

## QUIZ

### PROBLEM SOLVING (9 items x 5 points)

Answer the following items on the space provided. Show your computations.

At the beginning of 201A, ABC Company had the following standard costs for one (1) of its chemical products:

Direct material (3 pounds at P3.20)	P9.60
Labor standard (0.9 hours at P9.00)	8.10
Variable overhead (0.9 hours at P1.50)	1.35
Fixed overhead (0.9 hours at P4.00)	3.60
<b>Total</b>	<b>P22.65</b>

ABC computes its overhead rates using budgeted capacity, which is 144,000 units. Actual results for 201A are:

Units produced	140,000 units
Materials purchased	421,175 lbs. at P3.30
Materials used	421,000 lbs.
Direct labor	128,750 hrs at P8.90
Fixed overhead	P517,525
Variable overhead	218,000

**Required:** Indicate whether **favorable** or **unfavorable**.

#### 1. Material purchase price variance

<b>Actual Quantity of Input at Actual Price</b> <b>(AQ x AP)</b>  421,175 lbs x P3.30 = 1,389,877.5	<b>Actual Quantity of Input at Standard Price</b> <b>(AQ x SP)</b>  421,175 lbs x P3.20 = P1,347,760
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MPPV    P42,117.5 unfavorable

#### 2. Material price usage variance

<b>Actual Quantity of Input at Actual Price</b> <b>(AQ x AP)</b>  421,000 lbs x P3.30 = 1,389,300	<b>Actual Quantity of Input at Standard Price</b> <b>(AQ x SP)</b>  421,000 lbs x P3.20 = P1,347,200
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MPUV    P42,100 unfavorable

#### 3. Material quantity variance in MPPV

<b>Actual Quantity of Input at Standard Price</b> <b>(AQ x SP)</b>  421,175 lbs x P3.20 = P1,347,760	<b>Standard Quantity Allowed for Actual Output at Standard Price</b> <b>(SQ x SP)</b>  SQ= 140,000 units x 3 lbs = 420,000 420,000 lbs. x P3.20 =P1,344,000
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MQV P3,760 unfavorable

#### Material quantity in MPUV

**(AQ x SP)**

$$421,000 \text{ lbs} \times \text{P}3.20 \\ = \text{P}1,347,200$$

**Price (SQ x SP)**

$$\text{SQ} = 140,000 \text{ units} \times 3 \text{ lbs} = \\ 420,000 \\ 420,000 \text{ lbs.} \times \text{P}3.20 \\ = \text{P}1,344,000$$

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MQV P3,200 unfavorable

**4. Labor rate variance**

**Actual Hours of Input at  
Actual Rate  
(AH x AR)**

$$128,750 \text{ hrs} \times \text{P}8.90 \\ = \text{P}1,145,875$$

**Actual Hours of Input at  
Standard Rate  
(AH x SR)**

$$128,750 \text{ hrs} \times \text{P}9.00 \\ = \text{P}1,158,750$$

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LRV P12,875 favorable

**5. Labor efficiency variance**

**Actual Hours of Input at  
Standard Rate  
(AH x SR)**

$$128,750 \text{ hrs} \times \text{P}9.00 \\ = \text{P}1,158,750$$

**Standard Hours Allowed for  
Actual Output at Standard Rate  
(SH x SR)**

$$\text{SQ} = 140,000 \text{ units} \times 0.9 \text{ hrs/unit} = \\ 126,000 \text{ hrs} \\ 126,000 \text{ hrs.} \times \text{P}9.00 \\ = \text{P}1,134,000$$

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LEV P24,750 unfavorable

**6. Variable overhead rate variance**

**Actual Hours of Input at  
Actual Rate  
(AH x AR)**

$$\text{P}218,000$$

**Actual Hours of Input at  
Standard Rate  
(AH x SR)**

$$128,750 \text{ hrs} \times \text{P}1.5 \\ = \text{P}193,125$$

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VOH rate variance (VRV)  
P24,875 unfavorable

**7. Variable overhead efficiency variance**

**Actual Hours of Input at  
Standard Rate  
(AH x SR)**

$$128,750 \text{ hrs} \times \text{P}1.5 \\ = \text{P}193,125$$

**Standard Hours Allowed for  
Actual Output at Standard Rate  
(SH x SR)**

$$126,000 \text{ hrs} \times \text{P}1.5 \\ = \text{P}189,000$$

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VOH efficiency variance (VEV)  
P4,125 favorable

**8. Fixed spending variance**

**Actual Hours of Input at  
Actual Rate**

**Budgeted Fixed Overhead  
(Budgeted Capacity x SR)**

**(AH x AR)**

P517,525

144,00 hrs x P4  
= P576,000

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FOH spending variance (FSV)  
P58,475 favorable

**9. Fixed volume variance**

**Budgeted Fixed Overhead  
(Budgeted Capacity x SR)**

144,00 hrs x P4  
= P576,000

**Standard Hours Allowed for  
Actual Output at Standard Rate  
(SH x SR)**

126,000 hrs x P4  
=P504,000

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FOH volume variance (FVV)  
P72,000 unfavorable

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