Cost Accounting

T.Y.B.Com.
(Semester – V)

MATERIAL COST

1. Two components, A and B, are used as follows :

Normal usage	50 units per week each
Minimum usage	25 units per week each
Maximum usage	75 units per week each
Re-order quantity	A : 300 units
	B : 500 units
Re-order period	A : 4 to 6 weeks
	B : 2 to 4 weeks

Calculate for each component :

(a) Re-order level
(b) Minimum level
(c) Maximum level and
(d) Average stock level

2. From the following particulars find out the Economic Order Quantity :

(i)	Annual Demand	12,000 units
(ii)	Ordering cost	₹ 90 per order
(iii)	Inventory carrying cost per annum per unit	₹ 15

3. A manufacturer buys certain essential spares from outside suppliers at ₹ 40 per set. Total annual requirement are 45,000 sets. The annual cost of investment in inventory is 10% and cost like rent, stationery, insurance, taxes, etc. per unit per year works out to be ₹ 1. Cost of placing an order is ₹ 5. Calculate the Economic order quantity.

4. From the following information, calculate Economic order quantity.

Semi-Annual Consumption	6,000 units
Purchase price of input unit	₹ 25
Ordering cost per order	₹ 45
Quarterly carrying cost	3%

5. For direct material XXX the following details are available :

Average inventory level	200
Orders per year	40
Average daily demand	48
Working days per year	250
Annual ordering costs	₹ 4,000
Annual carrying costs	₹ 6,000

Determine the annual demand, the cost of placing an order, the annual carrying cost of one unit and the economic order quantity.

6. The Purchase Manager of an organisation has collected the following data for one of the A class items.

Interest of the locked up capital	20%
Order processing cost (₹) for each order	₹ 100
Inspection cost per lot	₹ 50
Follow up cost for each order	₹ 80
Pilferage while holding inventory	5%
Other holding cost	15%
Other procurement cost for each order	₹ 170
Annual demand	1,000 units
Cost per item	₹ 10

What should be the EOQ ?

7. A company manufactures a product from a raw material, which is purchased at ₹ 60 per kg. The company incurs a handling cost of ₹ 360 plus freight of ₹ 390 per order. The increment carrying cost of inventory of raw material is ₹ 0.50 per kg per month. In addition, the cost of working capital finance on the investment in inventory of raw material is ₹ 9 per kg. per annum. The annual production of the product is 1,00,000 units and 2.5 units are obtained from one kg of raw material. Calculate the Economic Order Quantity of raw material.

8. X Ltd. manufactures a special product 'ZED' and provides the following information :
Demand of ZED is 1,000 units per month.

Semi-annual carrying cost	6%
Raw material required per unit of finished product	2 kg
Ordering cost per order	₹ 90
Purchase price of input unit	₹ 25 per kg

Calculate : (a) Economic order quantity and (b) Total Annual Carrying and Ordering Cost at that quantity.

9. The Complete Gardener is deciding on the economic order quantity for two brands of lawn fertilizer : Super Grow and Nature's Own. The following information is collected :

Particulars	**Fertilizer**	
	Super Grow	**Nature's Own**
Annual Demand	2,000 Bags	1,280 Bags
Relevant ordering cost per purchase order	₹ 1,200	₹ 1,400
Annual relevant carrying cost per bag	₹ 480	₹ 560

Required :

(i) Compute EOQ for Super Grow and Nature's Own.

(ii) For the EOQ, what is the sum of the total annual relevant carrying costs for Super Grow and Nature's Own ?

(iii) For the EOQ, compute the number of deliveries per year for Super Grow and Nature's Own.

10. ZED Company supplies plastic crockery to fast food restaurants in metropolitan city. One of its products is a special bowl, disposable after initial use, for serving soups to its customers. Bowls are sold in pack of 10 pieces at a price of ₹ 50 per pack. The demand for plastic bowl has been forecasted at a fairly steady rate of 40,000 packs every year. The company purchases the bowl direct from manufacturer at ₹ 40 per pack. The ordering and related cost is ₹ 8 per order. The storage cost is 10% p.a. of average inventory investment.

Required :

(i) Calculate Economic Order Quantity.

(ii) Calculate number of orders needed every year.

(iii) Calculate the total cost of ordering and storage of bowls for the year.

11. From the following particulars, prepare Stock Record by FIFO and Weighted Average Method.

Date	Transactions	Units	Rate
04-01-2014	Purchase	40	30
17-01-2014	Purchase	60	28
20-01-2014	Sales	50	35
22-01-2014	Purchase	80	29
25-01-2014	Sale	80	33
28-01-2014	Sale	20	34
30-01-2014	Purchsae	100	26
31-01-2014	Sale	90	35

The stock on hand on 1st January, 2014 was 50 units @ ₹ 25 each.

12. Calculate by FIFO method and Weighted Average Cost of inventory valuation, the cost of goods sold and value of closing inventory from the following data :

Date	Transactions	Units	Price per unit
01-01-2013	Opening Stock	1,500	20
05-02-2013	Purchases	750	25
10-03-2013	Purchases	600	22
15-03-2013	Sales	1,800	30
12-04-2013	Sales	750	31
16-05-2013	Purchases	600	25
25-06-2013	Sales	750	32

13. From the following information relating A to Z item, value closing stock on 31/12/2013 applying : (a) FIFO; (b) Weighted average

Stocks (kg) on 1/12/2013 5,000 units @ ₹ 14

Purchases (kg)

(i) On 18/12/2013 4,200 units @ ₹ 13

(ii) On 23/12/2013 3,800 units @ ₹ 9

Sales (kg)

(i) On 07/12/2013 1,200 units
(ii) On 16/12/2013 2,600 units
(iii) On 19/12/2013 1,800 units
(iv) On 30/12/2013 3,400 units

14. Keep stock record on FIFO and Weighted Average basis from the following transactions :

Purchases : March 2014		
Date	**Units**	**Rate**
01	500	18
04	700	20
09	900	18
15	300	25
25	200	20
31	500	25

Sales : March 2014		
Date	**Units**	**Rate**
02	200	22
07	500	25
11	400	21
18	800	28
27	500	25

Find out cost of goods sold and the profit.

15. Stock of material on 01/03/2013 was 1,000 units at ₹ 10 per unit. The following purchases and issues were made during the month of March, 2013 :

Purchases

02/03/2013 2,000 units at ₹ 11 per unit
03/03/2013 3,000 units at ₹ 12 per unit
11/03/2013 4,000 units at ₹ 13 per unit
21/03/2013 5,000 units at ₹ 14 per unit

Issues

05/03/2013 5,400 units
15/03/2013 2,600 units
31/03/2013 5,000 units

You are required to prepare : (i) Stock Ledger A/c under FIFO method. (ii) Stock Ledger A/c under Weighted Average Cost method.

16. M/s. Desai & Co. a trader of Plastic Toys had 12,000 toys valued at ₹ 3 per toy. His purchases and sales during first six months ending 31st December 2013 were as under :

On 22nd July, 2013	Sales	5,000 toys @ ₹ 20 each
On 23rd July, 2013	Purchases (Carriage inward ₹ 1,000)	10,000 toys @ ₹ 15 each
On 25th October, 2013	Sales	8,000 toys @ ₹ 24 each
On 26th October, 2013	Purchases (Carriage inward ₹ 1,200)	12,000 toys @ ₹ 18 each
On 31st December, 2013	Sales	13,000 toys @ ₹ 29 each

You are required to ascertain :

Cost of stock on hand as on 31st December, 2013 under each of the following methods :

(i) FIFO; (ii) Weighted Average

17. From the following information, prepare Stores Ledger and find out value of Closing Stock as per FIFO method :

January, 2019	Transactions	Units	Rate per Unit (₹)
1	Balance	500	40
2	Sales	300	50
6	Purchases	800	44
8	Sales	400	52
12	Sales	300	53
14	Purchases	400	50
26	Sales	600	54

Shortage of 15 units was found on 31st January, 2019.

18. The following data are available in respect of material X for the year ended 31st March, 2015.

Opening Stock ₹ 90,000
Purchases during the year ₹ 2,70,000
Closing Stock ₹ 1,10,000

Calculate :

(i) Inventory turnover ratio

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

19. From the following information calculate stock turnover ratio :

Gross Sales ₹ 5,00,000
Sales Return ₹ 25,000
Opening Stock ₹ 70,000
Closing Stock at Cost ₹ 85,000
Purchase ₹ 3,00,000
Direct Expenses ₹ 1,00,000

20. From the following date for the year ended 31st December, 2014, calculate the inventory turnover ratio of two items and put forward your comments on them :

Particulars	Material X	Material Y
Opening Stock (1st January, 2014)	₹ 20,000	₹ 18,000
Purchases during the year	₹ 1,04,000	₹ 54,000
Closing Stock (31st December, 2014)	₹ 12,000	₹ 22,000

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