Questions 1-4 (8 marks, 2 marks each)

Please write down your answers to the multiple choice questions (questions 1 to 4) below:

Question 1	B
Question 2	D
Question 3	D
Question 4	B

1. Which of the following best defines an opportunity cost?
A. The difference in total costs from selecting one alternative instead of another.
B. The benefit forgone by selecting one alternative instead of another.
C. A cost that may be saved by NOT adopting an alternative.
D. A cost that may be shifted to the future with little or no effect on current operations.

2. The three primary inventory accounts in a manufacturing company are
A. Merchandise Inventory, Supplies, and Finished Goods.
B. Merchandise Inventory, Work in Process, and Finished Goods.
C. Supplies, Work in Process, and Finished Goods,
D. Raw Materials, Work in Process, and Finished Goods.

3. Micro Computer Company has set up a toll-free telephone line for customer inquiries regarding computer hardware produced and sold by the company. How would the cost of this toll-free line be classified?
A. Product cost.
B. Manufacturing overhead.
C. Direct labour.
D. Period cost.

4. What does manufacturing overhead cost consist of?
A. All manufacturing costs.
B. All manufacturing costs, EXCEPT direct materials and direct labour.
C. Indirect materials but NOT indirect labour.
D. Indirect labour but NOT indirect materials.

Question 5 (12 marks)
The following data (in thousands of dollars) have been taken from the accounting records of Larner Corporation for the year just completed:

Sales	$870
Purchases of raw materials	$110
Direct labour	$130
Manufacturing overhead	$200
Administrative expenses	$160
Selling expenses	$140
Raw materials inventory, beginning	$30
Raw materials inventory, ending	$60
Work-in-process inventory, beginning	$50
Work-in-process inventory, ending	$10
Finished goods inventory, beginning	$150
Finished goods inventory, ending	$140

Required:

(a.) Prepare a schedule of cost of goods manufactured [6 marks].
(b.) Compute the cost of goods sold [3 marks].
(c.) Using data from your answers above as needed, prepare an income statement in good form [3 marks].

Suggested Solutions
(a.) Schedule of cost of goods manufactured [Marking Keys: 2 marks for calculating raw materials used correctly; 1 mark for using MOH and DL correctly in the calculation; 1 for the final COGM; 1 for using WIP beginning and ending balances; 1 for the overall format]

Direct materials:		
Raw materials inventory, beginning	$30	
Add: Purchases of raw materials	110	
Raw materials available for use	$140	
Deduct: Raw materials inventory, ending	60	
Raw materials used in production		$80
Direct labour		130
Manufacturing overhead		200
Total manufacturing cost		$410
Add: Work-in-process inventory, beginning		50
		$460
Deduct: Work-in-process inventory, ending		10
Cost of goods manufactured		$450

(b.) Computation of cost of goods sold [Marking Keys: 1 mark for using the COGM number from (a); if the number of COGM in (a) is incorrect, this wrong number must be used correctly in (b). 1 mark for using both beginning and ending balances of FG; 1 mark for COGS.]

Finished goods inventory, beginning	$150
Add: Cost of goods manufactured	$450
Goods available for sale	$600
Deduct: Finished goods inventory, ending	$140
Cost of goods sold	$460

(c.) Income statement [Marking keys: 1 for the overall format; 1 for including both operating expenses; 1 for the final income number.]

Larner Corporation
Income Statement
Year ended Dec. 31, 2013

Sales		$870
Deduct: Cost of goods sold		460
Gross margin		$410
Operating Expenses:		
Administrative expenses	$160	
Deduct: Selling expenses	140	200
Net income		$110

Question 6 (10 marks)
The Accounting Department of Archer Company, a merchandising company, has prepared the following analysis:

Cost	Cost formula
Cost of goods sold	$56 per unit
Sales commissions	12% of sales
Advertising expense	$300,000 per month
Administrative salaries	$160,000 per month
Billing expense	?
Depreciation expense	$62,000 per month

The Accounting Department feels that billing expense is a mixed cost, containing both fixed and variable cost elements. A tabulation has been made of billing expense and sales in units over the last several months, as follows:

	Units sold (000)	Billing expense
January	9	$30,000
February	11	33,000
March	14	36,000
April	17	42,000
May	15	39,000
June	12	35,000

The company sold 30,000 units during December at a selling price of $100 per unit.

Required:

(a.) Using the high-low method to develop a cost formula for billing expense. The units sold are expressed in thousands [5 marks].
(b.) Calculate the total fixed expenses in December [2 marks].
(c.) Calculate the total variable expenses in December [3 marks].

Suggested Solutions:

(a.)
Variable Cost per unit:
b=cost change/activity change = [42,000-30,000]/[17,000-9,000]
= 12,000/8,000 = $1.5 per unit [2 marks]

Fixed expenses per month:
a = 30,000 – 9,000 * 1.5 = 30,000 – 13,500 = $16,500 [2 marks]
Y=16,500 + 1.5x [1 mark]

(b.) Total fixed = Advertising + Admin. + Fixed billing + Dep.
= 300K + 160K + 16.5K + 62K = $538.5K [four fixed; each is worth 0.5 marks]

(c.)
Total variable = COGS + Commissions + Variable Billing
=56*30K + 12%*30K*100 + 1.5*30K = $2,085,000
[three expenses are variable; each is worth 1 mark]