**National University of Computer & Emerging Sciences**

**Department of Computer Science**

**Operating Systems Lab**

**Lab # 4**

1. Write a code which takes an input “n” from user and forks a child process. The parent process should calculate the sum of numbers from 1 to n while the child process should calculate the product of numbers from 1 to n. separate your sum and product code in functions.
2. Write a program using fork() system call to create two child of the same process i.e., Parent P having child process P1 and P2.
3. Create a parent-child relationship between two processes. The parent should print two

statements:

A) Parent (P) is having ID <PID>  
B) ID of P’s Child is <PID\_of\_Child>  
The child should print two statements:  
C) Child is having ID <PID>  
D) My Parent ID is <PID\_of\_Parent>

Make use of wait() in such a manner that the order of the four statements A, B, C and D

is:

A

C

D

B

You are free to use any other relevant statement/printf as you desire and their order of

execution does not matter.

1. 2. Write a program to create two child process. The parent process should wait for both the child to finish.
2. Write a program using fork() system call to create a hierarchy of 3 process such that P2 is the child of P1 and P1 is the child of P.