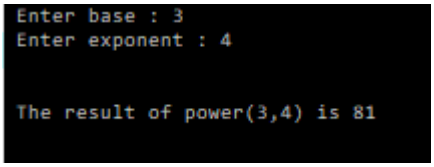
**EE103: Introduction to Programming**

Laboratory-3

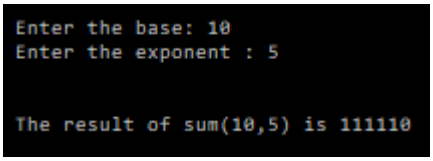
**Problem 1 (50 pts)**

1.Write a recursive function power(base, exponent) that calculates and returns $base^{exponent}$. For example $power(3,4) = 3*3*3*3$. Assume that exponent is an integer greater than or equal to 1.




**Problem 2 (50 pts)**

2.Write a recursive function $Sum(base, exponent)$ that calculates and returns $\sum_{n=1}^{exponent} base^n$. For example, $Sum(3,4) = 3^1 + 3^2 + 3^3 + 3^4$. Assume that exponent is an integer greater than or equal to 1.




**Hint :** You can use pow() function in *math.h library*.