**Question 1**

What is the time, space complexity of following code :

int a=0,b=0;

for(i=0;i<N;i++){

a=a+1;

}

for(j=0;j<M;j++){

b=b+j;

}

**Ans: Time complexity: o(n+m)**

**Space complexity: o(n)**

**Question 2**

What does it mean when we say that an algorithm X is asymptotically more efficient than Y?

**Ans: X will be a better choice for all inputs except possibly small inputs**