**Assignment on Capacity Planning**

1. A small firm intends to increase the capacity of a bottleneck operation by adding a new machine. Annual fixed cost would be tk 40000, variable cost per unit would be tk 15 and revenue per unit would be tk22.

i) Write down the cost, revenue and profit function.

ii) What annual volume is required to break even?

iii) What would be the profit if 5000 units were made?

iv) How many units must be sold to realize a profit of tk 7000?

iv) If 1000 units can be sold and profit target is tk 4000, what price should be charged per unit?