SUGGESTED SOLUTION

CA INTERMEDIATE

SUBJECT- COSTING AND ADVANCED ACCOUNTS

Test Code – CIM 8691

BRANCH - () (Date :)

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NOTES: (1) WORKING NOTES SHOULD FORM PART OF ANSWERS.
(2) INTERNAL WORKING NOTES SHOULD ALSO BE CONSIDERED.
(3) NEW QUESTION SHOULD BE ON NEW PAGE

ANSWER -1

Calculation of Cost of Production of A Ltd. for the period

Particulars	**Amount (Rs.)**
Raw materials purchased	64,00,000
Add: Opening stock	2,88,000
Less: Closing stock	(4,46,000)
Material consumed	62,42,000
Wages paid	23,20,000
Prime cost	85,62,000
Repair and maintenance cost of plant & machinery	9,80,500
Insurance premium paid for inventories	26,000
Insurance premium paid for plant & machinery	96,000
Quality control cost	86,000
Research & development cost	92,600
Administrative overheads related with factory and production	9,00,000
	1,07,43,100
Add: Opening value of W-I-P	4,06,000
Less: Closing value of W-I-P	(6,02,100)
	1,05,47,000
Less: Amount realised by selling scrap	(9,200)
Add: Primary packing cost	10,200
Cost of Production	1,05,48,000

Notes:

(i) Other administrative overhead does not form part of cost of production.

(ii) Salary paid to Director (Technical) is an administrative cost.

(10 MARKS)

ANSWER -2

Journal entries in the books of Lucky Ltd.

Date	Particulars	Rs.	Rs.
31.3.2015	Employees compensation expense A/c Dr.	21,30,000	
	To ESOS outstanding A/c		21,30,000
	(Being compensation expense recognized in respect of the ESOP i.e. 100 options each granted to 1,500 employees at a discount of Rs. 30 each, amortised on straight line basis over vesting years (Refer W.N.)		
	Profit and Loss A/c Dr.	21,30,000	
	To Employees compensation expenses A/c		21,30,000
	(Being expenses transferred to profit and Loss A/c)		
31.3.2016	Employees compensation expenses A/c Dr.	5,90,000	
	To ESOS outstanding A/c		5,90,000
	(Being compensation expense recognized in respect of the ESOP- Refer W.N.)		
	Profit and Loss A/c Dr.	5,90,000	
	To Employees compensation expenses A/c		5,90,000
	(Being expenses transferred to profit and Loss A/c)		
31.3.2017	Employees compensation Expenses A/c Dr.	12,40,000	
	To ESOS outstanding A/c		12,40,000
	(Being compensation expense recognized in respect of the ESOP- Refer W.N.)		
	Profit and Loss A/c Dr.	12,40,000	
	ToEmployees compensation expenses A/c		12,40,000
	(Being expenses transferred to profit and Loss A/c)		
2018-19	Bank A/c (1,250 x100 x40) Dr.	50,00,000	
	ESOS outstanding A/c Dr. [(39,60,000 x 1,25,000/ 1,32,000]	37,50,000	
	To Equity share capital (1250 x 100 x 10)		12,50,000
	To Securities premium A/c [(1250 x 100 x (70-10)]		75,00,000
	(Being 1,25,000 options exercised at an exercise price of Rs. 40 each)		
31.3.2019	ESOS outstanding A/c Dr.	2,10,000	
	To General Reserve A/c		2,10,000
	(Being ESOS outstanding A/c on lapse of 7,000 options at the end of exercise of option period transferred to General Reserve A/c)		

(7 MARKS)

Working Note:

Statement showing compensation expense to be recognized at the end of:

Particulars	Year 1 2014-15	Year 2 2015-16	Year 3 2016-17
Number of options expected to vest* Total compensation	1,42,000 options Rs.42,60,000	1,36,000 options Rs.40,80,000	1,32,000 options Rs.39,60,000
expense accrued (70-40)			
Compensation expense of the year	42,60,000 x 1/2 = Rs. 21,30,000	40,80,000 x 2/3 = Rs. 27,20,000	Rs. 39,60,000
Compensation expense recognized previously	Nil	Rs. 21,30,000	Rs. 27,20,000
Compensation expenses to be recognized for the year	Rs. 21,30,000	Rs. 5,90,000	Rs. 12,40,000

*It is assumed that each share is of Rs. 10 each and Lucky Ltd. expects all the options to be vested after deducting actual lapses during the year.

(3 MARKS)

ANSWER -3

Input – Output Relation

1 bag = 1 metre of cotton cloth

Therefore 1000 meter cotton cloth = 1000 units of bags because here opening stock and closing stock of input are zero. Therefore total input purchased = total input consumed

No. of bags manufactured = 1,000 units

Cost sheet for the month of September 2019

	Particulars	Total Cost (Rs.)	Cost per unit (Rs.)
1.	Direct materials consumed:		
	- Leather sheets	3,20,000	320.00
	- Cotton cloths	15,000	15.00
	Add: Freight paid on purchase	8,500	8.50
2.	Direct wages (Rs.80 × 2,000 hours)	1,60,000	160.00
3.	Direct expenses (Rs.10 × 2,000 hours)	20,000	20.00
4.	**Prime Cost**	**5,23,500**	523.50
5.	Factory Overheads: Depreciation on machines	16,500	16.50
	{(Rs.22,00,000×90%)÷120 months}		

	Apportion cost of factory rent	98,000	98.00
6.	Works/ Factory Cost	6,38,000	638.00
7.	Less: Realisable value of cuttings (Rs.150×35 kg.)	(5,250)	(5.25)
8.	Cost of Production	6,32,750	632.75
9.	Add: Opening stock of bags	0	
10.	Less: Closing stock of bags (100 bags × Rs.632.75)	(63,275)	
11.	Cost of Goods Sold	5,69,475	632.75
12.	Add: Administrative Overheads:		
	- Staff salary	45,000	45.00
	- Apportioned rent for administrative office	12,000	12.00
13.	Add: Selling and Distribution Overheads		
	- Staff salary	72,000	80.00
	- Apportioned rent for sales office	10,000	11.11
	- Freight paid on delivery of bags	18,000	20.00
14.	Cost of Sales (18+19+20)	7,26,475	800.86

Apportionment of Factory rent:

To factory building {(Rs.1,20,000 ÷ 2400 sq.feet) × 1,960 sq. feet} = Rs.98,000

To administrative office {(Rs.1,20,000 ÷ 2400 sq.feet) × 240 sq. feet} = Rs.12,000

To sale office {(Rs.1,20,000 ÷ 2400 sq.feet) × 200 sq. feet} = Rs.10,000

(10 MARKS)

ANSWER -4

ANSWER -A

The vesting of options is subject to satisfaction of two conditions viz. service condition of continuous employment for 3 years and market condition that the share price at the end of 2018-19 is not less than Rs. 65. The company should recognize value of option over 3-year vesting period from 2016-17 to 2018-19.

Year 2016-17

Fair value of option per share = Rs. 9

Number of shares expected to vest under the scheme = 48 × 1,000 = 48,000

Fair value = 48,000 × Rs. 9 = Rs. 4,32,000

Expected vesting period = 3 years

Value of option recognised as expense in 2016-17 = Rs. 4,32,000 /3 = Rs. 1,44,000

Year 2017-18

Fair value of option per share = Rs. 9

Number of shares expected to vest under the scheme = 47 × 1,000 = 47,000

Fair value = 47,000 × Rs. 9 = Rs. 4,23,000

Expected vesting period = 3 years

Cumulative value of option to recognise as expense in 2016-17 and 2017-18

= (Rs. 4,23,000/ 3) × 2 = Rs. 2,82,000

Value of option recognised as expense in 2016-17 = Rs. 1,44,000

Value of option recognised as expense in 2017-18

= Rs. 2,82,000 – Rs. 1,44,000 = Rs. 1,38,000

Year 2018-19

Fair value of option per share = Rs. 9

Number of shares actually vested under the scheme = 45 × 1,000 = 45,000

Fair value = 45,000 × Rs. 9 = Rs. 4,05,000

Vesting period = 3 years

Cumulative value of option to recognise as expense in 2016-17, 2017-18 and 2018-19 =Rs. 4,05,000

Value of option recognised as expense in 2016-17 and 2017-18 = Rs. 2,82,000

Value of option recognised as expense in 2018-19 = Rs. 4,05,000 – Rs. 2,82,000 = Rs. 1,23,000

(5 MARKS)

ANSWER –B

Journal Entries in the books of Suvidhi Ltd.

Date	Particulars	Dr. (Rs.)	Cr. (Rs.)
31.3.18	Bank A/c (60,000 shares × Rs. 30) Dr. Employees stock compensation expenses A/c. Dr. To Share Capital A/c. (60,000 shares × Rs. 10) To Securities Premium (60,000 shares × Rs. 28) (Being shares issued under ESOP @ Rs. 30 to 1,200 employees)	18,00,000 4,80,000	 6,00,000 16,80,000
	Profit & Loss A/c. Dr. To Employees stock compensation expense A/c. (Being Employees stock compensation expense transferred to Profit & Loss A/c.)	4,80,000	 4,80,000

(3 MARKS)

Working Note :

Fair value of an option = Rs. 38 – Rs. 30 = Rs.8

Number of shares issued = 1,200 employees × 50 Shares / employee = 60,000 shares

Fair value of ESOP which will be recognized as expenses in the year 2017 – 2018

= 60,000 shares × Rs. 8 = Rs. 4,80,000

Vesting period = 1 year

Expenses recognized in 2017 – 2018 = Rs. 4,80,000

(2 MARKS)

ANSWER -5

Statement of Cost for the month of September

Particulars	Rs.	Rs.
Raw material Consumed:		
Opening stock of Raw material	2,42,000	
Add : Purchases of raw material (Balancing Figure)	52,50,000	
Less : Closing stock of raw material	(2,92,000)	
Raw material consumed(**Working Note 1)**		52,00,000
Add : Direct Employee cost (50% of 52,00,000)		26,00,000
Prime cost		78,00,000
Add: Factory overheads :		
Consumable stores	3,50,000	
Lease rent of Production Assets	2,00,000	5,50,000
Gross work cost		83,50,000
Add : Opening stock of WIP		2,00,000
Less : Closing stock of WIP		(5,00,000)
Net Work cost /Factory cost		80,50,000
Add : Research and development cost for Process		2,50,000
Add : Quality Control cost		2,00,000
Less : Scrap value realised **(Working Note 2)**		(2,44,000)
Cost of production		82,56,000
Add : Opening stock of finished goods		Nil
Less : Closing stock of finished goods $\left(\frac{5{,}000\ units \times 82{,}56{,}000}{96{,}000\ units}\right)$		(4,30,000)
Cost of Goods sold (Given)		78,26,000
Add : Selling and Distribution expenses		4,13,000
Add : Packing cost (Secondary)		1,82,000
Add : Administrative Expenses (General)		2,24,000
Cost of Sales (A)		**86,45,000**
Add : Profit (B-A)		**13,65,000**
Sales (Working Note 3)(B)		**1,00,10,000**

Working Note 1: **Raw material Consumed**

Let 'x' be the amount of Raw material consumed.

Therefore, Direct Employee cost will be 0.5x

Therefore, Prime cost = 1.5x

On Solving Equation:

Prime Cost + [Factory O/H + Opening WIP – Closing WIP+ Research & Development cost..+ Quality Control Cost – Scrap]+Opening stock of Finished goods – Closing Stock of Finished goods = 78,26,000

1.5x + [4,56,000] – $\left(\frac{5000 units (1.5x+4,56,000)}{96,000\ units}\right)$ = 78,26,000

1.5x + [4,56,000] – **0.078125x – 23,750** = 78,26,000

We get 'x' =52,00,000 (i.e. R/M Consumed)
Working Note 2: Scrap Value realized:

1,00,000 × 4% × 61 = Rs. 2,44,000

Working Note 3: Sales:

Sales Qty= Opening Stock of Finished goods + Production Qty – Closing Stock of Finished goods – Scrap Qty

Sales Qty= Nil + 1,00,000 – 5,000 - 4000

Sales Qty= 91,000 units

Therefore sales value will be 91,000×110 = 1,00,10,000 Rs.

(i) Value of Raw Material Purchased = Raw Material Consumed + Closing Stock of Raw Material – Opening Stock of Raw material

Raw Material Purchased= 51,87,930 + 2,92,000 – 2,42,000

=**52,37,930 Rs.**

(ii) Profit = Sale – Cost of Sales

=1,00,10,000 – 86,45,000

=**13,65,000 Rs.**

(10 MARKS)