Assessment 7 Inventory Management

1. Always One Machine Shop uses 2500 brackets during the course of the year. These brackets were purchased from a supplier located at Semambu, Pahang. Table Q7.1 shows the details of information for this production.

Table Q7.1 Production information

Annual demand	2500
Holding cost per bracket per year	RM10.50
Ordering cost per order	RM18.75
Lead time	2 days
Working day per year	250

   a) What is the economic order quantity for this bracket?
   b) Based on (a), how many orders would be made each year?
   c) Determine the total annual cost for managing the inventory of bracket?
   d) What is the time between orders?
   e) What is the reorder point (ROP)?

2. Fuad is the production manager of Binjai Machine Shop (BMS). This company is considered as Small Medium Enterprise and supplies to AMC Sdn. Bhd. with 10000 units small blocks for each year. The order is expected stable for long time. Set up cost for BMS is RM40 and holding cost is RM60 per block per year. BMS can produce 500 blocks per day. However, AMC is requested BMS to deliver 50 blocks to it each business day.
   a) What is the optimum production quantity?
   b) What is the maximum number of blocks that will be in inventory at BMS?
   c) What is the total cost for BMS? (Total set up cost + holding cost)

3. Ladang IT purchases integrated chips at RM350 per chip. The holding cost is RM35 per unit per year, the ordering cost is RM120 per order and sales are steady at 400 per month. The company would consider to buy in bulk quantity with the offered discount. The supplier had offering discount as below;

Quantity (Units)	Price/unit (RM)
1 -99	350
100-199	325
More than 200	300