

Algorithms & DS : Assignment-01

Assignment on Recursion:

1. Write a function to calculate factorial of a given number using recursion.
2. Write a function to calculate power using recursion.
3. Write a function to calculate GCD of given numbers using recursion.
4. Write a function to print a given number in binary format using recursion.
5. Write a function to print a given number in hexadecimal format.

6. Find and observe output for following code snippets/functions:

```
void fun(int n)
{
    if( n == 0 )
        return;

    fun(n--);
    printf("%4d", n);
}
```

```
-----
void fun(int n)
{
    if( n == 0 )
        return;

    fun(--n);
    printf("%4d", n);
}
```

```
-----
void fun(int n)
{
    if( n == 0 )
        return;

    printf("%4d", n);
    fun(n--);
}
```

```
-----
void fun(int n)
{
    if( n == 0 )
        return;

    printf("%4d", n);
    fun(--n);
}
```

SunBeam