



J.K. SHAH[®]
TEST SERIES
Evaluate Learn Succeed

SUGGESTED SOLUTION

CA INTERMEDIATE NOV'19

SUBJECT- COSTING

Test Code - CIM 8369

BRANCH - () (Date :)

Head Office : Shraddha, 3rd Floor, Near Chinai College, Andheri (E), Mumbai – 69.

Tel : (022) 26836666

Answer 1:**Process – P Account**

Particulars	Kg.	Amt. (Rs.)	Particulars	Kg.	Amt. (Rs.)
To Input	10,000	50,000	By Normal wastage	1,000	1,000
			(1,000 kg. × Rs. 1)		
To Direct Material	----	38,000	By Process – Q (9,000 kg. × Rs. 15.50)	9,000	1,39,500
To Direct Labour	----	30,000			
To Production OH (Rs. 90,000 × 3/12)	----	22,500			
	10,000	1,40,500		10,000	1,40,500

(2 marks)

$$\text{Cost per unit} = \frac{\text{Rs.1,40,500} - \text{Rs.1,000}}{10,000 \text{ kg.} - 1,000 \text{ kg.}} = \text{Rs. 15.50}$$

(1 mark)**Process - Q Account**

Particulars	Kg.	Amt. (Rs.)	Particulars	Kg.	Amt.(Rs.)
To Process – P A/c.	9,000	1,39,500	By Normal wastage	900	900
			(900 kg. × Rs. 1)		
To Direct Material	----	42,500	By Process – Q	8,200	2,54,200
To Direct Labour	----	40,000	(8,200 kg. Rs. 31)		
To Production OH (Rs. 90,000 × 4 /12)	---	30,000			
To Abnormal Gain (100 kg. × Rs. 31)	100	3,100			
	9,100	2,55,100		9,100	2,55,100

(2 marks)

$$\text{Cost per unit} = \frac{\text{Rs.2,52,000} - \text{Rs.900}}{9,000 \text{ kg.} - 900 \text{ kg.}} = \text{Rs. 31}$$

(1 mark)**Process – R Account**

Particulars	Kg.	Amount	Particulars	Kg.	Amount
To Process – Q A/c.	8,200	2,54,200	By Normal wastage	820	820
To Direct Material	---	42,880	By Abnormal loss	80	4,160
To Direct Labour	---	50,000	By Finished Goods (7,300 kg. × Rs. 52)	7,300	3,79,600
To Production OH (Rs. 90,000 × 5/12)	----	37,500			
	8,200	3,84,580		8,200	3,84,580

(2 marks)

$$\text{Cost per unit} = \frac{\text{Rs.3,84,580} - \text{Rs.820}}{8,200 \text{ kg.} - 820 \text{ Kg.}} = \text{Rs. 52}$$

(1 mark)

Calculation of Selling price per unit of end product :	
Cost per unit	Rs. 52.00
Add : Profit 25% on selling price i.e. 1/3 rd of cost	Rs. 17.33
Selling price per unit	Rs. 69.33

(1 mark)

Answer 2:

- (i) **Statement of profitability of the Oil Mill (After carrying out further processing) for the quarter ending 31st March 20X8.**

Products	Sales Value after further processing	Share of Joint Cost	Additional processing cost	Total Cost after processing	Profit (loss)
ACH	1,72,500	98,667	43,000	1,41,667	30,833
BCH	15,000	19,733	9,000	28,733	(13,733)
CSH	6,000	4,933	--	4,933	1,067
DSH	45,000	24,667	1,500	26,167	18,833
	2,38,500	1,48,000	53,500	2,01,500	37,000

(4 marks)

- (ii) **Statement of profitability at the split off point**

Product	Selling price of split off	Output in units	Sales value at split off point	Share of joint cost	Profit at split off point
ACH	15.00	8,000	1,20,000	98,667	21,333
BCH	6.00	4,000	24,000	19,733	4,267
CSH	3.00	2,000	6,000	4,933	1,067
DSH	7.50	4,000	30,000	24,667	5,333
			1,80,000	1,48,000	32,000

Note : Share of Joint Cost has been arrived at by considering the sales value at split off point.

(4 marks)

Answer 3:

(i) Re - order quantity = $\sqrt{\frac{2AO}{C \times i}}$

$$= \sqrt{\frac{2 \times 7500 \times 12 \times 500}{60 \times 10}}$$

$$= 3,873 \text{ units}$$

- (ii) Re-order level

= Maximum re-order period X Maximum usage

= 8 weeks X 750 units per week

= 6,000 units

(iii) Minimum stock level

$$= \text{Re-order level} - \{\text{Normal usage} \times \text{Average reorder period}\}$$

$$= 6,000 - (500 \times 6.5)$$

$$= 2,750 \text{ units}$$

(iv) Maximum stock level

$$= \text{Re-order level} + \text{Re-order quantity} - (\text{Minimum usage} \times \text{Minimum re-order period})$$

$$= 6,000 + 3,873 - (5 \times 250)$$

$$= 8,623 \text{ units}$$

(v) Average stock level

$$= \frac{1}{2} (\text{Minimum stock level} + \text{Maximum stock level})$$

$$= \frac{1}{2} (2,750 + 8,623)$$

$$= 5,687 \text{ units}$$

(2 marks x 5 = 10 marks)

Answer 4:

Before preparing Process III A/e process cost sheet should be prepared.

Process A Period

(FIFO Method)

Statement of Equivalent Production

Opening Stock 1,000 units

Introduced 42,600 pftits

Input		Output		Equivalent Production					
Item	Units	Item	Units	Material A		Material B		Labour & Overheads	
				Units	%	Units	%	Units	%
Op. stock	1,000	Normal loss	2,000	-	-	-	-	-	-
Process II transfer	42,600	Completed :							
		O/stock	1,000	-	-	300	30	500	50
		Introduced & completed	36,800	36,800	100	36,800	100	36,800	100
		Abnormal loss	200	200	100	200	100	160	80
		Closing stock	3,600	3,600	100	2,880	80	2,160	60
	43,600		43,600	40,600		40,180		39,620	

Statement of cost for each Element

Elements of cost	Cost Rs.	Equivalent Production Units	Cost per unit Rs.
Material A : Transfer from previous process	Rs.3,30,800		
Less value of normal scrap	6,000*	40,600	8
Material B : Added in the process	1,60,720	40,100	4
Direct Wages	79,240	39,620	2
Overhead	39,620	39,620	1
Total	6,04,380		

*Important Note : It is a convention that the scrap value of normal loss should be deducted from the cost of materials and more specifically where appropriate from the cost of materials input from the previous process.

(5 MARKS)

Statement of Apportionment of Cost

Items	Elements	Equivalent production Units	Cost per unit Rs,	Cost Rs.	Total Rs.
O/Stock (For completion)	Material A	-	-	-	-
	Material B	300	4	1,200	-
	Wages	500	2	1,000	
	Overhead	500	1	500	2,700
Introduced and completed during the period	Material A	36,800	8	2,94,400	
	Material B	36,800	4	1,47,200	
	Wages	36,800	2	73,600	
	Overhead	36,800	1	36,800	5,52,000
Closing stock	Material A	3,600	8	28,800	
	Material B	2,880	4	11,520	
	Wages	2,160	2	4,320	
	Overhead	2,160	1	2,160	46,800
Abnormal loss	Material A	200	8	1,600	
	Material B	200	4	800	

	Wages	160	2	320	
	Overhead	160	1	160	2,880
	Total Cost				6,04,380

Process III Account

Details	Units	Amount	Details	Units	Amount
To Balance b/d	1,000	Rs.14,400	By Normal Loss	2,000	Rs.6,000
To Process II A/c	42,600	3,30,800	By Process IV A/c	37,800	5,69,100
Materials		1,60,720	By Abnormal loss	200	2,880
Wages		79,240	By C/Stock	3,600	46,800
Overhead		39,620			
	43,600	6,24,780		43,600	6,24,780

(5 MARKS)

Note :

(i) Units processed during the period

= units transferred to process + Opening stock

(ii) Production = Opening stock + Units introduced - Closing units

= 1,000 + 42,600 - 3,600 = 40,000

(iii) Normal loss = 5% of 40,000

(iv) Cost of transfer to process (IV)

(a) Value of opening stock 14,400

(b) Cost incurred for completing the units representing O/stock during the period 2,700

(c) Cost for units introduced and completed during the period 5,52,000

5,69,100

Answer 5:

A.

Material M	Material N
Turnover ratio	Turnover ratio
$= \frac{\text{Cost of Stock of raw material consumed}}{\text{Average stock of raw material}}$ $= \frac{\text{Rs.6,00,000} + \text{Rs.9,50,000} - \text{Rs.4,50,000}}{(6,00,000 + 4,50,000)/2} = 2.09$	$= \frac{\text{Cost of stock of raw material consumed}}{\text{Average stock of raw material}}$ $= \frac{\text{Rs.10,00,000} + \text{Rs.18,40,000} - \text{Rs.7,25,000}}{(10,00,000 + 7,25,000)/2} = 2.45$
Average number of days for which the	Average number of days for which the

average inventory is held

$$= \frac{360 \text{ days}}{2.09}$$

$$= 172.25 \text{ days}$$

average inventory is held

$$= \frac{360 \text{ days}}{2.45}$$

$$= 146.94 \text{ days}$$

(3 marks)

(ii) Advice

Comparatively Material M is slower than Material N since Inventory holding period of 'M' is 172.25 days in Comparison to 'N' i.e. 146.94 days. Infact, both materials have slow inventory turnover. Though, different business has their own expected rates for inventory turnover like food shops have fast inventory turnover, shop selling furniture etc. will have slower inventory turnover while manufacturers of large items of plant will have very long inventory turnover.

If it is not as per the Industry Standard, then a slow turnover may indicate that excessive inventory is held and risk of obsolete or spoiled inventory will increase. Large quantity of slow moving material means that capital is locked up in business and not earning revenue. It is advisable to make proper investigations into slow moving materials and take steps to minimize the loss arises therefrom as it may impact overall financial health of the organization.

(2 marks)

B. Objectives of system of material control

The objectives of a system of material control are the following:

- (i) **Minimising interruption in production process** : Ensuring that no activity, particularly production, suffers from interruption for want of materials and stores. It should be noted that this requires constant availability of every item that may be needed howsoever small its cost may be.
- (ii) **Optimisation of Material Cost** : Seeing to it that all the materials and stores are acquired at the lowest possible price considering the quality that is required and considering other relevant factors like reliability in respect of delivery, etc. Holding cost should also require to be minimized.
- (iii) **Reduction in Wastages**: Avoidance of unnecessary losses and wastages that may arise from deterioration in quality due to defective or long storage or from obsolescence. It may be noted that losses and wastages in the process of manufacture, concern the production department.
- (iv) **Adequate Information**: Maintenance of proper records to ensure that reliable information is available for all items of materials and stores that not only helps in detecting losses and pilferages but also facilitates proper production planning.
- (v) **Completion of order in time**: Proper material management is very necessary for fulfilling orders of the firm. This adds to the goodwill of the firm.

(5 marks)