Assignment – 3

Decision Control Statements

1. Write a program to check whether a given number is positive or non-positive.

Solve—

#include<stdio.h>

int main()

{

int n;

printf(" enter the number ");

scanf("%d\n",&n);

if(n>0){

printf(" positive number");

}

else

{

printf(" non positive number");

}

return 0;

}

Output --

enter the number -3

non positive number

2. Write a program to check whether a given number is divisible by 5 or not

Solve –

#include<stdio.h>

int main()

{

int n;

printf("Enter the number ");

scanf("%d\n",&n);

if(n%5==0){

printf("divisible bty 5");

}

else

{

printf(" not divisible by 5 ");

}

return 0;

}

Output -- Enter the number 105

divisible by 5

3. Write a program to check whether a given number is an even number or an odd

number.

Solve –

#include<stdio.h>

int main()

{

int n;

printf(" enter the number ");

scanf("%d\n",&n);

if(n%2==0){

printf(" even");

}

else

{

printf(" odd" );

}

return 0;

}

Output -

enter the number 4

even

4. Write a program to check whether a given number is an even number or an odd

number without using % operator.

Solve-

#include<stdio.h>

int main()

{

int n;

printf(" enter the number ");

scanf("%d\n",&n);

if(n/2\*2==n){

printf(" even");

}

else

{

printf(" odd" );

}

return 0;

}

Output -

enter the number 44

even

5. Write a program to check whether a given number is a three-digit number or not.

Solve -

#include<stdio.h>

int main()

{

int n;

printf(" enter the numbers");

scanf("%d\n",&n);

if(n>99 && n<1000){

printf(" given number is a three digit ");

}

else

{

printf(" given number is not a three digit");

}

return 0;

}

Solve ---

enter the numbers 123

given number is a three digit

6. Write a program to print greater between two numbers. Print one number of both are

the same.

Solve –

#include<stdio.h>

int main()

{

int a,b;

printf(" Enter the number \n");

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

if(a>b){

printf("a is greater than b");

}

else if(a==b){

printf(" a and b both are same");

}

else

{

printf(" a is less b");

}

return 0;

}

Output -

Enter the number

3

3

a and b both are same

7. Write a program to check whether roots of a given quadratic equation are real &

distinct, real & equal or imaginary roots

solve –

#include<stdio.h>

int main()

{

int a,b,c,d;

printf("Enter the numbers ");

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

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

if(d>0){

printf(" real & distinct ");

}

else if(d==0){

printf(" real & equal");

}

else

{

printf("imaganary");

}

return 0;

}

Output -

Enter the numbers 2

2

2

Imaginary

8. Write a program to check whether a given year is a leap year or not.

Solve –

#include<stdio.h>

int main()

{

int y;

printf(" Enter the year");

scanf("%d\n",&y);

if(y%400==0 || y%4==0 && y%100!=0){

printf("Year is leap year ");

}

else

{

printf("Year is not leap year");

}

return 0;

}

Ouput –

Enter the year 2000

Year is leap year