Page :
Date : / /

ASSIGNMENT - 1

Ques 1) What are the four fundamental parts of computer? Explain it with the help of diagram?

Ans The four fundamental parts of computer are :-

(i) Central processor unit
(ii) Memory (RAM) also known as volatile memory
(iii) Input [Key Board Mouse, etc.]
(iv) output [Monitor printer etc.]

Ques 2) Discuss about the classification of computers based on size and capacity

On the basis of size there are four type of Computer:

(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 the smallest general

purpose processing system.

Example :- Apple computer's PCs Notebook etc. It is 2 types :-

(a) Desktops
(b) portables

(iii) Main frame computer : Computer with large storage capacities and very high speed of processing.
Example :- IBM 370 . S1390.

(iv) super computer :- Super computer have extremely large storage capacity and computing speeds which are many times faster than other computer.
Example :- IBM Deep Blue.

Ques3 What is meaning of computer generation? How many computer generations are defined?
What technologies were are used?

Ans History of computer can be considered home arise of human culture as person known as calculation.

Page :
Date : / /

Roman's abacus is first device used is BC for calculation. The electric numerical integrator and calculator ENTIAC first ~~integrater and Calculation~~ general purpose digital electronic calculation.

Generation of Computer :-

First generation :- It had been used Vacom tube technology make possible to do calculation.

(ii) Second Generation :- It had been used transitous which made a computer a little concise and faster to do the same.

Fourth Generation :- It had been used Mic procerer inside to work for better comparatively.

Third Thinr Generation :- It had been us for integrated circuits faster, comparatively and ne as well

Fifth Generation :- Computer are assig Automatic intellegene, th

use Artifical intelligence.

Ques4 Diffrentiate between Valatile and non-valatile memories?

Ans	Valatile Memory	Non-Valatile memory
(i)	Data is present till power supply is present	Data remain ~~st~~ even after power supply is not present.
(ii)	Valatile memory data is not permanent	Is permanent.
(iii)	faster than Non-valatile memory	Memory ~~ace~~ access is slower.
(iv)	Data transfer is easy.	Data transfer is difficult.
(v)	less storage Capacity.	HDD has very high storage Capacity

Ques-5 Distinguish among system software, application software and open source on the basis of there for fares?

Ans	System software	Application software
(i)	maintain the system resource and give the path for Application software to Run	It is built for specific task

(ii) How level language are used to write	(ii) High level language co used to write.
(iii) Its a general purpose Software.	(iii) Specific purpose sof
(iv) without system software system can't run.	(iv) while without Applic Software system always ran.
Example :- operating system etc.	Example : VLC player photoshop etc.

Question 16 What is the difference Between Machine langage and High level language ?

Ans. Machine langage or Machine code consists of binary Code and is the only languag that is divetly understood by the Computer Both Machine Code and Asse language are hardware specife.

A high level language is a program language that user english and Math matical symbols in the instructions

Hind level language such and C++. must be compiled into machine language betore the code is run

a computer.

Ques 19 Describe the syntax of the following statement's -

(i) If - else statement :- If else statement can be followed by an optional else statement which executes when the boolean expression is false the syntax of an if else statement in C programming language is ;

if (expression)

{Block of statements.

} ~~else~~ else

{Block of statements :-

The above syntax can be represented in the form of a flow flow stown befor you can understand the concept of conditiond statements in the C programming with following program.

for example find the ~~lar~~ largest of two numbers if the ~~mu~~ numbers are a = 30 and b = 50

include (stdio.h)

```
int a = 30, b = 50;
if (a > b) {
        printf("largest number
is %d", a);
} else {
        printf("largest numbe
is %d", b);
  }
  }
```

When the above program is executed, it produce the following result —

largest number is 50

(b) for loop :- for loop is similar to while ~~it~~ it's just written differently. for statements are often used to process list such as a range of numbers.

Basic syntax of the for loop in full writing :-

```
for (expression 1; expression 2;
  expression 3) {
```

Page :
Date : / /

Single statement
or
Block of statements;
}
In the above sytax;

- expression 1 - Initializes Variables.
- expression 2 - Conditional expression as long as this condition is true loop will keep executing.
- expression 3 - expression 3 is the modifier which may be simple increment of Variable.

(iii) While loop :- The most basic loop in C is the While loop A While loop statement is like a ~~re~~ repeating if statement like and if statement, if the test conditional is true: the statement get executed. the different is that after the statements have been executed the test Condition is checked again. if it is still true the statements get executed again.

Page :
Date : / /

The cycle repeats until the test condition evaluates to false

Basic syntax of while loop is as follow

```
While (expression)
{
    Single statement
        or
    Block of statement;
}
```

(iv) do - while loop :- do - while loop is just like a while loop except that the test conditional is checked at the end of the loop rather than the start. This has the effect that the content of the loop are always executed at least once.

Basic syntax of do - - - while loop is as follows.

```
do
{
    Single statement
        or
```

Page :
Date : / /

Block of statement
{ While (expression);

You can understand the concept of the various loops by execution by execution of the following c programming.

Using

```
#include <stdio>
int main ()
{
int i.
for (i=0;i<5;i++)
{
Printf ("Hello %d\n", i);
}
}
```

Output
Hello 0
Hello 1
Hello 2
Hello 3
Hello 3

Using While loop

```
#include<stdio>
int main ()
{
int i=0
While (i<5)
{
Printf ("Hello %d\n", i);
i=i+1;
}
}
```

Output
Hello 0
Hello 1
Hello 2
Hello 3
Hello 4

using do-While loop

```
#include<stdio>
int main()
{
int i=0
do {
Printf ("Hello %d\n", i);
i=i+1;
}
While (i<5);
}
```

Output
Hello0
Hello 1
Hello2
Hello3
Hello4

Page :
Date : / /

CCA - Fundamentals of IT and programming

Que. 4 Write a program in C to compute a quotient and remainder.

Ans.
```
# include < stdion>
  Void main ( ) {
int divided, divisor, quotient, remainder
  Print f ("Enter dividend ");
  Scan f ("%. d ; & dividend );
  Print f (" Enter divisor ; ");
  Scan f ("%. d". & divisor );
  quotient = dividend / divisor ;
  Print f (" Quotient = %. d/n " quotient );
  Print f (" Remainder = %. d ", remainder
```

Que. 5 Write a program in C to swap the value of two integer numbers.

Ans. Swap number ~~Udit~~ without using temporary variables

```
# include <studio.h>
  Void main ( ) {
int n1 n2 ;
  n1 = 40 ;
  n2 = 10 ;
  // Swaping
```

```
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);
    }
```

Que.6 Write a program to find the largest of three numbers.

Ans.

```
# include <studio.h>
  void main () {
int n1, n2, n3, largest;
Printf ("Enter three different No: ");
Scanf ("%d %d %d", &n1, &n2, &n3);

if (n1 > n2)
  largest = n1
else
   largest = n2
if (n3 > = largest)
   largest = n3;
Printf (largest number is %d: largest);
    }
```

Enter three number 30, 20, 40
largest number in 40

Quest7 Write a program to check whether a integer number i[s] even or old:

Ans

```
# include <studio.h>
  void main() {
  int num;
  print ("Enter a number:");
  Scan f ("%d;" & number);
  if (num % 2) = = 0) {
  Printf ("Even number");
  also
  Print f ("old number");
  While (n != 0) {
  digit = n % 10
  Sum = Sum + digit;
  n = n/10;
  }
  Print f ("Sum of the digit = %
  d: Sum);
  }
```

Qus11 Write a program to reverse an integer number.

Ans

```
# include <studio.h>
  void main () {
  int n, rev = 0; digit ;
  Print ("Enter an integer:");
  Scan f ("%d", & n);
```

```
While (n!=0) {
rev = rev * 10 + digit;

    n = n/10;
}
Printf("Reversed number = %d",
                        rev);
}
```

Ques=12 Write a program to calculate factors of a positive integer.

```
# include <Studio.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);
    }

   }
```

Ques=8 Write a program to display table of any integer number.

Page :
Date : / /

Ans

```
#include <stdio.h>
Void main() {
 int n, i, j;
printf("Enter an integer:");
Scanf("%d", &n);
for (i=1, i<=10 i++ ++i) {
 Printf("%d * %d = %d\n", n, i, ni);
        }
      }
```

Ques = Write a program to display first ten fibonacci sequence.

Ans

```
#include <stdio.h>
    void main(*) {
 int i, n, t1=0, t2=1, next term;
 Printf("Enter the number of term");
 Scanf("%d", &n);
 Printf("Fibonacci Series");
 for (i=1; <=n; ++i) {
 Printf("%d", t2);
 next term = t1 + t2;
  t1 = t2;
  t2 = next term;
    }
   }
```

Page :
Date : / /

Ques-10 Write a program to calculate the sum of digits of an integer number.

Ans

```
#include<stdio.h>
void main(){
int n, Sum=0, digit;
Printf("Enter an Integer:");
Scanf("%d", &n);
```