Id :221-15-5279

Sec: 61-j

Problem 1 :

```
#include<stdio.h>
int fibo(int a[],int n);
int main()
{
    int N,a[N+1];
    printf("Input :");
    scanf("%d",&N);
    int result =fibo(a,N);

    printf("Output :%d\n",result);

   return 0;
}

int fibo(int a[],int N){



int i;
a[0]=0;
```

```
a[1]=1;

for(i=2;i<=N;i++)
{

   a[i]=a[i-1] + a[i - 2];

}
return a[N];
}
```

Problem :02

```
#include <stdio.h>


int factorial(int n) {
   if (n <= 1) {
      return 1;
   }

   int fact[n + 1];
   fact[0] = 1;
   fact[1] = 1;
```

```
    for (int i = 2; i <= n; i++) {
        fact[i] = fact[i - 1] * i;
    }

    return fact[n];
}

int main() {
    int n;
    printf("Input: ");
    scanf("%d", &n);

    if (n < 0) {
        printf("Factorial is not defined for negative numbers.\n");
    } else {
        int result = factorial(n);
        printf("Output: %d\n",  result);
    }

    return 0;
}
```

Problem :03

```c
#include <stdio.h>



int sum_of_n_numbers(int n) {
    if (n <= 0) {
        return 0;
    }

    int sum = 0;



    for (int i = 1; i <= n; i++) {
        sum += i;
    }

    return sum;
}

int main() {
    int n;
    printf("Input: ");
    scanf("%d", &n);

    if (n < 0) {
        printf("Please enter a positive integer.\n");
    } else {
        int result = sum_of_n_numbers(n);
        printf("Output: %d\n", result);
```

```
    }


    return 0;
}
```