QUESTION 30

A factory incurred the following expenditure during the year 2020.

Particulars	*Amount in (Rs.)*	*Amount in (Rs.)*
Direct Material Consumed		*12,00,000*
Manufacturing Wages		*7,00,000*
Manufacturing Overheads:	*3,60,000*	
Fixed		
Variable	*2,50,000*	*6,10,000*
		25,10,000

In the year 2021, following changes are expected in production and cost of production.

(i) Production will increase due

To recruitment of 60% more workers in the factory.

(ii) Overall efficiency will decline by 10% on account of recruitment of new workers.

(iii) There will be an increase of 20% in Fixed Overhead and 60% in Variable Overhead.

(iv) The cost of direct material will be decreased by 6%.

(v) The company desire to earn a profit of 10% on Selling Price.

Ascertain the Cost of Production and Selling Price.

SOLUTION

Budaeted Cost Sheet for the year 2008

Particulars	Amount in (Rs.)	Amount in (Rs.)	Amount in (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

QUESTION 31 (Similar to RTP May 18, Nov 19, May 20)

As on 31st March, 2020, the following balances existed in a firm's Cost Ledger:

	Dr.	Cr.
	(Rs.)	(Rs.)
Stores Ledger Control A/c	3,01,435	
Work-in-Process Control A/c	1,22,365	
Finished Stock Ledger Control A/c	2,51,945	
Manufacturing Overhead Control A/c		10,525
Cost Ledger Control A/c		6,65,220
	6,75,745	6,75,745

During the next three months the following items arose:

	(Rs.)
Finished product (at cost)	2,10,835
Manufacturing overhead incurred	91,510
Raw materials purchased	1,23,000
Factory Wages	50,530
Indirect Labour	21,665
Cost of Sales	1,85,890
Material issued to production	1,27,315
Sales returned at Cost	5,380
Material returned to suppliers	2,900
Manufacturing overhead charged to production	77,200

You are required to PASS the Journal Entries; write up the accounts and schedule the balances, stating what each balance represents.

Student Notes

SOLUTION

Journal entries are as follows:

			Dr. (Rs.)	Cr. (Rs.)
1.	Finished stock ledger Control A/c	Dr.	2,10,835	
	To work-in-Process Control A/c			2,10,835
2.	Manufacturing Overhead Control A/c	Dr.	91,510	
	To Cost Ledger Control A/c			91,510
3.	Stores Ledger Control A/c	Dr.	1,23,000	
	To Cost Ledger Control A/c			1,23,000
4.	(i) Wage Control A/c	Dr.	72,195	
	To Cost Ledger Control A/c			72,195
	(ii) Work-in-Process Control A/c	Dr.	50,530	
	To Wages Control A/c			50,530
	(iii) Manufacturing Overhead Control A/c	Dr.	21,665	
	To Wages Control A/c			21,665
5.	Cost of Sales A/c	Dr.	1,85,890	
	To Finished Stock Ledger A/c			1,85,890
6.	Work-in-Process Control A/c	Dr.	1,27,315	
	To Stores Ledger Control A/c			1,27,315
7.	Finished Stock Ledger A/c	Dr.	5,380	
	To Cost of Sales A/c			5,380
8.	Cost Ledger Control A/c	Dr.	2,900	
	To Stores Ledger Control A/c			2,900
9.	Work-in-Process Control A/c	Dr.	77,200	
	To Manufacturing Overhead Control A/c			77,200

COST LEDGERS

Cost Ledger Control Account

Particulars		(Rs.)	Particulars		(Rs.)
To	Stores Ledger Control A/c (return)	2,900	By	Balance b/d	6,65,220
"	Balance c/d	9,49,025	"	Manufacturing OH Control A/c	91,510
			"	Stores Ledger Control A/c	1,23,000
			"	Wages Control A/c	72,195
		9,51,925			9,51,925

Stores Ledger Control Account

Particulars	(Rs.)	Particulars	(Rs.)
To Balance b/d	3,01,435	By Work in Process Control A/c	1,27,315
" Cost Ledger Control A/c	1,23,000	" Cost Ledger Control A/c	2,900
		" Balance c/d	2,94,220
	4,24,435		4,24,435

Wages Control Account

Particulars	(Rs.)	Particulars	(Rs.)
To Cost Ledger Control A/c	72,195	By Work in Process Control A/c	50,530
		" Manufacturing OH Control A/c	21,665
	72,195		72,195

Manufacturing Overhead Control Account

Particulars	(Rs.)	Particulars	(Rs.)
To Cost Ledger Control A/c	91,510	By Balance b/d	10,525
" Wages Control A/c	21,665	" Work in Process Control A/c	77,200
		" Balance c/d	25,450
	1,13,175		1,13,175

Work-in-Process Control Account

Particulars	(Rs.)	Particulars	(Rs.)
To Balance b/d	1,22,365	By Finished Stock Ledger Control A/c	2,10,835
" Wages Control A/c	50,530	" Balance c/d	1,66,575
" Stores Ledger Control A/c	1,27,315		
" Manufacturing OH Control A/c	77,200		
	3,77,410		3,77,410

Finished Stock Ledger Control Account

Particulars	(Rs.)	Particulars	(Rs.)
To Balance b/d	2,51,945	By Cost of Sales Control A/c	1,85,890
" Work in Process Control A/c	2,10,835	" Balance c/d	2,82,270
" Cost of Sales Control A/c (Return at cost)	5,380		
	4,68,160		4,68,160

Cost of Sales Account

Particulars	(Rs.)	Particulars	(Rs.)
To Finished Stock Ledger Control	1,85,890	By Finished Stock Ledger Control (Return)	5,380
		" Balance c/d	1,80,510
	1,85,890		1,85,890

Trial Balance

Particulars	Dr.	Cr.
	(Rs.)	(Rs.)
Stores Ledger Control A/c	2,94,220	
Work-in-Process Control A/c	1,66,575	
Finished Stock Ledger Control A/c	2,82,270	
Manufacturing Overhead Control A/c	25,450	
Cost of Sales A/c	1,80,510	
Cost Ledger Control A/c		9,49,025
	9,49,025	**9,49,025**

QUESTION 32

A Company operates separate cost accounting and financial accounting systems. The following is the list of opening balances as on 1.04.2021 in the Cost Ledger.

	Debit (₹)	Credit (₹)
Stores Ledger Control Account	53,375	--
WIP Control Account	1,04,595	--
Finished Goods Control Account	30,780	--
General Ledger Adjustment Account	--	1,88,750

Transactions for the quarter ended 30.06.2021 are as under:

	(₹)
Materials purchased	26,700
Materials issued to production	40,000
Materials issued to factory for repairs	900
Factory wages paid (including indirect wages ₹23,000)	77,500
Production overheads incurred	95,200
Production overheads under-absorbed and written-off	3,200
Sales	2,56,000

The Company's gross profit is 25% on Cost of Sales. At the end of the quarter, WIP stocks increased by₹ 7,500.

Prepare the relevant Control Accounts, Costing Profit & Loss Account and General Ledger Adjustment Account to record the above transactions for the quarter ended 30.06.2021.

SOLUTION

General Ledger Adj. A/c

Dr. Cr.

Particulars	(₹)	Particulars	(₹)
To Sales	2,56,000	By Balance b/d	1,88,750
To Balance c/d	1,80,150	By Stores ledger control A/c (Materials purchased)	26,700
		By Wages control A/c (Factory wages paid)	77,500
		By Factory Overheads control A/c (Production overhead incurred)	95,200
		By Costing Profit & Loss A/c	48,000
	4,36,150		4,36,150

Stores Ledger Control A/c

Dr. Cr.

Particulars	(₹)	Particulars	(₹)
To Balance b/d	53,375	By WIP control A/c (Materials issued to production)	40,000
To General ledger adj. A/c (Materials purchased)	26,700	By Factory overhead control A/c (Materials issued for repairing)	900
		By Balance c/d	39,175
	80,075		80,075

WIP Control A/c

Dr. Cr.

Particulars	(₹)	Particulars	(₹)
To Balance b/d	1,04,595	By Finished goods control A/c (Balancing figure)	2,02,900
To Stores ledger control A/c	40,000	By Balance c/d	1,12,095
To Wages control A/c	54,500		
To Factory Overhead control A/c	1,15,900		
	3,14,995		3,14,995

Finished Goods Control A/c

Dr. Cr.

Particulars	(₹)	Particulars	(₹)
To Balance b/d	30,780	By Cost of sales A/c *(Refer to note)*	2,04,800
To WIP control A/c	2,02,900	By Balance c/d	28,880
	2,33,680		2,33,680

Note: Gross profit is 25% of Cost of Sales or 20% on sales.
Hence cost of sales = ₹ 2,56,000 – 20% of ₹ 2,56,000 = ₹ 2,04,800

Factory Overhead Control A/c

Dr. Cr.

Particulars	(₹)	Particulars	(₹)
To Stores ledger control A/c	900	By Costing Profit & Loss A/c (Under-absorption of overhead)	3,200
To Wages control A/c	23,000		
To General ledger adj. A/c	95,200	By WIP control A/c	1,15,900
	1,19,100		1,19,100

Cost of Sales A/c

Dr. Cr.

Particulars	(₹)	Particulars	(₹)
To Finished goods control A/c	2,04,800	By Costing Profit & Loss A/c	2,04,800

Sales A/c

Dr. Cr.

Particulars	(₹)	Particulars	(₹)
To Costing Profit & Loss A/c	2,56,000	By GLA A/c	2,56,000

Wages Control A/c

Dr. Cr.

Particulars	(₹)	Particulars	(₹)
To General ledger adj. A/c	77,500	By Factory overhead control A/c (Wages paid for direct labour)	23,000
		By WIP control A/c (Wages paid for indirect labour)	54,500
	77,500		77,500

Costing Profit & Loss A/c

Dr. Cr.

Particulars	(₹)	Particulars	( )
To Factory O/H	3,200	By Sales A/c	2,56,000
Control A/c	2,04,800		
To Cost of sales A/c	48,000		
To General ledger adj. A/c (Profit)			
	2,56,000		2,56,000

Trial Balance (as on 30.06.2021)

	Dr. (₹)	Cr. (₹)
Stores ledger control A/c	39,175	
WIP control A/c	1,12,095	
Finished goods control A/c	28,880	
To General ledger adjustment A/c		1,80,150
	1,80,150	1,80,150

QUESTION 33

In the absence of Chief Accountant, you have been asked to prepare a month's cost accounts for a company which operates a batch costing system fully integrated with the financial accounts. The following relevant information is provided to you:

	(Rs.)	(Rs.)
Balances at the beginning of the month:		
Stores Ledger Control Account		25,000
Work-in-Process Control Account		20,000
Finished Goods Control Account		35,000
Prepaid Production Overheads brought forward from previous month		3,000
Transactions during the month:		
Materials purchased		75,000
Materials Issued:		
To production	30,000	
To factory maintenance	4,000	34,000
Materials transferred between batches		5,000
Total wages paid:		
To direct workers	25,000	
To indirect workers	5,000	30,000
Direct wages charged to batches		20,000
Recorded non-productive time of direct workers		5,000
Selling and Distribution Overheads Incurred		6,000
Other Production Overheads Incurred		12,000
Sales		1,00,000
Cost of Finished Goods Sold		80,000
Cost of Goods completed and transferred into finished Goods during the month		65,000
Physical value of work-in-Process at the end of the month		40,000

The production overhead absorption rate is 150% of direct wages charged to work-in-Process.

Required:

PREPARE the following accounts for the month:

(a) Stores Ledger Control Account

(b) Work-in-Process Control Account

(c) Finished Goods Control Account

(d) Production Overhead Control Account

(e) Costing Profit and Loss Account

SOLUTION

(a) Stores Ledger Control Account

	(Rs.)		(Rs.)
To Balance b/d	25,000	By Work in Process Control A/c	30,000
" Creditors/ Bank A/c	75,000	" Production OH Control A/c	4,000
		" Balance c/d	66,000
	1,00,000		1,00,000

(b) Wages Control Account

	(Rs.)		(Rs.)
To Bank A/c (Paid to direct workers	25,000	By Work in Process Control A/c (Charged to batches)	20,000
" Bank A/c (Paid to indirect workers)	5,000	" Production OH Control A/c	5,000
		" Production OH Control A/c (Non-productive wages)	5,000
	30,000		30,000

(C) Production Overhead Control Account

	(Rs.)		(Rs.)
To Balance b/d (Prepaid amount)	3,000	By Work-in-Process Control A/c (150% of direct wages)	30,000
" Stores Ledger Control A/c:	4,000		
" Wages Control A/c (5,000 + 5,000)	10,000		
" Bank A/c	12,000		
" Costing P&L A/c* (Over-absorption, Balancing figure)	1,000		
	30,000		30,000

*Alternatively the over absorbed overhead may be carried forward.

(d) Work-in-Process Control A/c

	(Rs.)		(Rs.)
To Balance b/d (Prepaid amount)	20,000	By Finished Goods Control A/c	65,000
" Stores Ledger Control A/c:	30,000	" Balance c/d (Physical value)	40,000
" Wages Control A/c	20,000		
" Production OH Control A/c (150% of direct wages)	30,000		
" Costing P&L A/c (Stock Gains)	5,000		
	1,05,000		1,05,000

(e) Finished Goods Control Account

	(Rs.)		(Rs.)
To Balance b/d	35,000	By Cost of Goods Sold* A/c	80,000
" Work in Process Control A/c	65,000	" Balance c/d	20,000
	1,00,000		1,00,000

*Alternatively, Costing Profit & Loss Account

(f) Costing Profit & Loss Account

	(Rs.)		(Rs.)
To Finished Goods Control A/c or Cost of Goods Sold A/c	80,000	By Sales A/c	1,00,000
" Selling & distribution OH A/c	6,000	" Production OH Control A/c	1,000
" Balance c/d	20,000	" Work-in-Process Control A/c (Stock gain)	5,000
	1,06,000		1,06,000

Notes:

(1) Materials transferred between batches will not affect the Control Accounts.

(2) Non-production time of direct workers is a production overhead and therefore will not be charged to work-in-Process control A/c.

(3) Production overheads absorbed in work-in- Process Control A/c equals to Rs.30,000 (150% of Rs.20,000).

(4) In the work-in-Process Control A/c the excess physical value of stock is taken resulting in stock gain. Stock gain is transferred to Profit & Loss A/c.

QUESTION 34

The following figures have been extracted from the Financial Accounts of a manufacturing firm for the first year of its operation:

	(Rs.)
Direct material Consumption	50,00,000
Direct wages	30,00,000
Factory Overheads	16,00,000
General administrative overheads	7,00,000
Selling and Distribution overheads	9,60,000
Bad debts	80,000
Preliminary expenses written off	40,000
Legal charges	10,000
Dividends received	1,00,000
Interest received on deposits	20,000
Sales (1,20,000 units)	1,20,00,000
Closing stock:	
Finished goods(4,000 units)	3,20,000
Work-in-Process	2,40,000

The cost accounts for the same period reveal that the direct material consumption was Rs. 56,00,000. Factory overhead is recovered at 20% on prime cost. Administration overhead is recovered at Rs. 6 per unit of production. Selling and distribution overheads are recovered at Rs. 8 per unit sold.

PREPARE the Profit and Loss Accounts both as per financial records and as per cost records. RECONCILE the profits as per the two records.

SOLUTION

Profit and Loss Account
(As per financial records)

	(Rs.)		(Rs.)
To Direct Material	50,00,000	By Sales (1,20,000 Units)	1,20,00,000
To Direct Wages	30,00,000	By Closing Stock	
To Factory Overheads	16,00,000	Work-in-process	2,40,000
To Gross Profit c/d	29,60,000	Finished Goods (4,000 units)	3,20,000
	1,25,60,000		1,25,60,000

To	General Administrative Overheads	7,00,000	By	Gross Profit b/d	29,60,000
To	Selling and Dist. OH	9,60,000	By	Dividend received	1,00,000
To	Bad debts	80,000	By	Interest received	20,000
To	Preliminary Expenses written off	40,000			
To	Legal Charges	10,000			
To	**Net Profit**	**12,90,000**			
		30,80,000			**30,80,000**

Statement of Cost and Profit

(As per Cost Records)

	Total (Rs.)
Direct Material	56,00,000
Direct Wages	30,00,000
Prime Cost	**86,00,000**
Factory overhead (20% of 86,00,000)	17,20,000
	1,03,20,000
Less: Closing Stock (WIP)	(2,40,000)
Works Cost or cost of Production (1,24,000 units)	**1,00,80,000**
Less: Finished Goods (4,000 units @ 81.29)	(3,25,160)
Cost of goods sold (1,20,000 units)	**97,54,840**
Administrative overhead (1,24,000 units @ 6 p.u.)	7,44,000
Selling and Distribution Overhead (1,20,000 units @ 8 p.u.)	9,60,000
Cost of Sales	**1,14,58,840**
Net profit (Balancing figure)	5,41,160
Sales Revenue	**1,20,00,000**

Statement of Reconciliation of profit as obtained under Cost and Financial Accounts

		(Rs.)	Total (Rs.)
	Profit as per Cost Records		**5,41,160**
Add:	Excess of Material Consumption	6,00,000	
	Factory Overhead	1,20,000	
	Administrative Overhead	44,000	
	Dividends received	1,00,000	
	Interest received	20,000	8,84,000
			14,25,160
Less:	Bad debts	80,000	
	Preliminary expenses written off	40,000	
	Legal charges	10,000	
	Over-valuation of stock in cost book (3,25,160- 3,20,000)	5,160	(1,35,160)
	Profit as per Financial Records		**12,90,000**

QUESTION 35 (Similar to Past Paper May 19, RTP Nov 20)

M/s H.K. Piano Company showed a net loss of Rs. 4,16,000 as per their financial accounts for the year ended 31st March, 2021. The cost accounts, however, disclosed a net loss of Rs. 3,28,000 for the same period. The following information was revealed as a result of scrutiny of the figures of both the sets of books:

		(Rs.)
(i)	Factory overheads under-recovered	6,000
(ii)	Administration overheads over-recovered	4,000
(iii)	Depreciation charged in financial accounts	1,20,000
(iv)	Depreciation recovered in costs	1,30,000
(v)	Interest on investment not included in costs	20,000
(vi)	Income -tax provided	1,20,000
(vii)	Transfer fees (credit in financial books)	2,000
(viii)	Stores adjustment (credit in financial books)	2,000

PREPARE a Memorandum reconciliation account.

SOLUTION

Memorandum Reconciliation Account

		(Rs.)			(Rs.)
To	**Net loss as per costing books**	**3,28,000**	By	Administration overhead – over-recovered in costs	4,000
To	Factory overheads under-recovered in costs	6,000	By	Depreciation overcharged in costs	10,000
To	Income-tax not provided in costs	1,20,000	By	Interest on investments not included in costs	20,000
			By	Transfer fees in financial books	2,000
			By	Stores adjustment	2,000
			By	**Net loss as per financial books**	**4,16,000**
		4,54,000			4,54,000

QUESTION 36

A jobbing factory has undertaken to supply 200 pieces of a component per month for the ensuing six months. Every month a batch order is opened against which materials and labour hours are booked at actual. Overheads are levied at a rate equal to per labour hour. The selling price contracted for is Rs. 8 per piece. From the following data CALCULATE the cost and profit per piece of each batch order and overall position of the order for 1,200 pieces.

Month	Batch Output	Material cost	Direct wages	Direct labour
		(₹)	(₹)	hours
January	210	650	120	240
February	200	640	140	280
March	220	680	150	280
April	180	630	140	270
May	200	700	150	300
June	220	720	160	320

The other details are:

Month	Chargeable expenses	Direct labour
	(₹)	hours
January	12,000	4,800
February	10,560	4,400
March	12,000	5,000
April	10,580	4,600
May	13,000	5,000
June	12,000	4,800

Student Notes

SOLUTION

Particulars	Jan.	Feb.	March	April	May	June	Total
Batch output (inunits)	210	200	220	180	200	220	1,230
Sale value (₹)	1,680	1,600	1,760	1,440	1,600	1,760	9,840
Material cost (₹)	650	640	680	630	700	720	4,020
Direct wages (₹)	120	140	150	140	150	160	860
Chargeable expenses* (₹)	600	672	672	621	780	800	4,145
Total cost (₹)	1,370	1,452	1,502	1,391	1,630	1,680	9,025
Profit per batch (₹)	310	148	258	49	(30)	80	815
Total cost per unit (₹)	6.52	7.26	6.83	7.73	8.15	7.64	7.34
Profit per unit (₹)	1.48	0.74	1.17	0.27	(0.15)	0.36	0.66

Overall position of the order for 1,200 units

Sales value of 1,200 units @ ₹ 8 per unit	₹ 9,600
Total cost of 1,200 units @ ₹ 7.34 per unit	₹ 8,808
Profit	₹ 792

* $\frac{\text{Chargeable expenses}}{\text{Direct labour hour for the month}}$ × Direct labour hours for batch

QUESTION 37

Arnav Motors Ltd. manufactures pistons used in car engines. As per the study conducted by the Auto Parts Manufacturers Association, there will be a demand of 80 million pistons in the coming year. Arnav Motors Ltd. is expected to have a market share of 1.15% of the total market demand of the pistons in the coming year. It is estimated that it costs Rs. 1.50 as inventory holding cost per piston per month and that the set-up cost per run of piston manufacture is Rs. 3,500.

(i) What would be the optimum run size for piston manufacturing?

(ii) Assuming that the company has a policy of manufacturing 40,000 pistons per run, how much extra costs the company would be incurring as compared to the optimum run suggested in (i) above?

SOLUTION

(i) Optimum run size or Economic Batch Quantity (EBQ) = $\sqrt{\frac{2 \times D \times S}{C}}$

Where, D = Annual demand i.e. 1.15% of 8,00,00,000
= 9,20,000 units
S = Set-up cost per run = Rs. 3,500
C = Inventory holding cost per unit per annum
= Rs. 1.5 × 12 months = Rs. 18

$$EBQ = \sqrt{\frac{2 \times 9,20,000 \text{units} \times 3,500}{\text{Rs. } 18}} = 18,915 \text{ units}$$

(ii) calculation of Total Cost of set-uo and inventory holding

	Batch size	No. of set-ups	Set-up Cost (Rs.)	Inventory holding cost (Rs.)	Total Cost (Rs.)
A	40,000 units	23 $\left(\frac{9,20,000}{40,000}\right)$	80,500 23 × Rs. 3,500	3,60,000 $\left(\frac{40,000 \times \text{Rs. } 18}{2}\right)$	4,40,500
B	18,915 units	49 $\left(\frac{9,20,000}{18,915}\right)$	1,71,500 (49 × Rs. 3,500)	1,70,235 $\left(\frac{18,915 \times \text{Rs. } 18}{2}\right)$	3,41,735
	Extra Cost (A – B)				98,765

QUESTION 38

Rio Limited undertakes to supply 1000 units of a component per month for the months of January, February and March 2020. Every month a batch order is opened against which materials and labour cost are booked at actual. Overheads are levied at a rate per labour hour. The selling price is contracted at Rs. 15 per unit.

From the following data, CALCULATE the profit per unit of each batch order and the overall position of the order for the 3,000 units.

Month	Batch Output (Numbers)	Material Cost (Rs.)	Labour Cost (Rs.)
January 2020	1,250	6,250	2,500
February 2020	1,500	9,000	3,000
March 2020	1,000	5,000	2,000

Labour is paid at the rate of Rs. 2 per hour. The other details are:

Month	Overheads (Rs.)	Total Labour Hours
January 2020	12,000	4,000
February 2020	9,000	4,500
March 2020	15,000	5,000

SOLUTION

Statement of Cost and Profit per unit of each batch

	Jan. 2020	Feb. 2020	March. 2020	Total
a) Batch Output (Nos.)	1,250	1,500	1,000	3,750
b) Sales Value (@ Rs. 15 per unit)	(Rs.) 18,750	(Rs.) 22,500	(Rs.) 15,000	(Rs.) 56,250
Cost				
Material	6,250	9,000	5,000	20,250
Wages	2,500	3,000	2,000	7,500
Overheads	3,750	3,000	3,000	9,750
c) Total	12,500	15,000	10,000	37,500

d) Profit per batch (b) – (c)	6,250	7,500	5,000	18,750
e) Cost per unit (c) ÷ (a)	10	10	10	
f) Profit per unit (d) ÷ (a)	5	5	5	

Overall Position of the Order for 3,000 Units

Sales value (3,000 units × Rs. 15)	Rs. 45,000
Less: Total cost (3,000 units × Rs. 10)	30,000
Profit	15,000

Calculation of overhead per hour:

	Jan. 2020	Feb. 2020	March 2020
i. Labour hours:			
$= \frac{\text{Labour cost}}{\text{Labour rates per hour}}$	$\frac{\text{Rs. 2,500}}{2} = 1,250$	$\frac{\text{Rs. 3,000}}{2} = 1.500$	$\frac{\text{Rs. 2,000}}{2} = 1,000$
ii. Overhead per hour:			
$= \frac{\text{Total Overheads}}{\text{Total labour hour}}$	$\frac{\text{Rs.12,000}}{4,000} = \text{Rs. 3}$	$\frac{\text{Rs. 9,000}}{4,500} = \text{Rs. 2}$	$\frac{\text{Rs. 15,000}}{5,000} = \text{Rs. 3}$
iii. Overhead for batch (i) × (ii)	Rs. 3,750	Rs. 3,000	Rs. 3,000

Student Notes

Q.	Concept	Pg
39	Job Cost Sheet	97-98

QUESTION 39 (Similar to Past Paper Nov 19)

A shop floor supervisor of a small factory presented the following cost for Job No. 303, to determine the selling price.

	Per unit (₹)
Materials	70
Direct wages 18 hours @ ₹ 2.50	45
(Deptt. X 8 hours; Deptt. Y 6 hours; Deptt. Z 4 hours)	
Chargeable expenses	5
	120
Add : 33-1/3 % for expenses cost	40
	160

Analysis of the Profit/Loss Account (for the year 2020)

		(₹)		(₹)
Materials used		1,50,000	Sales less returns	2,50,000
Direct wages:				
Deptt. X	10,000			
Deptt. Y	12,000			
Deptt. Z	8,000	30,000		
Special stores items		4,000		
Overheads:				
Deptt. X	5,000			
Deptt. Y	9,000			
Deptt. Z	2,000	16,000		
Works cost		2,00,000		
Gross profit c/d		50,000		
		2,50,000		2,50,000
Selling expenses		20,000	Gross profit b/d	50,000
Net profit		30,000		
		50,000		50,000

It is also noted that average hourly rates for the three Departments X, Y and Z are similar.

You are required to:

(i) PREPARE a job cost sheet.

(ii) CALCULATE the entire revised cost using 2020 actual figures as basis.

(iii) Add 20% to total cost to DETERMINE selling price.

It is also noted that average hourly rates for the three Departments X, Y and Z are similar.

You are required to:

(i) PREPARE a job cost sheet.

(ii) CALCULATE the entire revised cost using 2020 actual figures as basis.

(iii) Add 20% to total cost to DETERMINE selling price.

SOLUTION

Job Cost Sheet

Customer Details ——— Job No._____

Date of commencement —— Date of completion _____

Particulars	**Amount (₹)**
Direct materials	70
Direct wages:	
Deptt. X ₹ 2.50 × 8 hrs. = ₹ 20.00	
Deptt. Y ₹ 2.50 × 6 hrs. = ₹ 15.00	
Deptt. Z ₹ 2.50 × 4 hrs. = ₹ 10.00	45
Chargeable expenses	5
Prime cost	**120**
Overheads:	
Deptt. X = ₹ 5,000 / ₹ 10,000 × 100 = 50% of ₹ 20 = ₹ 10.00	
Deptt. Y = ₹ 9,000 / ₹ 12,000 × 100 = 75% of ₹ 15 = ₹ 11.25	
Deptt. Z = ₹ 2,000 / ₹ 8,000 × 100 = 25% of ₹ 10 = ₹ 2.50	23.75
Works cost	**143.75**
Selling expenses = ₹ 20,000 / ₹ 2,00,000 × 100 = 10% of work cost	14.38
Total cost	158.13
Profit (20% of total cost)	31.63
Selling price	**189.76**

QUESTION 40 (Similar to Past Paper Nov 20)

Following details are related to the work done in Process-I by XYZ Company during the month of March, 2021:

	(Rs.)	
Opening work-in-process (2,000 units)		
Materials	*80,000*	
Labour	*15,000*	
Overheads	*45,000*	
Materials introduced in Process-I (38,000 units)	*14,80,000*	
Direct Labour	*3,59,000*	
Overheads	*10,77,000*	
Units scrapped: 3,000 units		
Degree of completion:		
Materials		*100%*
Labour and overheads		*80%*
Closing work-in process: 2,000 units		
Degree of completion:		
Materials		*100%*
Labour and overheads		*80%*

Units finished and transferred to Process-II: 35,000 units

Normal Loss:

5% of total input including opening work-in-process.

Scrapped units fetch Rs. 20 per piece.

You are required to PREPARE using average method:

(i) Statement of equivalent production.

(ii) Statement of cost.

(iii) Statement of distribution cost, and

(iv) Process-I Account, Normal Loss Account and Abnormal Loss Account.

SOLUTION

(i) Statement of Equivalent Production

Particulars	Input Units	Particulars	Output Units	Equivalent Production			
				Material		Labour & O.H.	
				%	Units	%	Units
Opening WIP	2,000	Completed and transferred to Process-II	35,000	100	35,000	100	35,000
Units introduced	38,000	Normal Loss (5% of 40,000)	2,000	--	--	--	--
		Abnormal loss (Balancing figure)	1,000	100	1,000	80	800
		Closing WIP	2,000	100	2,000	80	1,600
	40,000		40,000		38,000		37,400

(ii) Statement showing cost for each element

Particulars	Materials (Rs.)	Labour (Rs.)	Overhead (Rs.)	Total (Rs.)
Cost of opening work-in-process	80,000	15,000	45,000	1,40,000
Cost incurred during the month	14,80,000	3,59,000	10,77,000	29,16,000
Less: Realisable Value of normal scrap (Rs. 20 × 2,000 units)	(40,000)	--	--	(40,000)
Total cost: (A)	15,20,000	3,74,000	11,22,000	30,16,000
Equivalent units: (B)	38,000	37,400	37,400	
Cost per equivalent unit: (C) = (A ÷ B)	40.00	10.00	30.00	80.00

(iii) Statement of Distribution of cost

	Amount (Rs.)	Amount (Rs.)
1. Value of units completed andtransferred (35,000 units × Rs. 80)		28,00,000
2. Value of Abnormal Loss:		
- Materials (1,000 units × Rs. 40)	40,000	
- Labour (800 units × Rs. 10)	8,000	
- Overheads (800 units × Rs. 30)	24,000	72,000
3. Value of Closing W-I-P:		
- Materials (2,000 units × Rs. 40)	80,000	
- Labour (1,600 units × Rs. 10)	16,000	
- Overheads (1,600 units × Rs. 30)	48,000	1,44,000

(iv) Process-I A/c

Particulars	Units	(Rs.)	Particulars	Units	(Rs.)
To Opening W.I.P:			By Normal Loss (Rs.20 × 2,000 units)	2,000	40,000
- Materials	2,000	80,000	By Abnormal loss	1,000	72,000
- Labour	--	15,000	By Process-I A/c	35,000	28,00,000
- Overheads	--	45,000	By Closing WIP	2,000	1,44,000
To Materials introduced	38,000	14,80,000			
To Direct Labour		3,59,000			
To Overheads		10,77,000			
	40,000	30,56,000		40,000	30,56,000

Normal Loss A/c

Particulars	Units	(Rs.)	Particulars	Units	(Rs.)
To Process-I A/c	2,000	40,000	By Cost Ledger Control A/c	2,000	40,000
	2,000	40,000		2,000	40,000

Abnormal Loss A/c

Particulars	Units	(Rs.)	Particulars	Units	(Rs.)
To Process-I A/c	1,000	72,000	By Cost Ledger Control A/c	1,000	20,000
			By Costing Profit & Loss A/c		52,000
	1,000	72,000		1,000	72,000

QUESTION 41

Following information is available regarding Process A for the month of October 2021:

Production Record:

(i) Opening work-in progress — *40,000 Units*

(Material: 100% complete, 25% complete for labour & overheads)

(ii) *Units Introduced* — *1,80,000 Units*

(iii) *Units Completed* — *1,50,000 Units*

(iv) *Units in-process on 31.10.2021* — *70,000 Units*

(Material: 100% complete, 50% complete for labour & overheads)

Cost Record:

Opening Work-in-progress:	**(Rs.)**
Material	*1,00,000*
Labour	*25,000*
Overhead	*45,000*
Cost incurred during the month:	
Material	*6,60,000*
Labour	*5,55,000*
Overheads	*9,25,000*

Assure that FIFO method is used for W.I.P. inventory valuation. Required:

(i) *Statement of Equivalent Production*

(ii) *Statement showing Cost for each element*

(iii) *Statement of apportionment of Cost*

(iv) *Process- A Account*

SOLUTION

(i) Statement of Equivalent Production

(FIFO Method)

Input		Output		Equivalent Production			
Particulars	Units	Particulars	Units	Material		Labour & Overheads	
				(%)	Units	(%)	Units
Opening WIP	40,000	Transfer to Process II:					
Introduced	1,80,000	Opening WIP completed	40,000	--	--	75	30,000
		Introduced & completed	1,10,000	100	1,10,000	100	1,10,000
		Closing WIP	70,000	100	70,000	50	35,000
	2,20,000		2,20,000		1,80,000		1,75,000

(ii) Statement showing Cost for each element

Item of Cost	Equivalent Production	Cost Incurred (Rs.)	Cost per Unit (Rs.)
Material	1,80,000	6,60,000	3.66667
Labour & Overheads	1,75,000	14,80,000	8.45714
			12.12381

(iii) Statement of Apportionment of Cost

Transfer to Process II		
Opening WIP Completed		
Cost already Incurred Rs. (1,00,000 + 25,000 + 45,000)	1,70,000	
Cost Incurred during the Month		
Labour & Overheads (30,000 units × Rs. 8.45714)	2,53,714	4,23,714
Introduced & Completed (1,10,000 units × Rs. 12.12381)		13,33,619
		17,57,333
Closing WIP		
Material (70,000 units × Rs. 3.66667)	2,56,667	
Labour and Overheads (35,000 units × Rs. 8.45714)	2,96,000	5,52,667

(iv) Process – A A/c

Particulars	Units	Amount (Rs.)	Particulars	Units	Amount (Rs.)
To Opening WIP	40,000	1,70,000	By Process II A/c	1,50,000	17,57,333
To Materials	1,80,000	6,60,000	By Closing WIP	7,000	5,52,667
To Labour		5,55,000			
To Overheads		9,25,000			
	2,20,000	23,10,000		2,20,000	23,10,000

QUESTION 42

M J Pvt. Ltd. produces a product "SKY" which passes through two processes, viz. Process-A and Process-B. The details for the year ending 31st March, 2021 are as follows:

	Process A	Process - B
40,000 Units introduced at a cost of	Rs. 3,60,000	-
Material Consumed	Rs. 2,42,000	2,25,000
Direct Wages	Rs. 2,58,000	1,90,000
Manufacturing Expenses	Rs. 1,96,000	1,23,720
Output in Units	37,000	27,000
Normal Wastage of Input	5%	10%
Scrap Value (per unit)	Rs. 15	20
Selling Price (per unit)	Rs. 37	61

Additional Information:

(a) *80% of the output of Process-A, was passed on to the next process and the balance was sold. The entire output of Process- B was sold.*

(b) *Indirect expenses for the year was Rs. 4,48,080.*

(c) It is assumed that Process-A and Process-B are not responsibility centres.

Required:

(i) *Prepare Process-A and Process-B Account.*
(ii) *Prepare Profit & Loss Account showing the net profit / net loss for the year.*

SOLUTION

(i)

Process – A Account

Particulars	Units	Amount (Rs.)	Particulars	Units	Amount (Rs.)
To Input	40,000	3,60,000	By Normal wastage (2,000 units × Rs. 15)	2,000	30,000
To Material	---	2,42,000	By Abnormal loss A/c (1,000 units × Rs. 27)	1,000	27,000
To Direct wages	---	2,58,000	By Process- B (29,600 units × Rs. 27)	29,600	7,99,200
To Manufacturing Exp.	---	1,96,000	By Profit & Loss A/c (7,400 units × Rs. 27)	7,400	1,99,800
	40,000	10,56,000		40,000	10,56,000

Cost per unit = $\frac{\text{Rs. 10,56,000 – Rs. 30,000}}{\text{40,000 units – 2,000 units}}$ = Rs. 27 per unit

Normal wastage = 40,000 units × 5% = 2,000 units

Abnormal loss = 40,000 units – (37,000 units + 2,000 units) = 1,000 units

Transfer to Process- B = 37,000 units × 80% = 29,600 units
Sale = 37,000 units × 20% = 7,400 units

Process- B Account

Particulars	Units	Amount (₹)	Particulars	Units	Amount (₹)
To Process- A A/c	29,600	7,99,200	By Normal wastage (2,960units× ₹ 20)	2,960	59,200
To Material	---	2,25,000	By Profit & Loss A/c (27,000units× ₹ 48)	27,000	12,96,000
To Direct Wages	---	1,90,000			
To Manufacturing Exp.	---	1,23,720			
To Abnormal Gain A/c (360 units × ₹ 48)	360	17,280			
	29,960	13,55,200		29,960	13,55,200

Cost per unit = $\frac{₹\,13,37,920 - ₹\,59,200}{29,600\text{units} - 2,960\text{units}}$ = ₹ 48 per unit

Normal wastage = 29,600 units × 10% = 2,960 units

Abnormal gain = (27,000 units + 2,960 units) – 29,600 units = 360 units

(ii) Profit & Loss Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Process- A A/c	1,99,800	By Sales:	
To Process- B A/c	12,96,000	Process-A (7,400 units × Rs. 37)	2,73,800
To Abnormal loss A/c	12,000	Process- B (27,000 units × Rs. 61)	16,47,000
To Indirect Expenses	4,48,080	By Abnormal gain	10,080
		By Net loss	25,000
	19,55,880		19,55,880

Student Notes

Working Notes:

Normal wastage (Loss) Account

Particulars	Units	Amount (Rs.)	Particulars	Units	Amount (Rs.)
To Process- A A/c	2,000	30,000	By Abnormal Gain A/c (360 units × Rs. 20)	360	7,200
To Process- B A/c	2,960	59,200	By Bank (Sales)	4,600	82,000
	4,960	89,200		4,960	89,200

Abnormal Loss Account

Particulars	Units	Amount (Rs.)	Particulars	Units	Amount (Rs.)
To Process- A A/c	1,000	27,000	By Bank A/c (1,000 units × Rs. 15)	1,000	15,000
			By Profit & Loss A/c	---	12,000
	1,000	27,000		1,000	27,000

Abnormal Gain Account

Particulars	Units	Amount (Rs.)	Particulars	Units	Amount (Rs.)
To Normal loss A/c (360 units × Rs. 20)	360	7,200	By Process- B A/c	360	17,280
To Profit & Loss A/c		10,080			
	360	17,280		360	17,280