



CA Inter Nov 2018

Costing

Mumbai (Code- INC 3007)

17<sup>th</sup> June 2018 (50 Marks)

**Topics-** Reconciliation Statement, Integral & Non-Integral, ABC, Standard, Marginal

**Answer all the given questions**

**Answer-1:**

Dr.		Raw Material A/c		Cr.	
	Rs.				Rs.
To Balance b/d	32,000	By W.I.P.A/c			53,000
To Creditors A/c. – Purchases	92,000	By Balance c/d			71,000
	<b>1,24,000</b>				<b>1,24,000</b>

Dr.		Work in Progress A/c		Cr.	
	Rs.				Rs.
To Balance c/d	9,200	By Finished Stock A/c			1,51,000
To Raw Materials (Bal.Fig.)	53,000	By Balance c/d			
To Wages (7,000 x Rs.10)	70,000	Material	5,000		
To Overheads (7,000 x Rs.4)	28,000	Labour (300xRs.10)	3,000		
		Overheads (300 x Rs.4)	<u>1,200</u>		9,200
	<b>1,60,200</b>				<b>1,60,200</b>

Dr.		Finished Goods A/c		Cr.	
	Rs.				Rs.
To Balance b/d	24,000	By Cost of Sales			1,45,000
To W.I.P.A/c. (as above)	1,51,000	By Balance c/d			30,000
	<b>1,75,000</b>				<b>1,75,000</b>

Dr.		Manufacturing Overhead A/c.		Cr.	
	Rs.				Rs.
To Sundries	29,600	By W.I.P.A/c			28,000
		By Under/over absorption a/c			1,600
	<b>29,600</b>				<b>29,600</b>

Dr.		Creditors A/c.		Cr.	
	Rs.				Rs.
To Cash	89,200	By Balance b/d			16,400
To Balance c/d	19,200	By Purchases (Bal.Fig.)			92,000

	<b>1,08,400</b>		<b>1,08,400</b>
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**Author's Notes :**

- (i) Creditors' opening and closing balance is given. It is also given that creditors were paid Rs.89,200. It is, therefore, to be inferred that balancing figure represents purchases.
- (ii) For work in progress A/c., opening balance and transfer to finished stock a/c. is given. Closing balance has to be worked out. Then debit to work in progress A/c. due to wages and manufacturing overhead have to be identified. Then, balancing figure will be transferred from raw material account to work in progress account.
- (iii) In question relating to missing information, basic accountancy knowledge has to be used to identify the missing information.

**Answer-2:**

	<b>Rs.</b>
Sales 50,000 units at Rs.7	3,50,000
Variable cost 50,000 × Rs.3	1,50,000
Contribution 50,000 × Rs.4	2,00,000
Fixed costs	1,20,000
Profit	80,000

$$P/V \text{ ratio} = \frac{S-V}{S} \times 100 = \frac{7-3}{7} \times 100 = \frac{4}{7} \times 100 = 57.14\%$$

$$BEP \text{ (units)} = \frac{F}{\text{Contribution per unit}} = \frac{\text{Rs.1,20,000}}{\text{Rs.4}} = 30,000 \text{ Units}$$

$$BEP \text{ (Value)} = 30,000 \text{ Units} \times \text{Rs.7} = \text{Rs.2,10,000}$$

Profit is Rs. 80,000 (as calculated above)

- (ii) with a 10% increase in output & sales

i.e., 50,000 + 5,000 = 55,000 units

Contribution 55,000 × Rs. 4 per unit Rs. 2,20,000

Fixed costs Rs. 1,20,000

	Profit	<u>Rs. 1,00,000</u>
(iii)	with a 10% increase in Fixed Cost	
	Contribution (50,000 × Rs. 4 per unit)	Rs. 2,00,000
	Fixed cost (1,20,000 + 12,000)	<u>Rs. 1,32,000</u>
	Profit	<u>Rs. 68,000</u>
(iv)	with a 10% increase in variable costs	
	Selling price per unit	7.00
	Less: variable cost (3 + 0.30)	<u>3.30</u>
	Contribution per unit	<u>3.70</u>
	Total contribution 50,000 × 3.70	1,85,000
	Fixed costs	<u>1,20,000</u>
	Profit	<u>65,000</u>
(v)	with a 10% increase in selling price	
	Selling price per unit (7.00 + 0.70)	7.70
	Variable cost per unit	<u>3.00</u>
	Contribution per unit	4.70
	Total contribution 50,000 × Rs. 4.70	2,35,000
	Fixed costs	<u>1,20,000</u>
	Profit	<u>1,15,000</u>
(vi)	Effect of all the four above:-	
	Sales 55,000 × Rs. 7.70 per unit	Rs. 4,23,500
	Variable cost 55,000 × 3.30	<u>Rs. 1,81,500</u>
	Contribution 55,000 × 4.40	Rs. 2,42,000
	Fixed cost 1,20,000 + 12,000	<u>Rs. 1,32,000</u>
	Profit	<u>Rs. 1,10,000</u>

**Note:** It is assumed that the increased output of 55,000 units has been sold.

### Answer-3:

### Workings:

	Skilled	Unskilled
Standard Rate per hour	80	60
Standard time for	1.5 hours (Rs.120 ÷ Rs.80)	1.5 hours (Rs.90 ÷ Rs.60)

producing one unit		
Actual hours paid (AH <sub>Paid</sub> )	6,600 hours	5,400 hours
Standard hours required to produce 4,000 units (SH)	6,000 hours (1.5 hours× 4,000 units)	6,000 hours (1.5 hours× 4,000 units)
Actual hours worked (AH <sub>Worked</sub> )	$\frac{6,600}{100} \times 97.5$ = 6,435 hours	$\frac{5,400}{100} \times 97.5$ = 5,265 hours
Revised Std. Hours (RSH)	$\left(\frac{6,600+5,400}{100} \times 97.5\right) \times 0.5$ = 5,850 hours	$\left(\frac{6,600+5,400}{100} \times 97.5\right) \times 0.5$ = 5,850 hours
Idle time <sub>Abnormal</sub>	6,600-6,435 = 165 hours	5,400 – 5,265 = 135 hours

- (i) Labour Rate Variance = AH<sub>Paid</sub> (Std. Rate – Actual Rate)
- Skilled = 6,600 hours (Rs.80 – Rs.87.50) = Rs.49,500 (A)
  - Unskilled = 5,400 hours (Rs.60 – Rs.55) = Rs.27,000 (F)
  - = Rs.22,500 (A)
- (ii) Labour Efficiency Variance = Std. Rate (SH – AH<sub>Worked</sub>)
- Skilled = Rs.80 (6,000 hours – 6,435 hours) =Rs.34,800(A)
  - Unskilled = Rs.60 (6,000 hours – 5,265 hours) =Rs.44,100 (F)
  - = Rs.9,300 (F)
- (iii) Labour Mix Variance = Std. Rate (RSH – AH<sub>Worked</sub>)
- Skilled = Rs.80 (5,850 hours – 6,435 hours) =Rs.46,800(A)
  - Unskilled = Rs.60 (5,850 hours – 5,265 hours) =Rs.35,100 (F)
  - = Rs.11,700 (A)
- (iv) Labour Yield Variance = Std. Rate (SH – RSH)
- Skilled = Rs.80 (6,000 hours – 5,850 hours) =Rs.12,000 (F)
  - Unskilled = Rs.60 (6,000 hours – 5,850 hours) = Rs.9,000 (F)
  - = Rs.21,000 (F)
- (v) Labour Idle time Variance = Std. Rate × Idle time<sub>Abnormal</sub>
- Skilled = Rs.80 × 165 hours = Rs.13,200 (A)
  - Unskilled = Rs.60 × 135 hours = Rs.8,100 (A)
  - = Rs.21,300 (A)
- (vi) Variable Overhead Expenditure Variance

$$= AH_{\text{Worked}} (SR - AR)$$

$$= 11,700 \text{ hours} \left( \frac{Rs.75}{2 \times 1.5 \text{ hours}} - \frac{Rs.2,85,000}{11,700 \text{ hours}} \right)$$

$$= 11,700 \text{ hours} (Rs.25 - Rs.24.36) = Rs.7,488 (F)$$

(vii) Variable Overhead Efficiency Variance

$$= \text{Std. Rate} (SH - AH_{\text{Worked}})$$

$$= Rs.25 (12,000 - 11,700) = Rs.7,500 (F)$$

**Answer-4 :**

**Dr. Profit and Loss Account (As per Financial Records)**

**Cr.**

	<b>Rs, '000</b>		<b>Rs. '000</b>
To Direct materials	5,000	By Sales (1,20,000 units)	12,000
" Direct wages	3,000	" Closing stock:	
" Factory overheads	1,600	WIP	240
" Gross Profit	2,960	Finished goods (4,000 units)	320
	<b>12,560</b>		<b>12,560</b>

To Admn. overheads	700	By Gross Profit	2,960
" S&D Overheads	960	" Dividend	100
" Legal charges	10	" Interest	20
" Preliminary expenses written off	40		
" Bad Debts	80		
" Net Profit	1,290		
	<b>3,080</b>		<b>3,080</b>

**Statement showing cost and profit as per cost records**

	Amount
Direct material	Rs.56,00,000
Direct wages	<u>30,00,000</u>
Prime cost	86,00,000
Factory overheads (20% on Prime Cost)	<u>17,20,000</u>

	1,03,20,000
Less: Closing WIP	<u>2,40,000</u>
Works cost of (1,20,000 + 4,000) = 1,24,000 units	1,00,80,000
Administration overheads (1,24,000 x Rs. 6)	<u>7,44,000</u>
Cost of production (1,24,000 units)	1,08,24,000
Less: Finished stock (4,000 x Rs. 87.29*)	<u>3,49,160</u>
Cost of goods sold (1,20,000 units)	1,04,74,840
Selling and distribution expenses (1,20,000 x Rs. 8)	<u>9,60,000</u>
Cost of sales	1,14,34,840
Sales	<u>1,20,00,000</u>
Net Profit	<u>5,65,160</u>

\* Rs. 1,08,24,000 + 1,24,000 = Rs. 87.29

**Statement Showing the reconciliation of profit as per financial and as per cost accounts.**

Profit as per cost records		Rs.5,65,160
Add: Excess expenses charged in cost accounts:		
Material	Rs. 6,00,000	
Factory overheads	1,20,000	
Admn. overheads	44,000	
Add: Income not considered in cost accounts:		
Dividend	1,00,000	
Indirect received	<u>20,000</u>	<u>8,84,000</u>
		14,49,160

Less: Expenses not charged in cost accounts:

Legal charges	10,000	
Preliminary expenses written off	40,000	
Bad debts	80,000	
Less: Over-valuation of closing stock in cost records	<u>29,160</u>	<u>1,59,160</u>
Profits as per financial records		<u>12,90,000</u>

### Answer 5

#### (i) Statement of cost allocation to each product from each activity

	Product			Total (₹)
	M (₹)	S (₹)	T (₹)	
Power (Refer to working note)	40,000 (10,000 kWh × `4)	80,000 (20,000 kWh × `4)	60,000 (15,000 kWh × `4)	1,80,000
Quality Inspections (Refer to working note)	1,05,000 (3,500 inspections × `30)	75,000 (2,500 inspections × `30)	90,000 (3,000 inspections × `30)	2,70,000

**Working note :**

**Rate per unit of cost driver:**

Power	(₹ 2,00,000 / 50,000 kWh)	` 4/kWh
Quality Inspection	(₹ 3,00,000 / 10,000 inspections)	` 30 per inspection

#### (ii) Computation of cost of unused capacity for each activity:

	(₹)
Power (₹ 2,00,000 - ` 1,80,000)	20,000
Quality Inspections (₹ 3,00,000 - ` 2,70,000)	30,000
<b>Total cost of unused capacity</b>	<b>50,000</b>

**(iii) Factors management consider in choosing a capacity level to compute the budgeted fixed overhead cost rate:**

- Effect on product costing & capacity management
- Effect on pricing decisions.
- Effect on performance evaluation
- Effect on financial statements
- Regulatory requirements.
- Difficulties in forecasting chosen capacity level concepts.