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CC.A-101: Fundamentals of IT And programming

ASSIGNMENT-1

Qn a): What are the four fundamental parts of computer? Explain with the help of diagram?

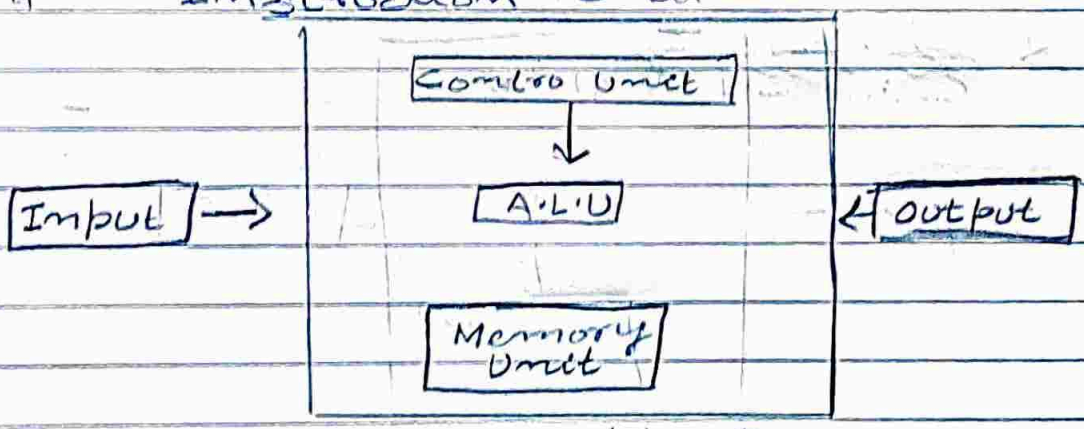
Ans: > A computer has four main components:

1) Input Unit
2) CPU
3) The primary memory
4) Output unit.

Input Unit: → The device to input the information such as keyboard, and mouse

(Keyboard)

CPU: → Center processing Unit: → The cpu is further broken up into ALU, Control Unit and Instruction Unit



Output device: → An o/p device is any peripheral that receives data from a computer, usually for display, projection, or physical reproduction e.g. the image shot on inkjet printer.

The Final Religion

In 1997, Deep Blue, super computer by IBM
The ~~Feeling~~ Thinking brain became evolved from time to time, Thinking brain becoming more logical than past time. in this era we had been intelligent untill we invent more powerful algorithm, and Artificial intelligence

- But our felling brain and our Psychology will remain Same, We were influenced by powerful and stronger than us
- Strength, power and extraordinary thing make us enslave Psychologically.

- Our Psychology is fundamentally evolved to deisy what it doesn't understand,

We are Bad Algorithms.

CLASSMATE
Date :
Page :

OUTPUT DEVICES

- Soft copy devices
  - Monitor
  - Proyector
  - Speaker
- Hard copy devices
  - Printer
  - Plotter

Primary / Main Memory :→ Primary memory is computer memory that is directly accessible by CPU. It is comprised of ORAM and provides the actual working space to the processor. It holdes the data and instructions that the processor is currently working on.

Primary Memory

- RAM
  - DRAM
  - SRAM
- ROM
  - PROM
  - EPROM
  - EEPROM

Qno2:→ Discuss about the classification of computer based on size and capacity?

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

→ Super computers.
→ Mainframe computers
→ Mini computers
→ Micro computers.

Super computer

A super computer is computer with a high level of performance compared to a general-purpose Computer. Performance of a supercomputer is measured in floating-pt. operation per sec (Flops) instead of million instruction per second (MIPS).

Mainframe Computer

A mainframe is a large integrated machine with a lot of memory, a lot of storage capacity, and lot of high-end processors. For such a large functioning it has a lot of compotional power in comparison to normal computer systems.

Mini computers

Minicomputer, computer that was smaller, less expensive, and less powerful than a mainframe or supercomputer but more expensive and more powerful than a personal computer. minicomputers were used for scientific and engineering computations.

Micro Computer

A micro Computer is a computer on a small scale, designed for used by one person at a time. An antiquated term, a microcomputer is now primarily called personal computer (PC). Single chip microprocessor common microprocessor includ laptop and desktop

Q.no3 What is the meaning of computer gen. How many computer gen. are defined? Which technologies were/are used?

As:→ Computer gen. is classification of computer into different groups according to their manufacturing date, memory, device, hardware and s/w technologies used in them There is five gen of computer

Ist Gen.

1946 - 1959 - Period of first gen
The first computers of first gen. used vacuum tubes as the basic components for memory and circuitry for CPU. These tubes like electric bulbs, produced a lot of heat and the installations used to fuse frequently

2nd GEN

1959 - 1965 - 2nd generation Period
In this gen transistors were used that way cheaper, consumed less power. more compact in size, more reliable and faster the the first generation machine made of vaccum tubes.

3rd Gen

The Period of third gen. were computers that emerged due to the development of the integrated circuit (IC). They were the first steps toward computers as we know them today. IC circuit allowed them to be shrunk down to be as small as large to as

4th GEN

The period of 4th gen was 1971 to 1980 computers of fourth gen, used very large scale Integrated (VCSI) circuits. VCSI circuit and other circuit elements with their associated circuits on a single chip made for possible to have microcomputer of fourth generations.

5th GEN

Fifth gen. Computer was an initiative by Japan's Ministry of International trade and Industry (MITI) begin in 1982, to create computer using massively parallel computing and logic programming. It was to be the result of a govt. industry research project in Japan during the 1980's.

Ans) Different b/w volatile and non-volatile memory

	Volatile Memory	Non-Volatile Memory
1	Volatile memory is the type of memory on which data is loss as it is powered-off	In this memory there is no effect happen even in power off mode
2	It is faster	It is slower
3	RAM is the example of volatile memory	ROM is an example of non-volatile memory

CLASSMATE
Date:
Page: 6

Q no 5 Distinguish among System software, app s/w, and open source s/w on the basis of thier feature?

System software

System software is a type of computer program that is designed to run a computer's h/w and applications programms. If we think of computer system as a layered model, the system s/w is the interface b/w coperation system is the best-known example of system s/w.

Application Software

An Application s/w program is a computer program designed to carryout a specific task other than one relating to the operation of the computer itself, typically to be used by end users. word processors, media players, and accounting s/w are example.

OPen SOURCE Software

open-source s/w (oss) is computer s/w that is released under a license in which the copyright holder grants users the right to use, study change and distribute the s/w and its code to anyone and for any purpose. open-source s/w may developed in a collaborattive manner

Q.no 6 Create a file in MS. word to insert a paragraph about yourself and save it with file Name "yourself". Describe all steps.

Ans :- Open word, or if word is already open Select File > New

2 In the search for online templates box, enter a search word like letter, resume, or invoice or, Select a category under the search box like Business, personal, or Education.

3. Click a template to see a preview.

4. Select Create.

6) Write steps regarding following:

1) To change the font style.

Ans: Select the text you want to modify.

2 c) To change the font size.

Ans Select the home tab and locate the font group

3 To change the font colour.

Ans Click the drop-down arrow next to font style box.

4 To highlight (in yellow) the line that reads, need to get IM's address."

A:- If you want to change the font to bold or italic click the 'B' or 'I' icons on the format bar.

Q.n 7 Create a file in MS word for the following documents and save it with file ms-word Describe all steps involved

MS word.

MS word is a widely used commerical Word processor developed by Microsoft.

- Creating
- editing
- saving
- Printing any type of document.

Ans:-

Creating

1. Click the microsoft office button/file tab.
2. Select New. the new document dialog box appear.
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, change

the required formating including font style, paragraph, alignment, list formats and indentation option.

Saving

- To save doc. using save as commad
1. Click the MicroSoft office button / file tab.
2. Select save as - word document.
3. Select the location where you want to save the doc. using the drop-down menu.
4. Enter a name for the doc.
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 bottom 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, and Select the print button

Ans Create a file in MS Word for the following document and Save it with the file. Name 'equations'. Describe all steps involved in it.

Eq

$$x_2 + y_5 = 30$$

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

$$A_2 + B^6 = x_2 + y^8$$

Ans:→ Select Insert > equation or Press ALT + =
2. To use a built-in formula, select design
3. To create your own, select design > eq> ink equation
4. Use your finger, stylus, or mose to write your equation.
5. Select insert to bring your equation into the file

Qn9 Create a file in MS-Word that convert existing highlight text to table

Ans :→ Select the text and make sure its property formatted.
Word will insert a new coloum when a tab characters is found, so make sure that columns are separated by tabs,
2. Click the insert tab.
3. click the table button.
4. Select Convert text to table.
If the text was formatted right, some of the options in this dialog box should already be filled in. otherwise, set the no.'s of columns and rows and how to separate the text into columns
5. Customize Autofit behavior.
6. Click ok.

The selected text is automatically turned into a table.

Qno10 :-> Create a file in MS-word to insert a table in document. Describe all steps

As : 1. open a blank word document.
2. In the top ribbon, press Insert.
3. Click on the table button.
4. Sleet the no. of columns and rows you need, or click insert table and a dilog box will appear where you can specify the no. of columns & rows.
5. The blank table will now appear on the page after it as necessory. standard fealu like bold, italics and Underline are still available. These items may be helpful for creating heading & calling out certain items in the table.

Qno11 Create a following marksheet in MS-Exed and save it with name "book1".

As : Right-click the worksheet name tab.
2. click select move and copy.
3. Click on the move selected sheet to Book drop-down menu select (new book).
4. Click Ok your new workbook opens with your moved worksheet.
5. Click file > save in your new workbk

Qno12 The sum of the marks using Autosum in an range of cells (C2:C11)

A1 :-> To sum a column of number's select the cell immediately below the last number

in the column. To sum a row of no's, selec the cell immediately to the right.

2; Autosum is in two locations: Home > Autos and formulas > Autosum.

3; Once you create a formula, you can copy it to other cells instead of typing it over and over.

e.g. if you copy the formula in cell B12 to cell 'C12' the formula C12 automatic adjust to the new locations and calculate the number in C2:C11.

4; You can also use autosum on more than one cell at a time.

e.g: you could highlight both cell B12 and 'C12' click autosum and total both columns at the same time.

5; You can also sum numbers by creating a simple formula.

(b) Average of the marks in a range of cells (C2:C11)

As: Click a cell below the column or to the right of the row. of the numbers for which you want to find the average

2; on the Home tab, click the arrow next to the autosum > Average, and the press enter.

(c) highest marks in range of cells (C2:C11)

As:→ In a blank cell, type "=Max(C"

2. Select the cells you want to find the

Largest number form.
3. Close the formula with an ending parantheses.
4. Hit enter and Largest number from your selection will populate in the cell.

(d) minimum marks in a range of cell (C2:C11)
As: Select the cell C2 and write the formula
2. =Min(C2:C11) press Enter on your keyboard.
3. The function will return 3.
4. 3 is the a minimum value in the range (C1:C11)

Q no 3 Describe various steps involved in the following.

(1) To modify column width of a worksheet
As Select the column or columns that you want to change.
2. on the home tab, in the cells group, click format.
3. Under cell size, click column width.
4. In the column with box, type the value that you want.
5. click ok.

Absolute reference and relative reference.

(2) To modify the row or height of a worksheet
As Select the cell that contains the formula
2 In the formula bar select the reference that you want to change.
3. Press F4 to switch between the reference types.

(2) To modify the row or height of a worksh
Ans: Select the row that you want to change.
2. On the home tab, in the cells group click format.
3. Under cell size, click Row height
4. In the Row height box, type the valu that you want, and then click ok.

3. To delete rows and column of a worksh
1. Select the cells, rows or columns that u want to delete.
2. Right-click and shift up, Delete cell shift left, Delete Rows or delete columns.

(b) Describe the following terms in the worksh
(1) Absolute ~~reference~~ cell adress.
Ans: A cell is the intersection of a row and a column. column are identified by letters (A, B, C), while rows are identifie by no's (1, 2, 3) Each cells has its own name or cell adress-based on its column and row. In this e.g. the selected cell intersect column C and row 5, so the cell address is C5.

Q4: Write the steps for the following action for creation of power point presentation.
Ans: Select the file tab to go to Back stage view
2. Select New on the left side of the windo then click Blank Presentation.
3. A new presentation will appear.

a) What tools are avilable to customize our powerpoint presentation?

Ans: (1) Templates and themes.
(2) Slide layouts
(3) Font
(4) Color Themes
(5) Icons
(6) Shapes
(7) Stock Photos
(8) Charts and Graphs
(9) Maps
(10) tables.
(11) Flowcharts
(12) Icon charts
(13) Radials
(14) Progress Bars
(15) Animation
(16) Transitions
(17) Interactivity
(18) Audio
(19) vedio

(2) Save the presantation as labs.ppsm.

Ans: Create a Blank presentation.
(2) Save a presentation.
(3) Apply a Design.
(4) Compare Presentation views
(5) Formal text.
(6) Insert Smartart.
(7) Insert & Modify Shapes.
(8) Edit and Duplicate slides.

(3) Add a title to the first slide : the name of your college.

Ans: Select the slide whose layout you will change so that it can have a title.
(2) Click Home > layout.
(3) Select title slide for a standalone title page or select title and content

Page or Select title and a full slide layout. May other layout options include title too, Pick the ones that's best suited for your presentation.

4. Select the click to add title text box. Enter your title for that slide.

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

As: Using your mouse and cursor, click inside of the top textbox.

(2) Using your keyboard type the name of the animal you have been reading in class.

(3) Using your mouse and cursor, click inside of the bottom textbox.

(4) Using your keyboard, type your first and last name, click enter, and type your teacher's name

(5) Add a new slide which has a title and cube

As:→(1) Click the "Home" tab in the Ribbon.

(2) Then click the "new slide" button in the "Slides" button group.

(3) Alternatively to add a new slide with a different slide layout.

(4) Click the "Home" tab in the Ribbon.

Q15:→(a) Title slide and bullet list?

Title Slide

As: The title slide is the first slide of

of a presentation. It usually contains a little and a subtitle. of all the slides in a presentation, the first slide is one of the most important, as the title slide generally sets the tone.

(1) Click Home's layout
(2) Select Title slide for a standalone title page or
(3) Select title and content for a slide that contains a title and a full slide texts

(2) Bullet list.

As: (1) on the left-hand slide of the powerpoint Window.
(2) click a Slide thumbnail that you want to add bulleted or numbered text to.
(3) on the slide, Select the lines of text placeholder or table that you want to add Bullets or numbering to.
(4) on the home tab, in the paragraph group click Bullets or Numbering.

Part 2

Qn(6) :-> What is difference b/w Machine language and high level language?

Machine language :-> A machine language is the only lang.. that a computer directly Understands, it is usually written in zero(0) and ones(1). A program instruction in machine lang. may look Something like this 11001001o whereas.

High level language:→ A high level language is a programming lang. that uses English and mathematical symbols like +, −, % and many others, its introduc

Qno17 Discuss about different data types of C Programming language?

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

1. Int – used to store an integer value
2. char – used to store a single character
3. float – used to store decimal no.'s with single precision.
4. double – used to store decimal no's with double precision.

e.g

```
#include<stdio.h>
int main()
{
// datatypes
int a=10;
char b='s';
float c=2.88;
double d=28.888;
printf("Integer datatype: %d\n",a);
printf("character is : %c\n",b);
printf("float datatype:%f\n",c);
printf("double datatype:%lf\n",d);
return 0;
}
```

O/P ① integer datatypes: 10 ④ Double float datatype
② Char datatypes: 5 : 2.000000
③ float datatypes: 2.000000

Q 15) :→ Find the output of the following exp
a) $x = 20/5 * 2 + 30 - 5$

Ans:→ $x = \frac{20}{5} \times 2 + 30 - 5$

$x = 4 * 2 + 30 - 5$

$x = 8 + 30 - 5$

$x = 8 + 25$

$\boxed{x = 33}$

Hence, the value of x is 33 Ans.

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

Sol:→ $Y = 30 - 4 + 6 + 10$

$Y = 30 - 0$

$\boxed{Y = 0}$

Hence, the valve of y is 30 Ans.

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

Sol:→ $Z = 40 * \frac{2}{10} - 2 + 10$

$Z = 8 - 2 + 10$

$Z = 0 + 8$

$\boxed{Z = 16}$

Hence, the valve of Z is 16 Ans.

Ans(9) Describe the syntax of the following statements?

a) If - else statement.

As:→

```
#include <iostream>
using namespace std;
int main()
{
  int number;
Cout << "Enter an integer";
 cin >> number;
  if (number>0)
 {
  cout << "you entered a positive
  integer: " << number << end l;
        }
else if (number<0)
  {
   cout << "you entered a negati.
   integer " << number << end l;
        }
else
  {
   cout << " This line is always printed";
    return 0;
        }
```

O/P

Enter an integer;

b) for loop

As:

```
#include <stdio.h>
  int main()
{ int i;
  for (i=0; i<10; i++)
  {
   printf ("Hello world");
```

```
    }
    return 0; }
```

O/P
10 time write Hello world.

c) While loop

Ans

```
# include <stdio.h>
int main()
{
int i=0;
while (i<10)
{
printf("Hello world");
i++;
}
```

O/P 10 times write Hello world.

d) do - while loop :→

Ans→

```
# include <iostream>
Using namespace std;
int main()
int i=1;
do
{ cout << i << "\n";
i++;
while (i<=10); }
```

O/P
1 to 10 Ans.

Q20: 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");
}
}
```

O/P IMS Ghaziabad

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

O/P Two times write IMS Ghaziabad.

(c)
```
#include<stdio.h>
void main()
{
int a=10, b=100;
if (a>b)
printf("large no is %d\n", a);
else
printf("large no is %d\n", b);
}
```

O/P larger number is 5