In the above program there we have used different Header files, library function & symbellic constants

(1) Header files.

Header files is a files that contains function declaration & macro defination of C in-built library function. All C standard library functions are decleared. In many header files which are saved as file_name in. The primary purpose of header file is to propogate declaration to code files. Header file allow us to put declaration in one location & then import them whereever we need them

For example

Include <stdio.h> => represent standard input output function
include <conio.h> => represent console IIo function
include <math.h> => represent mathemcatics function.

(2) library function.

library function in clanguage are in built function which are grouped together & placed in common place called library. Each library function in C performs specific operation. We can make use of these library function to get the pre-defined output insted of writing our own code to get those outputs. Some of the library function are :-

(a) Printf()

Printf() is a predefined statement c function for printing output. The printf() function covers everything betn the starting & the ending qualifying marks to be print out.

Syntax: Printf ("Hello world");

Example:- Hello world.

(b) Scanf()

Scanf() is one of the commonly used function to take input from the user. The scanf() function reads formatted input from standard input such as keyboards

Syntax: scanf ("%d", &a);

(c) Clrscr()

Clrscr() function in (h "(console I/O header file) used to clear the console screen. It is pre-defined function we can clear the data from monitor by using this function but it should be placed after variable or function declaration only

Syntax :- clrscr();

(d) Pow()

Pow() function comes under mathematical header file The main use of this pre-defined function is during the calculation of base to the power of certain values.

Syntax : Pow(r,2)

eg:- The above syntax represent r^2.

(c) getch()

We use getch() function in C program to hold the output screen for some time until the user passes a key from the keyboard to exit the console screen.

Syntax: getch();

(B) Symbolic constant.

Different symbols in C represent their different function such as; { represent the begining of the function main & } in the last time represent the end of the function. All the statement betn these two brace form the function body.

Similarly, semicolon (;) are used in the end statement in C. The semicolon tells that the current statement has been terminated and other statement following are new statements.

1) Write a program to display "Helloworld".

```
#include <conio.h>
#include <stdio.h>
void main( )  or  void main (void).
{
  printf ("Hello_world");
  getch ();
}
```

o/p

Helloworld.

Algorithm.

Step 1 : Start

Step 2 : Decleare variable count

Step 3 : Intitialize count. = 1

Step 4 : If count <=10 go to step 5
Else go to step 7.

Step 5 : Display "Hellow-world"

Step 6 : Count = count + 1 & go to step 4

Step 7 : End.

2) klrite a program add two no. & display its sum.

```
# include < conio. h>
# include < stdio. h>
  void main. ( )
  {.
     int Num 1, Num 2, Sum;
      clrscr ( );
      Num 1 = 5;
      Num 2 = 10;
      Sum = Num 1 + Num 2.
      printf (" Addition = % d ", sum);
      getch ( );
  }
```

I/o	o/p
Num 1 = 5 Num 2 = 10	Addition = 15

WAP to ask 2 integer no. to the user & display it's product.

```
#include <coni.h>
#include <stdio.h>
void main()
{
    int Num1, Num2, P;
    printf("Enter a no.");
    scanf("%d", &Num1);
    printf("Enter another no.");
    scanf("%d", &Num2);
    P = Num1 * Num2;
    printf("The product of %d & %d is %d",
            Num1, Num2, P);
    getch();
}
```

i/p
Enter a no. 15 Enter another no. 25.
o/p
The product of 15 & 25 is 375.

4) WAP to calculate the area of circle.

```
#include <conio.h>
#include <stdio.h>
void main()
{
    Float rad, area;
    clrscr();
    printf ("enter a radius = ");
    scanf ("%f", &rad);
    Area = 3.14 * rad * rad;
    printf ("The area of circle of %f", area);
    getch();
}
```

i/p	o/p
Enter a radius = 4	The area of cirle is 50.

5) WAP to calculate the area of ~~circle~~ elipes.

```
# Include <conio.h>
# Include <stdio.h>
   Void main()
    {
      Float Num1, Num2, area;
      clrscr();
      printf("enter a major axis=");
      Scanf("%f, &Num1);
      printf(" enter a minor axis:=");
      Scanf("%f &Num2);
      area = 3.14 * Num1 * Num2;
      printf(" Area1 = %f ", area);
      getch();
    }
```

I/P.
Enter a major axis =
Enter a minor axis =
O/P
Area =

(6) WAP to calculate the simple interest.

```
#include <conio.h>
#include <stdio.h>
    void main.
     {
      Float Num1, Num2, Num3, SI;
      clrscr();
      Printf ("Enter principle = ");
      Scanf ("%f", & Num 1);
      Printf ("Enter time = ");
      scanf ("%.f", & Num2);
      printf (" Enter rate = ");
      Sconf ("%.f", & Num 3);
       SI = (Num 1 * Num 2 * Num 3) / 100;
      print f (" Interest = % f", SI);
      geteh ();
     }
```

I/P	O/P
Enter principle: Enter time : Enter rate :	Interest =

#

Step 1 : Start

Step 2 : Dkeleare variable p, r, t, si

Step 3 : Read P, T, R.

Step 4 : Input principle, time, rate.

Step 5 : Calculate si as si = (p*t*t) /100

Step 6 : Display si

Step 7 : End.