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CCA – 101 Fundamentals of IT and Programing
(Assignment – 1)

Q.No1:- What are the four fundamental parts of computer? Explain it with the help of diagram.

Ans:- A computer has four components:

1) The central processing unit or CPU
2) The Primary memory
3) Input unit and
4) Output unit

=> Central Processing Unit (CPU), principal part of any digital computer system, generally composed of the main memory, central unit and arithmetic-logic unit.

Q.No2:- Discuss about the classification of computers based on size and capacity?

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

- Super Computer
- Mainframe Computer
- Mini computers and
- Micro computers.

1) Super computer is fastest and powerful and expensive type of computer for processing data.

2) Mainframe computer are multi-programming, high-performance computers, and multi-user which means they can handle the workload of more than 100 users at a time on the computer.

3) Mini computer is a digital and multi-user computer system with the connection of more than one CPU.

4) Micro computer - Today we are using many computers at home and also the most common is micro-computers.

Q.No3:- What is the meaning of computer generation? How many computer generations are defined? what technologies were / are used? (10)

Ans:- Generation in computer technology is a change in technology a computer is/was being used.

There are five computer generations known till date.

1st generation : Vaccum Tubes (1940 - 1956)
2nd generation : Transistors (1956 - 1963)
3rd generation : Integrated Circuits (1964 - 1971)
4th generation : Microprocessors (1997 - Present)
5th generation : Artificial Intelligence (Present - Beyond)

Q.No4:- Differentiate between volatile and non-volatile memories.

Ans:- 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 stored even if it is powered-off.

Q.No5:- Distinguish among system software, application software and open source software on the basis of their features?

Ans:- System software automatically starts running once the system is turned on and stops when the system is shut down.

Application software runs as and when the user requests it. Application software is user specific and it is not needed to run the system on the whole.

System software is endowed with a general purpose.

Q.No6:- 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?

Ans:- Step 1: open MS word on your system.
Step 2: Click on the new file when you open word file when the dialog box appear.
Step 3: Once this click on blank doc under the recent section, it will get in bold or highlighted by default.
Step 4: Click on the create A new blank doc will open.
Step 5: Once it is opened you can write anything you want in doc for yourself.

Q.No7:- Create a file in MS-word for the following document and save it with file name 'ms-word'. Describe all steps involved in it.

Ans:- 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

→ Creating

1) Click the Microsoft office button.
2) Select New, the new doc. dialog box appears.
3) Select blank document, it will be highlighted by default.
4) A new blank document appears in the word window.
5) Now you can create document by inserting text.
6) Finally save document.

→ Editing

1) Click the edit tab.
2) Select the text you want to edit.
3) Using the tool in the edit toolbar.
4) Change the required formatting including the font style, paragraph alignment, list formatting and indentation options.

Saving

1) Click the microsoft office button / file tab.
2) Select save as word document.
3) select the location where you want to save the document using drop down menu
4) Enter a name for the document.

5) Click the Save button.

Printing any type of document

1) Select file > Print
2) To preview each page, select the forward and backward arrows at the button of the page. If the text is too small to read, use the zoom slider at the bottom of the page to enlarge it.
3) Choose the no of copies and any other options you want
4) Select the print button.

Q No 8:- Create a file in MS-word for the following document and save it with file name 'equations' Describe all steps involved in it.

Ans:- Equations

$x_2 + 45 = 30$

$z_3 + \theta^4 = 50$

$4_2 + \theta^0 = x_2 + 48$

1) Select Insert > Equation or press Alt.
2) To use a built-in-formula, select Design > equation
3) To create your own, select design > equation > ink equation
4) Use styles or mouse to write your equation.
5) Select insert to bring your equations into the file.

Q No 9:- Create a file in MS word that convert existing highlight text to table as shown below and save it as file name 'text-to-table'. Describe all steps involved in it.

- Select the text you want to convert
- Select the 'Insert' tab
- Click on Table command. A dialog box appears
- Click on convert table to table, a new dialog box appears here set number of columns.
- Click on ok finally selected text convert in a table.

Ans:- 1) Select the text and make sure its properly formatted.
word will insert a new column when a tab characters is found, so make sure that column are seperated by tabs.

2) Click the insert tab.
3) Click the table button
4) Select convert text to tab

* If the text was formatted right, some of the options in this dialog box should already be filled in. Otherwise set the numbers of columns and rows and how to seperate text into columns.

5) (Optional) Customize autofill behaviour.
6) Click ok

The selected text is automatically turned into table.

Q.No10:- Create a file in MS-word to insert a table in the document. Describe all steps involved in it.

Ans:- 1) Open a blank word document.
2) In the top button press insert.
3) Click on the table button.
4) select the number of column and rows you need or click insert table and a dialog box will appear where you can specify the number of columns and rows.
5) The blank table will now appear on the page. After it as necessary standard features like bold, Italics and underline are still available. These items may be helpful for creating heading or calling and certain items in the table.

Q.No11:- Create a following worksheet in MS-Excel and save it with name 'books'

	A	B	C
1	Roll no	Name	Marks
2	1	111	60
3	2	112	70
4	3	113	80
5	4	114	90
6	5	115	77
7	6	116	44
8	7	117	88

Ans:- 1) Right click the worksheet name tab.
2) Click sheet move or copy
3) Click on the move selected sheet to books drop-down menu select (new book)
4) Click — ok. Your new workbook opens with your mood worksheet.
5) Click file > save in your new workbook.

Q.No 13:- (a) Describe the various steps involved in the following
1) To modify column width of a worksheet.
2) To modify the row height of a worksheet.
3) To delete row and column of a worksheet.

Ans:- 1) (a) Select the column or column that you want to change.
b) on the home tab in the cell groups, click formate.
c) Under cell size, click column width.
d) In the column width box, type value that you want.
e) Click okay.

2) (a) Select the row on rows that you want to change.
b) On the home tab in the cells group. Click format.
c) Under cell size, click row height.
d) In the row height box, type value you want and then click ok.

3) a) Select the cells, rows or column that you want to delet
b) Right-click and then select the appropriate delete option from

Q.NO 13 b) Describe the following terms in worksheet.
1) Absolute reference and selective reference form
2) Cell address

Ans 1) Select the cell that contains the formula.
- In formula bar select the reference that you want to change.
- Press F4 to switch b/w the reference type.

2) A cell is the intersection of a row and column. Columns are identified by letter (A, B, C) while rows are identified by numbers (1, 2, 3). Each cell has its own name or cell address based on its rows and columns.

Q.NO 14. a) What tools are available to customize our power point presentation?

Ans 1) Templates and themes
2) Slide layout
3) Font
4) Colour themes
5) Icons
6) Shapes
7) Stock Photos
8) Charts and graphs
9) Maps
10) Tables
11) Flow charts
12) Icon charts

13) Radials
14) Progress bars
15) Animation
16) Transitions
17) Interactivity
18) Audio and vedio

b) Write the steps for following action for creation of power point presentation.

=) Type your first name and last name in the subtitle section.

Ans Using your mouse and cursor, click inside of the top inbox.

- Using your keyboard, type the name of animal you have been researching in class.
- Using your mouse and cursor, click inside of the button inbox.
- Using your keyboard, type your first and last name, click enter, and type your teachers name.

=) Add a new slide which has a title & content

Ans Click the home tab in the ribbon.

- Then click the "new slide" button in the "slides" button group.
- Alternatively to add a new slide with different slide layout.
- Click the "Home" tab in the ribbon.

Q No 5:- Write steps 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.

Ans:- 1) Click Home > layout
2) Select title slides for a standalone title page or
3) Select title and content for a slide that contains a title and a full slide textbar.

Bullet list.
1) On the left hand side of Power Point window.
2) Click a slide thumbnail that you want to add bulleted or numbered text to.
=) Delay - Add time before an effect runs.

Part 2

Q No 6:- What is difference between machine language and high level language?

Ans:- A machine language is the only language that a computer directly understands it is usually written in zeroes (0) and ones (1).
A program instruction in machine language may look something like this — 11010101 where as,

A high level language is a programming language that uses english and mathematical symbols like +, −, /, % and many others, in its instructions.

Q No 17:- Discuss about different data types of C programming language?

Ans:- There are some common data types in C programming language.

=) Int – used to store an integer value.
=) Char – used to store a single character.
=) Float – used to store decimal numbers with single precision.
=) Double – used to store decimal numbers with double precision.

Q No 18:- Find the output of the following expression:

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

Sol:- $x = \frac{20}{5} * 4*2 + 30 - 5$

$x = 4*2 + 25$

$x = 8 + 25$

$x = 33$

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

Sol:- $y = 30 - (40/10 + 6) + 10$

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

$30 - 10 + 10$

$= 30$

(c) $z = 40 * 2 / 10 - 2 + 10$

Sol $z = 40 \times \frac{2}{10} - 2 + 10$

$\Rightarrow \frac{80}{10} - 2 + 10$

$8 - 2 + 10$

$= 16$

Q No 19:- Describe the syntax of following statements?

(a) If - else statement

Ans

```
# include <iostream>
using namespace std;
int main ( ){
int number;
count << "Enter an integer:";
    int >> number;
    if (number > 0) {
    Count << "you entered a positive integer:" << number
                                    << and 1;
                                    }
else if (number < 0) {
Count << "you entered a negative Integer:" << number
                                    << and 1;
                                    }
else {
```

```
Count << "You entered 0." << endl;
        }
    Count << " This line is always printed";
    return 0;
        }
```

Output

```
Enter an integer:
int t;
    }
while (i<=10);
        }
```

Output

12345

Q NO 20:- Find the output of the following program segments.

(a)

```
# include <stdio.h>
int main ().
{
int i;
for (i=1; i<3; i++)
Printf ("I9MS Ghazibad/n");
}
```

=> Output

I9MS Ghazibad.

(b)

```
# include <stdio.h>
int main ()
{
```

```
int i=1;
while (i<=2)
 {
 Printf ("GMS Ghaziabad \n");
    i= i+1;
        }
    }
```

Output

GMS Ghaziabad

GMS 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 is 100.

Q.No13:- Calculate the following things of a range ($C_2 : C_{11}$) of data in the work sheet created in question number 10.

1) The sum of the marks using autosum in a range of cells ($C_2 : C_{11}$)
2) Average of the marks in a range of cells ($C_2 : C_{11}$)
3) Highest marks in a range of cell ($C_2 : C_{11}$).
4) Minimum marks in a range of cell ($C_2 : C_{11}$).

Ans:- 1) To sum a column of numbers, select the cell immediately below the last number in the column. To sum a row of numbers, select the cell, immediately to the right.

=> Autosum in two locators : Home > Autosum and Formulas > Autosum.

=> Once you create a formula, you can copy it to clear cells instead of typing it over & over.

=> You can also use autosum or more than one cell at a time.

=> You can also sum numbers by creating a simple formula.

2) Click a cell below the column or to the right of the row of the numbers for which

you want to find the average.

=) On the home tab, click the arrow next to Autosum > Average and then press enter.

3) In a blank cell type "=MAX"

=) Select the cells you want to find the largest number form. Close the formula with an ending.

=) Hit enter, then largest no. from your selection will appear.

4) Select the cell C_2 and write the formula.

=) . =MIN $(C_2 : C_{11})$, press enter on your keyboard.

=) the function will return 3.

=) 3 is the minimum value in the range $(C_2 : C_{11})$