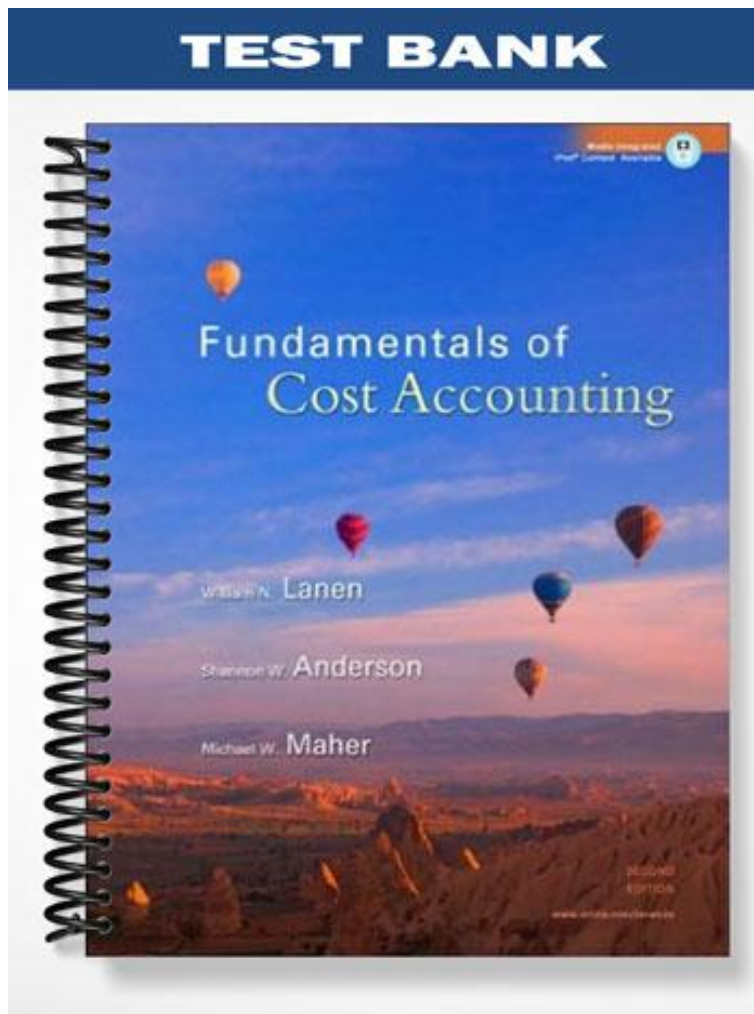


TEST BANK



**Fundamentals of
Cost Accounting**

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Ninth
Edition

www.mhhe.com/cost

Chapter 2

Cost Concepts and Behavior

True/False Questions

T F 1. The cost of an item is the sacrifice made to acquire it.

Answer: True Difficulty: Simple Learning Objective: 1
AACSB: Analytic

T F 2. A cost can either be an asset or an expense.

Answer: True Difficulty: Simple Learning Objective: 1
AACSB: Analytic

T F 3. An expense is an expired cost matched with revenues in a specific accounting period.

Answer: True Difficulty: Simple Learning Objective: 1
AACSB: Analytic

T F 4. An asset is a cost matched with revenues in a future accounting period.

Answer: True Difficulty: Moderate Learning Objective: 1
AACSB: Analytic

T F 5. In general, the term *expense* is used for managerial purposes, while the term *cost* refers to external financial reports.

Answer: False Difficulty: Simple Learning Objective: 1
AACSB: Analytic

T F 6. Accounting systems typically record opportunity costs as assets and treat them as intangible items on the financial statements.

Answer: False Difficulty: Moderate Learning Objective: 1
AACSB: Analytic

T F 7. Outlay costs can be *past* or *present* cash outflows, but not *future* cash outflows.

Answer: False Difficulty: Moderate Learning Objective: 1
AACSB: Analytic

T F 8. An opportunity cost is the benefit forgone by selecting one alternative over another alternative.

Answer: True Difficulty: Simple Learning Objective: 1
AACSB: Analytic

T F 9. Operating income is reported net of applicable income tax effects.

Answer: False Difficulty: Moderate Learning Objective: 2
AACSB: Analytic

T F 10. Net income will always be lower than operating income.

Answer: False Difficulty: Complex Learning Objective: 2
AACSB: Analytic

T F 11. Labor costs are traditionally the largest cost category for service organizations.

Answer: True Difficulty: Simple Learning Objective: 2
AACSB: Analytic

T F 12. In a service company, the distinction between *cost of services sold* and *administrative costs* is determined by who performs the task rather than the nature of the work.

Answer: False Difficulty: Moderate Learning Objective: 2
AACSB: Analytic

T F 13. Retail and wholesale firms are similar in that they sell, but do not make, tangible products.

Answer: True Difficulty: Simple Learning Objective: 2
AACSB: Analytic

T F 14. Both *cost of goods sold* and *cost of services sold* are deducted from revenues to determine *gross margin*.

Answer: True Difficulty: Simple Learning Objective: 2
AACSB: Analytic

T F 15. Transportation-in costs increase the total cost of goods purchased.

Answer: True Difficulty: Moderate Learning Objective: 2
AACSB: Analytic

T F 16. Total cost of goods purchased *minus* beginning merchandise inventory *plus* ending merchandise inventory *equals* cost of goods sold.

Answer: False Difficulty: Complex Learning Objective: 2
AACSB: Analytic

T F 17. Cost of goods sold includes the actual costs of the goods sold and the cost of selling them to the customer.

Answer: False Difficulty: Moderate Learning Objective: 2
AACSB: Analytic

T F 18. Goods which take a long time to manufacture incur more period costs than product costs and goods that can be manufactured quickly incur more product costs than period costs.

Answer: False Difficulty: Complex Learning Objective: 2
AACSB: Analytic

T F 19. Wholesale and manufacturing firms are similar in that they make the tangible products they sell.

Answer: False Difficulty: Simple Learning Objective: 2
AACSB: Analytic

T F 20. Period costs are those costs assigned to units of production in the period in which they are incurred.

Answer: False Difficulty: Complex Learning Objective: 2
AACSB: Analytic

T F 21. Only direct costs can be classified as product costs; indirect costs are classified as period costs.

Answer: False Difficulty: Moderate Learning Objective: 2
AACSB: Analytic

T F 22. The three categories of product costs are direct materials, direct labor, and manufacturing overhead.

Answer: True Difficulty: Simple Learning Objective: 2
AACSB: Analytic

T F 23. In order to be classified as a direct product cost, materials must be easily identified with the product being produced.

Answer: True Difficulty: Simple Learning Objective: 2
AACSB: Analytic

T F 24. Manufacturing overhead includes all product costs except direct materials and direct labor.

Answer: True Difficulty: Simple Learning Objective: 2
AACSB: Analytic

T F 25. Manufacturing overhead includes both indirect material costs and indirect labor costs.

Answer: True Difficulty: Simple Learning Objective: 2
AACSB: Analytic

T F 26. The prime costs plus conversion costs minus the direct labor cost equals the total product costs.

Answer: True Difficulty: Moderate Learning Objective: 2
AACSB: Analytic

T F 27. Indirect materials are considered to be a conversion cost.

Answer: True Difficulty: Complex Learning Objective: 2
AACSB: Analytic

T F 28. Both direct labor and indirect labor are included in conversion costs.

Answer: True Difficulty: Moderate Learning Objective: 2
AACSB: Analytic

T F 29. All manufacturing costs are product costs.

Answer: True Difficulty: Simple Learning Objective: 2
AACSB: Analytic

T F 30. The cost of shipping goods to customers is considered to be a marketing cost.

Answer: True Difficulty: Simple Learning Objective: 2
AACSB: Analytic

T F 31. A cost flow diagram shows the cost allocation rule being used to allocate the cost pool to the cost objects.

Answer: True Difficulty: Moderate Learning Objective: 3
AACSB: Analytic

T F 32. The first step in determining whether a cost is direct or indirect is to specify the cost allocation rule.

Answer: False Difficulty: Moderate Learning Objective: 3
AACSB: Analytic

T F 33. The three manufacturing inventories are Direct Materials, Work-in-Process, and Merchandise Inventory.

Answer: False Difficulty: Simple Learning Objective: 4
AACSB: Analytic

T F 34. Cost of goods manufactured equals the sum of (a) direct material put into production, (b) direct labor, and (c) manufacturing overhead.

Answer: False Difficulty: Moderate Learning Objective: 4
AACSB: Analytic

T F 35. Total work-in-process during the period is the sum of the beginning work-in-process inventory and the total manufacturing costs incurred during the period.

Answer: True Difficulty: Moderate Learning Objective: 4
AACSB: Analytic

T F 36. Cost of goods sold *plus* the ending finished goods inventory *minus* the beginning finished goods inventory *equals* the cost of goods manufactured.

Answer: True Difficulty: Complex Learning Objective: 4
AACSB: Analytic

T F 37. If the cost of goods manufactured during the period exceeds the cost of goods sold, the balance of the Finished Goods Inventory account increased.

Answer: True Difficulty: Complex Learning Objective: 4
AACSB: Analytic

T F 38. Total variable costs change inversely with changes in the volume of activity.

Answer: False Difficulty: Simple Learning Objective: 5
AACSB: Analytic

T F 39. Fixed costs per unit change inversely with changes in the volume of activity.

Answer: True Difficulty: Moderate Learning Objective: 5
AACSB: Analytic

T F 40. In highly automated, capital intensive settings, direct labor is often classified as a fixed cost.

Answer: True Difficulty: Simple Learning Objective: 5
AACSB: Analytic

T F 41. The range within which fixed costs remain constant as volume of activity varies is known as the relevant range.

Answer: True Difficulty: Simple Learning Objective: 5
AACSB: Analytic

T F 42. The cost behavior for direct materials is variable.

Answer: True Difficulty: Simple Learning Objective: 5
AACSB: Analytic

- T F 43. The cost behavior of the total manufacturing overhead costs is variable.
- Answer: False Difficulty: Moderate Learning Objective: 5
AACSB: Analytic
- T F 44. The term *full cost* refers to the cost of manufacturing and selling a unit of product and includes both fixed and variable costs.
- Answer: True Difficulty: Moderate Learning Objective: 6
AACSB: Analytic
- T F 45. Full absorption costs include only direct materials, direct labor, and manufacturing overhead.
- Answer: True Difficulty: Simple Learning Objective: 6
AACSB: Analytic
- T F 46. Variable marketing and administrative costs would be included in determining full absorption costs.
- Answer: False Difficulty: Moderate Learning Objective: 6
AACSB: Analytic
- T F 47. The variable cost per unit is defined to be constant despite changes in the volume of activity within the relevant range.
- Answer: True Difficulty: Moderate Learning Objective: 6
AACSB: Analytic
- T F 48. Revenue *minus* cost of goods sold *equals* contribution margin.
- Answer: False Difficulty: Moderate Learning Objective: 7
AACSB: Analytic
- T F 49. Gross margin is the amount available to cover fixed costs and earn a profit.
- Answer: False Difficulty: Simple Learning Objective: 7
AACSB: Analytic

- T F 50. The primary goal of the cost accounting system is to provide managers with information to prepare their annual financial statements.

Answer: False Difficulty: Simple Learning Objective: 7
AACSB: Analytic

Multiple Choice Questions

Part A: Conceptual Questions

51. Which of the following statements is (are) true?

- (1). An asset is a cost that will be matched with revenues in a future accounting period.
- (2). Opportunity costs are recorded as intangible assets in the current accounting period.

- A) Only (1) is true.
- B) Only (2) is true.
- C) Both (1) and (2) are true.
- D) Neither (1) or (2) are true.

Answer: A Difficulty: Simple Learning Objective: 1
AACSB: Analytic

52. Which of the following statements is (are) false?

- (1). In general, the term *expense* is used for managerial purposes, while the term *cost* refers to external financial reports.
- (2). An opportunity cost is the benefit forgone by selecting one alternative over another.

- A) Only (1) is false.
- B) Only (2) is false.
- C) Both (1) and (2) are false.
- D) Neither (1) or (2) are false.

Answer: A Difficulty: Moderate Learning Objective: 1
AACSB: Analytic

53. Which of the following best distinguishes an opportunity cost from an outlay cost?

- A) Opportunity costs are recorded, whereas outlay costs are not.
- B) Outlay costs are speculative in nature, whereas opportunity costs are easily traceable to products.
- C) Opportunity costs have very little utility in practical applications, whereas outlay costs are always relevant.
- D) Opportunity costs are sacrifices from foregone alternative uses of resources, whereas outlay costs are cash outflows.

Answer: D Difficulty: Simple Learning Objective: 1
AACSB: Analytic

54. Which of the following accounts would be a period cost rather than a product cost?
- A) Depreciation on manufacturing machinery.
 - B) Maintenance on factory machines.
 - C) Production manager's salary.
 - D) Direct Labor.
 - E) Freightout.

Answer: E Difficulty: Moderate Learning Objective: 2
AACSB: Analytic

55. A company which manufactures custom-made machinery routinely incurs sizable telephone costs in the process of taking sales orders from customers. Which of the following is a proper classification of this cost?
- A) Product cost
 - B) Period cost
 - C) Conversion cost
 - D) Prime cost

Answer: B Difficulty: Moderate Learning Objective: 2
AACSB: Analytic

56. For a manufacturing company, which of the following is an example of a period rather than a product cost?
- A) Wages of salespersons.
 - B) Salaries of machine operators.
 - C) Insurance on factory equipment.
 - D) Depreciation of factory equipment.

Answer: A Difficulty: Simple Learning Objective: 2
AACSB: Analytic

57. XYZ Company manufactures a single product. The product's prime costs consist of
- A) direct material and direct labor.
 - B) direct material and factory overhead.
 - C) direct labor and factory overhead.
 - D) direct material, direct labor and factory overhead.
 - E) direct material, direct labor and variable factory overhead.

Answer: A Difficulty: Simple Learning Objective: 2
AACSB: Analytic

58. Which of the following costs is both a prime cost and a conversion cost?
- A) direct materials
 - B) direct labor
 - C) manufacturing overhead
 - D) administrative costs
 - E) marketing costs

Answer: B Difficulty: Moderate Learning Objective: 2
AACSB: Analytic

59. Marketing costs include all of the following except:
- A) Advertising.
 - B) Shipping costs.
 - C) Sales commissions.
 - D) Legal and accounting fees.
 - E) Office space for sales department.

Answer: D Difficulty: Simple Learning Objective: 2
AACSB: Analytic

60. Property taxes on factory equipment are an element of
- | | Conversion Cost | Period Cost |
|----|-----------------|-------------|
| A) | No | No |
| B) | No | Yes |
| C) | Yes | No |
| D) | Yes | Yes |

Answer: C Difficulty: Complex Learning Objective: 2
AACSB: Analytic

61. The terms direct cost and indirect cost are commonly used in accounting. A particular cost might be considered a direct cost of a manufacturing department but an indirect cost of the product produced in the manufacturing department. Classifying a cost as either direct or indirect depends upon
- A) whether an expenditure is unavoidable because it cannot be changed regardless of any action taken.
 - B) whether the cost is expensed in the period in which it is incurred.
 - C) the behavior of the cost in response to volume changes.
 - D) the cost object to which the cost is being related.

Answer: D Difficulty: Moderate Learning Objective: 3
AACSB: Analytic

62. The Cost of Goods Manufactured Statement summarizes the periodic production operations for a company. On the face of that schedule are intermediate calculations supporting the cost of goods manufactured figure. The beginning Work-in-Process inventory plus the total of the manufacturing costs equals
- A) total finished goods during the period.
 - B) cost of goods sold for the period.
 - C) total work-in-process during the period.
 - D) cost of goods manufactured for the period.

Answer: C Difficulty: Moderate Learning Objective: 4
AACSB: Analytic

63. A manufacturing company incurs direct labor costs as it transforms direct material into marketable products. The cost of the direct labor will be treated as a period cost on the income statement when the resulting:
- A) payroll costs are paid.
 - B) payroll costs are incurred.
 - C) products are completed.
 - D) products are sold.

Answer: D Difficulty: Moderate Learning Objective: 4
AACSB: Analytic

64. Inventoriable costs:
- A) include only the prime costs of manufacturing a product.
 - B) include only the conversion costs of providing a service.
 - C) exclude fixed manufacturing costs.
 - D) are regarded as assets until the units are sold.
 - E) are regarded as expenses when the costs are incurred.

Answer: D Difficulty: Moderate Learning Objective: 4
AACSB: Analytic

65. A product cost is deducted from revenue when
- A) the finished goods are sold.
 - B) the expenditure is incurred.
 - C) the production process takes place.
 - D) the production process is completed.
 - E) the finished goods are transferred to the Finished Goods Inventory.

Answer: A Difficulty: Simple Learning Objective: 4
AACSB: Analytic

66. Direct materials issued to production is found by
- A) subtracting ending work in process from total work in process during the period.
 - B) adding beginning direct materials inventory and the delivered cost of direct materials.
 - C) subtracting ending direct materials from direct materials available for production.
 - D) adding delivered cost of materials, labor, and manufacturing overhead.
 - E) subtracting purchases discounts and purchases returns and allowances from purchases of direct material plus freight-in.

Answer: C Difficulty: Simple Learning Objective: 4
AACSB: Analytic

67. The Cost of Goods Manufactured Schedule summarizes the periodic production operations for a company. On the face of that schedule are intermediate calculations supporting the cost of goods manufactured amount. The beginning Finished Goods Inventory plus the cost of goods manufactured equals
- A) total finished goods during the period.
 - B) cost of goods sold for the period.
 - C) total work-in-process during the period.
 - D) cost of goods manufactured for the period.
 - E) cost of goods available for sale for the period.

Answer: E Difficulty: Moderate Learning Objective: 4
AACSB: Analytic

68. Direct labor would be part of the cost of the ending inventory for which of these accounts?
- A) Work-in-Process.
 - B) Finished Goods.
 - C) Direct Materials and Work-in-Process.
 - D) Work-in-Process and Finished Goods.
 - E) Direct Materials, Work-in-Process, and Finished Goods.

Answer: D Difficulty: Simple Learning Objective: 4
AACSB: Analytic

69. The Work-in-Process Inventory of the Rapid Fabricating Corp. was \$3,000 higher on December 31, 2005 than it was on January 1, 2005. This implies that in 2005
- A) cost of goods manufactured was higher than cost of goods sold.
 - B) cost of goods manufactured was less than manufacturing costs.
 - C) manufacturing costs were higher than cost of goods sold.
 - D) manufacturing costs were less than cost of goods manufactured.
 - E) cost of goods manufactured was less than cost of goods sold.

Answer: B Difficulty: Complex Learning Objective: 4
AACSB: Analytic

70. Which of the following is not a product cost under full-absorption costing?
- A) Direct materials used in the current period
 - B) Rent for the warehouse used to store direct materials
 - C) Salaries paid to the top management in the company
 - D) Vacation pay accrued for the production workers

Answer: C Difficulty: Simple Learning Objective: 4
AACSB: Analytic

71. The term "gross margin" for a manufacturing firm refers to the excess of sales over:
- A) cost of goods sold, excluding fixed indirect manufacturing costs.
 - B) all variable costs, including variable marketing and administrative costs.
 - C) cost of goods sold, including fixed indirect manufacturing costs.
 - D) variable costs, excluding variable marketing and administrative costs.
 - E) total manufacturing costs, including fixed indirect manufacturing costs.

Answer: C Difficulty: Simple Learning Objective: 4
AACSB: Analytic

72. How would property taxes paid on a factory building be classified in a manufacturing company?
- A) Fixed, period cost.
 - B) Fixed, product cost.
 - C) Variable, period cost.
 - D) Variable, product cost.

Answer: B Difficulty: Moderate Learning Objective: 5
AACSB: Analytic

73. How would miscellaneous supplies used in assembling a product be classified for a manufacturing company?
- A) Fixed, period cost.
 - B) Fixed, product cost.
 - C) Variable, period cost.
 - D) Variable, product cost.

Answer: D Difficulty: Simple Learning Objective: 5
AACSB: Analytic

74. How would a 5% sales commission paid to sales personnel be classified in a manufacturing company?
- A) Fixed, period cost.
 - B) Fixed, product cost.
 - C) Variable, period cost.
 - D) Variable, product cost.

Answer: C Difficulty: Simple Learning Objective: 5
AACSB: Analytic

75. You have been asked to help a student health center determine which costs will vary with the number of students who come to the health center. The health center employs one doctor, three nurses, and several other employees. How would you classify (1) the nurse's salary and (2) film and other materials used in radiology to give X-rays to students?

	<u>Nurse's Salaries</u>	Film and Other Materials <u>Used in Radiology</u>
A)	Fixed cost	Fixed cost
B)	Fixed cost	Variable cost
C)	Variable cost	Fixed cost
D)	Variable cost	Variable cost
E)	Mixed cost	Mixed cost

Answer: B Difficulty: Simple Learning Objective: 5
AACSB: Analytic

76. Pete's Pizza Place wishes to determine which of its costs will vary with the number of pizzas made. The Pizza Place has four pizza makers and ten other employees who take orders from customers and perform other tasks. The four pizza makers and the other employees are paid an hourly wage. How would one classify (1) the wages paid to the pizza makers and other employees and (2) materials (e.g., cheeses, sauce, etc.) used to make the pizza?

	<u>Employees' Wages</u>	<u>Materials to make the pizza</u>
A)	Fixed cost	Fixed cost
B)	Fixed cost	Variable cost
C)	Variable cost	Fixed cost
D)	Variable cost	Variable cost
E)	Mixed cost	Mixed cost

Answer: D Difficulty: Simple Learning Objective: 5
AACSB: Analytic

77. Which of the following statements is (are) true?

- (1) The term *full cost* refers to the cost of manufacturing and selling a unit of product and includes both fixed and variable costs.
(2). The fixed cost per unit is considered constant despite changes in volume of activity within the relevant range.

- A) Only (1) is true.
B) Only (2) is true.
C) Both (1) and (2) are true.
D) Neither (1) or (2) are true.

Answer: A Difficulty: Moderate Learning Objective: 6
AACSB: Analytic

Part B: Computational Questions

78. Given the following information, what is the operating profit for the period?

Revenues	\$500,000
Marketing Expenses	80,000
Interest Expense	12,000
Administrative Expenses	60,000
Income Taxes	30,000
Extraordinary gain	10,000
Cost of goods sold	225,000

- A) \$275,000
- B) \$195,000
- C) \$135,000
- D) \$107,000
- E) \$105,000

Answer: C Difficulty: Moderate Learning Objective: 7
Response: $\$500,000 - 225,000 - 80,000 - 60,000 = \underline{\$135,000}$
AACSB: Analytic

79. Given the following information for a retail company, what is the total cost of goods purchased for the period?

Purchase discounts	\$ 3,500
Transportation-in	6,700
Ending inventory	35,000
Merchandise cost	304,000
Purchase returns	8,400
Beginning inventory	27,000
Sales discounts	10,300

- A) \$298,800
- B) \$290,800
- C) \$282,100
- D) \$304,000
- E) Some other answer _____.

Answer: A Difficulty: Simple Learning Objective: 4
Response: $\$304,000 + 6,700 - 3,500 - 8,400 = \underline{\$298,800}$
AACSB: Analytic

80. A company had beginning inventories as follows: Direct Materials, \$300; Work-in-Process, \$500; Finished Goods, \$700. It had ending inventories as follows: Direct Materials, \$400; Work-in-Process, \$600; Finished Goods, \$800. Purchases (net including freight) were \$1,400, Direct Labor \$1,500, and Manufacturing Overhead \$1,600. What is the Cost of Goods Sold for the period?
- A) \$4,100.
 B) \$4,200.
 C) \$4,300.
 D) \$4,400.
 E) Some other answer _____.

Answer: B Difficulty: Moderate Learning Objective: 4

Response: $\$300 + 1,400 - 400 = \$1,300$ (Direct materials used in production)

$\$500 + 1,300 + 1,500 + 1,600 - 600 = \$4,300$ (CoGM)

$\$700 + 4,300 - 800 = \underline{\$4,200}$

AACSB: Analytic

81. Compute the Cost of Goods Sold for 2008 using the following information:

Direct Materials, January 01, 2008	\$40,000
Work-in-Process, December 31, 2008	69,000
Direct Labor	48,500
Finished Goods, December 31,2008	105,000
Finished Goods, January 01, 2008	128,000
Manufacturing Overhead	72,500
Direct Materials, December 31,2008	43,000
Work-in Process, January 01, 2008	87,000
Purchases of direct material	75,000

- A) \$244,000
 B) \$234,000
 C) \$211,000
 D) \$198,000
 E) \$188,000

Answer: B Difficulty: Moderate Learning Objective: 4

Response:

$\$40,000 + 75,000 - 43,000 = \$72,000$ (Direct materials used in production)

$\$87,000 + 72,000 + 48,500 + 72,500 - 69,000 = \$211,000$ (CoGM)

$\$128,000 + 211,000 - 105,000 = \underline{\$234,000}$

Use the following to answer questions 82-83:

	<u>Work-in-Process</u>	<u>Finished Goods</u>	<u>Materials</u>
Beginning inventory	\$300	\$400	\$ 500
Ending inventory	700	900	1,500

Purchases (net) – \$7,700
 Cost of Goods Sold – \$15,600
 Manufacturing overhead – \$4,300

82. What was the direct labor for the period?
 A) \$5,500.
 B) \$5,800.
 C) \$6,300.
 D) \$6,800.
 E) \$7,500.

Answer: A Difficulty: Complex Learning Objective: 4

Response:

$\$500 + 7,700 - 1,500 = \$6,700$ (Direct materials used in production)

$\$400 + \text{CoGM} - 900 = \$15,600$; CoGM = \$16,100

$\$300 + 6,700 + \text{Direct Labor} + 4,300 - 700 = \$16,100$; Direct Labor = \$5,500

AACSB: Analytic

83. What was the cost of goods available for sale for the period?
 A) \$16,800
 B) \$16,500
 C) \$16,100
 D) \$15,100
 E) Some other answer _____.

Answer: B Difficulty: Moderate Learning Objective: 2

Response:

$\$400 + \text{CoGM} - 900 = \$15,600$; CoGM = \$16,100

$\$400 + 16,100 = \underline{\$16,500}$

AACSB: Analytic

Use the following to answer questions 84-86:

The estimated unit costs for a company to produce and sell a product at a level of 12,000 units per month are as follows:

<i>Cost Item</i>	<i>Estimated Unit Cost</i>
Direct material	\$32
Direct labor	20
Variable manufacturing overhead	15
Fixed manufacturing overhead	6
Variable selling expenses	3
Fixed selling expenses	4

84. What are the estimated conversion costs per unit?
- A) \$35
 - B) \$41
 - C) \$44
 - D) \$48
 - E) \$67

Answer: B Difficulty: Simple Learning Objective: 2
Response: $\$20 + 15 + 6 = \underline{\$41}$
AACSB: Analytic

85. What are the estimated prime costs per unit?
- A) \$73
 - B) \$32
 - C) \$67
 - D) \$52
 - E) \$76

Answer: D Difficulty: Simple Learning Objective: 2
Response: $\$32 + 20 = \underline{\$52}$
AACSB: Analytic

86. What are the estimated variable costs per unit?
- A) \$70
 - B) \$38
 - C) \$67
 - D) \$52
 - E) \$18

Answer: A Difficulty: Simple Learning Objective: 5
Response: $\$32 + 20 + 15 + 3 = \underline{\$70}$
AACSB: Analytic

87. Calculate the conversion costs from the following information:

Fixed manufacturing overhead	\$2,000
Variable manufacturing overhead	1,000
Direct materials	2,500
Direct labor	1,500

- A) \$3,000
- B) \$4,000
- C) \$4,500
- D) \$5,000
- E) \$7,000

Answer: C Difficulty: Simple Learning Objective: 2

Response:

$$\$1,500 + 1,000 + 2,000 = \underline{\$4,500}$$

AACSB: Analytic

88. During 2008, a manufacturing company had the following operating results:

Beginning work-in-process inventory	\$ 45,000
Beginning finished goods inventory	\$190,000
Direct materials used in production	\$308,000
Direct labor	\$475,000
Manufacturing overhead incurred	\$250,000
Ending work-in-process inventory	\$ 67,000
Ending finished goods inventory	\$ 89,000

What is the cost of goods manufactured for 2008?

- A) \$1,011,000
- B) \$1,134,000
- C) \$1,033,000
- D) \$1,112,000
- E) Some other answer _____.

Answer: A Difficulty: Moderate Learning Objective: 4

Response:

$$\$45,000 + 308,000 + 475,000 + 250,000 - 67,000 = \underline{\$1,011,000}$$

AACSB: Analytic

89. During April 2008, the CJG Manufacturing Company had the following operating results:

Sales revenue	\$1,500,000
Gross margin	\$ 600,000
Ending work-in-process inventory	\$ 50,000
Beginning work-in-process inventory	\$ 80,000
Ending finished goods inventory	\$ 100,000
Beginning finished goods inventory	\$ 125,000
Marketing costs	\$ 250,000
Administrative costs	\$ 150,000

What is the cost of goods manufactured for April 2008?

- A) \$900,000
- B) \$875,000
- C) \$925,000
- D) \$905,000
- E) Some other answer _____.

Answer: B Difficulty: Complex Learning Objective: 4

Response:

$$\$1,500,000 - 600,000 = \$900,000 \text{ (CoGS)}$$

$$\$125,000 + \text{CoGM} - 100,000 = \$900,000; \text{ CoGM} = \underline{\$875,000}$$

AACSB: Analytic

Use the following to answer questions 90-95:

Each question is based on the production and sale of 2,000 units.

Sales price per unit	\$ 800 per unit
Fixed costs:	
Marketing and administrative	\$400,000 per period
Manufacturing overhead	\$200,000 per period
Variable costs:	
Marketing and administrative	\$ 50 per unit
Manufacturing overhead	\$ 80 per unit
Direct labor	\$ 100 per unit
Direct materials	\$ 200 per unit

90. What is the variable manufacturing cost per unit?

- A) \$380
- B) \$430
- C) \$480
- D) \$730
- E) Some other answer _____.

Answer: A Difficulty: Simple Learning Objective: 6

$$\text{Response: } \$200 + 100 + 80 = \underline{\$380}$$

AACSB: Analytic

91. What is the total manufacturing cost per unit?

- A) \$380
- B) \$430
- C) \$480
- D) \$730
- E) Some other answer _____.

Answer: C Difficulty: Simple Learning Objective: 6

$$\text{Response: } \$200 + 100 + 80 + (\$200,000/2,000) = \underline{\$480}$$

AACSB: Analytic

92. What is the full cost per unit of making and selling the product?
- A) \$430
 - B) \$480
 - C) \$530
 - D) \$730
 - E) Some other answer _____.

Answer: D Difficulty: Moderate Learning Objective: 6

Response: $\$200 + 100 + 80 + (\$200,000/2,000) + 50 + (\$400,000/2,000) = \underline{\$730}$

AACSB: Analytic

93. What is the contribution margin per unit?
- A) \$ 70
 - B) \$320
 - C) \$370
 - D) \$430
 - E) Some other answer _____.

Answer: C Difficulty: Simple Learning Objective: 7

Response: $\$800 - 200 - 100 - 80 - 50 = \underline{\$370}$

AACSB: Analytic

94. What is the conversion cost per unit?
- A) \$100
 - B) \$180
 - C) \$280
 - D) \$380
 - E) Some other answer _____.

Answer: C Difficulty: Moderate Learning Objective: 2

Response: $\$100 + 80 + (\$200,000/2,000) = \underline{\$280}$

AACSB: Analytic

95. What is the prime cost per unit?
- A) \$100
 - B) \$280
 - C) \$300
 - D) \$480
 - E) Some other answer _____.

Answer: C Difficulty: Simple Learning Objective: 2

Response: $\$200 + 100 = \underline{\$300}$

AACSB: Analytic

96. The following information was collected from the accounting records of the CJG Corporation for 3,000 units:

	<u>Per Unit</u>	<u>Per Period</u>
Sales price	\$350	
Direct Materials	80	
Direct Labor	40	
Overhead	60	\$90,000
Marketing	20	
Administrative		60,000

What is CJG's total cost per unit?

- A) \$180.
- B) \$200.
- C) \$210.
- D) \$250.
- E) Some other answer _____.

Answer: D Difficulty: Moderate Learning Objective: 6

Response: $\$80 + 40 + 60 + (\$90,000/3,000) + 20 + (\$60,000/3,000) = \underline{\$250}$

AACSB: Analytic

Part C: Professional Examination Questions

97. Theoretically, cash discounts permitted on direct materials purchased should be (CPA adapted)
- A) Added to other income, whether or not they are taken.
 - B) Added to other income, but only if taken.
 - C) Deducted from inventory, whether or not they are taken.
 - D) Deducted from inventory, but only if taken.

Answer: C Difficulty: Moderate Learning Objective: 1

AACSB: Analytic

98. The difference between variable costs and fixed costs is (CMA adapted)
- A) Unit variable costs fluctuate and unit fixed costs remain constant.
 - B) Unit variable costs are fixed over the relevant range and unit fixed costs are variable.
 - C) Total variable costs are constant over the relevant range, while fixed costs change in the long-term.
 - D) Total variable costs are variable over the relevant range but fixed in the long-term, while fixed costs never change.
 - E) Unit variable costs change in varying increments, while unit fixed costs change in equal increments.

Answer: B Difficulty: Moderate Learning Objective: 1

AACSB: Analytic

99. Which one of the following costs is classified as a period cost? (CIA adapted)
- A) The wages of the workers on the shipping docks who load completed products onto outgoing trucks.
 - B) The wages of a worker paid for idle time resulting from a machine breakdown in the molding department.
 - C) The payments for employee (fringe) benefits paid on behalf of the workers in the manufacturing plant.
 - D) The wages paid to workers for reworking defective products that failed the quality inspection upon completion.

Answer: A Difficulty: Moderate Learning Objective: 1
AACSB: Analytic

100. The following cost data for the month of May were taken from the records of the Paducah Manufacturing Company: (CIA adapted)

Depreciation on factory equipment	\$1,000
Depreciation on sales office	500
Advertising	7,000
Freight-in (shipping)	3,000
Wages of production workers	28,000
Raw materials used	47,000
Sales salaries and commissions	10,000
Factory rent	2,000
Factory insurance	500
Materials handling	1,500
Administrative salaries	2,000

Based upon this information, the manufacturing cost incurred during the month was:

- A) \$78,500.
- B) \$80,000.
- C) \$80,500.
- D) \$83,000.
- E) Some other answer _____.

Answer: C Difficulty: Moderate Learning Objective: 1
Response: $\$1,000 + 28,000 + 47,000 + 2,000 + 500 + 1,500 = \underline{\$80,000}$
AACSB: Analytic

101. Sarasota Company, (a merchandising Co.) has the following data pertaining to the year ended December 31, 2006: (CPA adapted)

Purchases	\$450,000
Beginning inventory	170,000
Ending inventory	210,000
Freight-in	50,000
Freight-out	75,000

What is the cost of goods sold for the year?

- A) \$385,000
- B) \$460,000
- C) \$485,000
- D) \$536,000
- E) some other answer _____

Answer: B Difficulty: Simple Learning Objective: 1

Response: $\$170,000 + (\$450,000 + 50,000 - 210,000) = \underline{\$460,000}$

AACSB: Analytic

102. The Southeastern Company's manufacturing costs for the third quarter of 2008 were as follows:
(CPA adapted)

Direct materials and direct labor	\$700,000
Other variable manufacturing costs	100,000
Depreciation of factory building and manufacturing equipment	80,000
Other fixed manufacturing costs	18,000

What amount should be considered product costs for external reporting purposes?

- A) \$700,000
- B) \$800,000
- C) \$880,000
- D) \$898,000
- E) some other answer _____

Answer: D Difficulty: Simple Learning Objective: 1

Response: $\$700,000 + 100,000 + 80,000 + 18,000 = \underline{\$898,000}$

AACSB: Analytic

Use the following to answer questions 103-107:

Mukwonago Industries has developed two new products but has only enough plant capacity to introduce one product during the current year. The following data will assist management in deciding which product should be selected.

Mukwonago's fixed overhead includes rent and utilities, equipment depreciation, and supervisory salaries. Selling and administrative expenses are not allocated to individual products.

	<u>Product L</u>	<u>Product W</u>
Direct materials	\$ 44	\$36
Machining (\$12/hour)	18	15
Assembly (\$10/hour)	30	10
Variable overhead (\$8/hour)	36	18
Fixed overhead (\$4/hour)	<u>18</u>	<u>9</u>
Total Merit cost	<u>\$146</u>	<u>\$88</u>

Estimated selling price per unit	\$ 170	\$ 100
Actual research and development costs	\$240,000	\$175,000
Estimated advertising costs	\$500,000	\$350,000

103. For Mukwonago's Product L, the costs for direct material, machining, and assembly represent
- Conversion costs.
 - Period costs.
 - Prime costs.
 - Common costs.
 - Fixed costs.

Answer: C Difficulty: Simple Learning Objective: 1
AACSB: Analytic

104. The difference between the \$100 estimated selling price for Product W and its total unit cost of \$88 represents
- Contribution margin per unit.
 - Gross margin per unit.
 - Variable cost per unit.
 - Operating profit per unit.
 - Net income per unit.

Answer: B Difficulty: Simple Learning Objective: 1
AACSB: Analytic

105. The total overhead cost of \$27 for Mukwonago's Product W is a
- Sunk cost.
 - Opportunity cost.
 - Variable cost.
 - Mixed cost.
 - Fixed cost.

Answer: D Difficulty: Simple Learning Objective: 1
AACSB: Analytic

106. Research and development costs for Mukwonago's two new products are
- Prime costs.
 - Conversion costs.
 - Opportunity costs.
 - Sunk costs.
 - Avoidable costs.

Answer: D Difficulty: Simple Learning Objective: 1
AACSB: Analytic

107. The advertising costs for the product selected by Mukwonago will be
- Prime costs.
 - Conversion costs.
 - Discretionary costs.
 - Opportunity costs.
 - Product costs.

Answer: C Difficulty: Simple Learning Objective: 1
AACSB: Analytic

Computational Questions

108. The following information is available for the Cyberspace Consulting Company for the fiscal year ended December 31, 2008.

Gross margin	\$170,000
Operating profit	\$ 65,500
Revenues	\$809,000
Income tax rate	34%

Required:

- Compute the cost of services sold.
- Compute the total marketing and administrative costs.
- Compute net income.

Difficulty: Simple Learning Objective: 2

Answer:

- $\$809,000 - x = \$170,000$; $x = \underline{\$639,000}$
- $\$170,000 - x = \$65,500$; $x = \underline{\$104,500}$
- $\$65,500 - [(.34)(\$65,500)] = x$; $x = \underline{\$43,230}$

AACSB: Analytic

109. The following information is available for the Roberts Retail Store for the fiscal year ended December 31, 2008.

Ending inventory	\$100,100
Transportation-in costs	\$ 8,900
Purchase discounts	\$ 15,000
Beginning inventory	\$ 79,000
Merchandise cost	\$450,000
Purchase returns and allowances	\$ 6,200
Sales revenue	\$800,000
Sales discounts	\$ 12,500

Required:

- (a) Prepare a cost of goods sold statement for Roberts Retail Store.
(b) Compute the gross margin for the fiscal year ended December 31, 2005.

Answer:

(a)

Beginning inventory		\$ 79,000
Cost of goods purchased:		
Merchandise (cost)	\$450,000	
Purchase returns	(6,200)	
Purchase discounts	(15,000)	
Transportation-in costs	<u>8,900</u>	
Total cost of goods purchased		<u>437,700</u>
Cost of goods available for sale		516,700
Ending inventory		<u>(100,100)</u>
Cost of goods sold		<u>\$416,600</u>

(b)

Sales revenue (gross)	\$800,000	
Less sales discounts	<u>(12,500)</u>	
Sales revenues (net)		\$787,500
Cost of goods sold		<u>416,600</u>
Gross margin		<u>\$370,900</u>

AACSB: Analytic

110. Required:

For each of the following costs incurred in a manufacturing company, indicate whether the costs are (a) fixed or variable and (b) product costs or period costs.

	Cost Item	Fixed	Variable	Product	Period
0	Annual audit and tax return fees	X			X
1	Cafeteria costs for the factory personnel				
2	Direct materials purchased				
3	Travel costs for the company's president				
4	Depreciation of factory machinery*				
5	Property taxes on the factory				
6	Insurance premiums on delivery vans				
7	Overtime pay for factory custodians				
8	Sales commissions				
9	Rent paid for corporate jet				
10	Transportation-in costs for indirect material				

* Depends on depreciation method used.

Difficulty: Simple Learning Objective: 4,5

Answer:

	Cost Item	Fixed	Variable	Product	Period
1	Cafeteria costs for the factory personnel	X		X	
2	Direct materials purchased		X	X	
3	Travel costs for the company's president		X		X
4	Depreciation of factory machinery	X	X	X	
5	Property taxes on the factory	X		X	
6	Insurance premiums on delivery vans	X			X
7	Overtime pay for factory custodians		X	X	
8	Sales commissions		X		X
9	Rent paid for corporate jet	X			X
10	Transportation-in costs for indirect material		X	X	

AACSB: Analytic

111. The Plastechnics Company began operations several years ago. The company purchased a building and, since only half of the space was needed for operations, the remaining space was rented to another firm for rental revenue of \$20,000 per year. The success of Plastechnics Company's product has resulted in the company needing more space. The renter's lease will expire next month and Plastechnics will not renew the lease in order to use the space to expand operations and meet demand.

The company's product requires direct materials that cost \$25 per unit. The company employs a production supervisor whose salary is \$2,000 per month. Production line workers are paid \$15 per hour to manufacture and assemble the product. The company rents the equipment needed to produce the product at a rental cost of \$1,500 per month. Additional equipment will be needed as production is expanded and the monthly rental charge for this equipment will be \$900 per month. The building is depreciated on a straight-line basis at \$9,000 per year.

The company spends \$40,000 per year to market the product. Shipping costs for each unit are \$20 per unit. The cost of electricity and other utilities used for product is \$2 per unit. The company plans to liquidate several investments in order to expand production. These investments currently earn a return of \$8,000 per year.

Required:

Complete the answer sheet that follows by placing an "X" under each heading that identifies the cost involved. The "X's" can be placed under *more than one heading* for a single cost, e.g., a cost might be a sunk cost, an overhead cost, and a product cost. An "X" can thus be placed under each of these headings opposite the cost.

Name of Cost	Variable Cost	Fixed Cost	Direct Materials	Direct Labor	Mfg. Overhead	Period Cost	Opportunity Cost	Sunk Cost
1. Amount that can be earned renting building								
2. Cost of direct materials per								

unit								
3. Salary of production supervisor								
4. Cost of direct labor per unit								
5. Equipment rental cost								
6. Depreciation on building								
7. Marketing costs								
8. Shipping costs per unit of production								
9. Electrical and other costs per unit								
10. Foregone investment . income								

Difficulty: Moderate Learning Objective: 4.5.

Answer:

<i>Name of Cost</i>	<i>Variable Cost</i>	<i>Fixed Cost</i>	<i>Direct Materials</i>	<i>Direct Labor</i>	<i>Mfg. Overhead</i>	<i>Period Cost</i>	<i>Opportunity Cost</i>	<i>Sunk Cost</i>
1. Amount that can be earned renting building							X	
2. Cost of direct materials per unit	X		X					
3. Salary of production supervisor		X			X			
4. Cost of direct labor per unit	XX			X				
5. Equipment rental cost		X			X			
6. Depreciation on building		X			X			
7. Marketing costs		X				X		
8. Shipping costs per unit of production	XX	X				X		
9. Electrical and other costs per unit	XX	X			X			
10. Foregone investment . income							X	

AACSB: Analytic

112. The following cost and inventory data were taken from the records of the Beca Company for the year 2008:

Costs incurred:

Depreciation, factory equipment	\$30,000
Depreciation, office equipment	7,000
Supplies, factory	1,500
Maintenance, factory equipment	20,000
Utilities, factory	8,000
Sales commissions	30,000
Indirect labor	54,500
Rent, factory building	70,000
Purchases of direct materials (net)	124,000
Direct labor cost	80,000
Advertising expense	90,000

Inventories:

	<u>January 1, 2008</u>	<u>December 31, 2008</u>
Direct Materials	\$9,000	\$11,000
Work in Process	6,000	21,000
Finished goods	69,000	24,000

Required:

(a) Compute the cost of goods manufactured for 2008.

(b) Prepare a cost of goods sold statement for 2008.

Difficulty: Moderate Learning Objective: 3

Answer:

(a.)

Beginning work in process inventory		\$ 6,000
Manufacturing costs during the year:		
Direct materials:		
Beginning inventory	\$ 9,000	
Purchases (net)	<u>124,000</u>	
Direct materials available	133,000	
Ending inventory	<u>(11,000)</u>	
Direct materials put into production		122,000
Direct labor		80,000
Manufacturing overhead:		
Depreciation	\$ 30,000	
Supplies	1,500	
Maintenance	20,000	
Utilities	8,000	
Indirect labor	54,500	
Rent	<u>70,000</u>	
Total manufacturing overhead	<u>184,000</u>	
Total manufacturing costs incurred		<u>386,000</u>
Total work in process during the year		392,000
Ending work in process inventory		<u>(21,000)</u>
Cost of goods manufactured		<u>\$371,000</u>

(b)

Beginning finished goods inventory	\$ 69,000
Cost of goods manufactured	<u>371,000</u>
Cost of goods available for sale	440,000
Ending finished goods inventory	<u>(24,000)</u>
Cost of goods sold	<u>\$ 416,000</u>

AACSB: Analytic

113. The Matter Manufacturing Company provided you with the following information for the fiscal year ended December 31, 2005.

Work-in-process inventory, December 31, 2008	\$ 57,900
Finished goods inventory, January 01, 2008	\$ 307,400
Direct labor costs incurred	\$1,004,300
Manufacturing overhead costs	\$2,693,400
Direct materials inventory, January 01, 2008	\$ 250,800
Finished goods inventory, December 31, 2008	\$ 511,000
Direct materials purchased	\$1,750,200
Work-in-process inventory, January 01, 2008	\$ 101,000
Direct materials inventory, December 31, 2008	\$ 169,400

Required:

- Compute the total manufacturing costs incurred during 2008.
- Compute the total work-in-process during 2008.
- Compute the cost of goods manufactured during 2008.
- Compute the cost of goods sold during 2008.
- Compute the total prime costs for 2008.
- Compute the total conversion costs for 2008.

Difficulty: Moderate Learning Objective: 3

Answer:

- (A) $[(\$250,800 + 1,750,200 - 169,400) + 1,004,300 + 2,693,400 = x; x = \underline{\$5,529,300}]$
 (B) $\$101,000 + 5,529,300 = x; x = \underline{\$5,630,300}$
 (C) $\$101,000 + 5,529,300 - 57,900 = x; x = \underline{\$5,572,400}$
 (D) $\$307,400 + 5,572,400 - 511,000 = x; x = \underline{\$5,368,800}$
 (E) $[(\$250,800 + 1,750,200 - 169,400) + 1,004,300 = x; x = \underline{\$2,835,900}]$
 (F) $\$1,004,300 + 2,693,400 = x; x = \underline{\$3,697,700}$

114. The cost accountant for the Larsen Manufacturing Company has provided you with the following information for the month of July 2008:

	<u>Variable Costs per Unit</u>	<u>Total Fixed Costs</u>
Direct labor	\$27.50	
Direct materials	\$84.75	
Manufacturing overhead	\$14.25	\$120,000
Marketing costs	\$ 5.30	\$ 50,000
Administrative costs	\$ 2.90	\$ 75,000

Required: Compute the following *per unit* items, assuming the company produced 6,000 units and sold 5,000 units at a price of \$210.00 per unit.

- (a) Total variable cost
 (b) Variable inventoriable cost
 (c) Full absorption cost
 (d) Full cost
 (e) Contribution margin
 (f) Gross margin
 (g) Profit margin

Difficulty: Moderate Learning Objective: 4,5

Answer:

- (a) $\$84.75 + 27.50 + 14.25 + 5.30 + 2.90 = x; x = \underline{\$134.70}$
 (b) $\$84.75 + 27.50 + 14.25 = x; x = \underline{\$126.50}$
 (c) $\$84.75 + 27.50 + 14.25 + (\$120,000/6,000) = x; x = \underline{\$146.50}$
 (d) $\$84.75 + 27.50 + 14.25 + 5.30 + 2.90 + [(\$120,000 + 50,000 + 75,000)/6,000] = x; x = \underline{\$175.53}$
 (e) $\$210.00 - (\$84.75 + 27.50 + 14.25 + 5.30 + 2.90) = x; x = \underline{\$75.30}$
 (f) $\$210.00 - [\$84.75 + 27.50 + 14.25 + (\$120,000/6,000)] = x; x = \underline{\$63.50}$
 (g) $\$210.00 - [\$84.75 + 27.50 + 14.25 + 5.30 + 2.90 + (\$120,000 + 50,000 + 75,000)/5,000] = x; x = \underline{\$30.30}$

AACSB: Analytic

115. The cost accountant for the Larsen Manufacturing Company has provided you with the following information for the month of July 2008:

	<u>Variable Cost per Unit</u>	<u>Total Fixed Costs</u>
Direct labor	\$ 27.50	
Direct materials	\$ 84.75	
Manufacturing overhead	\$ 14.25	\$120,000

Marketing costs	\$ 5.30	\$ 50,000
Administrative costs	\$ 2.90	\$ 75,000
Selling price	\$210.00	

Required: Assuming the company produced and sold 5,000 units, and there were no units in inventory on July 01, prepare the following income statements for the month of July 2008:

(a) Contribution margin income statement.

(b) Gross margin income statement.

Difficulty: Moderate Learning Objective: 6

Answer:

(a)

Revenues (\$210.00 x 5,000 units)		\$1,050,000
Variable costs:		
Direct materials (\$84.75 x 5,000)	\$423,750	
Direct labor (\$27.50 x 5,000)	137,500	
Manufacturing overhead (\$14.25 x 5,000)	71,250	
Marketing costs (\$5.30 x 5,000)	26,500	
Administrative costs (\$2.90 x 5,000)	<u>14,500</u>	
Total variable costs		<u>673,500</u>
Contribution margin		376,500
Fixed costs:		
Manufacturing overhead	120,000	
Marketing costs	50,000	
Administrative costs	<u>75,000</u>	
Total fixed costs		<u>245,000</u>
Operating profits		<u>\$ 131,500</u>

(b)

Revenues		\$1,050,000
Cost of goods sold:		
Direct materials	\$423,750	
Direct labor		137,500
Mfg overhead [(\$14.25 x 5,000) + \$120,000]	<u>191,250</u>	
Cost of goods sold		<u>752,500</u>
Gross margin		297,500
Expenses:		
Marketing costs [(\$5.30 x 5,000) + \$50,000]	76,500	
Admin. Costs [(\$2.90 x 5,000) + \$75,000]	<u>89,500</u>	<u>166,000</u>
Total expenses		
Operating profit		<u>\$131,500</u>

AACSB: Analytic

116. Schuh Enterprises manufactures baseballs and identified the following costs associated with their manufacturing activity (V = Variable; F = Fixed). The following information is available for the month of June 2008 when 25,000 baseballs were produced, but only 23,500 baseballs were sold.

Power to run plant equipment (V)	\$ 25,000
Other selling costs (V)	\$149,150
Indirect labor (F)	\$ 50,000
Property taxes on building (F)	\$ 12,500
Marketing costs (V)	\$ 30,000
Factory Supervisor salaries (F)	\$125,000
Direct materials used (V)	\$500,000
Depreciation on plant equipment (F)	\$ 68,000
Shipping costs to customer (V)	\$ 48,800
Indirect material and supplies (V)	\$ 37,500
Direct labor (V)	\$250,000
Administrative salaries (F)	\$300,000
Insurance on factory building (F)	\$ 62,500
Utilities, factory (V)	\$ 50,000
General office costs (F)	\$ 48,000

Required: Compute the following amounts for July 2008, assuming 30,000 baseballs were produced and sold:

- Total manufacturing costs.
- Total conversion costs.
- Period costs per unit.
- Full costs per unit.

Difficulty: Complex Learning Objective: 3,4,5

Answer:

(a) $[(\$500,000 + 250,000 + 25,000 + 37,500 + 50,000)/25,000]$ = Variable costs per unit
 Variable cost per unit = \$34.50
 $(\$34.50 \times 30,000) + (50,000 + 12,500 + 125,000 + 68,000 + 62,500)$ = Total mfg. costs
 Total manufacturing costs = \$1,035,000 + 318,000 = \$1,353,000

(b) $[(\$250,000 + 25,000 + 37,500 + 50,000)/25,000]$ = Conversion costs per unit
 Conversion costs per unit = \$14.50
 $(14.50 \times 30,000) + (50,000 + 12,500 + 125,000 + 68,000 + 62,500)$ = Total costs
 Total conversion costs = \$435,000 + 318,000 = \$753,000

(c) $(\$149,150 + 30,000 + 48,800)/23,500$ = Period costs per unit
 Period costs per unit = \$9.70
 $(\$9.70 \times 30,000) + (300,000 + 48,000)$ = Total period costs
 Total period costs = \$639,000
 $\$639,000/30,000$ = Period costs per unit

Period costs per unit = \$21.30
 (d) $(\$1,353,000/30,000) + \21.30 = Full costs per unit
 Full costs per unit = \$66.40

AACSB: Analytic

117. (Based on problem 4 in the text).

Each column below is independent and for a different company. Use the data given, which refer to one year for each example, to find the unknown account balances.

	Company		
	Southeast	Central	Northwest
Direct materials inventory, January 1	(a)	\$3,920	\$16,640
Direct materials inventory, December 31	\$4,850	3,248	14,664
Work-in-process inventory, January 1	2,700	7,526	85,696
Work-in-process inventory, December 31	3,800	3,472	79,800
Finished goods inventory, January 1	1,900	(d)	17,888
Finished goods inventory, December 31	300	4,928	29,536
Purchases of direct materials	16,100	13,440	66,768
Cost of goods manufactured during this year	(b)	30,486	326,320
Total manufacturing costs	55,550	26,432	320,424
Cost of goods sold	56,050	30,464	314,673
Gross margin	(c)	18,368	666,931
Direct labor	26,450	4,256	129,688
Direct materials used	15,300	(e)	68,744
Manufacturing overhead	13,800	8,064	(g)
Sales revenue	103,300	(f)	981,604

Difficulty: Moderate Learning Objective: 2,3

Answer:

(a) $(\$x + 16,100 - 4,850) + \$15,300 = x = \underline{\$4,050}$

(b) $\$2,700 + 55,550 - 3,800 = x; x = \underline{\$54,450}$

(c) $\$103,300 - 56,050 = x; x = \underline{\$47,250}$

(d) $\$x + 30,486 - 4,928 = 30,464; x = \underline{\$4,906}$

(e) $\$3,920 + 13,440 - 3,248 = x; x = \underline{\$14,112}$

(f) $\$x - 30,464 = 18,368; x = \underline{\$48,832}$

(g) $\$68,744 + 129,688 + x = 320,424; x = \underline{\$121,992}$

AACSB: Analytic

118. (Based on problem 45 in the text).

The following data appeared in Hunter Company's records on December 31, 2008:

Direct materials inventory, December 31	\$ 535,500
Direct materials purchased during the year	\$2,268,000
Finished goods inventory, December 31	\$ 567,000
Indirect labor	\$ 201,600
Direct labor	\$2,520,000
Plant heat, light, and power	\$ 234,360
Building depreciation (7/9 is for manufacturing)	\$ 510,300
Administrative salaries	\$ 323,820
Miscellaneous factory cost	\$ 200,970
Marketing costs	\$ 233,100
Maintenance on factory machines	\$ 76,230
Insurance on factory equipment	\$ 119,700
Distribution cost	\$ 10,080
Taxes on manufacturing property	\$ 82,530
Legal fees on customer complaint	\$ 51,660
Direct materials put into production	\$2,407,230
Work-in-process inventory, December 31	\$ 154,980

On January 1, 2008, the Finished Goods Inventory account had a balance of \$280,000, and the Work-in-process Inventory account had a balance of \$90,650. Sales revenue for 2008 was \$6,687,500.

Required: Prepare a cost of goods sold statement and an income statement.

Difficulty: Moderate Learning Objective: 2,3

AACSB: Analytic

Answer:

Panel A:

Beginning Work-in-Process Inventory	\$ 90,650
Manufacturing costs during the year:	
Direct materials:	
Beginning inventory (not given)	\$ 674,730
Purchases (net)	<u>2,268,000</u>
Direct materials available	2,942,230
Ending inventory	<u>(535,500)</u>
Direct materials put into production	2,407,230
Direct labor	2,520,000
Manufacturing overhead:	
Depreciation	\$396,900
Insurance	119,700
Maintenance	76,230
Plant heat, light, and power	234,360
Indirect labor	201,600
Property taxes	82,530
Miscellaneous	<u>200,970</u>
Total manufacturing overhead	<u>1,312,290</u>

Total manufacturing costs incurred	<u>6,239,520</u>
Total work in process during the year	6,330,170
Ending Work-in-Process Inventory	<u>(154,980)</u>
Cost of goods manufactured	<u>\$ 6,175,190</u>

Panel B:

Beginning Finished Goods Inventory	\$ 280,000
Cost of goods manufactured	<u>6,175,190</u>
Cost of goods available for sale	6,455,190
Ending Finished Goods Inventory	<u>(567,000)</u>
Cost of goods sold	<u>\$ 5,888,190</u>

Panel C:

Revenues	\$6,687,500
Cost of goods sold:	<u>5,888,190</u>
Gross margin	799,310
Expenses:	
Marketing costs [\$233,100 + 10,080]	243,180
Admin. Costs	
[\$113,400 + 323,820 + 51,660]	<u>488,880</u>
Total expenses	<u>732,060</u>
Operating profit	<u>\$ 67,250</u>