**1)**

#include<stdio.h>

int main()

{

int a;

printf("enter a number\n");

scanf("%d",&a);

if(a>0)

{

printf(" the number is positive");

}

else

printf(" the number is non positive");

return 0;

}

**2)**

#include<stdio.h>

int main()

{

int a;

printf("enter a number \n");

scanf("%d",&a);

if(a%5==0)

{

printf("the number is divisible by 5");

}

else

{

printf("the number is not divisible by 5");

}

return 0;

}

**3)**

#include<stdio.h>

int main()

{

int a;

printf("enter a number\n");

scanf("%d",&a);

if(a%2==0)

{

printf("the given number is even\n");

}

else

{

printf("the given number is odd\n");

}

return 0;

}

**4)**

#include<stdio.h>

int main()

{

int a,b;

printf("enter a number\n");

scanf("%d",&a);

b=a&1;

if(b==0)

{

printf("the number is even");

}

else

{

printf("the given number is odd");

}

return 0;

}

**5)**

#include<stdio.h>

int main()

{

int a;

printf("enter a number\n");

scanf("%d",&a);

if(a>99&&a<1000)

{

printf("the given number is of three digits\n");

}

else

{

printf("the number is not of three digits\n");

}

return 0;

}

**6)**

#include<stdio.h>

int main()

{

int a,b;

printf("enter two number\n");

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

if(a>b)

{

printf("the greater no. is %d",a);

}

else if(b>a)

{

printf("the greater no. is %d",b);

}

else

{

printf("the no. is %d");

}

return 0;

}

**7)**

#include<stdio.h>

int main()

{

int a,b,c,D;

printf("enter the coefficient of x^2 \n");

scanf("%d",&a);

printf("enter the coefficient of x\n");

scanf("%d",&b);

printf("enter the constant\n");

scanf("%d",&c);

D=b\*b-4\*a\*c;

if(D>0)

{

printf("equation has real and distinct roots");

}

else if(D<0)

{

printf("equation has imaginary roots");

}

else

{

printf("equation has real and equal roots");

}

return 0;

}

**8)**

#include<stdio.h>

int main()

{

int a;

printf("enter the year");

scanf("%d",&a);

if(a%4==0)

printf("given year is leap year\n");

else

printf("given year is not a leap year");

return 0;

}

**9)**

#include<stdio.h>

int main()

{

int a,b,c;

printf("enter the three numbers\n");

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

if(a>=b&&a>=c)

{

printf("greatest number is %d",a);

}

else if (b>=a&&b>=c)

{

printf("greatest number is %d",b);

}

else

printf("greatest number is %d",c);

return 0;

}

**10)**

#include<stdio.h>

int main()

{

float c,s,p,l;

printf("enter the cost price of product\n");

scanf("%f",&c);

printf("enter the selling price of product\n");

scanf("%f",&s);

if(c>s)

{

l=c-s;

printf("loss percentage is %f",l/c\*100);

}

else if(s>c)

{

p=s-c;

printf("profit percentage is %f",p/c\*100);

}

else

{

printf("no profit and no loss");

}

return 0;

}

**11)**

#include<stdio.h>

int main()

{

int a,b,c,d,e;

printf("enter marks of subject 1 out of 100\n");

scanf("%d",&a);

printf("enter marks of subject 2 out of 100\n");

scanf("%d",&b);

printf("enter marks of subject 3 out of 100\n");

scanf("%d",&c);

printf("enter marks of subject 4 out of 100\n");

scanf("%d",&d);

printf("enter marks of subject 5 out of 100\n");

scanf("%d",&e);

if(a<33||b<33||c<33||d<33||e<33)

{

printf("candidate is fail\n");

}

else

{

printf("pass\n");

}

return 0;

}

**12)**

#include<stdio.h>

int main()

{

char c;

printf("enter an alphabet\n");

scanf("%c",&c);

if(c>='a'&&c<='z')

printf("Lower case\n");

else if(c>='A'&&c<='Z')

printf("Upper case\n");

return 0;

}

**13)**

#include<stdio.h>

int main()

{

int a;

printf("enter a number\n");

scanf("%d",&a);

if(a%3==0&&a%2==0)

{

printf("given number is divisible by 3 and 2\n");

}

else

{

printf("given number is not divisible by 3 and 2\n");

}

return 0;

}

**14)**

#include<stdio.h>

int main()

{

int a;

printf("enter a number\n");

scanf("%d",&a);

if(a%7==0||a%3==0)

{

printf("given number is divisible by 7 or 3\n");

}

else

{

printf("given number is not divisible by 7 or 3\n");

}

return 0;

}

**15)**

#include<stdio.h>

int main()

{

int a;

printf("enter a number\n");

scanf("%d",&a);

if(a>0)

printf("number is positive\n");

else if (a<0)

printf("number is negative\n");

else

printf("number is zero");

return 0;

}

**16)**

#include<stdio.h>

int main()

{

char c;

printf("enter a character\n");

scanf("%c",&c);

if(c>='a&'&c<='z')

printf("Lower case\n");

else if(c>='A'&&c<='Z')

printf("Upper case\n");

else if(c>='0'&&c<='9')

printf("digits\n");

else

printf("Special character\n");

}

**17)**

#include<stdio.h>

int main()

{

int a,b,c;

printf("three sides of triangle\n");

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

if (a+b>c)

printf("triangle is valid\n");

else

printf("triangle is not valid\n");

return 0;

}

**18)**

#include<stdio.h>

int main()

{

int a;

printf("enter the month number\n");

scanf("%d",&a);

if(a==1||a==3||a==5||a==7||a==8||a==10||a==12)

{

printf("number of days is 31");

}

else if(a==2)

{

printf("number of days is 28");

}

else

{

printf("number of days is 30");

}

return 0;

}