

Assignment Functions

1. Define function in C. List the types of function. What are the benefits of using more functions in a C program?
2. What is actual and formal argument?
3. Explain memory partitions in an executable and in process.
4. Can a function return more than one data ? If needed to return more than one data, how to arrange?
5. What is the role of stack in function call ?
6. What is recursion?
7. Compare recursion with loop? Give example where loop is better than recursion. Also give example where recursion is better than loop.
8. Write a program to calculate sum of digits of a supplied integer. Create function named `int sumOfDigits(int)` , to return the sum of digits of a supplied integer.
 - i) calculate using loop
 - ii) calculate using recursion.
9. Calculate factorial of a supplied integer.
Create function named **fact** of prototype “ unsigned long int fact(unsigned int);”
 - i) using loop
 - ii) using recursion.
10. Print fibonacci series upto a specified value.
Use function named fib of prototype `int fib(int);`
The function fib should return fibonacci value associated with supplied number.
For example: `fib(1)` is 0 `fib(2)` is 1 `fib(5)` is 3