

CCA - 101 Fundamental of IT & Programming

Q1. what are the Four Fundamental parts of Computer?

Ans. The Four fundamental parts of Computer are:

- (i) Central processor unit [CPU]
- (ii) Memory (RAM) also known as Volatile Memory
- (iii) Input [Keyboard, Mouse etc]
- (iv) Output [Monitor, printer etc]

Q2. Discuss about the Classification of Computer based on size of Capacity.

Ans. On the basis of Size there are 4 types of Comp.:-

(i) Mini Computer :- A Mini Computer is a medium sized Computer. More powerful than Micro-Computer. Example :- Digital Alpha, Sun ultra.

(ii) Micro Computer :- A Micro Computer is the smallest general purpose processing System.
Example :- Apple Computer, PCs, Notebook etc.

It is 2 types :-

→ Desktops

→ Portables

(iii) Main Frame Computer :- Computer with large storage capacities and very high speed of processing.
Example :- IBM 370, 51390

(iv) Super Computer :- Super computer have extremely large storage capacity and computing speeds which are one many times faster than other computer.

Example :- IBM Deep Blue

Q3. What is the meaning of Computer generation?
How many Computer Generation are defined?
What technologies were/are used?

Ans. History of Computer can be considered from crise of human culture. as person known as Calculation.

Roman's abacus is first device used in B.C for Calculation. The electronic Numerical Integrator and Calculator [ENIAC] first general purpose digital electronic computer.

Date ____ / ____ / ____

Generation of Computer :-

① First Generation (1945-1954) - It had been used Vacuum tube technology make possible to do Calculation.

② Second Generation [1955-1964] :- It had been used Transistors which made a computer a little concise or faster to do the same.

③ Third Generation (1965-1974) :- It had been used for Integrated Circuits, faster, comparatively and reliable as well.

④ Fourth Generation (1975 till Date) - It had been used Micro-processor inside to work for better comparatively.

⑤ Fifth Generation - (Present & Next) Computer are assigned Automatic Intelligence.

Q4. Differentiate between Volatile & Non-Volatile Memories.

Ans - Volatile Memory

(i) Data is present till power supply is present.

(ii) Volatile memory data is not permanent.

(iii) Faster than Non-Volatile memory.

(iv) Data transfer is easy.

(v) Less storage capacity.

Non-Volatile Memory

(i) Data remain even after power supply is not present.

(ii) Is permanent.

(iii) Memory Access is slower.

(iv) Data transfer is difficult.

(v) HDD has very high storage capacity.

(Q5) Distinguish among system software, Application software and experience opensource software on the basis of their Feature.

Ans - System Software

(i) Maintain the system resources and give the path for Appl. Software to run.

(ii) Low level language are used to write.

(iii) Its a general purpose Software.

Application Software

(i) It is built for specific tasks.

(ii) High level language are used to write.

(iii) Specific purpose software.

Date ___ / ___ / ___

(iv) without System Software system Can't run.

Example :- Operating system etc.

(iv) while without Application software system always runs.

Example :- VLC Players, photoshop etc.

Q.16 What is the difference between Machine Language and high level language?

Ans Machine Language, Or Machine Code, Consists of Binary Code and is the only language that is directly understood by the computer. Both Machine Code and Assembly Language are hardware specific.

A high-level language is a programming language that uses English and Mathematical Symbols in its instructions.

High level language such as Swift and C++ must be compiled into Machine Language before the code is run on a computer.

30/10/20

Date

Computer Assignment

Saathi

Solution - 01

```
#include <stdio.h>
void main () {
    printf ("In Dsr Sheelash Kumar Sharma");
    printf ("In IMS Ghaziabad");
}
```

Output

Dsr Sheelash Kumar Sharma
IMS Ghaziabad

Solution - 02

```
#include <stdio.h>
void main () {
    int n1, n2, sum;
    printf ("Enter two integer numbers:");
    scanf ("%d %d", &n1 & n2);
    sum = n1 + n2;
    printf ("Sum = %d", sum);
}
```


Date ___/___/___

Saathi

Out put

Enter two integer numbers S : 10, 20

Sum = 30

Solution - 03

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

```
int u;
```

```
u = 20 / (8.4) * 8.2;
```

```
printf("u = %d", u); // it displays the value
of u }
```

Output

u = 38

Solution 4

10, 20

```
#include <stdio.h>
void main () {
    int dividend, divisor, remainder; // it
    declared variables as integer type
    Print ("Enter dividend ; ");
    scanf ("%d", &divisor); #
    quotient = dividend / divisor; #
    remainder = dividend % divisor;
    Print F ("Quotient = %d/n", quotient);
    Print F ("Remainder = %d", remainder);
}
```

Output

Enter dividend : 30
 Enter divisor : 3
 Quotient = 6
 Remainder = 2

Solution-5

Swap numbers using temporary Variable

```
#include <stdio.h>
```

```
void main () {
```

```
int n1, n2, temp;
```

```
n1 = 10;
```

```
n2 = 20;
```

```
temp = n1
```

```
n1 = n2
```

```
n2 = temp;
```

```
printf ("In after swapping, n1 number = %d,\n",
```

```
n1);  
printf ("In after swapping, n2 number = %d",  
n2);
```

Swap numbers without using temporary variables

```
#include <stdio.h>
```

```
void main () {
```

```
int n1, n2;
```

```
n1 = 40;
```

```
n2 = 10;
```

```
// swapping
```

```
n1 = n1 - n2;
```

```
n2 = n1 + n2;
```

```
n1 = n2 - n1;
```

```
printf("In after swapping, n1 number = %d", n1);
```

```
printf("In after swapping, n2 number = %d", n2);
```


Solution 6

```
#include <stdio.h>
void main () {
    int n1, n2, n3, largest;
    printf ("Enter three different numbers:");
    scanf ("%d", &n1, &n2, &n3);

    if (n1 > n2)
        largest = n1;
    else
        largest = n2;
    if (n3 > largest)
        largest = n3;

    printf ("Largest number is %d", largest);
}
```

Solution 7

```
#include <stdio.h>
void main () {
    int num;
    printf ("Enter a number:");
```

```
scanf("%d", & num);
if (num % 2 == 0) {
    printf("Even number.");
} else {
    printf("odd number.");
}
```

Solution 8.

```
#include <stdio.h>
void main() {
    int n, i;
    printf("%d", n);
    for (i = 1; i <= 10; i++) {
        printf("%d * = %d\n", n, i, n * i);
    }
}
```

Solution 9

The fibonacci Sequence; 0, 1, 1, 2, 3, 5, 8, 13, 21, 34
 The fibonacci Sequence is a sequence where
 The next term is the sum of the
 previous two terms.

Date ____ / ____ / ____

The first two terms of the fibonacci Sequence are 0 followed by 1.

```
#include <stdio.h>
void main () {
    int i, n, t1 = 0, t2 = 1, next term;
    printf ("Enter the number of terms:");
    scanf ("%d", &n);
    printf ("fibonacci Series:");
    for (i = 1; i <= n; ++i) {
        printf ("%d ", t1);
        next term = t1 + t2;

        t1 = t2;
        t2 = next term;
    }
}
```

Solution 10

```
#include <stdio.h>
void main () {
    int n, sum = 0, digit;
```

```

printf("Enter an integer:");
scanf("%d", &n);
while (n != 0) {
    digit = n % 10;
    sum = sum + digit;
    n = n / 10;
}
printf("Sum of the digits = %d", sum);
}
    
```

Solution 2

```

#include <stdio.h>
void main() {
    int n, rev = 0, digit;
    printf("Enter an integer:");
    scanf("%d", &n);
    while (n != 0) {
        digit = n % 10;
        rev = rev * 10 + digit;
        n = n / 10;
    }
}
    
```


~~PrintF~~
 PrintF("Reversed number = %d", rev);
 }

Solution 12

```
#include <stdio.h>
void main () {
  int num, i;
  PrintF ("Enter a positive integer: ");
  ScanF ("%d", &num);
  PrintF ("Factors of %d are = ", num);
  for (i = 1; i <= num; ++i) {
    if (num % i == 0) {
      PrintF ("%d ", i);
    }
  }
}
```