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INTERMEDIATE M'19 EXAM

SUBJECT- COSTING AND ADVANCED A/CS

Test Code – CIM 8128

BRANCH - () (Date :)

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ANSWER-1 (10 MARKS)

Effective direct labour hours :

Permanent workmen=	9,60,000 hours
Apprentice workmen 50% of 80,000 hours	40,000 hours
	10,00,000 hours

Sales per direct labour hour : Rs. 200 lakhs / 10,00,000 = Rs. 20

Loss of production hours :

For replacement	= 20,000 hours
For apprentices	= 40,000 hours
Total	= 60,000 hours

Loss of potential sales for loss of production hrs :

= 60,000 x Rs. 20 == Rs. 12,00,000

If there had been no labour turnover, sales would have been

= Rs. 2,00,00,000 + Rs. 12,00,000

= Rs. 2,12,00,000

Direct labour for 20,000 hrs. lost due to replacement

= (Rs. 40 lakhs/10,40,000) X 20,000 hrs. = Rs. 76,923

Materials and variable overhead for Rs. 12 lakhs sales = (110 lakhs/200 lakhs) x 12 lakhs = Rs. 6,60,000

Potential Profit with no labour turnover

Sales	Rs. 2,12,00,000
Less : Direct labour (40,00,000 + 76,923)	40,76,923
Direct material & Overheads (Rs, 1,10,00,000 + 6,60,000)	1,16,60,000
Total variable cost	1,57,36,923
Contribution	54,63,077

Less: Fixed cost		10,00,000
		44,63,077
Actual profit		40,00,000
Loss of profit due to labour turnover		4,63,077

Alternatively, this result can be found out by considering the differentials only

Loss of Sale		Rs. 12,00,000
Less : Variable cost		
Direct labour	76,923	
Material & Overhead	6,60,000	7,36,923
Loss of profit due to labour turnover		4,63,077

Note. If the hours had not been lost due to labour turnover, there would have been sales increase due to utilisation of these hours. This sales increase might have resulted in increase of material and overhead cost. At the same time there might have been increase in labour cost also for use of labour during these hours lost.

ANSWER-2

1. Journal Entries in the Books of the Company

S.No.	Particulars		Dr. (Rs.)	Cr. (Rs.)
1.	7% Preference Share Capital (Rs. 100 paid up) A/c	Dr.	9,00,000	
	To 9% Preference Share Capital (Rs. 80 paid up) A/c (9,000 x 80)			7,20,000
	To Capital Reduction A/c			1,80,000
	(Being 9,000 7% Pref. Shares of Rs. 100 reduced to 9% Pref. Shares of Rs. 80 Paid up and balance amount transferred to Reconstruction A/c vide approved Reconstruction Scheme dated....)			
2.	Equity Share Capital (Rs. 100 paid up) A/c	Dr.	10,00,000	
	To Equity Share Capital (Rs. 10 paid up) A/c			1,00,000
	To Capital Reduction A/c			9,00,000
	(Being the reduction of Equity Shares of Rs. 100 each to Shares of Rs. 10 Paid up, as per approved			

	Reconstruction Scheme)			
3.	Cash / Bank A/c	Dr.	50,000	
	To Capital Reduction A/c			50,000
	(Being Refund of Fees by Directors received back by Company.)			
4.	Trade Payables A/c	Dr.	26,000	
	To Capital Reduction A/c			26,000
	(Being Interest foregone by Debenture Holders, which is included among the Sundry Creditors)			
5.	No Journal Entry for Preference Shareholders to waive their claims for Arrears of Preference Share Dividend		-	-
6.	'B' 6% Debentures A/c	Dr.	3,50,000	
	Capital Reduction A/c (balancing figure)	Dr.	90,000	
	To Chennai Works A/c (agreed value of takeover)			4,25,000
	To Equity Share Capital A/c (1,500 x Rs. 10 paid up)			15,000
	(Being 'B' 6% Debentures settled by Chennai Works and allotment of 1500 Equity Shares of Rs. 10 each)			
7.	Equity Shares of Zia Ltd A/c (9,000 x Rs. 10)	Dr.	90,000	
	To Capital Reduction A/c			90,000
	(Being 9,000 Equity Shares of Rs. 10 each allotted by Zia Ltd)			
8.	Bank A/c	Dr.	4,400	
	To Investment for Workmen Compensation Fund A/c (Chennai)			4,000
	To Capital Reduction A/c (4,000 x 10%)			400
	(Being Workmen Compensation Fund Investments realized for Chennai Works portion, and proceeds are utilized to settle Trade Payables) [Note: Assumed that Bombay Works Fund and Investment are retained as such for Rs. 10,000]			
9.	Trade Payables	Dr.	4,400	
	To Bank A/c			4,400
	(Being Part Payment of Trade Payables out of Investment Proceeds.)			
10.	Capital Reduction A/c	Dr.	7,60,000	
	To Stock A/c			1,90,000
	To Provision for Doubtful Debts A/c			20,000

	To Chennai Works A/c (B/s Value 7,75,000 – Takeover 4,25,000)			3,50,000
	To Profit and Loss A/c			2,00,000
	(Being Stock, Provision for Doubtful Debts , Chennai Works Balance, Profit and Loss Account written off out of Capital Reduction / Reconstruction A/c			
11.	Capital Reduction A/c	Dr.	3,96,400	
	To Bombay Works A/c			2,64,267
	To Capital Reserve Ac			1,32,133
	(Being Balance in Capital Reduction A/c is applied as 2/3rd to write off the value of Bombay Works and l/3rd is transferred to Capital Reserve.)			

(10 MARKS)

2. Capital Reduction Account

Particulars	**Rs.**	**Particulars**	**Rs.**
To Chennai Works/B Debentures A/c	90,000	By 8% Preference Share Capital A/c	1,80,000
To Stock A/c	1,90,000	By Equity Share Capital (Rs. 100) A/c	9,00,000
To Provision for Doubtful Debts A/c	20,000	By Cash A/c	50,000
To Chennai Works A/c(7,75,000 - 4,25,000)	3,50,000	By Trade Payables A/c	26,000
To Profit & Loss A/c	2,00,000	By Equity Shares of Zia Ltd A/c (9,000 x Rs. 10)	90,000
To Bombay Works A/c (b/f)	**2,64,267**	By Bank (Gain on Sale of Investments)	400
To Capital Reserve A/c (b/f)	**1,32,133**		
Total	**12,46,400**	**Total**	**12,46,400**

ANSWER-3 **(10 MARKS)**

Working Note: Is Let x be the cost of material and y be the normal rate of wage per hour.

Factory Cost of workman Vishnu:

Material cost Rs. x

Wages 60 y

Bonus under Rowan System $= \frac{\text{Time saved}}{\text{Time allowed}}$ x Hrs. worked x Rate per hr.

= (40 / 100) x 60 y = 24 y

Overhead, i.e., 60 x 10 = 600

Factory cost = x + 60 y + 24 y + Rs. 600 = Rs. 7280 or x + 84 y = Rs. 6680 ...(1)

Factory cost of workman Shiva:

Material Rs. x

Wages 80 y

Bonus under Halsey Premium Plan = Hrs. Saved * 50 % * Rate per hr.

= 20* 50% * y = 10 y

Overhead (80 x 10) = 800

Factory cost = x + 80y + 10y + Rs. 800 = 7,600 or x + 90y = Rs. 6,800 ...(2)

From (i) and (ii) value of y = 20

∴ Rate per hour Rs, 20

Bonus paid to Vishnu = 24 x Rs. 20 = Rs. 480

Bonus paid to Shiva = 10 x Rs. 20 = Rs. 200

(a) Normal Wages = Rs. 20 per hour as per Working Note above.

(b) The cost of material:

We know that x + 90y = Rs. 6,800

or x + (90 x 20) = Rs. 6,800 or x = Rs. 5,000

(c) Comparative statement of the factory cost of the product made by the two workmen

	Vishnu	**Shiva**
Material Cost	Rs. 5,000	Rs. 5,000
Direct Wages 60 x 20	1,200	-
80 x 20	-	1,600
Bonus (See Working Note above)	480	200
Factory Overhead	600	800
Factory Cost	7,280	7,600

ANSWER-4

Production Budget (in units) for the year ended 31st March 2016

	Product M	**Product N**
Budgeted sales (units)	28,000	13,000
Add: Increase in closing stock	320	160
No. good units to be produced	28,320	13,160
Post production rejection rate	4%	6%
No. of units to be produced	29,500 $\left\{\frac{28,320}{0.96}\right\}$	14,000 $\left\{\frac{13,160}{0.94}\right\}$

(3 MARKS)

Purchase budget (in kgs and value) for Material Z

	Product M	**Product N**
No. of units to be produced	29,500	14,000
Usage of Material Z per unit of production	5 kg.	6 kg.
Material needed for production	1,47,500 kg.	84,000 kg.
Materials to be purchased	1,63,889 kg.	88,421 kg.
	$\left\{\frac{1,47,500}{0.9}\right\}$	$\left\{\frac{84,000}{0.95}\right\}$
Total quantity to be purchased	2,52,310 kg.	
Rate per kg. of Material Z	Rs.36	
Total purchase price	Rs.90,83,160	

(3 MARKS)

(ii) Since, the maximum number of order per year can not be more than 40 orders and the maximum quantity per order that can be purchased is 4,000 kg. Hence, the total quantity of Material Z that can be available for production: **(4 MARKS)**

= 4,000 kg. × 40 orders = 1,60,000 kg

	Product M	Product N
Material needed for production to maintain the same production mix	1,03,929 kg. $\left(1{,}60{,}000 \times \frac{1{,}63{,}889}{2{,}52{,}310}\right)$	56,071 kg. $\left(1{,}60{,}000 \times \frac{88421}{252310}\right)$
Less: Process wastage	10,393 kg.	2,804 kg.
Net Material available for production	93,536 kg.	53,267 kg.
Units to be produced	18,707units $\left\{\frac{93{,}536 kg.}{5\ kg.}\right\}$	8,878units $\left\{\frac{53{,}267\ kg.}{6\ kg.}\right\}$

ANSWER-5

1. Journal Entries in the books of Lakshmi Ltd

S.No.	Particulars		Dr. (Rs.)	Cr. (Rs.)
1.	7.5% Preference Share Capital (Rs. 100) A/c	Dr.	8,00,000	
	To Reconstruction A/c			1,60,000
	To 9% Preference Share Capital (Rs. 100) A/c			6,40,000
	(Being 20% holding of Preference Shareholders surrendered, and 9% Preference Shares issued for the balance)			
2.	11% Debentures A/c	Dr.	10,00,000	
	To Plant and Machinery A/c			8,50,000
	To Reconstruction A/c			1,50,000
	(Being Debentureholders accepting Plant and M/c in full satisfaction of their claim)			
3.	Sundry Creditors A/c	Dr.	6,20,000	
	To Stock			6,20,000
	(Being Sundry Creditors agreeing to take over Stock of the value of Rs. 6,20,000)			
4.	Equity Share Capital (Rs. 10) A/c	Dr.	18,00,000	
	To Reconstruction A/c			7,20,000
	To Equity Share Capital (Rs. 6) A/c			10,80,000
	(Being Equity Shareholders ageing for reduction of			

	Rs.4 per Share, and new Share of Rs. 6 each fully paid up issued to them)			
5.	Reconstruction A/c	Dr.	5,000	
	To Investments A/c			5,000
	(Being Investments written down to Market Value of Rs. 60,000)			
6.	Reconstruction A/c	Dr.	1,88,000	
	To Sundry Debtors A/c			1,20,000
	To Stock A/c			68,000
	(Being Sundry Debtors and Stock valued at 90% of their Book Value)			
7.	Loan from Directors A/c	Dr.	15,000	
	To Reconstruction A/c			15,000
	(Being Loan from Directors waived by them)			
8.	Reconstruction A/c	Dr.	8,52,000	
	To Profit and loss A/c			7,18,000
	To Goodwill A/c			35,000
	To Patents A/c			60,000
	To Capital Reserve A/c (WN 2)			39,000
	(Being balance in Reconstruction A/c used to write off Intangible Assets and balance transferred to Capital Reserve A/c)			

(8*0.5 = 4 MARKS)

2. Reconstruction A/c

Particulars	**Rs.**	**Particulars**	**Rs.**
To Investment A/c	5,000	By 7.5% Preference Share Capital A/c	1,60,000
To Sundry Debtors A/c	1,20,000	By 11% Debentures A/c	1,50,000
To Stock A/c	68,000	By Equity Share Capital A/c	7,20,000
To Goodwill A/c	35,000	By Loan from Directors A/c	15,000
To Patents A/c	60,000		
To Profit and Loss A/c	7,18,000		
To Capital Reserve A/c (balancing figure)	39,000		
	10,45,000		**10,45,000**

(3 MARKS)

3. Balance Sheet of Lakshmi Ltd as on 31st March (after Reconstruction)

Particulars as at 31st March			Note	This Year	Prev. Yr
I	**EQUITY AND LIABILITIES:**				
1)	**Shareholders' Funds:**				
	(a)	Share Capital	1	17,20,000	
	(b)	Reserves and Surplus - Capital Reserve		39,000	
2)	**Current Liabilities:**				
	Short Term Borrowings - Bank Overdraft			1,65,000	
	Total			**19,24,000**	
II	**ASSETS**				
1)	**Non-Current Assets**				
	(a)	Fixed Assets: Tangible Assets - Furniture & Fittings		1,60,000	
	(b)	Non-Current Investments	-	60,000	
		Cost Rs. 65,000, taken at Market Value			
2)	**Current Assets:**				
	(a)	Inventories -Stock-in-Trade		6,12,000	
	(b)	Trade Receivables - Sundry Debtors		10,80,000	
	(c)	Cash and Cash Equivalents - Cash on Hand		12,000	
	Total			**19,24,000**	

Note 1: Share Capital

	Particulars	**This Year**	**Prev. Yr**
Authorised:	...Equity Shares of Rs. ...each...		
	.......Preference Shares of Rs..... each		
Issued, Subscribed & Paid up:	1,80,000 Equity Shares of Rs. 6 each 6,400 9% Preference Shares of Rs. 100 each	10,80,000 6,40,000	
	Total	**17,20,000**	

(3 MARKS)