Assignment - 7

① write a program to find the nth term of the Fibonacci series.

Ans →

```
#include <stdio.h>
int main()

{       int n, a=-1, b=1, t;

        printf(" Enter n value");
        scanf(" %d", &n);
        for(i=1; i<=n; i++)
        {       t=a+b;
                a=b;
                b=t;
        }
        printf(" %d term is %d", n, t);
```

② write a program to print first n terms of fibonacci series.

sol'

```c
#include <stdio.h>
    int main ()
{   int n, a=-1, b=1 , t;
    printf (" enter n value");
    scanf ("%d ", &n);
    for( i=10; i<=n; i++)

    {   t= a+b;
        printf ("%d", t);
        a = b;
        b = t;
    }
    return 0;
```

Q. write a program to check whether a given number is there in the fibonacci series or not.

Ans.

```c
#include <stdio.h>
int main()

{  int n, a=-1, b=1, t;

    printf("Enter No. to check");
    scanf("%d", &n);

    for(i=1; i<=n; i++)
    {
        t= a+b;
        a= b;
        b= t;

        if(n==t)
            break;
            flag==1;
            break;
    }
    if(n==t)
        printf("given No. is present in the series");
```

else
printf (" given no is not present in the
series");

④ write a program to calculate H.C.F of
two number.

sol →
```c
#include <stdio.h>
int main()
{ int a, b
printf (" enter a and b values");
scanf (" %d %d ", &a, &b);
int min = a < b ? a : b;
for ( int i = 1; i <= min; i++)
if ( a.i. i == 0 && b.i. i == 0)
h.c.f = i;
printf (" h.c.f is %d ", Hcf);
return 0;
}
```

(5) write a program to check whether the two given number are co-primes number are not.

Ans.

```c
#include <stdio.h>
int main()
{
    int a, b, h.c.t;
    int min = a < b ? a : b;
    for (int i = 1; i <= min; i++)
        if (a % i == 0 && b % i == 0)
            h.c.t = i;

    if (h.c.t == 1)
    printf(" Co-prime");
    else
        printf(" Not co-prime");

    return 0;
}
```

(1) write a program to print all prime no under 100.

sol":→

```c
#include <stdio.h>
int main()
{
    int
    for(i=02; i<100; i++)

        for(j=2; j<=i; j++)

            if(i%j==0)
                break;

        if(i==j)
        printf("%d", i);

        return 0;
```

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(7) write a program to print prime no b/w two given no.

Ans^

```c
#include <stdio.h>
int main()
{ int a, b, i, j;
printf("enter a and b value");
scanf("%d %d", &a, &b);

  for (i = a; i < b; i++)
  { for (j = 2; j < i; j++)
        if (i % j == 0)
          break;
      if (i == j)
      printf("%d", i);
  } return 0;

}
```

8) write a program to find next prime no.
of a given no.

Ans

```c
#include <stdio.h>
int main()
{
    int i, a, b;
    printf(" Enter a and b value");
    scanf("%d", &a);
    for (i = a; 1; i++)
    {
        for (j = 2; j < i; j++) {
            if (i % j == 0)
                break;
        }
        if (i == j)
        { printf("%d", i);
            break;
        }
    }
    return 0;
}
```

(9) write a program to check whether a given no is an armstrong no or not.

Ans→

```c
# include <stdio.h>
        int main()

{   int n, arm, a, b=0;
    printf (" Enter the arm no");
    scanf ("%d ", &arm);

    n= arm;
    while (n!=0)

    {  a= n%10;
       b= b+(a*a*a);
       n= n/10;
    }

    if (arm == b)
    printf (" armstrong no");

    else
    printf (" Not an armstrong no");

    return 0;
}
```

10) write a program to print all Armstrong number under 1000.

```c
#include <stdio.h>
int main()
{
    int m, a, b;
    for (int i=100; i<1000; i++)
    {
        m=i;
        b=0;
        while (m!=0)
        {
            a=m%10;
            b=b+(a*a*a);
            m=m/10;
        }
        if (i==b)
            printf("%d\n", i);
    }
    return 0;
}
```