Assignment 7

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

Ans- #include<stdio.h>

```
Int main() {

Int num;

printf ("Enter a number");

scanf("%d", &num);

printf(num>0?"Positive":"Non-positive"); }
```

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

Ans- #include<stdio.h>

```
Int main() {

Int num;

printf ("Enter a number");

scanf("%d", &num); {

if (num%5==0)

        printf("Divisible"); }

else

        printf("Not divisible"); }
```

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

Ans- #include<stdio.h>

```
Int main() {

Int num;

printf ("Enter an integer number");

scanf("%d", &num);

if (num%2==0) {

        printf("Even"); }

else

        printf("Odd"); }
```

4. **Write a program to check whether a given number is even or odd without using the modulus operator.**

Ans- #include<stdio.h>

Int main() {

Int num;

printf ("Enter an integer number");

scanf("%d", &num);

if ((num & 1) ==0) {

       printf("Even"); }

else

       printf("Odd"); }

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

Ans- #include<stdio.h>

Int main() {

Int num;

printf ("Enter a number");

scanf("%d", &num);

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

       printf("Three Digit number"); }

else

       printf("Not a three digit number"); }

6. **Write a program to find greater between two numbers. Print one number if both numbers are the same.**

Ans- #include<stdio.h>

Int main() {

Int num1,num2;

printf ("Enter two numbers");

scanf("%d%d", &num1, &num2);

if (num1==num2) {

       printf("Both numbers are same = %d ", num1); }

```
        else {

          if (num1>num2) {

                printf("%d is greater than %d", num1, num2);  }

          else

                printf("%d is lesser than %d", num1, num2);  }

          }
```

7. 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.

Ans-
```
#include<stdio.h>

Void main()  {

double cp,sp, profit_per, ,loss_per;

printf ("Enter Cost Price");

scanf("%lf", &cp,);

printf ("Enter Selling Price");

scanf("%lf", &sp);

if(sp>cp) {

        profit_per = ((sp-cp)*100/cp);

        printf("Profit Percentage: %lf", profit_per); }

 else {

        loss_per = ((cp-sp)*100/cp);

        printf("Loss Percentage: %lf", loss_per); }

}
```

8. 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.

Ans-
```
#include<stdio.h>

int main() {

int sub1, sub2, sub3, sub4, sub5;

printf("Enter Marks of Five Subjects:");

scanf("%d%d%d%d%d", &sub1, &sub2, &sub3, &sub4, &sub5);
```

```
            if (sub1>=33 && sub2>=33 && sub3>=33 && sub4>=33 && sub5>=33) {

                    printf("PASSED IN EXAM"); }

            else

                    printf("FAILED IN EXAM");

            }
```

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

Ans- #include<stdio.h>

```
    int main() {

    char alpbt;

    printf ("Enter a character");

    scanf ("%c", &alpbt);

    if (c>64 && c<91) {

            printf ("Uppercase"); }

    else {

            printf ("Lowercase"); }

    }
```

10. A policy agent has to inform about the amount a client will get after maturity of the scheme. If the client comes in the age group 18 to 25 then the policy period is 30 years, if the client comes in the age group 25 to 40 then the policy period is 20 years and if the client comes in the age group 40 to 55 then the policy period is 10 years. Policy is not for other age groups. Clients can invest any amount lesser than or equal to 1,00,000 but must be greater than or equal to 10,000. Rate of return is 5% using simple interest. Write a program to take age and investment amount. Print the maturity amount a client will get.

Ans- #include <stdio.h>

```
     int main() {

     double age, amt, invst;

     printf("Enter Age");

     scanf ("%lf", &age);

     printf("Enter Investment Amount");

     scanf ("%lf", &amt);
```

```c
if(100000>=amt && 10000<=amt) {

  if(25>=age && 18<=age) {

        invst = amt*0.05*30;

        printf("%d is the maturity amount", invst); }

  else if(40>=age && 26<=age) {

        invst = amt*0.05*20;

        printf("%d is the maturity amount", invst); }

  else if(55>=age && 41<=age) {

        invst = amt*0.05*10;

        printf("%d is the maturity amount", invst); }

   else {

        printf("AGE between 18 to 55 is only acceptable"); }

}

else {

  printf("Investment amount can only be between 10000 to 100000"); }

}
```