Assignment-7

1. Write a program to check whether a given number is positive or non-positive
2. Write a program to check whether a given number is divisible by 5 or not
3. Write a program to check whether a given number is even or odd
4. Write a program to check whether a given number is even or odd without using the modulus operator.
5. Write a program to check whether a given number is a three-digit number or not.
6. Write a program to find greater between two numbers. Print one number if both numbers are the same.
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.
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.
9. Write a program to check whether a given alphabet is in uppercase or 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 100000 but must be greater than or equal to 10000. 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.

Ans1:

#include<stdio.h>

#include<conio.h>

int main()

{

    int a;

    printf("Enter a number: ");

    scanf("%d",&a);

    if(a>0)

    printf("Positive number.");

    if(a<=0)

    printf("Non-poitive number.");

    getch();

}

Ans2:

#include<stdio.h>

#include<conio.h>

int main()

{

    int a,b;

    printf("Enter a number: ");

    scanf("%d",&a);

    b=a%5;

    if(b==0)

    printf("Divisible by 5");

    if(b!=0)

    printf("Not divisible by 5");

    getch();

}

Ans3:

#include<stdio.h>

#include<conio.h>

int main()

{

    int a;

    printf("Enter a number: ");

    scanf("%d",&a);

    if(a%2==0)

    printf("Even number");

    else

    printf("Odd number");

    getch();

}

Ans4:

#include<stdio.h>

#include<conio.h>

int main()

{

    int a,b;

    printf("Enter a number: ");

    scanf("%d",&a);

    b=a/2;

    if(a==b\*2)

    printf("Even number");

    else

    printf("Odd number");

    printf("%d",b);

    getch();

}

Ans5:

#include<stdio.h>

#include<conio.h>

int main()

{

    int a;

    printf("Enter a three digit number: ");

    scanf("%d",&a);

    if(a>99&&a<1000)

    printf("Number is a 3 digit num.");

    else

    printf("Number is not a three digit num.");

    getch();

}

Ans6:

#include<stdio.h>

#include<conio.h>

int main()

{

    int a,b;

    printf("Enter first number: ");

    scanf("%d",&a);

    printf("Enter second number: ");

    scanf("%d",&b);

    if(a>b)

    printf("%d is greater than %d",a,b);

    if(a<b)

    printf("%d is greater than %d",b,a);

    if(a==b)

    printf("%d and %d are same",a,b);

    getch();

}

Ans7:

#include<stdio.h>

#include<conio.h>

int main()

{

    float cp,sp,l,p,pp,lp;

    printf("Enter cost price:");

    scanf("%f",&cp);

    printf("Enter selling price:");

    scanf("%f",&sp);

    if(sp>cp)

    {

        p=sp-cp;

        pp=(p/cp)\*100;

        printf("Profit%% is %f%%",pp);

    }

    if(cp>sp)

    {

        l=cp-sp;

        lp=(l/cp)\*100;

        printf("Loss%% is %f%%",lp);

    }

    getch();

}

Ans8:

#include<stdio.h>

#include<conio.h>

int main()

{

    int h,e,p,c,m;

    printf("Enter marks of respective subjects:\n");

    printf("Hindi=");

    scanf("%d",&h);

    printf("English=");

    scanf("%d",&e);

    printf("Physics=");

    scanf("%d",&p);

    printf("Chemistry=");

    scanf("%d",&c);

    printf("Mathematics=");

    scanf("%d",&m);

    if(h>33&&e>33&&p>33&&c>33&&m>33)

    printf("Student is pass.");

    else

    printf("Student is fail");

    getch();

}

Ans9:

#include<stdio.h>

#include<conio.h>

int main()

{

    char c;

    printf("Enter a character:");

    scanf("%c",&c);

    if(c>64&&c<91)

    printf("Char is uppercase.");

    if(c>96&&c<123)

    printf("Char is lowercase.");

    getch();

}

Ans10:

#include<stdio.h>

#include<conio.h>

int main()

{

    float age,time;

    float amount,famount,interest,rate=5;

    printf("Enter client's age:");

    scanf("%f",&age);

    printf("Enter investment amount:");

    scanf("%f",&amount);

    if((age<18 && age>54))

    {

        if(age<18&&age>54)

             printf("No policy for this age group.....");

        if(amount<10000&&amount>100000)

             printf("Please enter a decent amount between 10000 to 100000.....");

    }else

        {

        if(age>=18 && age<25)

        {

            time=30;

            interest=(amount\*time\*rate)/100.0;

            famount=amount+interest;

            printf("Final amount is %f",famount);

        }

        if(age>=25 && age<40)

        {

            time=20;

            interest=(amount\*time\*rate)/100.0;

            famount=amount+interest;

            printf("Final amount is %f",famount);

        }

        if(age>=40 && age<55)

        {

            time=10;

            interest=(amount\*time\*rate)/100.0;

            famount=amount+interest;

            printf("Final amount is %f",famount);

        }

        }

    getch();

}