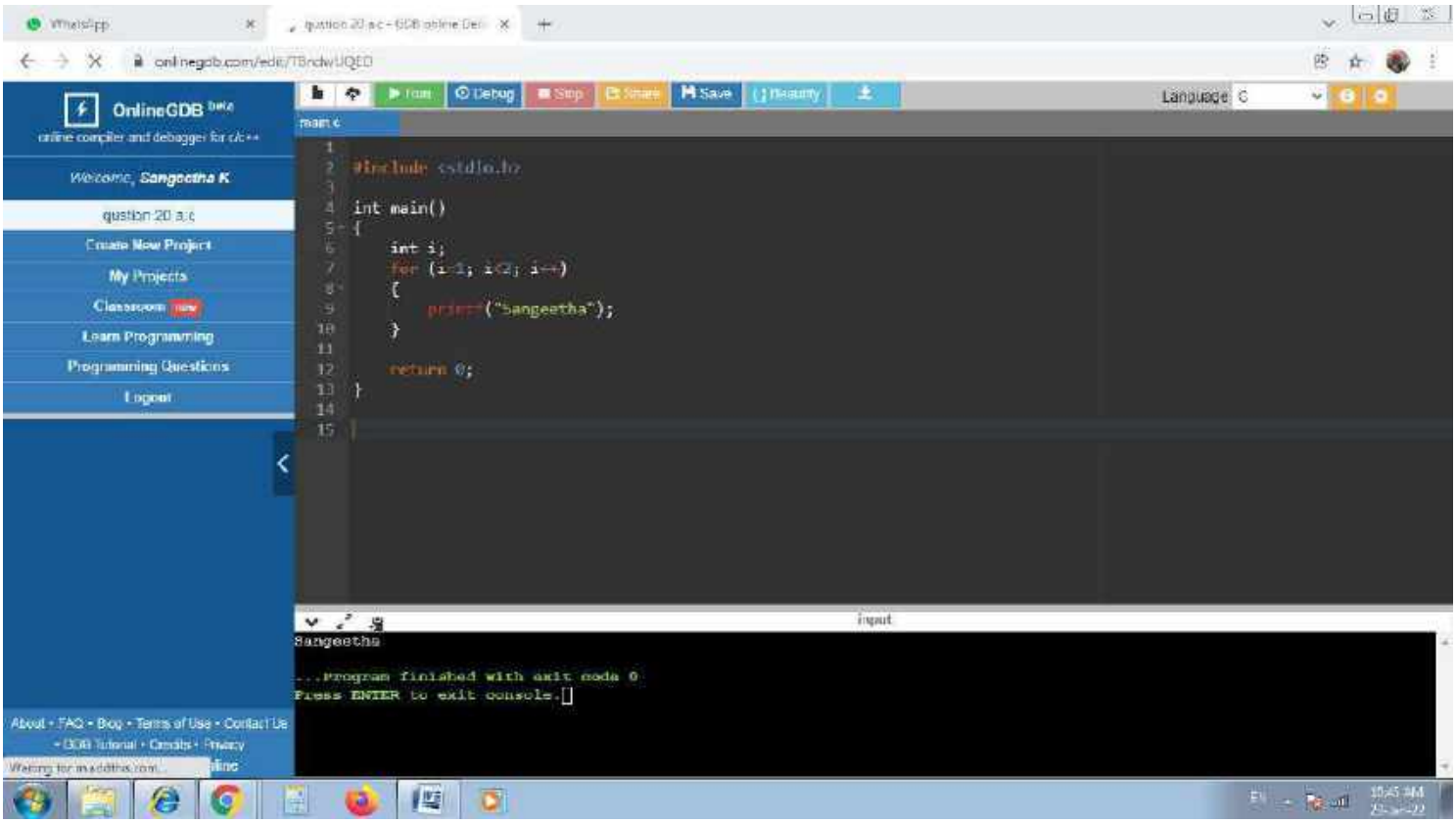

MS Word
MS Word is a widely used commercial word processor developed by Microsoft.
Msword is application software, which is capable of
Creating
Editing
Sving, and
Printing any type of document.

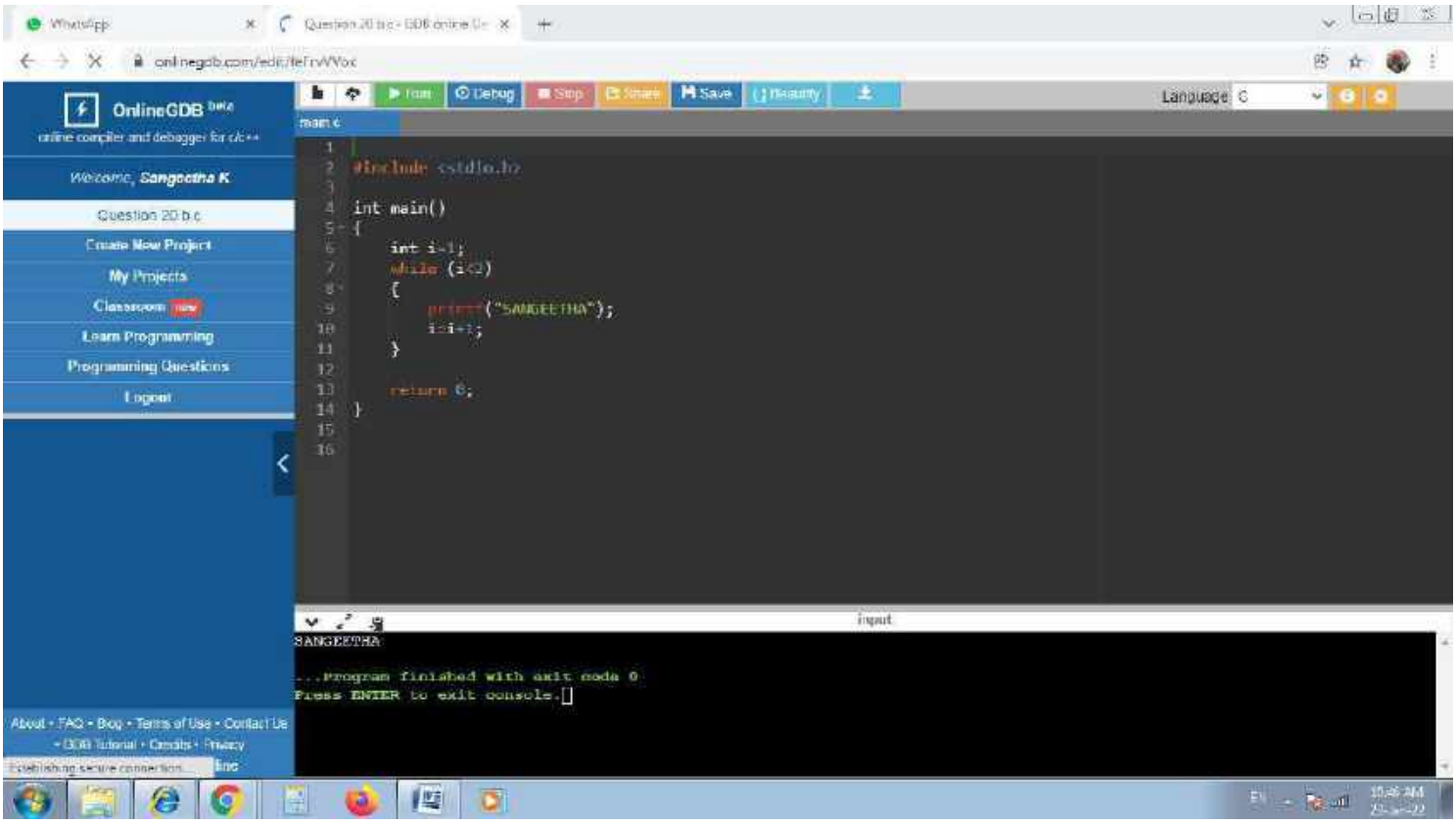

Equations
$X_2 + y_5 = 30$
$Z^3 + Q^4 = 50$
$A_2 + B^8 = X_2 + Y^8$

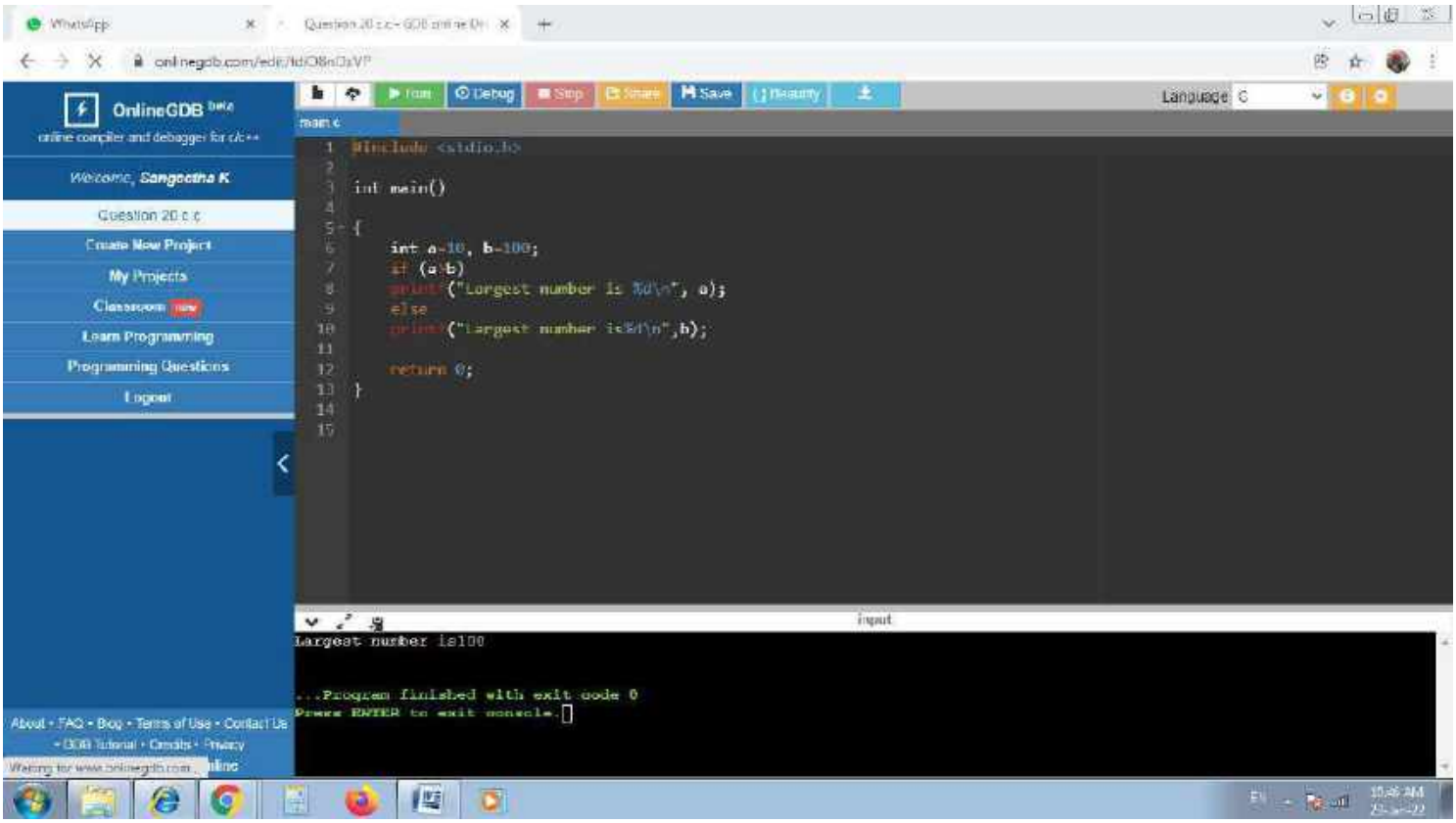


Select the text you want to convert.	Select **Inert** tab.
Click on **Table** Command. A dialog box appears.	Click on **Convert Text to Table**, a new dialog box appears.
Here set number of columns	Click on ok Finally selected text Convert in table.


Roll No
Name
Marks
1 n1 60
2 n2 70
3 n3 80
4 n4 50
5 n5 40
6 n6 50
7 n7 77
8 n8 44
9 n9 88
10 n10 55
Total 654
Average 65.4
Highest mark 90
Minimum 40
Sheet1
Sheet2
Sheet3


OnlineGDB beta
online compiler and debugger for c/c++
Welcome, Sangeetha K
question 20 a.c
Create New Project
My Projects
Classroom new
Learn Programming
Programming Questions
Logout
Run
Debug
Stop
Share
Save
Beautify
Language C
main.c
#include <stdio.h>
int main()
{
int i;
for (i=1; i<2; i++)
{
printf("Sangeetha");
}
return 0;
}
Input
Sangeetha
...Program finished with exit code 0
Press ENTER to exit console.
About • FAQ • Blog • Terms of Use • Contact Us
• IDE Tutorial • Credits • Privacy


OnlineGDB beta
online compiler and debugger for c/c++
Welcome, Sangeetha K
Question 20 b c
Create New Project
My Projects
Classroom new
Learn Programming
Programming Questions
Logout
Run
Debug
Stop
Share
Save
Beautify
Language C
main.c
#include <stdio.h>
int main()
{
int i=1;
while (i<2)
{
printf("SANGEETHA");
i=i+1;
}
return 0;
}
Input
SANGEETHA
...Program finished with exit code 0
Press ENTER to exit console.
About • FAQ • Blog • Terms of Use • Contact Us
• IDE Tutorial • Credits • Privacy


OnlineGDB beta
online compiler and debugger for c/c++
Welcome, Sangeetha K
Question 20 c c
Create New Project
My Projects
Classroom new
Learn Programming
Programming Questions
Logout
Run
Debug
Stop
Share
Save
Beautify
Language C
main.c
#include <stdio.h>
int main()
{
int a=10, b=100;
if (a>b)
printf("Largest number is %d\n", a);
else
printf("Largest number is%d\n",b);
return 0;
}
Input
Largest number is100
...Program finished with exit code 0
Press ENTER to exit console.
About • FAQ • Blog • Terms of Use • Contact Us
• GDB Tutorial • Credits • Privacy