

**MEL426: Materials Management**

State all your assumptions very clearly. Your response should be pointed. Please give examples from real world to strengthen your points. This will carry weightage.

**Marks :70 (Weightage : 35 %)**

**Section A (There are 5 questions. Attempt any FOUR questions.****Marks 4x10=40)**

- A.1 What are the attributes of good vendor? Discuss at least two vendor rating plans and how these could improve the supply performance?
- A.2 Identify the factors related to “make” and “buy” decisions. Discuss the role of obtaining “right price” for procured materials and in particular the role of “effective price negotiation process” in ensuring the right price.
- A.3 Discuss the role of stores and warehousing function in materials management. List the key managerial issues in efficient and effective management of stores identifying salient guiding principles. In particular explain the role of “stores address system” and “physical stock verification”.
- A.4 Write brief notes on any TWO of the following  
 a) Standardization, variety reduction and codification  
 b) Centralization vs decentralization of purchasing function  
 c) Effective inventory management of expensive slow moving item in a multi-echelon system
- A.5 Explain how ERP will help in managing the materials function of a retail chain (such as Pantloon, Big Shopper etc.). Briefly discuss the importance of MIS to improve materials management function.

**Section B (There are 3 questions. Attempt ALL questions.****Marks 3x10=30)**

- B.1 a) “The establishment of a good performance measurement system is vital for the efficient and effective materials management”. Discuss this statement  
 b) Explain any five performance measures of importance to materials management.
- B.2 a) If estimation errors of + 20 %, -30 % and + 50 % are made in the forecast of demand, ordering cost, and carrying cost, respectively, what distortion could be introduced in the estimate of average price in order to balance the errors with respect to the total variable cost?  
 b) The EOQ of a certain item is 742 units. However, the item is available in multiples of 100 only. Calculate the preferred order size.  
 c) Explain how ABC analysis can be used in managing materials function in a service context.
- B.3 a) Ishan is responsible for the purchase of various items of maintenance, repair, and operating supplies at the Coal Dust Mining Company (CDM). One of the items is called as ZXC. CDM uses approximately 16,000 units of ZXC each year. Ishan recently forwarded a request for bids to four suppliers of this commodity. The lowest bid is as follows:

0—399	Mu 7.50 each
400—599	Mu 7.00 each
600 or more	Mu 6.75 each

Transportation costs are: 0-399, Mu 1.25 per unit; 400 or more, Mu 1.00 per unit. Inventory carrying costs are 30 percent of the value of the average annual inventory. Variable order processing costs are estimated to be Mu 60.

What is the optimal order quantity for CDM?

- b) A company maintains inventory of 2 items (A and B) with the following data:

Item	Yearly demand (units)	Unit price (Mu)	Item	Yearly Demand(units)	Unit price(Mu)
A	3600	20	B	24000	5

The current policy is to order each item once each month. If the ordering cost is Mu 10, what is the implied carrying cost for each item under this policy?

- d) Write briefly how JIT purchasing may help in reducing the inventory for a non-profit organization.

<b>Marks for B section questions</b>	<b>B.1 a: = 6, b =4</b>	<b>B.2: a=5, b=3, c=2</b>	<b>B.3. a=5, b=2, c=3</b>
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