

FINAL CA MAY '19 REVISION NOTES Costing

Part - III

CHAPTER 5 - STANDARD COSTING

Q. 1. X Ltd. gives the following standards as regards Material & Labour.

Material:

A : 150 kg. @ ₹ 10 / kg. B : 100 kg. @ ₹ 5 / kg.

Standard loss in processing is 20% of input.

Labour:

Skilled Men = 400 hrs. @ ₹ 30 Skilled Women = 600 hrs. @ ₹ 20

Actual output during the period was 400 kg. of the product. Other actual data was as following:

Materials:

Actual loss in processing was 1/3 of input.

Actual mix of A & B was 7:3.

Materials A & B were actually purchased at ₹ 12 and ₹ 6 respectively.

Labour:

Skilled Men = 900 hrs. @ ₹ 40 Skilled Women = 400 hrs. @ ₹ 15 Calculate Material & Labour cost variances.

Q. 2. Given the following data, compute the variances.

	Skilled	Semi-skilled	Unskilled
Number in standard gang	16	6	3
Standard rate per hour	3	2	1
Actual number in gang	14	9	2
Actual rate of pay	4	3	2

In a 40 hours week, the gang as a whole produced 900 standard hours.

Q. 3. From the following information compute fixed overhead variances.

	Standard	Actual
Days	50	54
Hrs.	5,000	5,500
Idle Hrs.		200
Units	5,000	5,100
Overheads	1,00,000	1,15,000

Q. 4. From the following information about sales, calculate necessary sales variances.

		Standard			Actual	
Product	Nos	Rate in ₹	Total	Nos	Rate in ₹	Total
		Per unit	₹		Per unit	₹
Α	5,000	5	25,000	6,000	6	36,000
В	4,000	6	24,000	5,000	5	25,000
С	3,000	7	21,000	4,000	8	32,000
	12,000		70,000	15,000		93,000

The company's budgeted market share was 20% and the actual market size was 90,000 units.

Q. 5. The company has Budgeted the following data for a month.

Product	SP	Cost per unit	Units
А	10	4	600
В	20	15	400

Budgeted Market size of the industry in which company is operating is 5000 units.

The actual data for the month was:

Products	SP	Cost per unit	Qty.
А	12	5	800
В	19	13	700

Actual market share of the company was 25%.

Required:

- 1. Sales Variances
- 2. Profit Variances
- 3. Reasons for sales mix variance being favourable but profit mix variance being adverse.
- **Q. 6.** Gem & Co., manufactures a product for which the standard selling price has been ascertained as below :

	Per Unit
	₹
Materials - 2 units at ₹ 20	40
Labour - 20 hrs. @ ₹ 2.00	40
Variable overhead	8
Fixed overhead	20
Total cost	108
Profit	32
Selling price	140

During the budget period, the company could produce and sell only 8,000 units, as against a budget of 10,000 units. The company's profit and loss account is presented below:

Profit and Loss Account for the year ended

	₹		₹
To Materials (16,500 units)	3,96,000	By Sales (8,000 units)	11,20,000
To Wages (1,70,000 Hours)	3,46,800		
To Variable overhead	60,000		
To Fixed overhead	1,84,000		
To Net profit	1,33,200		
	11,20,000		11,20,000

^{4,000} hours were lost due to power failure. There was no opening or closing work - in - progress. You are required to Reconcile the actual profit with the standard profit, in terms of the variances.

Q. 7. The Managing Director of your company has been given the following statement showing the results for a recent month:

	Month ending 31st March, 2016			
	Master	Actual	Variance	
	Budget			
No. of units produced and sold	10,000	9,000	(1,000)	
	₹	₹	₹	
Sales	40,000	35,000	(5,000)	
Direct materials	10,000	9,200	800	
Direct wages	15,000	13,100	1,900	
Variable overheads	5,000	4,700	300	
Fixed overheads	5,000	4,900	100	
	35,000	31,900	3,100	
Net surplus	5,000	3,100	(1,900)	

The standard costs of the product are as follows:

		Per Unit
		(₹)
Direct materials	(1 kg. at Re. 1 per kg)	1.00
Direct wages	(1 hour at Rs. 1.50)	1.50
Variable overheads	(1 hour at Re. 0.50)	0.50

Actual results for the month showed that 9,800 kgs. of material were used and 8,800 labour hours were recorded.

Required:

- (a) Calculate the variances which have arisen, based on :
 - (i) Marginal costing technique.
 - (ii) Absorption costing technique.
- (b) Comment on the calculations that you have made in (a)(i).

Q. 8. You are given the following details of X Ltd. for the month of January.

a are given the following details of X Ltd. for the month of bandary.			
	₹		
Sales price variance	2,000	Α	
Sales volume variance	8,000	F	
Budgeted fixed overheads	1,00,000		
Standard hours for actual output	10,000		
Fixed overheads idle time variance	2,000	Α	
Standard materials cost for actual output	1,80,000		
Actual labour cost	92,000		
Budgeted labour hours	20,000		
Standard sales price	20		
Standard wage rate per hour	10		
Capacity variance	12,000	Α	
Actual variable overheads	40,000		
Standard net profit per unit	5		
Total profit variance	18,000	F	
Actual fixed overheads	85,000		
Standard variable overheads rate per hour	Rs. 2		

Calculate :

- (i) Sales value variance and its analysis.
- (ii) Profit variance due to change in sales.
- (iii) Fixed overheads cost variance and its analysis.
- (iv) Labour cost variance along with its analysis.
- (v) Variable overheads cost variance and its analysis.
- (vi) Material cost variance and actual material cost.

Q. 9. The working results of a company for two corresponding years are shown below :

	Year 1	Year 2
	₹ in lakhs	₹ in lakhs
Sales	1,200	1,540
Direct Material	600	648
Direct Wages and Variable Overheads	360	412
Fixed Overheads	160	300
	1,120	1,360
Profit	80	180

In year 2, there has been an increase in the selling price by 10%. Following are the details of material consumption and utilization of direct labour hours during the two years.

	Year 1	Year 2
Direct Material Consumption in m / t	5,00,000	5,40,000
Direct Labour Hours	75,00,000	80,00,000

You are required to:

- (i) Keeping year 1 as base year, analyse the results of year 2 and work out the amount which each factor has contributed to change in profit.
- (ii) Find out the break even sales for both years.

Q. 10. An engineering company manufactures a single product whose standard cost structure is as follows:

Direct material	: 2.4 kgs at ₹ 30 per kg.	₹ 72.00
Direct labour	: 6 hours at ₹ 4 per hour	24.00
Factory overheads	: 6 hours at Re. 0.75 per hour	4.50
Total cost per unit		₹ 100.50

The factory overheads is based on the following flexible budget:

	80%	90%	100%	110%
Production (units)	6,000	6,750	7,500	8,250
Variable overheads	18,000	20,250	22,500	24,750
Fixed overheads	11,250	11,250	11,250	11,250
	29,250	31,500	33,750	36,000

Actual data for the month January, 2006:

Material used 19,240 kg at ₹ 31 per kg

Direct labour 46, 830 hours at ₹ 4.20 per hour.

Actual factory overheads ₹ 36,340 including fixed & variable

Production completed 7,620 units

Details of work- in- progress :

Opening: 120 units, material fully supplied; 50% converted Closing: 100 units, material fully supplied; 50% converted

You are required to calculate necessary variances.

Q. 11. X Ltd. manufactures product X, the standard production cost of which is as given below:

Direct material	5 kgs at ₹ 2/- per kgs
Direct labour	2 hrs at ₹ 3/- per hr.
Variable overheads	2 hrs at Re. 0.50 per hr.
Fixed overheads	2 hrs at Re. 1/- per hr.

The budget for the current year was based on production and sale of 5,000 units to be sold at ₹ 30/- per unit. As against this, the company sold 6,000 units at ₹ 28/- per unit.

During the year, the company manufactured 8,000 units and further, It had 2000 incomplete units which are estimated to be 80%, 60% and 60% complete as regards material, labour and overheads respectively. The company had opening stock of 500 units.

During the year, the company incurred expenses as detailed below:

Direct material 50,000 kgs purchased at ₹ 1.8

Direct labour 9,000 hrs at ₹ 3.5 per hr

Variable overheads ₹ 4,000/Fixed overheads ₹ 12,000/-

You are required to calculate sales and profit variances.

Q. 12. File and smile Associate undertake to prepare income tax returns for individuals for a fee. Their advice to their clients is to pay the proper tax and relax. In order to arrive at the proper scale of fees and assess their own performance, they have a good system. They use the weighted average method and actual costs for financial reporting purposes. However, for internal reporting, they use a standard cost system. The standards, based on equivalent performance, have been established as follows:

Labour per return : 5 hours at ₹ 40 per hour Overhead per return : 5 hours at ₹ 20 per hour

For March, 2007 performance, budgeted overhead is ₹ 98,000 for the standard labour hours allowed. The following additional information pertains to the month of March, 2007.

March 1	Returns in process (25% complete)		200 Nos.
	Returns started in March		825 Nos.
March 31	Returns in process (80% complete) 12		125 Nos.
Cost Data:			
March 1	Returns in process :		
	Labour	₹	12,000
	Overheads	₹	5,000
March 1 to 31:	Labour 4,000 hours.	₹	1,78,000
	Overheads	₹	90,000

You are required to compute:

- (a) For each cost element, equivalent units of performance and the actual cost perequivalent unit.
- (b) Actual cost of returns in process on March, 31.
- (c) The standard cost per return.
- (d) The total, labour rate and labour efficiency variances as well as total overhead, overhead volume and overhead budget variances.