

JA-102

January-2021

M.Com., Sem.-III

504-EA/EE : Management Accounting – I

(New and Old)

Time : 2 Hours]

[Max. Marks : 50

Instructions : (1) All questions in Section – I carry equal marks.

(2) Attempt any **Two** questions in Section – I.

(3) Section – II is compulsory.

SECTION – I

Q1:- (b) Calculate and explain the necessary variances from the following data

With the help of traditional approach as well as opportunity cost approach to variances analysis :

(i) Standard cost of product Z ₹ 100

(ii) Actual cost incurred ₹ 15,00,000 on the production of 5,000 units
Of product Z.

(iii) Review of standard cost resulting in an opinion that the standard is
An under- estimate to the extent of ₹ 60.

Answer

Original Budget	Revised Budget	Actual Budget
5000 × 100	5000 × 160	5000 × 300
5,00,000	8,00,000	15,00,000

Planning

operating

Traditional variances

(A) Traditional Approach :-

(1) Material Cost Variances

= Std. Cost – Actual cost

= 5,00,000 – 15,00,000

= -10,00,000 (U)

(2) Material Price Variances

$$\begin{aligned} &= \text{Actual Qty (Std. Qty - Actual Qty)} \\ &= 5,000 (100-300) \\ &= 5,000 (- 200) \\ &= - 10,00,000 (v) \end{aligned}$$

(3) Material Usage variances

$$\begin{aligned} &= \text{Std. Price (Std. Qty - Actual Qty)} \\ &= 100 (5,000 - 5,000) \\ &= \text{Nil} \end{aligned}$$

(B) Operating Cost Approach :-

(1) Planning Variances

$$\begin{aligned} &= \text{Original Budget Cost - Revised Budget Cost} \\ &= 5,00,000 - 8,00,000 \\ &= - 3,00,000 (U) \end{aligned}$$

(2) Operating Variances

(i) Material Cost Variances

$$\begin{aligned} &= \text{Revised Budget Cost - Actual Cost} \\ &= 8,00,000 - 15,00,000 \\ &= - 7,00,000 (U) \end{aligned}$$

(ii) Material Price Variance

$$\begin{aligned} &= \text{Actual Qty (Std. Price- Actual)} \\ &= 5,000 (160 - 300) \\ &= 5,000 (-140) \\ &= - 7,00,000 (U) \end{aligned}$$

(iii) Material Usage Variance

$$\begin{aligned} &= \text{Std. Price (Std. Qty - Actual Qty)} \\ &= 160 (5,000 - 5,000) \\ &= \text{Nil} \end{aligned}$$

Q2:- Prepare production budget of Gujarat Limited for the year 2021 from Given information :

	<u>Product X</u>	<u>Product Y</u>
Sales (in units) as per Sales Budget :		
1 st Quarter 2021	500	1,000
2 nd Quarter 2021	1,180	500
3 rd Quarter 2021	1,080	625
4 th Quarter 2021	1,240	375

	<u>Product X</u>	<u>Product Y</u>
Stock position as on 1-1-2021 :		
Percentage of 1 st Quarter 2021 sales	20%	100%
Stock position ending 1 st ,2 nd and 3 rd Quarter		
Percentage of Next Quarter's Sales	50%	50%
Stock position 31-12-2021	1,100	500

Answer

Product 'X' :-

Production Budget

Particular	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Sales Units	500	1180	1080	1240
+ closing Stock	590	540	620	1100
	1090	1720	1700	2340
- Opening stock	100	590	540	620
	(500 × 20%)			
Production units	990	1130	1160	1720

Product 'Y' :-

Particulars	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Sales Units	1000 50%	500 50%	625 50%	375
+ Closing Stock	250	313	187	500
	1250	813	812	875
- Opening Stock	1000	250	313	187
Production Units	250	563	499	688

Q3:- Following information is obtained from the cost departments of Sony Limited:

Standard Cost Card**Per Unit (₹)**

Material cost (2kg at ₹ 5 per kg.)	10
Direct wages (hours 2 at ₹ 1 per hour)	2
Variable Overheads (hours 2 at ₹ 1 per hour)	2
Fixed overheads (hours 2 at ₹ 2 per hour)	4
Total Standard Cost	18
Standard profit per unit	2
Standard selling price per unit	20

Normal production capacity 80,000 units

Budgeted production and sales 80,000 units

Actual Data**₹**

Material consumed : 132,000 kg at ₹ 4.80 per kg	6,33,600
Direct wages : 1,44,000 hours at ₹ 0.80 hour	1,15,200
Variable Overheads	1,29,600
Fixed Overheads	3,04,000
Actual production and sales (at ₹ 21 per unit)	13,44,000

You are required to compute different variances and reconcile the Budgeted profit with actual profit.

Answer

Step 1:- Calculation of Budgeted profit

$$\begin{aligned}\text{Budgeted profit} &= \text{Budgeted Production} \times \text{Std. Profit per unit} \\ &= 80,000 \times 2 \\ &= 1,60,000\end{aligned}$$

Step 2 :- Calculation of Actual Profit

Particulars	Amount (₹)	Amount (₹)
Sales (64,000 × 21)		13,44,000
Less:- Total cost		
Material consumed (1,32,000×4.80)	6,33,600	
Direct wages (1,44,000×0.80)	1,15,200	
Variable O/h (1,44,000×0.90)	1,29,600	
Fixed O/h	3,04,000	11,82,400
Actual Profit		1,61,600

Step 3 :- Calculate Variances

(A) Material Variance :-

→ Std Qty for Actual Production:-

Units	Kg
1	2
64000	?
= 1,28,000 kg	

→ Prepare a table

Standard			Actual		
Qty	Price	Amount	Qty	Price	Amount
1,28,000	5	6,40,000	1,32,000	4.80	6,33,600

→ **Calculate Variances :-**

(i) Material Cost Variances

$$\begin{aligned} &= \text{Std. Cost} - \text{Actual Cost} \\ &= 6,40,000 - 6,33,600 \\ &= + 6,400 \text{ (F)} \end{aligned}$$

(ii) Material Price Variance

$$\begin{aligned} &= \text{Actual Qty (Std. Price} - \text{Actual Price)} \\ &= 1,32,000 (5 - 4.80) \\ &= 1,32,000 (0.20) \\ &= + 26,400 \text{ (F)} \end{aligned}$$

(iii) Material Usage Variance

$$\begin{aligned} &= \text{Std. Price (Std. Qty} - \text{Actual Qty)} \\ &= 5 (1,28,000 - 1,32,000) \\ &= 5 (- 4,000) \\ &= - 20,000 \text{ (U)} \end{aligned}$$

(B) Labour Variances:-

→ Std. Hours for Actual Production

Units	Hours
1	2
64000	?
= 1,28,000 Hours	

→ **Prepare a table**

Standard			Actual		
Hours	Rate	Amount	Hours	Rate	Amount
1,28,000	1	1,28,000	1,44,000	0.80	1,15,200

→ **Labour Variances :-**

(i) Labour Cost Variances

$$\begin{aligned} &= \text{Std. Cost} - \text{Actual Cost} \\ &= 1,28,000 - 1,15,200 \\ &= + 12,800 \text{ (F)} \end{aligned}$$

(ii) Labour Rate Variance

$$\begin{aligned} &= \text{Actual Hours (Std. Rate - Actual Rate)} \\ &= 1,44,000 (1 - 0.80) \\ &= 1,44,000 (0.20) \\ &= + 28,800 (F) \end{aligned}$$

(iii) Labour Efficiency Variance

$$\begin{aligned} &= \text{Std. Rate (Std. Hours - Actual Hours)} \\ &= 1 (1,28,000 - 1,44,000) \\ &= 1 (16,000) \\ &= - 16,000 (U) \end{aligned}$$

(c) Variable Overhead Variances :-

→ Std. Hours for Actual Production

Units	Hours
1	2
64,000	?
= 1,28,000 Hours	

→ Prepare a table

Standard			Actual		
Hours	Rate	Amount	Hours	Rate	Amount
1,28,000	1	1,28,000	1,44,000	0.90	1,29,600

→ Variable Overhead Variances :-

(i) Variable Overhead Cost Variances

$$\begin{aligned} &= \text{Std. Cost - Actual Cost} \\ &= 1,28,000 - 1,29,600 \\ &= - 1600 (U) \end{aligned}$$

(ii) Variable Overhead Expenditure Variance

$$\begin{aligned} &= \text{Actual Hours (Std. Rate - Actual Rate)} \\ &= 1,44,000 (1 - 0.90) \\ &= 1,44,000 (0.10) \\ &= + 14,400 (F) \end{aligned}$$

(iii) Variable overhead Efficiency Variance

$$= \text{Std. Rate (Std. Hours- Actual Hours)}$$

$$= 1 (1,28,000 - 1,44,000)$$

$$= 1 (-16,000)$$

$$= - 16,000 (U)$$

(D) Fixed Overhead Variances :-

$$\text{Budgeted Qty} = 80,000 \text{ units}$$

$$\text{Actual Qty} = 64,000 \text{ units}$$

$$\text{Std. Rate} = 4 \text{ Rs. Per unit}$$

$$\text{Budgeted Fixed Overhead} = (8000 \times 4) = 3,20,000$$

$$\text{Actual Fixed Overhead} = 3,04,000$$

(i) Fixed overhead Cost Variances

$$= (\text{Actual Pro.} \times \text{Std. Rate}) - \text{Actual Fixed overhead}$$

$$= (64,000 \times 4) - 3,04,000$$

$$= 2,56,000 - 3,04,000$$

$$= - 48,000 (U)$$

(ii) Fixed Overhead Budget Variance

$$= \text{Budget fixed Overhead} - \text{Actual Fixed overhead}$$

$$= 3,20,000 - 3,04,000$$

$$= + 16,000 (F)$$

(iii) Fixed Overhead Volume Variance

$$= \text{Std. Rate (Actual Pro. - Budgeted Pro.)}$$

$$= 4 (64,000 - 80,000)$$

$$= 4 (-16,000)$$

$$= - 64,000 (U)$$

(E) Sales Variances:-

(i) Sales Price Variances

$$= \text{Actual Sales Qty (Actual Sales Price - Std. Sales Price)}$$

$$= 64,000 (21 - 20)$$

$$= 64,000 (1)$$

$$= + 64,000 (F)$$

(ii) Sales Margin Volume Variance

= Std. Profit per unit (Actual Qty – Budgeted Qty)

= 2 (64,000 – 80,000)

= - 32000 (U)

SECTION – II

Q5 :- Choose the correct option (any five)

(1) Management Accounting is concerned with

(a) Past decisions

(b) Internal decision making

(c) External decision making

(d) None of the given

(2) Management Accounting is an extension of

(a) Financial Accounting

(b) Cost Accounting

(c) Financial Management

(d) None of the given

(3) Planning Variance = _____

(a) Original standards – Revised standards

(b) Revised standards - Actual Results

(c) Original standards – Actual Results

(d) None of the given

(4) Which method is not of Management Accounting ?

(a) Service Costing

(b) Standard Costing

(c) Marginal Costing

(d) Decision Accounting

(5) Master Budget is also known as _____

(a) Summary Budget

(b) Cash Budget

(c) Sales Budget

(d) Purchase Budget

(6) At 60% capacity factory overheads are ₹ 80,000 and at 80% capacity factory Overheads are ₹ 1,00,000. Amount of fixed factory overhead included in the I Above amount would be

(a) ₹ 20,000

(b) ₹ 40,000

(c) ₹ 50,000

(d) ₹ 60,000

(7) Which of the following item is not included while preparing a cash budget ?

(a) Depreciation

(b) Collection from Debtors

(c) Payment to creditors

(d) Purchase of Assets

(8) Research and development budget is the example of

- (a) **Long – term budget**
- (b) Short– term budget
- (c) Cash Budget
- (d) Current Budget

(9) Which is not a cost- variance investigation model ?

- (a) **Graphical model**
- (b) Control chart model
- (c) Cost-benefit model
- (d) Statistical signification model

(10) In the formula $C < (1-P)L$, C denote for

- (a) **Cost of investigation**
- (b) Cost of corrective measure
- (c) Cost of control
- (d) None of the given

(11) In the formula $C < (1-P)L$, L denote for

- (a) **Net Benefit**
- (b) Net Loss
- (c) Cost of control
- (d) None of the given

(12) The difference between hours paid and hours worked is known as

- (a) Labour rate variance
- (b) Labour efficiency variance
- (c) **Idle time variance**
- (d) Labour yield variance