Assignment 1

a) Describe the characteristics of algorithm with an example.

b) Differentiate between Bigoh and omega notation with example.

c) Compare time complexity with space complexity with suitable example?

d) Write the pseudo code for expressing algorithms with suitable example.

e) What are the Asymptotic notations? Define all the notation with suitable diagram.

f) Define all the cases of Master Theorem and Solve the recurrence relation $T(n)=7T(n/2) + n^2$.

g) Solve the recurrence relation using substitution Method

$T(n)= 1$ (if n=1)

$T(n)= T(n-1)+ \log n$ (if n>1)