PROGRAMS

1. Write a program to print your name, course, and university.

#include <stdio.h>

int main()

{

printf("VAISHNAVI GUPTA\n");

printf("BTECH CSE AI/ML\n");

printf("CHANDIGARH UNIVERSITY");

return 0;

}

1. Write a program that prints "C is a powerful language" five times.

#include <stdio.h>

int main()

{

int x;

for(x=1;x<=5;x++)

{

printf("C is a powerful language\n");

}

return 0;

}

1. Write a program to display “Welcome to C Programming” using a separate user-defined function.

#include <stdio.h>

void display();

int main()

{

display();

return 0;

}

void display()

{

printf("Welcome to C programming");

}

1. Write a program with two functions: one to calculate the square of a number and another to calculate the cube.

#include <stdio.h>

void square(int n);

void cube(int n);

int main()

{

int x;

printf("Enter the number");

scanf("%d",&x);

square(x);

cube(x);

return 0;

}

void square(int n)

{

printf("Square of the number is=%d\n",n\*n);

}

void cube(int n)

{

printf("Cube of the number is=%d",n\*n\*n);

}

1. Write a program that uses a function to print your roll number and name.

#include <stdio.h>

void display(int x,char c[]);

int main()

{

int r; char ch[50];

printf("Enter your roll number and name");

scanf("%d",&r);

fgets(ch,sizeof(ch),stdin);

display(r,ch);

return 0;

}

void display(int x,char c[])

{

printf("Name is %s",c);

printf("Roll number is %d",x);

}

1. Write a program to declare and print an integer, a float, and a character variable.

#include <stdio.h>

int main(void)

{

int x; float n; char ch;

printf("Enter an integer variable, a float variable and a character variable");

scanf("%d %f %c",&x,&n,&ch);

printf("Integer value:%d\n",x);

printf("Float value:%.2f\n",n);

printf("Character value:%c\n",ch);

}

7. Write a program to demonstrate the use of const keyword.

#include <stdio.h>

int main()

{

const float pi=3.14;

printf("%.2f",pi);

return 0;

}

8.Write a program to define a symbolic constant for the value of Pi and calculate the area of a circle.

#include <stdio.h>

int main()

{

const float pi=3.14;

float r;

printf("Enter the radius:");

scanf("%f",&r);

float area= pi\*r\*r;

printf("Area of circle is %.2f",area);

return 0;

}

9.Write a program to input an integer and a float and print their sum.

#include <stdio.h>

int main()

{

int a;

float b,sum;

printf("Enter two numbers:");

scanf("%d %f", &a,&b);

sum=a+b;

printf("Sum= %f",sum);

return 0;

}

10.Write a program to demonstrate implicit type conversion in an expression.

#include <stdio.h>

int main()

{

int i;

float f;

double d;

printf("Enter two numbers");

scanf("%d %f",&i,&f);

d=i+f;

printf("Sum=%lf",d);

return 0;

}

11.Write a program to demonstrate explicit type casting by converting float to int.

#include <stdio.h>

int main()

{

float a,b;

int x;

printf("Enter two float numbers");

scanf("%f %f",&a,&b);

x=(int)(a+b);

printf("Sum=%d",x);

return 0;

}

12.Write a program to find the ASCII value of a given character.

#include <stdio.h>

int main()

{

char ch;

printf("Enter a character");

scanf("%c",&ch);

printf("The ASCII value of %c is %d",ch,ch);

return 0;

}

13.Write a program to perform all arithmetic operations on two numbers.

#include <stdio.h>

int main()

{

int a,b;

printf("Enter two numbers");

scanf("%d %d",&a,&b);

printf("Sum=%d\n",a+b);

printf("Substraction=%d\n",a-b);

printf("Multiplication=%d\n",a\*b);

printf("Division=%d\n",a/b);

printf(“Remainder=%d”,a%b);

return 0;

}

14. Write a program to check whether a number is even or odd using modulus operator.

#include <stdio.h>

int main()

{

printf("Enter an integer number \n");

int n;

scanf("%d",&n);

if(n%2==0)

{

printf("The number is even number\n");

}

else

{

printf("The number is odd number\n");

}

return 0;

}

15.Write a program to demonstrate the difference between pre-increment and post-increment.

#include <stdio.h>

int main()

{

printf("Enter a number");

int a;

scanf("%d",&a);

printf("pre-increment:%d\n",++a);

printf("post-increment:%d\n",a++);

return 0;

}

16. Write a program to calculate the simple interest (SI = P × R × T / 100).

#include <stdio.h>

int main()

{

printf("Enter the principal amount, rate and time period");

float P,R,T;

scanf("%f %f %f",&P,&R,&T);

float SI= (P\*R\*T)/100;

printf("The simple interest is %f",SI);

return 0;

}

17. Write a program to evaluate the expression: (a + b) \* (c - d).

#include <stdio.h>

int main()

{

printf("Enter 4 numbers");

int a,b,c,d;

scanf("%d %d %d %d",&a,&b,&c,&d);

int sum=(a+b)\*(c-d);

printf("Answer:%d",sum);

return 0;

}

18. Write a program to input two integers and print their sum, difference, product, and quotient.

#include <stdio.h>

int main()

{

int a,b;

printf("Enter two numbers");

scanf("%d %d",&a,&b);

printf("Sum=%d\n",a+b);

printf("Substraction=%d\n",a-b);

printf("Multiplication=%d\n",a\*b);

printf("Division=%d\n",a/b);

return 0;

}

19. Write a program to input name, age, and percentage of a student, and print them in a formatted way.

#include <stdio.h>

int main()

{

printf("Enter your name");

char name[50];

fgets(name,sizeof(name),stdin);

printf("Enter your age and percentage");

int a; float p;

scanf("%d %f",&a,&p);

printf("Name=%s\n Age=%d\n Percentage=%.2f",name,a,p);

return 0;

}

20. Write a program to input radius of a circle and print area and circumference

#include <stdio.h>

int main()

{

const float pi=3.14;

float r;

printf("Enter the radius:");

scanf("%f",&r);

float area= pi\*r\*r;

float circum=2\*pi\*r;

printf("Area of circle is %.2f\n",area);

printf("Area of circumference is %.2f",circum);

return 0;

}

21. Write a program to input temperature in Celsius and convert it into Fahrenheit.

#include <stdio.h>

int main()

{

float f,c;

printf("Enter the temperature in celsius:");

scanf("%f",&c);

f= (c\*9/5)+32;

printf("The tempeture in farenheit is: %.2f",f);

return 0;

}

22. Write a program to input marks of 3 subjects and print the average.

#include <stdio.h>

int main()

{

printf("Enter the marks of three students in computer");

float m1,m2,m3,m4,m5;

scanf("%f %f %f",&m1,&m2,&m3);

float avg= (m1+m2+m3)/3.0;

printf("The average marks of three students is: %f",avg);

return 0;

}