College Name: $\qquad$

Student Name: $\qquad$ Seat No: $\qquad$

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# KARACHI UNIVERSITY BUSINESS SCHOOL <br> UNIVERSITY OF KARACHI FINAL EXAMINATION JUNE 2016; AFFILIATED COLLEGES MANAGERIAL ACCOUNTING; BA (H)-562 BS - VI 

Date: July 22, 2016

## Max Time: 2 Hrs Max Marks: $\mathbf{4 0}$

## INSTRUCTIONS:

1. Attempt any 4 questions. Do not write anything on the question paper.
2. Mobile phone(s) or any other communicating device is not allowed in the examination room. Students will have to remove the batteries of these devices before entering the examination hall.

Q1 Huron Company produces a commercial cleaning compound known as Zoom. The direct materials and direct labor standards for one unit of Zoom are given below:

|  | Standard Quantity or Hours | Standard Price or Rate | Standard Cost |
| :--- | :--- | :--- | :--- |
| Direct Material | 4.6 pounds | $\$ 2.50$ per pounds | $\$ 11.5$ |
| Direct labor | 0.2 hours | $\$ 12.00$ per hour | $\$ 2.4$ |

During the most recent month the following activity was recorded:
a. Twenty thousand pounds of material were purchased at a cost of $\mathbf{\$ 2 . 3 5}$ per pound.
b. All of the material purchased was used to produce 4,000 units of Zoom.
c. 750 hours of direct labor time were recorded at a total labor cost of $\mathbf{\$ 1 0 , 4 2 5}$.

## Required:

1. Compute the direct material price and quantity variance for the month.
2. Compute the direct labor rate and efficiency variance for the month.

Q2 The budgeted unit sales of Weller Company for the upcoming fiscal year are provided below:

|  | $\mathbf{1}^{\text {st }} \mathbf{Q t r}$ | $\mathbf{2}^{\text {nd }} \mathbf{Q t r}$ | $\mathbf{3}^{\text {rd }} \mathbf{Q t r}$ | $\mathbf{4}^{\text {th }} \mathbf{Q t r}$ |
| :--- | :--- | :--- | :--- | :--- |
| Budgeted unit sales | 15,000 | 16,000 | 14,000 | 13,000 |

The company's variable selling and administrative expenses per unit is $\mathbf{\$ 2 . 5}$. Fixed selling and administrative expenses include advertising expenses of \$8,000 per quarter, executive salaries of $\mathbf{\$ 3 5 , 0 0 0}$ per quarter, and depreciation of $\mathbf{\$ 2 0 , 0 0 0}$ per quarter. In addition, the company will make insurance payments of $\$ \mathbf{5 , 0 0 0}$ in the first quarter and $\mathbf{\$ 5 , 0 0 0}$ in the third quarter. Finally, property taxes of $\mathbf{\$ 8 , 0 0 0}$ will be paid in the second quarter.

## Required:

1. Prepare the company's selling and administrative expenses budget for the upcoming fiscal year.

Q3 Engberg Company installs lawn sod in home yards. The company's most recent monthly contribution format income statement follows:

|  | Amount | Percentage of Sales |
| :--- | :--- | :---: |
| Sales | $\$ 80,000$ | $100 \%$ |
| Variable expenses | $\underline{32,000}$ | $\underline{40 \%}$ |
| Contribution margin | 48,000 | $\underline{60 \%}$ |
| Fixed expenses | $\underline{38,000}$ |  |
| Net operating income | $\underline{\underline{\mathbf{1 0 , 0 0 0}}}$ |  |

## Required:

1. Compute the company's degree of operating leverage
2. Using the degree of operating leverage, estimate the impact on net operating income of a $5 \%$ increase in sales.
3. Verify your estimate from part (2) above by constructing a new contribution format income statement for the company assuming a 5\% increase in sales.

Harris Company manufactures and sells a single product. A partially completed schedule of the company's total and per unit cost over the relevant range of 30,000 to 50,000 units produced and sold annually is given below:

## 30,000

Total Costs:
Variable Costs
Fixed Costs
Total Costs
Cost per unit:
Variable cost
Fixed cost
Total cost per unit


Units Produced and Sold 40,000 50,000

$\qquad$ $?$

| $?$ | $?$ |
| :---: | :---: |
| $?$ | $?$ |
| $?$ | $?$ |

## Required:

1. Complete the schedule of the company's total and unit costs above.
2. Assume that the company produces and sells 45,000 units during the year at a selling price of \$ 16 per unit. Prepare a contribution format income statement for the year.

Q5 Speedy Parcel Service operates a fleet of delivery trucks in a large metropolitan area. A careful study by the company's cost analyst has determined that if a truck is driven 120000 miles during a year, the average operating cost is 11.6 cent per mile. If a truck is driven only 80000 miles during a year, the average operating cost increases to 13.6 cent per mile.

## Required:

1. Using the high-low method, estimate the variable and fixed cost elements of the annual cost of truck operations.
2. Express the variable and fixed cost in the form $Y=a+b X$.
3. If a truck were driven 100000 miles during a year, what total cost would you expect to be incurred?

Q6 Fine Ltd., is the exclusive distributor of a product that is gaining rapid market acceptance. The company's revenues and expenses for the last three months are given below:

Fine LTD.
Comparative Income Statement For the Three Months Ended Sep 30

|  | July | Aug | Sep |
| :---: | :---: | :---: | :---: |
| Sales in units | 1,500 | 1,875 | 2,250 |
| Sales revenue | \$ 420,000 | \$ 525,000 | \$ 630,000 |
| Less cost of goods sold ................... | 168,000 | 210,000 | 252,000 |
| Gross margin ..................... | 252,000 | 315,000 | 378,000 |
| Less operating expenses: |  |  |  |
| Shipping expenses | 44,000 | 50,000 | 56,000 |
| Advertising expenses | 70,000 | 70,000 | 70,000 |
| Salaries and commission .............. | 107,000 | 125,000 | 143,000 |
| Insurance expense .................... | 9,000 | 9,000 | 9,000 |
| Depreciation expense ................. | 42,000 | 42,000 | 42,000 |
| Total operating expenses | 272,000 | 296,000 | 320,000 |
| Net operating income (loss) | Rs (20,000) | Rs 19,000 | Rs 58,000 |

## Required:

1. Identify each of the company's expenses (including cost of goods sold) as either variable, fixed or mixed.
2. Using the high low method, separate each mixed expense into variable and fixed elements. State the cost formula for each mixed expense.
3. Redo the company's income statement at the 2625 unit level of activity using the contribution format.
