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SUGGESTED SOLUTION

IPCC NOVEMBER 2016 EXAM

COSTING

Test Code - I N J1 1 0 2

BRANCH - (MUMBAI) (Date :10.07.2016)

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Answer-1 :

Calculation of Price of the Delhi-Jaipur-Agra-Delhi tour package

Particulars	Amount (Rs.)	Amount (Rs.)
Diesel Cost (Working Note-2)		2,635.00
Servicing Cost $\left(\frac{\text{Rs.30,000}}{\text{50,000 kms}} \text{ x 754 kms.}\right)$		452.40
Chauffeur's meal cost (three 200 km. completed journey x Rs.50)		150.00
Other Allocable Costs :		
Depreciation $\left(\frac{\text{Rs.12,00,000}}{\text{24,00,000 kms}} \text{ x 754 kms.}\right)$	377.00	
Other set-up and office cost $\left(\frac{\text{Rs.2,400}}{\text{30 days}} \text{ x 3 days}\right)$	240.00	
Chauffeur's Salary $\left(\frac{\text{Rs.12,000}}{\text{30 days}} \text{ x 3 days}\right)$	1,200.00	1,817.00
Total Cost		5,054.40
Add : Profit (25% of net takings or 1/3rd of total cost)		1,684.80
		6,739.20
Add : Service Tax @ 12.36%		832.97
Price of the package (inclusive of service tax)		**7,572.17**

(6 Marks)

Working Notes :

(1) Total distance of journey

From	To	Distance (Km.)
Delhi	Jaipur	274
Jaipur	Agra	238
Agra	Delhi	242
Total Distance		754

(1 Mark)

(2) Cost of Diesel

From	To	Distance (in Km.)	Price of diesel per litre (Rs.)	Total diesel Cost (Rs.)
I	II	III	IV	V = (III + 16 km) x IV
Delhi	Jaipur	274	54	924.75
Jaipur	Agra	238	56	833.00
Agra	Delhi	242	58	877.25
				2635.00

(1 Mark)

Answer-2 :

Working Notes:

1. Calculation of Notional Profit:

	Rs.
Value of work certified	21,07,500
Cost of work not certified	3,11,075
	24,18,575
Less: Total expenditure to date	17,64,525
Notional Profit	**6,54,050**

(2 Marks)

2. Calculation of total Contract Price:

	Rs.
Total expenditure to date	17,64,525
Estimated further expenditure	8,38,645
Total estimated cost	26,03,170
Add: Margin@40%	10,41,268
Total contract Price	36,44,438

(2 Marks)

3. Calculation of percentage (%) of contract completion:

$$= \frac{\text{Value of wor certified}}{\text{Total Contract Price}} \times 100$$

$$= \frac{\text{Rs.21,07,500}}{\text{Rs.36,44,438}} \times 100 = 57.83\%$$

(1 Mark)

(i) Conservative estimate of profit for the management

$$= 2/3 \times \text{Notional Profit} \times \frac{\text{Cash Received}}{\text{Value of Work of certified}}$$

$$= 2/3 \times \text{Rs.6,54,050} \times \frac{\text{Rs.14,75,250}}{\text{Rs.21,07,500}} = \text{Rs.3,05,223}$$

(1 Mark)

(ii) When the management of Hut-to-Palace appreciates the fact that the contractee is having liquidity crunch and it may not be able to pay further cash Payment. In this situation, following the concept of conservatism it has to recognise loss if any immediately i.e.

Cash Received - Expenditure to date	= Profit/(Loss)
Rs. 14,75,250 – Rs. 17,64,525	= (Rs.2,89,275)

(2 Marks)

Answer-3 :

Input		Output		Equivalent production					
Item	Units	Item	Units	Material A		Material B		Lab. &OHs	
				Units	%	Units	%	Units	%
Op. Stock	2,000	Work on op. WIP	2,000	-	-	400	20	800	40
Process II transfer	53,000	Introduced & completed during the period (48,000 – 2,000)	46,000	46,000	100	46,000	100	46,000	100
			48,000						
		Normal Loss (2,000 + 53,000 – 5,000) x 5%	2,500	-	-	-	-	-	-
		Closing WIP	5,000	5,000	100	3,500	70	2,500	50
			55,500	51,000		49,900		49,300	
		Abnormal Gain	500	500	100	500	100	500	100
	55,000		55,000	50,500		49,400		48,800	

(4 Marks)

* Material A represents transfer in units from Process-II

Statement of Cost for each Element

Element of cost	Cost (Rs.)	Equivalent Production	Cost per unit (Rs.)
Material A			
- Transferred from Process-II	4,11,500		
- Less: Scrap realisation (2,500 × Rs.3)	(7,500)		
	4,04,000	50,500	8.00
Material B	1,97,600	49,400	4.00
Wages	97,600	48,800	2.00
Overheads	48,800	48,800	1.00

	7,48,000	15.00

(2 Marks)

Process Cost Sheet (in Rs.)

Opening W-I-P:	
- Material B (400 × Rs. 4)	1,600
- Wages (800 × Rs. 2)	1,600
- Overheads (800 × Rs.1)	800
	4,000
Introduced and completely processed during the period (46,000 × Rs. 15)	**6,90,000**
Closing W-I-P:	
Material A (5,000 × Rs. 8)	40,000
Material B (3,500 × Rs. 4)	14,000
Wages (2,500 × Rs. 2)	5,000
Overheads (2,500 × Rs. 1)	2,500
	61,500
Abnormal Gain (500 × Rs. 15)	7,500

(3 Marks)

Process III A/c

	Units	**Amount**		**Units**	**Amount**
To Balance b/d	2,000	25,750	By Normal Loss	2,500	7,500
To Process II A/c.	53,000	4,11,500	By Process IV A/c (6,90,000 + 4,000+25,750)	48,000	7,19,750
To Direct Material	1,97,600		By Bal c/d	5,000	61,500
To Direct Wages	97,600				
To ProdnOHs	48,800				
To Abnormal Gain	500	7,500			
	55,500	**7,88,750**		**55,500**	**7,88,750**

(3 Marks)

Answer-4 :

Budgeted Cost Sheet for the year 2014

Particulars			**(Amount Rs.)**
Direct material consumed		12,00,000	
Add: 44% due to increased output		5,28,000	
		17,28,000	
Less: 6% for decline in price		1,03,680	16,24,320
Direct wages (manufacturing)		7,00,000	
Add: 60% increase		4,20,000	11,20,000
Prime cost			27,44,320
Manufactured Overhead:			
Fixed	3,60,000		
Add: 20% increase	72,000		
		4,32,000	
Variable	2,50,000		
Add: 60% increase	1,50,000		
		4,00,000	8,32,000
Cost of production			35,76,320
Add: 1/9 of Cost or 10% on selling price			3,97,369
Selling price			**39,73,689**

(7 Marks)

Production will increase by 60% but efficiency will decline by 10%.
160 – 10% of 160 = 144%
So increase by 44%. **(1 Mark)**

Note: If we consider that variable overhead once will change because of increase in production (From Rs. 2,50,000 to Rs. 4,00,000) then with efficiency declining by 10% it shall be Rs. 3,60,000 and then again as mentioned in point No. (iii) of this question it will increase by 60% then variable overhead shall be Rs.3,60,000 x 160% = Rs. 5,76,000. Hence, total costs shall be Rs.37,52,320 and profit shall be 1/9th of Rs.37,52,320 = Rs.4,16,924. Thus, selling price shall be Rs. 41,69,244.

Answer-5 (a) :

Assumption: There was no opening stock as on 1st January 2014

Materials Cost and Control

Month	Opening balance (units)	Purchases (units)	Issues (units)	Closing balance (units)
January, 2014	Nil	200	-	200
February	200	300	250	250
March	250	425	300	375
April	375	475	550	300
May	300	500	800	Nil
June, 2014	Nil	600	400	200

(4 Marks)

At the end of May 2014, there was no closing stock, i.e. no opening stock on 1st June, 2014.But there was closing of 200 units at the end of June 2014.
Value of closing stock at the end of June 2014
FIFO 200 Units at Rs. 20 = Rs. 4,000
LIFO 200 Units at Rs. 20 = Rs. 4,000
Weighted average Rs. 20 = Rs. 4,000

(2 Marks)

Hence the argument of Chief Accountant is correct. He is correct only in the above case. If therewas closing stock at the end of May 2014, the argument of the Chief Accountant would not becorrect.

Answer-5 (b) :

Computation of value of closing stock of raw materials [Average Cost Method]

Particulars		Quantity (Units)	Amount (Rs.)
Opening Stock of Raw Materials		10,000	1,80,000
Add	Purchase of raw materials	35,000	7,00,000
Add	Freight inwards		85,000
Add	Demurrage Charges levied by transporter for delay in collection		11,000
			9,76,000

Particulars		Quantity (Units)	Amount (Rs.)
Less	Abnormal Loss of raw materials (due to absorption of moisture before receipt of materials) = [(7,00,000 + 85,000 + 11000) x 100]/35,000	(100)	(2,274)
Less	Normal loss of materials due to shrinkage during transit [1% of 35,000 units]	(350)	——
Add	Cost of self-manufactured packing materials for purchased raw materials only (60,000 – 8,000)		52,000
	Cost of raw materials	**44,550**	**10,25,726**
Less:	Value of Closing Stock = Total Cost / (Total units – Units		

	of Normal Loss) [10,25,726/(10,000+35,000 – 100 – 350)]x 7,000	(7,000)	(1,61,169)
	Cost of Raw Materials Consumed	**37,550**	**8,64,557**

(7 Marks)

Note:

(i) Units of normal loss adjusted in quantity only and not in cost, as it is an includible item

(ii) Cost of self-manufactured packing materials does not include any share of administrative overheadsor finance cost or marketing overheads. Hence, marketing overheads excluded.

(iii) Abnormal loss of materials arised before the receipt of the raw materials, hence, valuation done on the basis of costs related to purchases only. Value of opening stock is not considered for arriving at the valuation of abnormal loss.

(iv) Demurrage charges paid to transporter is an includible item. Since this was paid to the transporter, hence considered before estimating the value of abnormal loss

(1 Mark)

Alternatively, Solving the Above Illustration Based on FIFO Method

Computation of value of closing stock of raw materials [FIFO Method]

Particulars		**Quantity (Units)**	**Amount (Rs.)**
Opening Stock of Raw Materials		10,000	1,80,000
Add	Purchase of raw materials	35,000	7,00,000
Add	Freight inwards		85,000
Add	Demurrage Charges levied by transporter for delay in collection		11,000
			9,76,000
Less	Abnormal Loss of raw materials (due to absorption of moisture before receipt of materials) = [(7,00,000 + 85,000 + 11000) x 100]/35,000	(100)	(2,274)
Less	Normal loss of materials due to shrinkage during transit = [1% of 35,000 units]	(350)	——
Add	Cost of self-manufactured packing materials for purchased raw materials only (60,000 – 8,000)		52,000
	Cost of Raw Materials	**44,550**	**10,25,726**

Particulars		**Quantity (Units)**	**Amount (Rs.)**
Less:	Value of Closing Stock = Total Cost / (Total units – Units of Normal Loss) Where Total Cost = = [7,00,000 + 85,000 + 11,000 -2,274 + 52,000] = 8,45,726 And Total Units = [35,000 – 1% of 35,000] = 34,650 units Value of Closing Stock = [8,45,726 x 7,000]/ 34,650	(7,000)	(1,70,854)
	Cost of Raw Materials Consumed	**37,550**	**8,54,872**

Note:

(i) Since FIFO method is followed, hence for the purpose of estimating the units sold/used/consumed, it is presumed that there is no units left out of units in opening stock.

(ii) Since normal loss is in transit, hence it is calculated on units purchased only.