

ADM 2341 Managerial Accounting Ch 6 Capstone Problems

Q.1 The books of Lionel Company, wholesalers of hand-held calculators, reflected the following revenues and expenses for various months during the year ended December 31, 2010.

	August	December	May
Sales in units	24,000	28,000	22,000
Sales revenues	\$336,000	\$392,000	\$308,000
Cost of goods sold	<u>(60,000)</u>	<u>(70,000)</u>	<u>(55,000)</u>
Gross margin	\$ 276,000	\$322,000	\$253,000
Operating Expenses			
Advertising	(35,000)	(35,000)	(35,000)
Commissions	(72,000)	(84,000)	(66,000)
Selling expenses	<u>(16,600)</u>	<u>(18,600)</u>	<u>(15,600)</u>
Operating income	\$152,400	\$ 184,400	\$ 136,400

REQUIRED

1. Identify the above expenses as either variable, fixed, or mixed.
2. Separate each mixed expense into variable and fixed expense by using the high-low methods. State the cost formula for each mixed expense.
3. Prepare a **contribution income statement** for the month of December.

Q.2 Print Inc., of Ottawa, producers of finance and accounting books, reflected the following information at December 31, 2009, and 2010.

	<u>2009-12-31</u>		<u>2010-12-31</u>	
Production	100,000	units	200,000	Units
Cost of goods manufactured	\$1,400,000		\$2,600,000	
Work in process inventory, beginning	\$40,000		\$20,000	
Work in process inventory, ending	\$20,000		\$60,000	
Direct materials inventory, per unit	\$4		\$4	
Direct labor, per unit	\$7.5		\$7.5	
Manufacturing overhead	?		?	

Manufacturing overhead consists of both variable and fixed cost elements. Management wants to determine the overhead breakdown between variable and fixed cost per year.

REQUIRED

1. For both years, determine total manufacturing overhead costs. (Hint: Use a cost of goods manufacturing schedule.)
2. Determine the cost formula for manufacturing overhead by means of the high-low method of cost analysis. Express the variable portion in terms of variable cost per unit of production.
3. If 160,000 units are produced during a period what would be the total manufacturing cost?

Q.3 ABC Company's total overhead costs at various levels of activity are presented below:

	Machine hours	Total overhead costs
March	60,000	\$216,800
April	50,000	194,000
May	70,000	239,600
June	80,000	262,400

Assume that the overhead costs above consist of utilities, supervisory salaries, and maintenance. At the 50,000-machine-hour level of activity, these costs are presented below:

Utilities (V)	\$ 54,000
Supervisory salaries (F)	62,000
Maintenance (M)	<u>78,000</u>
Total overhead costs	<u>\$194,000</u>

V = Variable; F = Fixed; M = Mixed.

The company wants to break down the maintenance cost into its basic variable and fixed cost elements.

REQUIRED

1. Estimate the maintenance cost for June.
2. Use the high-low method to estimate the cost formula for maintenance cost.
3. Estimate the total overhead cost at an activity level of 55,000 machine hours, using the separate estimates you obtained for its components.
4. Estimate the total overhead cost at an activity level of 55,000 machine hours, *independent* of the separate estimates you obtained for its components.