

Total No. of Questions – 6
Time Allowed – 1 Hour 15 Min
Chapter Names – Material Cost

INTERMEDIATE
Chapter Wise Test Series

Total No of Printed Pages - 2
Max Marks – 40

All questions are compulsory.

- Marks**
- 1.** A Limited a toy company purchases its requirement of raw material from S Limited at ₹ 120 per kg. The company incurs a handling cost of ₹ 400 plus freight of ₹ 350 per order. The incremental carrying cost of inventory of raw material is ₹ 0.25 per kg per month. In addition the cost of working capital finance on the investment in inventory of raw material is ₹ 15 per kg per annum. The annual production of the toys is 60,000 units and 5 units of toys are obtained from one kg. of raw material.
- Required:**
- (i) Calculate the Economic Order Quantity (EOQ) of raw materials.
- (ii) Advise, how frequently company should order to minimize its procurement cost. Assume 360 days in a year.
- (iii) Calculate the total ordering cost and total inventory carrying cost per annum as per EOQ.

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- 2.** An invoice in respect of a consignment of chemicals A and B provides the following information:

Marks

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	(₹)
Chemical A: 10,000 kgs. at ₹ 10 per kg.	1,00,000
Chemical B: 8,000 kgs. at ₹ 13 per kg.	1,04,000
Basic custom duty @ 10% (Credit is not allowed)	20,400
Railway freight	3,840
Total cost	2,28,240

A shortage of 500 kgs. in chemical A and 320 kgs. in chemical B is noticed due to normal breakages. You are required to COMPUTE the rate per kg. of each chemical, assuming a provision of 2% for further deterioration.

Marks

- 3.** A Ltd. produces a product 'X' using a raw material 'D'. To produce one unit of X, 4 kg of D is required. As per the sales forecast conducted by the company, it will be able to sale 20,000 units of X in the coming year.

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The following are the information related to the raw material D:

- (i) The Re-order quantity is 400 kg. less than the Economic Order Quantity (EOQ).
- (ii) Maximum consumption per day is 40 kg. more than the average consumption per day.
- (iii) There is an opening stock of 2,000 kg.
- (iv) Time required to get the raw materials from the suppliers is 4 to 8 days.
- (v) The purchase price is ₹ 250 per kg.

There is an opening stock of 1,800 units of the finished product X.

The carrying cost of inventory is 14% p.a.

To place an order company has to incur ₹ 1,340 on paper and documentation work.

From the above information FIND OUT the followings in relation to raw material D:

- (a) Re-order Quantity
- (b) Maximum Stock level
- (c) Minimum Stock level

(d) Calculate the impact on the profitability of the company by not ordering the EOQ.

[Take 300 days for a year]

Marks

4. M/s Tanishka Materials Private Limited produces a product which names “ESS”. The consumption of raw material for the production of “ESS” is 210 Kgs to 350 Kgs per week. Other information is as follows:

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Procurement Time:	5 to 9 Days
Purchase price of Raw Materials:	₹ 100 per kg
Ordering Cost per Order:	₹ 200
Storage Cost:	1% per month plus ₹ 2 per unit per annum
Consider 365 days a year.	

You are required to CALCULATE:

- Economic Order Quantity
- Re-Order Level (ROL)
- Maximum Stock Level
- Minimum Stock Level
- Average Stock Level
- Number of Orders to be placed per year
- Total Inventory Cost
- If the supplier is willing to offer 1% discount on purchase of total annual quantity in two orders, whether offer is acceptable?

If the answer is no, what should be the counteroffer w.r.t. percentage of discount?

Marks

5. A Limited a toy company purchases its requirement of raw material from S Limited at ₹ 120 per kg. The company incurs a handling cost of ₹ 400 plus freight of ₹ 350 per order. The incremental carrying cost of inventory of raw material is ₹ 0.25 per kg per month. In addition the cost of working capital finance on the investment in inventory of raw material is ₹ 15 per kg per annum. The annual production of the toys is 60,000 units and 5 units of toys are obtained from one kg. of raw material.

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Required:

- Calculate the Economic Order Quantity (EOQ) of raw materials.
- Advise, how frequently company should order to minimize its procurement cost. Assume 360 days in a year.

Calculate the total ordering cost and total inventory carrying cost per annum as per EOQ.

Marks

6. The following data are available in respect of material X for the year ended 31st March, 2021.

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	(₹)
Opening stock	90,000
Purchases during the year	2,70,000
Closing stock	1,10,000

CALCULATE:

- Inventory turnover ratio, and

The number of days for which the average inventory is held.