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RANJANA Roy, Depto. - Commerce

Brangadkanpur Mahavidyalaya andir.

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Sub:

Costs Management Accounting-II

Topic: Variance Analysis.

Module:

Question: ①

Standard Mix

Material	Quantity (kg.)	Price (₹)
A	4	1
B	2	2
C	2	4
Total		8

Actual Mix

Material	Quantity (kg.)	Price (₹)
A	2	3.50
B	1	2.00
C	3	3.00

Solution:

Workings:

① Calculation of Revised Standard Quantity:

Material A:  $8 \text{ std. Q.} \times \frac{4}{8} = 4$

Material B:  $8 \times \frac{2}{8} = 2$

Material C:  $6 - \frac{8}{2} \times 6 = 1.5$

Material C:  $8 - 2 = 6 - \frac{8}{2} \times 6 = 1.5$

Material	SP	AP	SA	RA	Revised std. Quantity
A	1	3.50	4	2	3
B	2	2.00	2	1	1.5
C	4	3.00	2	3	1.5
Total					6

① Material Cost Variance:  $(5 \text{ Q} \times \text{SP}) - (4 \text{ Q} \times \text{AP})$

$A = (4 \times 1) - (2 \times 3.50) = 3 \text{ (A)}$

$B = (2 \times 2) - (1 \times 2) = 2 \text{ (F)}$

$C = (2 \times 4) - (3 \times 3) = 1 \text{ (A)}$

$\frac{2 \text{ (A)}}{2 \text{ (A)}}$

Sub: Cost Management Acct-II, Module -  
Topic: Variance Analysis

② Material Price Variance:  $(SP - AP) \times RA$ .

$$A = (1 - 3.50) \times 2 = 5(A)$$

$$B = (2 - 2) \times 1 = 0$$

$$C = (4 - 3) \times 3 = 3(F)$$

$$\underline{2(A)}$$

③ Material Usage Variance:  $(SQ - AQ) \times SP$

$$A = (4 - 2) \times 1 = 2(F)$$

$$B = (2 - 1) \times 2 = 2(F)$$

$$C = (2 - 3) \times 4 = 4(A)$$

$$\underline{0}$$

④ Material Mix Variance:

(Revised Std. Quantity - AQ)  $\times$  SP

$$A = (3 - 2) \times 1 = 1(F)$$

$$B = (1.5 - 1) \times 2 = 1(F)$$

$$C = (1.5 - 3) \times 4 = 6(A)$$

$$\underline{4(A)}$$

⑤ Yield Variance:  $(SQ - Revised Std. Q.) \times SP$

$$A = (4 - 3) \times 1 = 1(F)$$

$$B = (2 - 1.5) \times 2 = 1(F)$$

$$C = (2 - 1.5) \times 4 = 2(F)$$

$$\underline{4(F)}$$

Check: Mat. Price Var. + Mat. Usage Var. = Mat. Cost Var.  
 $2(A) + 0 = 2(A)$

Check: Mat. Mix Var. + Yield Var. = Mat. Usage Var.  
 $4(A) + 4(F) = 0$