

## Assignment-6

- ① write a program to calculate sum of the first  $N$  natural no.

Sol<sup>n</sup> →

```
#include <stdio.h>
int main()
{
    int n, s=0;
    printf("Enter n value");
    scanf("%d", &n);
    for (int i=1; i<=n; i++)
        s = s + i;
    printf("%d", s);
    return 0;
}
```

- ② write a program to calculate sum of first  $N$  even natural no.

Sol<sup>n</sup> →

```
#include <stdio.h>
int main()
{
    int n, s=0;
```

```
printf("Enter n value");  
scanf("%d", &n);
```

```
for (i = 0 ; i <= 2*n ; i = i+2)
```

```
    S = S + i;
```

```
printf("%d", S);
```

```
return 0;
```

}

- ③ write a program to calculate the sum of first  $n$  odd natural no.

Ans → #include <stdio.h>  
int main()

```
{ int n, S = 0;
```

```
printf("Enter n value");
```

```
scanf("%d", &n);
```

```
for (i = 1 ; i <= 2*n ; i = i+2)
```

```
    S = S + i;
```

```
printf("%d", S);
```

```
return 0;
```

}

④ write a program to calculate the sum of square of first  $n$  natural no.

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

`{ int n, s = 0;`

`printf("Enter n value");`

`scanf("%d", &n);`

`for(i = 1; i <= n; i++)`

`s = s + (i * i);`

`printf("%d", s);`

`return 0;`

}

⑤ write a program to print the sum of cube of first  $n$  natural no.

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

`{ int n, s = 0;`

```
printf("Enter n value");
```

```
scanf("%d", &n);
```

```
for (i = 1; i <= n; i++)
```

```
    s = s + (i * i * i);
```

```
printf("%d", s);
```

```
return 0;
```

```
}
```

⑥ Write a program to ~~print~~ calculate factorial of a no.

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

```
{ int n, fact = 1;
```

```
    printf("Enter n value");
```

```
    scanf("%d", &n);
```

```
    for (int i = 1; i <= n; i++)
```

```
        fact = fact * i;
```

```
    printf("%d", fact);
```

```
    return 0;
```

```
}
```

⑦ write a program to count digit in a given no.

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

`{ int n, count = 0;`

`printf("Enter a digit no");`

`scanf("%d", &n);`

~~`for(int i=0; i!=0; i++)`~~ `while(n!=0)`

`{ n = n/10;`  
`count++;`

`}`

`printf("%d", count);`

`return 0;`

`}`

⑦ write a program to check whether a given number is a prime number or not.

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

```
{ int n;
```

```
printf("Enter a no");
```

```
scanf("%d", &n);
```

```
for(i=2; i<n; i++)
```

```
{ if(n%i==0)
```

```
break;
```

```
}
```

```
if(i==n)
```

```
printf("prime");
```

```
else
```

```
printf("not prime");
```

```
return 0;
```

```
}
```

⑨ write a program to Calculate LCM of two no.

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

```
{ int a, b;  
printf("Enter a and b values");  
scanf("%d %d", &a, &b);
```

```
for(i=1; i<=a*b; i++)
```

```
{ if(i%a==0 && i%b==0)  
    break;
```

```
} printf("%d", i);
```

```
return 0;
```

```
}
```

⑩ write a program to reverse a given no.

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

```
{ int n, Rem, rev=0;
```



```
printf("enter a no");  
scanf("%d", &n);
```

```
while(n != 0)
```

```
{ rem = n % 10;  
rev = rev * 10 + rem;
```

```
n = n / 10;
```

```
rev = rev * 10 + rem;
```

```
n = n / 10;
```

```
}  
printf("%d", rev);
```

```
return 0;
```

```
}
```