IPE 401 Industrial Management

1. The annual demand of needles in a RMG factory is 7500 units. Each order is associated with $55 cost and the holding cost is about $2 per unit per year. Numbers of working days are 250 days in a year. Lead time =10 days. Material cost per unit =$10. I. Determine optimum order quantity

II. Determine expected number of orders per year.

III. Determine expected time between orders.

IV. Total annual cost

V. Determine Reorder point.

VI. If production rate is 700 units per day, calculate optimal order quantity.

2. The demand of raw material lime for Abul Khair Steel Mill is about 250 per month. The cost associated with each order is about $80. The holding cost is 20%. The quantity schedule chart is given below. Determine optimal order quantity

Discount Number	**Discount quantity**	**Discount %**	**Discount price$**
1	0 to699	No discount	5
2	700to 1999	12%	?
3	2000 and over	20%	?

N.B: You must submit the assignment before 15th November 5:00 pm. If you can't submit the assignment before the deadline, don't bother submitting it at all.