Assignment – 3

1. Write a program to check whether a given number is positive or non-positive.
2. #include<stdio.h>
3. int main()
4. {
5. int n;
6. printf("Enter a NUmber\n");
7. scanf("%d", &n);
8. if (n>0)
9. {
10. printf("Positive");
11. }
12. else
13. printf("Non-positive");
15. }

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

#include<stdio.h>

int main()

{

    int n;

    printf("Enter a NUmber\n");

    scanf("%d", &n);

    if (n%5==0)

    {

       printf("Divisible by 5\n");

    }

    else

       printf("Not-Divisible by 5\n");

}

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

#include<stdio.h>

int main()

{

    int n;

    printf("Enter a NUmber\n");

    scanf("%d", &n);

    if (n%2==0)

    {

       printf("Even NUmber\n");

    }

    else

       printf("Odd Number 5\n");

}

4. Write a program to check whether a given number is an even number or an odd number without using % operator.

#include<stdio.h>

int main()

{

    int n;

    printf("Enter a NUmber\n");

    scanf("%d", &n);

    int a=n/2;

    if (n==2\*a)

    {

       printf("Even Number\n");

    }

    else

       printf("odd Number\n");

}

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

#include<stdio.h>

int main()

{

    int n;

    printf("Enter a NUmber\n");

    scanf("%d", &n);

    if ((n>=100) && (n<=999))

    {

       printf("Three Digit Number\n");

    }

    else

       printf("Not a three Digit Number\n");

}

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

#include<stdio.h>

int main()

{

    int a,b;

    printf("Enter two NUmber\n");

    scanf("%d%d", &a, &b);

    if (a>=b)

    {

       printf("%d", a);

    }

    else

       printf("%d", b);

}

Write a program to check whether roots of a given quadratic equation are real & distinct, real & equal or imaginary roots

#include<stdio.h>

int main()

{

    int a,b,c,D;

    printf("Enter the Value of a b c\n");

    scanf("%d%d%d", &a, &b, &c);

    D = b\*b-4\*a\*c;

    if (D>0)

    {

       printf("Real & distinct");

    }

    else if (D<0)

    {

        printf("Imaginary");

    }

    else

       printf("real & Equal");

}

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

#include<stdio.h>

int main()

{

    int year;

    printf("Enter a year\n");

    scanf("%d", &year);

    if (year%400==0)

    {

       printf("Leap year");

    }

    else if (year%100==0)

    {

        printf("Not a leap year");

    }

    else if (year%4==0)

    {

          printf("leap year");

    }

    else

        printf("Not a leap year");

}

9. Write a program to find the greatest among three given numbers. Print number once if the greatest number appears two or three times.

#include<stdio.h>

int main()

{

    int a,b,c;

    printf("Enter three year\n");

    scanf("%d%d%d", &a, &b, &c);

    if (a>=c)

    {

        if (a>=b)

        {

            printf("%d", a);

        }

    }

    else

     if (b>=c)

        {

            printf("%d", b);

        }

        else

            printf("%d", c);

}

10. Write a program which takes the cost price and selling price of a product from the user. Now calculate and print profit or loss percentage.

#include<stdio.h>

int main()

{

    float cp, sp, pf, ls, Pfpercent, Lspercent;

    printf("Enter Cost & elling price\n");

    scanf("%f%f", &cp, &sp);

    pf = sp - cp;

    ls = cp - sp;

    if (sp>cp)

    {

        Pfpercent = pf \* 100 / cp;

        printf("Profit Percent is %f", Pfpercent);

    }

    else

       {

        Lspercent = ls \* 100 / cp;

        printf("Loss Percent is %f", Lspercent);

       }

}

11. Write a program to take marks of 5 subjects from the user. Assume marks are given out of 100 and passing marks is 33. Now display whether the candidate passed the examination or failed.

#include<stdio.h>

int main()

{

    int marks;

    printf("Enter Hindi Marks\n");

    scanf("%d", &marks);

    printf("Enter science Marks\n");

    scanf("%d", &marks);

    printf("Enter social\_science Marks\n");

    scanf("%d", &marks);

    printf("Enter maths Marks\n");

    scanf("%d", &marks);

    printf("Enter English Marks\n");

    scanf("%d", &marks);

    if (marks>=33 && marks<=100)

    {

        printf("Pass\n");

    }

    else

        printf("Fail");

}

12. Write a program to check whether a given alphabet is in uppercase or lowercase.

#include<stdio.h>

int main()

{

   char ch;

    printf("Enter a character\n");

    scanf("%c", &ch);

    if ( ch >=65 && ch <= 90)

    {

        printf("Uppercase\n");

    }

    else

    {

        printf("Lowercase\n");

    }

}

13. Write a program to check whether a given number is divisible by 3 and divisible by 2.

#include<stdio.h>

int main()

{

   int n;

   printf("Enter A Number\n");

   scanf("%d", &n);

   if ((n%3==0) && (n%2==0))

    printf("Divisible by 2 and 3 \n");

   else

    printf("Not divisible by 3 printfand 2 \n");

}

14. Write a program to check whether a given number is divisible by 7 or divisible by 3

#include<stdio.h>

int main()

{

   int n;

   printf("Enter A Number\n");

   scanf("%d", &n);

   if ((n%7==0) && (n%3==0))

    printf("Divisible by 7 and 3 \n");

   else

    printf("Not divisible by 7 printfand 3 \n");

}

16. Write a program to check whether a given character is an alphabet (uppercase), an alphabet (lower case), a digit or a special character.

#include<stdio.h>

int main()

{

   char ch;

    printf("Enter a character\n");

    scanf("%c", &ch);

    if ( ch >=65 && ch <= 90)

    {

        printf("Uppercase\n");

    }

    else if (ch>=97 && ch <= 122)

    {

        printf("Lowercase\n");

    }

    else

        printf("A digit or a Special character\n");

}

17. Write a program which takes the length of the sides of a triangle as an input. Display whether the triangle is valid or not.

#include<stdio.h>

int main()

{

    int a, b, c;

    printf("Enter Length of tringle sides\n");

    scanf("%d%d%d", &a, &b, &c);

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

    {

        printf("VAlid Tringle\n");

    }

    else

    printf("Invalid Tringle");

}

18. Write a program which takes the month number as an input and display number of days in that month

#include<stdio.h>

int main()

{

    int n;

    printf("Enter a Month Number\n");

    scanf("%d", &n);

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

    {

        printf("31 days in this Month\n");

    }

    else if (n==4 || n==6 || n==9 || n==11)

    {

       printf("30 days in this Month\n");

    }

    else

    printf("28 or 29 days in this Month\n");

}