Assignment NO:- 1 P.NO: 1

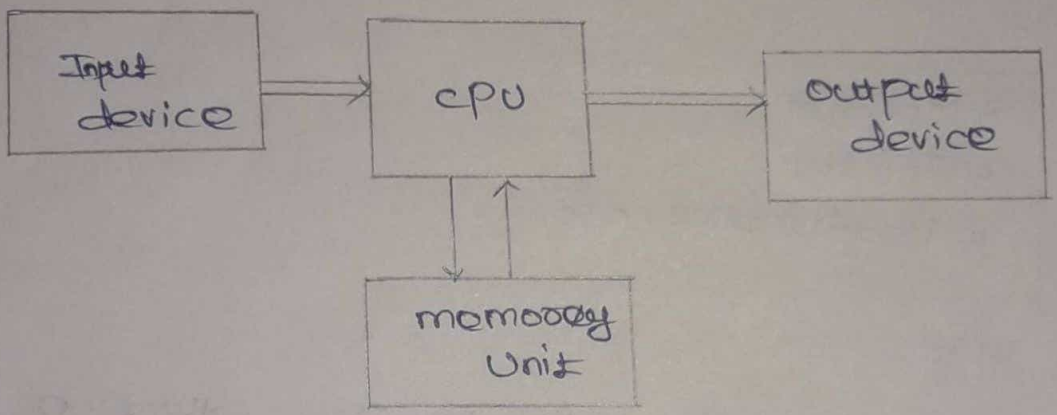
CCA-101 :- Fundamentals of IT and Programming

1. Four Fundamental Parts of computer :-

A computer has 4 main Components :-

1. Input units
2. The central Processing unit (CPU)
3. Primary memory
4. output units

Block diagram of computer system :-



Input devices :-

*Computer system use many devices for Input Purpose.

*Regardless of the type of device used, all are components for interpretation and communication between People and computer system

Example :-

* Mouse
* Input pen
* touch screen
* microphone

Control Processing unit (CPU):-

* It is the brain of the computer without this computer unable to process.

output devices:-

* output devices is used to show the results of the instructions.

Example:-

* Monitor
* Pointer
* Headphones, etc,...

Memory unit:-

* A memory unit is the collection of storage units or devices together.

* The memory unit stores the binary information in the form of bits.

2. classification of Computers:-

Based on size and capacity, computers are classified below.

* Super computers
* Mainframe computers
* Mini computers
* Micro computers

1. Super computers:-

* Supercomputers are the most powerful and physically the largest by size

* Super computers have thousands of processors.

* Because of their extraordinary speed, accuracy and processing power, supercomputers are well suited.

main frame computers:-

* This computers are very large often filling an entire room and can process 1000 of million Instruction per second.

* some of the functions performed by a main frame include: flight scheduling reservations and ticketing for an airline etc....

mini computers :-

* mini computers are much smaller than main frames

* these computers are also less expensive. more powerful and more expensive

* users connect to the server through a network by using desktop computers.

micro computers:-

* It is a most frequently used type of computer.

* Also known as "Personal computer (PC)"

* A micro computer is a small computer system designed to be used by one person at time.

Distributed computers:-

* It is a model in which components of a software system are shared among multiple computers to improve efficiency and performance.

Parallel computers:-

* It is a type of computation in which many calculations or the execution of processors are carried out simultaneously.

* In parallel computing, all processors may have access to a shared memory to exchange information between processors.

3. Computer generation:-

* The evolution of digital computing is often divided into generations. Each generations are characterized by dynamic improvements over the previous generation of computer & programming languages

Five Generation of Computers:-

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

1. First generation :- Vaccuum tubes (1940 - 1956):-

* The first computer systems used vaccuum tubes for circuitry and magnetic drums for memory. and were often enormous, taking up entire rooms.

* It would take computer operators days (or) even weeks to set-up a new problem.

Example:-

1. UNIVAC (Universal Automatic computers) first commerical computers delivered to business client, the census Bureau in 1951.

2. ENIAC (Electronic Numerical Integrator and computers).

2. Second Generation:- (Transistors :1956 - 1963)

* The would and would see transistors replace vaccuum tubes in the 2nd generation of computers.

* It is faster, cheaper, more energy efficient.

* Second generation computers moved from cryptic binary machine language to symbolic or assembly language.

Third generation:- Integrated circuits (1964-1971)

* The development of the integrated circuit was the hallmark of the third generation of computers.

* Transistors were miniaturized and placed on silicon chips. also called "Semiconductor"

* which drastically increased the speed the efficiency of computers.

Third generation / fourth generation (1971- present)

* The microprocessor brought the 4th generation of computers, as thousands of integrated circuit were built onto a single silicon chip.

* Fourth generation computers also saw the development of GUIs, the mouse & handheld devices.

5. Fifth generation:-

* Fifth generation computing devices based on artificial intelligence, are still in development, though generation computing devices such as voice recognition, that are being used today.

* The goal of 5th generation is to develope devices that respond to natural language input and are capable of learning and self-organization.

4.

S. NO	Volatile memory	Nonvolatile memory
1.	Computer memory that requires constant power to maintain the stored information.	Computer memory that can store information even there is no constant power.
2.	Faster	slower
3.	holds data temporary	permanently
4.	Refers to primary storage type	Refers to secondary storage type
5.	Ex:- RAM	Ex:- 1. ROM 2. hard disk 3. floppy memory

5. Software:-

* Software is a set of instructions used to operate computers and execute specific tasks.

Types of Software:-

* The software is used extensively for different purpose in several domain. It can be categorized into different type.

System Software:-

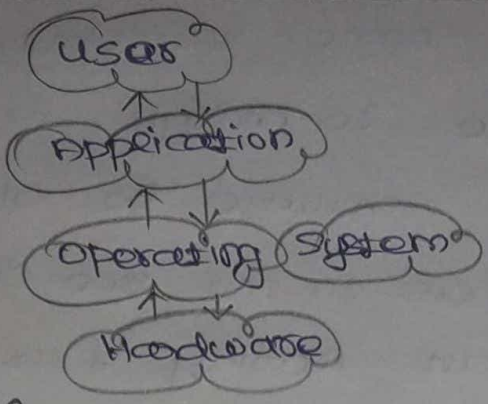
* It is a type of software that is designed to run a computer's hardware and application program.

* Software like operating systems, compilers, editors, drivers etc,...

operating System:-

* operating system acts as manager of all the resources of computer. i.e., resource manager.

* The operating system becomes an interface between users and machine.



operating system Representation.

Utility Program:-

* These Program analyze and maintain a computer.

* These Program are focused on how OS work that basis it perform task to enable smooth function.

Application software:-

* It is software that is owned by an individual or a company (or) specific purpose used by end users.

Ex:-

* word Processor
* accounting application
* web browser
* Email, etc,...

Proprietary software:-

* It is software that is owned by individual or a company.

* It is known as "closed source software"

overview of open source technology:-

*open source technology is defined as the development of software so allowing end users and developers to not see the source code(or) software, but modify it as well.

open-source software (oss):-

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

Example:-

* Linux operating system (OS)

6. a) Answer:-

Step 1:-

Choose office button

↓

New Document (selected)

↓

dialog box appears

Step 2:-

In the upper-left corner of the page create a new "word document" Panel "Blank document" → clicked.

Step 3:-

At the bottom of the new Document dialog box click create.

Step4 :-

typed my self introduction

↓

In Paragraph mode

Step5 :-

finally save the word document

to click control + S [ctrl+S]

↓

File Name is "Yourself"

↓

Exit (file saved)

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6)(b)

↳ To change the font style:-

go to dialog (or) top side → select font (size, mode)

↳ Easily select → then given fount is changed

↳ to change font size :-

all the above process are same but size column only selected for the size changes

↳ to change the font color:-

above process also same after selected the Preferred Paragraph, font color is displayed in top.

finally color is changed.

↳ To high light :-

then highlight key is selected top of the word → then selected word is highlighted.

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7. first open the MS word (office button)

↓

then, create a / select a new file (ctrl+N)

↓

then, type the given format

first one should one format → first word is highlighted in Red.

↓

finally save the file

to click (ctrl + S)

(or) top side select office button

↓ the save the file in given format

['ms_word'. docx]

↓

finally saved if you need to printout

to click (ctrl + p) in your keyboard

↓

then the printing the given Prepared document

8. Equation :-

* open the word file. create a new file

↓

* first place your document where you want the equation to appear.

↓

* Then click the "insert" tab in the ribbon.

↓

* Then click the "Equation" button in the symbol button group.

↓

* A blank equation is then inserted into your document.

↓

* finally the Equation is created

↓

* lastly, save the word document in "Equations.docx".

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9. Prepare the text :-

* Before you convert a list (or) text to a table, make sure that your data is formatted correctly. Here are few tips

* Select home > show/hide to show the tabs and paragraph marks in our document

* Next Insert separator characters, such as commas (or) tabs, to show where to divide

create a table → Insert Table (Text → table)
Set the column width (to resize) → then (OK)

10. The basic steps for creating a standard table in MSword:-

1. open a blank coord document
2. In the top ribbon, press Insert
3. click on table button
4. Either use the diagram to select the number of columns and rows you need, or click Insert Table and a dialog box will appear where you can Specify the Number of colums columns and rows
5. After standard features like bold, italics and underline. Then, Save the file Next exit.

11. MS-Excel:-

* To click Excel logo, Then Create a new file. Then type the headers, Roll No, Name, marks.
* Next, type the given values.
* finally save the file.
* To file Name is "book1"
(ctrl+S) (or) office button side
* finally Exit the Excel after Save.

12. The sum of (C2: C11) [70+80+90+40+50+77+44.88 +55]

[= SUM (C2:C11) Ans:- 594]

average:-

[= AVERAGE(C2:C11) Ans:- 65.4]

highest marks:-

[= MAX (C2:C11) Ans:- 90]

minimum mark formula:-

[= MIN (C2:C11) Ans:- 40]

13. (a) To modify column width of a worksheet:-

* To select the columns you want to modify
* click the format command on the home tab

The format drop-menu appears

* select column width. Increasing column width
* The column width dialog box appears. Enter a

specific measurement.

To modify row height of a worksheet:-

* select the row or rows that you want to change
* on the home tab, in the cell 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 worksheet:-

Select the cells, rows(or) columns that you want to delete.

*Right-click and then select the appropriate delete option, for Example, Delete cells & Shift up Delete cells & Shift left, Delete cursor) Delete Column.

13) (b) Absolute Reference:- Is a cell address that contains $ dollar sign in row or column or both when you enter a cell reference in a formula excel assumes it is a relative reference in a unless. / Cell Adjust when copied

Ex:- A1 / A1 * B1

Relative Reference:- Freeze cell Reference(s) Use F4 key board shortcut

Ex

=A1*B1

=A2*B1

Cell Address:- returns the address for a cell based on a given row and column number.

14) (a) tools of Power Point Presentation:-

*list of tools are available in Power Point Presentation. such as mentioned below,

Home (Font, cut, Paste, organize slide)

Insert (click to Insert (or) add Something)

Design

Transitions

Animations

slide show, Review

View

14) (b) Power point creation:-

First open the Power Point Presentation

↓

Next, to create / select multiple slide

↓

and then, Add a name in first slide [Syed Ammal Engineering college]

↓

Next, type the Presenter (or) Preparator sign / name [like Jeevamani. S 18me022]

↓

then our presentation title, content, Reference, picture, conclusion Past

↓

finally To put a Thankyou in one slide.

↓

finally save the file in office button (or) (ctrl+S)

---

15. Power Point Presentation:-

first open the MS Power Point

↓

Next create a new file

↓

↓

Insert No. of Slide in This file

↓

Indicate The title / bullet listed content

↓

next Insert graph, If you need

↓

also Insert Excel data in sheetwise

↓

to Insert presentation related pictures videos etc...

↓

finally Save This file

↓

after, present something in this slide with a help of slide show effect.

↓

next presentation should including Content / Introduction / title / pictures / Reference Program / conclusion / etc...

16. machine language:-

* Directely understood by a computer
* Not standard (ie, different machine language for every type of machine)

High level language:-

* compiler (or interpreter) → converts to machine language.
* standard (i.e., programs are independent of the machine on which they willbe executed.

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17. types of data in C programming:-

main types:-

* The C languages provides the four basic arithmatic type specifiers char, int, float and double and modifiers,
* unsigned
* short &
* long

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

$x = 4 * 2 + 30 - 5$

$\therefore x = 33$

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

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

$= 30 - 10 + 10$

$y = 30$

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

$\therefore Z = 16$

19. a) **If - else statement :-** If condition returns true then the statements inside the body of 'if' are executed and the statement inside body of 'else' are skipped.

b) **For loop :-** The for loop starts with a for statement followed by a set of parameters inside the parenthesis The For statement is in lower case.

c) **while loop :-** here, statement(s) may be a single statement (or) a block of statements. The loop iterates while the condition is true.

d) **do-while loop :-**

If the value of the expression is "false" (i.e, compares equal to zero) the loop is exited.

20. **Programs out puts**

a)

output => IMS Ghaziabad

b)

output => IMS Ghaziabad
IMS Ghaziabad

c)

output => Out of Error.