ASSIGNMENT - 7

1.Write a program to find the Nth term of the Fibonnaci series.

Ans-int main(){

    int a = 0,b = 1,c,n;

    printf("Enter the term : ");

    scanf("%d",&n);

    for (int i = 1; i <= (n-2); i++){

       c = a+b;

       a = b;

       b = c;

    }

    printf("%d term of fabonacci series is %d ",n,c);

    return 0;}

2. Write a program to print first N terms of Fibonacci series.

Ans-int main(){

    int a = 0,b = 1,c,n;

    printf("Enter the term : ");

    scanf("%d",&n);

    printf("%d %d",a,b);

    for (int i = 1; i <= (n-2); i++){

       c = a+b;

       a = b;

       b = c;

    printf(" %d",c);

    }

    return 0;}

3. Write a program to check whether a given number is there in the Fibonacci series or not.

Ans- int main(){

    int a = 0,b = 1,c,n;

    printf("Enter the value of n:");

    scanf("%d",&n);

    c = a+b;

    while (c<n){

       a = b;

       b = c;

       c = a+b;}

    if(c==n)

      printf("Number is present in fabonacci series");

    else

        printf("Number is not present in fabonacci series");

    return 0;}

4. Write a program to calculate HCF of two numbers.

Ans-int main(){

   int num1,num2;

   printf("ENter the two numbers : ");

   scanf("%d %d",&num1,&num2);

   for (int  i = 12; i <=num1 || i<=num2 ; i++)

   {

    if (num1%i==0 && num2%i==0)

    {

        printf("HCF of two numbers is %d",i);

        break;

    }

   }

    return 0;

}

5. Write a program to check whether two given numbers are co-prime

numbers or not.

Ans-int main(){

   int num1,num2,end,i;

   printf("ENter the two numbers : ");

   scanf("%d %d",&num1,&num2);

    end = (num1>num2)?num2:num1;

   for (i = 2; i <end ; i++) {

    if (num1%i==0 && num2%i==0)

        break;

   }

   if (i==end)

     printf("Numbers are co-prime");

   else

   printf("Numbers are not co-prime");

    return 0;

}

6. Write a program to print all Prime numbers under 100.

Ans- int main(){

   int num1,i,j;

   for ( i = 2; i < 100; i++) {

     for ( j = 2; j < i; j++)   {

       if(i%j==0)

       break;

 }

     if(j==i)

     printf("%d ",i);

   }

   return 0;

}

7. Write a program to print all Prime numbers between two given numbers.

Ans-int main(){

   int num1,num2,i,j;

   printf("Enter two numbers : ");

   scanf("%d%d",&num1,&num2);

   for ( i = num1; i < num2; i++)

   {

     for ( j = 2; j < i; j++)

     {

       if(i%j==0)

       break;

     }

     if(j==i)

     printf("%d ",i);

   }

   return 0;

}

8. Write a program to find next Prime number of a given number.

Ans-int main(){

   int num1,i=2;

   printf("Enter number : ");

   scanf("%d",&num1);

  while(1){

    for ( i = 2;i<num1; i++)

    {

    if (num1%i==0)

      break;

    }

    if(num1==i){

    break;

    }

    num1++;

  }

     printf("%d ",num1);

   return 0;

}

9. Write a program to check whether a given number is an Armstrong number or not.

Ans-int main(){

   int num1,sum=0,digit,num;

   printf("Enter number : ");

   scanf("%d",&num1);

   num = num1;

  while (num1)

  {

    digit = num1%10;

    sum = sum + (digit\*digit\*digit);

    num1=num1/10;

  }

   if(sum==num)

     printf("%d is an armstrong number ",num);

    else

    printf("%d is not an armstrong number",num);

   return 0;

}