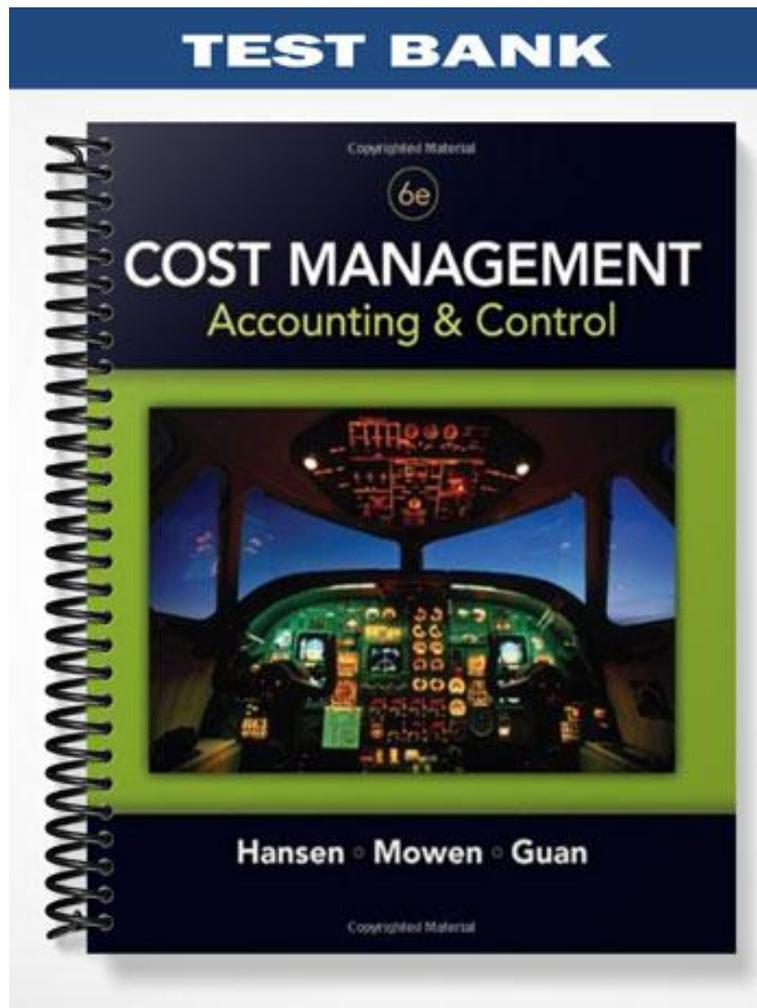


# TEST BANK



## Chapter 2—Basic Cost Management Concepts

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### MULTIPLE CHOICE

1. Which of the following is NOT an example of a cost object?
- a product
  - a driver
  - an activity
  - a department

ANS: B                      PTS: 1                      OBJ: 2-1

2. What is a disadvantage of assigning costs evenly over all cost objects?
- Not all costs will be assigned
  - Total costs will be distorted
  - Costs may be distorted by the consumption patterns of other cost objects
  - None of the above

ANS: C                      PTS: 1                      OBJ: 2-1

3. The insurance paid on the factory is:
- a direct cost if the cost object is the factory
  - an indirect cost if the cost object is the product produced
  - could be either a direct cost or an indirect cost, depending upon the cost object
  - all of the above

ANS: D                      PTS: 1                      OBJ: 2-1

4. Which of the following would NOT be a cost that could be directly traced to a custom made piece of furniture based upon physical observation?
- the wood and upholstery materials that are in the final piece
  - the labor of the worker assembling the piece of furniture
  - the depreciation paid on factory equipment
  - the labor of the woodworker who finishes the wood of the piece

ANS: C                      PTS: 1                      OBJ: 2-1

5. If physical observation can NOT be used to identify the exact amount of resources consumed by a cost object, the next best approach is:
- driver tracing
  - allocation
  - estimation
  - none of the above

ANS: A                      PTS: 1                      OBJ: 2-1

6. The precision of driver tracing depends upon:
- physically observable relationships
  - allocation estimations
  - the strength of the causal relationship described by the driver
  - 'b' and 'c' are correct

ANS: C                      PTS: 1                      OBJ: 2-1

7. \_\_\_\_\_ represents the resources given up that are expected to bring a current or future benefit to the organization.
- Cost
  - Expired cost
  - Expense
  - Loss

ANS: A                      PTS: 1                      OBJ: 2-1

8. \_\_\_\_\_ is(are) the cash or cash equivalent value sacrificed for goods and services that are expected to bring a current or future benefit to the organization.
- Expenses
  - Cost
  - An activity
  - A loss

ANS: B                      PTS: 1                      OBJ: 2-1

9. Which of the following is an example of an expense?
- the cost of a product delivered to a customer
  - the cost of a proposed advertising campaign
  - the cost of the purchase of equipment
  - the write-off of an obsolete product

ANS: A                      PTS: 1                      OBJ: 2-1

10. Which of the following is an example of a loss?
- the cost of a product delivered to a customer
  - the cost of a delivered advertising campaign
  - the cost of the purchase of equipment
  - the write-off of an obsolete product

ANS: D                      PTS: 1                      OBJ: 2-1

11. A cost used up in the production of revenues is a(n)
- unexpired cost.
  - expense.
  - loss.
  - asset.

ANS: B                      PTS: 1                      OBJ: 2-1

12. Which of the following is an example of a possible cost object?
- a product
  - a customer
  - a department
  - All of these could be possible cost objects.

ANS: D                      PTS: 1                      OBJ: 2-1

13. Traceability is a function of
- an indirect relationship to the cost object.
  - distortion.
  - a causal relationship.
  - none of these.
- ANS: C                      PTS: 1                      OBJ: 2-1
14. Factors that cause changes in resource usage, activity usage, costs and revenues are called
- indirect costs.
  - drivers.
  - assignments.
  - cost objects.
- ANS: B                      PTS: 1                      OBJ: 2-1
15. Which cost assignment method would likely assign the cost of an assembly-line supervisor when the assembly line is the cost object?
- driver tracing
  - direct tracing
  - allocation
  - arbitration
- ANS: B                      PTS: 1                      OBJ: 2-1
16. Which cost assignment method would likely assign the cost of heating in a plant that makes chairs and go-carts when the chair product line is the cost object?
- driver tracing
  - direct tracing
  - allocation
  - arbitration
- ANS: C                      PTS: 1                      OBJ: 2-1
17. Which cost assignment method would likely assign the cost of maintenance for machines in a department that does cutting when the cutting activity is the cost object?
- driver tracing
  - direct tracing
  - allocation
  - arbitration
- ANS: A                      PTS: 1                      OBJ: 2-1
18. Which of the following expenses incurred by a department store is a direct cost for the women's shoe department?
- the salespersons' commissions in the women's shoe department
  - the salaries for individuals working in the accounting department
  - the advertising expense for the service department
  - the allocated rent expense for the clothing department
- ANS: A                      PTS: 1                      OBJ: 2-1

19. Which of the following costs incurred by a chair manufacturer would be traced to the product cost through direct tracing?
- the depreciation on factory equipment
  - the supervisor's salary
  - the insurance on the factory building
  - the woodworker's salary

ANS: D                      PTS: 1                      OBJ: 2-1

20. Direct costs
- are incurred for the benefit of the business as a whole.
  - would continue even if a particular product were discontinued.
  - can be assigned to products only by a process of allocation.
  - are those costs that can be easily and accurately traced to a cost object.

ANS: D                      PTS: 1                      OBJ: 2-1

21. The direct costs of operating a university computer center would NOT include
- rent paid for computers.
  - a fair share of university utilities.
  - paper used by the center.
  - computer consultants' salaries.

ANS: B                      PTS: 1                      OBJ: 2-1

22. Which of the following methods of assigning costs is based on convenience or some assumed linkage, and reduces the overall accuracy of the cost assignments?
- direct tracing
  - driver tracing
  - allocation
  - all of the above

ANS: C                      PTS: 1                      OBJ: 2-1

23. Which of the following costs incurred by a bus manufacturer would NOT be directly attributable to the finished product?
- the wages paid to assembly-line production workers
  - the tires for buses
  - the windshields for buses
  - the depreciation on factory building

ANS: D                      PTS: 1                      OBJ: 2-1

24. \_\_\_\_\_ refers to the assignment of indirect costs to cost objects.
- Allocation
  - Direct tracing
  - Physical observation
  - Cost management

ANS: A                      PTS: 1                      OBJ: 2-1

25. Services differ from tangible products in which of the following dimensions?
- intangibility
  - inseparability
  - perishability
  - all of the above

ANS: D                      PTS: 1                      OBJ: 2-2

26. With regards to products, perishability can be defined as:
- buyers of products can not see, feel, hear or taste the product before it is bought.
  - tangible products can be stored, services can not.
  - buyers and sellers must be in direct contact for a sale to take place.
  - buyers of the product do not need direct contact with the manufacturer of the product.

ANS: B                      PTS: 1                      OBJ: 2-2

27. An example of a tangible product, rather than a service, would be
- housekeeping.
  - insurance coverage.
  - paper.
  - medical exam.

ANS: C                      PTS: 1                      OBJ: 2-2

28. An example of a service, rather than a tangible product, would be
- radios.
  - cloths.
  - trucks.
  - medical exams.

ANS: D                      PTS: 1                      OBJ: 2-2

29. Which of the following is a service organization?
- grocery store
  - department store
  - cattle ranch
  - CPA firm

ANS: D                      PTS: 1                      OBJ: 2-2

30. Which of the following costs would be included in value-chain product costs?
- research and development
  - production
  - customer service
  - all of the above

ANS: D                      PTS: 1                      OBJ: 2-2

31. Value-chain product costs include which of the following?
- customer service costs
  - marketing costs
  - research and development
  - all of the above

ANS: D                      PTS: 1                      OBJ: 2-2

32. Product value-chain costs assist managers in meeting which of the following objectives?
- product mix decisions
  - tactical profitability analysis
  - external financial reporting
  - strategic design decisions
- ANS: A                      PTS: 1                      OBJ: 2-2
33. Which of the following costs would NOT be included in operating product costs?
- research and development
  - production
  - marketing
  - all of the above
- ANS: A                      PTS: 1                      OBJ: 2-2
34. Which of the following costs would be included in traditional product costs used for external reporting?
- research and development
  - production
  - marketing
  - all of the above
- ANS: B                      PTS: 1                      OBJ: 2-2
35. Which of the following costs is NOT a product cost?
- rent on an office building
  - indirect labor
  - repairs on manufacturing equipment
  - steel used in inventory items produced
- ANS: A                      PTS: 1                      OBJ: 2-2
36. Which of the following costs is an example of product costs?
- selling commissions
  - nonfactory office salaries
  - direct materials
  - advertising expense
- ANS: C                      PTS: 1                      OBJ: 2-2
37. Which of the following costs incurred by a furniture manufacturer would be a product cost?
- lumber
  - office salaries
  - commissions paid to sales staff
  - controller's salary
- ANS: A                      PTS: 1                      OBJ: 2-2
38. Which of the following costs is a product cost?
- lease payments on cars used by salespersons
  - president's salary
  - property taxes on factory building
  - depreciation on office equipment
- ANS: C                      PTS: 1                      OBJ: 2-2

39. Which of the following costs is a period cost for a manufacturing company?
- controller's salary
  - wages of machine operators
  - insurance on factory equipment
  - fringe benefits for factory employees

ANS: A                      PTS: 1                      OBJ: 2-2

40. In a traditional manufacturing company, product costs include
- direct materials only.
  - direct materials, direct labor, and factory overhead.
  - direct materials and direct labor only.
  - direct labor only.

ANS: B                      PTS: 1                      OBJ: 2-2

41. Which of the following costs is an indirect product cost?
- property taxes on plant facilities
  - wages of assembly workers
  - materials used
  - president's salary

ANS: A                      PTS: 1                      OBJ: 2-2

42. If total warehousing cost for the year amounts to \$350,000, and 40% of the warehousing activity is associated with finished goods and 60% with direct materials, how much of the cost would be charged as a product cost?
- \$70,000
  - \$140,000
  - \$210,000
  - \$350,000

ANS: C

SUPPORTING CALCULATIONS:

$$\$350,000 \times 0.60 = \underline{\$210,000}$$

PTS: 1                      OBJ: 2-2

43. All of Jill Enterprise's operations are housed in one building with the costs of occupying the building accumulated in a separate account. The total costs incurred in May amounted to \$24,000. The company allocates these costs on the basis of square feet of floor space occupied. Administrative offices, sales offices, and factory operations occupy 9,000, 6,000, and 30,000 square feet, respectively. How much will be classified as a product cost for May?
- \$4,800
  - \$3,200
  - \$16,000
  - \$24,000

ANS: C

SUPPORTING CALCULATIONS:

$$[30,000 / (9,000 + 6,000 + 30,000)] \times \$24,000 = \underline{\$16,000}$$

PTS: 1                      OBJ: 2-2

44. Which of the following costs would be included as part of direct materials in the production of an automobile?
- glue for a sticker applied to the automobile
  - steel
  - gasoline used to fuel machines in production
  - none of these

ANS: B                      PTS: 1                      OBJ: 2-2

45. Which of the following costs would be considered a direct material?
- glue in the production of automobiles
  - labor used to finish product
  - depreciation on the corporation's office building
  - paper used in the production of books

ANS: D                      PTS: 1                      OBJ: 2-2

46. The difference between a supply and an indirect material is that
- supplies are not necessary for production.
  - indirect materials are not physically part of the product.
  - supplies are not necessary for production and are not physically part of the product.
  - supplies are necessary for production and are not physically part of production.

ANS: D                      PTS: 1                      OBJ: 2-2

47. Which of the following costs would be included as part of direct labor?
- a cutter in the production of shelving
  - a materials handler
  - an assembly-line supervisor
  - a janitor

ANS: A                      PTS: 1                      OBJ: 2-2

48. Which of the following costs would be included as part of factory overhead?
- depreciation of plant equipment
  - paint used for product finish
  - depreciation on the corporation's office building
  - paper used in the production of books

ANS: A                      PTS: 1                      OBJ: 2-2

49. Which of the following items would NOT be classified as part of factory overhead of a firm that makes sailboats?
- factory supplies used
  - canvas used in sail
  - depreciation of factory buildings
  - indirect materials

ANS: B                      PTS: 1                      OBJ: 2-2

50. Wages paid to a janitor in the factory would be classified as
- direct labor.
  - direct janitor salaries.
  - supervisor salaries.
  - factory overhead.

ANS: D                      PTS: 1                      OBJ: 2-2

51. Which of the following would NOT be included in the conversion cost of an automobile?
- Steel
  - Assembly worker wages
  - Depreciation on the machinery
  - Paint used for trim work
- ANS: A                      PTS: 1                      OBJ: 2-2
52. Expenditures that are aimed at developing new products and processes or modifying existing products are called:
- marketing costs
  - administrative costs
  - research and development costs
  - conversion costs
- ANS: C                      PTS: 1                      OBJ: 2-2
53. All of the following costs are included in factory overhead EXCEPT
- factory supplies.
  - indirect labor.
  - plant foreman's salary.
  - direct labor.
- ANS: D                      PTS: 1                      OBJ: 2-2
54. Selling and administrative costs are classified as
- product costs.
  - conversion costs.
  - period costs.
  - factory overhead.
- ANS: C                      PTS: 1                      OBJ: 2-2
55. Which of the following costs is NOT a period cost?
- steel used in steel railings
  - receptionist's salary
  - depreciation on sales staffs' cars
  - sales commission
- ANS: A                      PTS: 1                      OBJ: 2-2
56. Which of the following costs is a period cost?
- depreciation of factory equipment
  - transportation-in for material shipments
  - amortization of a patent for the company's product
  - depreciation of office computers
- ANS: D                      PTS: 1                      OBJ: 2-2
57. An example of a period cost is
- insurance on factory equipment.
  - president's salary.
  - property taxes on factory building.
  - wages of factory custodians.
- ANS: B                      PTS: 1                      OBJ: 2-2

58. An example of a nonproduction cost is
- wages paid to assembly-line employees.
  - manufacturing supplies.
  - insurance on manufacturing facilities.
  - the treasurer's salary.
- ANS: D                      PTS: 1                      OBJ: 2-2
59. \_\_\_\_\_ are expensed in the period in which they are incurred.
- Direct materials
  - Product costs
  - Factory overhead
  - Nonproduction costs
- ANS: D                      PTS: 1                      OBJ: 2-2
60. Order-getting costs would NOT include
- marketing costs.
  - customer service costs.
  - advertising.
  - salaries of sales personnel.
- ANS: B                      PTS: 1                      OBJ: 2-2
61. Period costs do NOT include
- order-getting costs.
  - order-making costs.
  - order-filling costs.
  - All of these are period costs.
- ANS: B                      PTS: 1                      OBJ: 2-2
62. Prime product costs include
- only factory overhead.
  - only direct labor.
  - direct labor and factory overhead.
  - direct materials and direct labor.
- ANS: D                      PTS: 1                      OBJ: 2-2
63. The sum of direct labor and factory overhead is referred to as
- period costs
  - conversion costs
  - prime costs
  - direct product costs
- ANS: B                      PTS: 1                      OBJ: 2-2
64. Conversion costs do NOT include
- direct materials.
  - direct labor.
  - factory overhead.
  - any of these costs
- ANS: A                      PTS: 1                      OBJ: 2-2

65. \_\_\_\_\_ are expensed in the period in which they are incurred.
- Direct materials
  - Product costs
  - Noninventoriable costs
  - Inventoriable costs
- ANS: C                      PTS: 1                      OBJ: 2-2
66. Product costs are converted from cost to expense when
- units are completed.
  - materials are purchased.
  - units are sold.
  - materials are requisitioned.
- ANS: C                      PTS: 1                      OBJ: 2-3
67. A company has purchased some steel to use in the production of steel railings. If this steel has NOT been put into production, it would be classified as
- direct materials inventory.
  - factory supplies.
  - work-in-process inventory.
  - finished goods inventory.
- ANS: A                      PTS: 1                      OBJ: 2-3
68. The income statement prepared for external reporting is
- based on a functional classification.
  - referred to as absorption-costing income.
  - called full-costing income.
  - all of the above.
- ANS: D                      PTS: 1                      OBJ: 2-3
69. Which of the following costs would NOT be included in calculating inventory values under the absorption-costing basis?
- direct materials
  - fixed overhead
  - selling and administrative expenses
  - direct labor
- ANS: C                      PTS: 1                      OBJ: 2-3
70. When calculating the absorption-costing income for external reporting
- all manufacturing costs ultimately become nonmanufacturing costs.
  - all manufacturing costs are product costs and product costs are never expensed.
  - the costs of selling manufactured products are classified as product costs.
  - all selling and administrative costs are classified as nonmanufacturing costs.
- ANS: D                      PTS: 1                      OBJ: 2-3

71. Which of the following accounts would appear on the financial statements of only a manufacturing firm?
- a. bonds payable
  - b. materials inventory
  - c. prepaid insurance
  - d. retained earnings

ANS: B                      PTS: 1                      OBJ: 2-3

72. Which type of inventory is normally sold to other organizations?
- a. direct materials
  - b. factory supplies
  - c. work in process
  - d. finished goods

ANS: D                      PTS: 1                      OBJ: 2-3

73. The merchandise inventory in a merchandising business corresponds most closely to which of the following items in a manufacturing firm?
- a. materials inventory
  - b. cost of goods available for sale
  - c. cost of goods manufactured
  - d. finished goods inventory

ANS: D                      PTS: 1                      OBJ: 2-3

74. Given the following information:

Sales Revenue	\$500,000
Operating Expenses	\$230,000
Operating Income	\$110,000

What is cost of goods sold?

- a. \$270,000
- b. \$160,000
- c. \$390,000
- d. Not enough information given

ANS: B

SUPPORTING CALCULATIONS:

$$\$500,000 - \$230,000 - \$110,000 = \underline{\$160,000}$$

PTS: 1                      OBJ: 2-3

75. Production costs that are NOT attached to units that are sold are reported as:
- a. selling expenses
  - b. cost of goods sold
  - c. administrative costs
  - d. inventory

ANS: D                      PTS: 1                      OBJ: 2-3

76. Information from the records of Place, Inc., for December 2010 was as follows:

Sales	\$820,000
Selling and administrative expenses	140,000
Direct materials purchases	176,000
Direct labor	200,000
Factory overhead	270,000
Direct materials, December 1	24,000
Work in process, December 1	50,000
Finished goods, December 1	46,000
Direct materials, December 31	28,000
Work in process, December 31	56,000
Finished goods, December 31	38,000

The net income for the month of December is

- \$644,000.
- \$36,000.
- \$636,000.
- \$180,000.

ANS: B

SUPPORTING CALCULATIONS:

$$\text{COGM} = (\$24,000 + \$176,000 - \$28,000) + \$200,000 + \$270,000 + \$50,000 - \$56,000 = \$636,000$$

$$\text{COGS} = \$636,000 + \$46,000 - \$38,000 = \$644,000$$

$$\text{NI} = \$820,000 - \$140,000 - \$644,000 = \underline{\$36,000}$$

PTS: 1                      OBJ: 2-3

77. Information from the records of the Cain Corporation for August 2009 was as follows:

Sales	\$1,230,000
Selling and administrative expenses	210,000
Direct materials used	264,000
Direct labor	300,000
Factory overhead	405,000

Inventories

	<u>August 1, 2009</u>	<u>August 31, 2009</u>
Direct materials	\$36,000	\$42,000
Work in process	75,000	84,000
Finished goods	69,000	57,000

The conversion costs are

- \$960,000.
- \$1,179,000.
- \$705,000.
- \$564,000.

ANS: C

SUPPORTING CALCULATIONS:

$$\$300,000 + \$405,000 = \underline{\$705,000}$$

PTS: 1                      OBJ: 2-3

78. Information from the records of the Scully Company for July 2010 was as follows:

Sales	\$307,500
Selling and administrative expenses	52,500
Direct materials used	66,000
Direct labor	75,000
Factory overhead	101,250

	<u>Inventories</u>	
	<u>July 1, 2010</u>	<u>July 31, 2010</u>
Direct materials	\$ 8,000	\$10,500
Work in process	18,750	21,000
Finished goods	17,250	14,250

Prime costs for July were

- a. \$240,000.
- b. \$294,750.
- c. \$176,250.
- d. \$141,000.

ANS: D

SUPPORTING CALCULATIONS:

$$\$66,000 + \$75,000 = \underline{\$141,000}$$

PTS: 1                      OBJ: 2-3

79. If beginning work-in-process inventory is \$120,000, ending work-in-process inventory is \$160,000, cost of goods manufactured is \$400,000, and direct materials used are \$100,000, what are the conversion costs?

- a. \$140,000
- b. \$280,000
- c. \$300,000
- d. \$340,000

ANS: D

SUPPORTING CALCULATIONS:

$$\$400,000 + \$160,000 - \$120,000 - \$100,000 = \underline{\$340,000}$$

PTS: 1                      OBJ: 2-3

80. The following information pertains to Fry Enterprises:

Cost of goods manufactured	\$450,000
Beginning work-in-process inventory	210,000
Ending work-in-process inventory	180,000
Manufacturing overhead	150,000

What are the prime costs for the year?

- a. \$360,000
- b. \$480,000
- c. \$270,000
- d. \$300,000

ANS: C

SUPPORTING CALCULATIONS:

$$\$450,000 + \$180,000 - \$210,000 - \$150,000 = \underline{\$270,000}$$

PTS: 1                      OBJ: 2-3

81. Inventory balances for Ray, Inc., in March 2010 were as follows:

	<u>March 1, 2010</u>	<u>March 31, 2010</u>
Raw materials	\$1,125	\$ 875
Work in process	2,000	1,550
Finished goods	4,500	3,750

During March, purchases of direct materials were \$1,500. Direct labor and factory overhead costs were \$2,500 and \$3,500, respectively.

Conversion costs for March were

- \$6,000.
- \$7,500.
- \$7,750.
- \$8,200.

ANS: A

SUPPORTING CALCULATIONS:

$$\$2,500 + \$3,500 = \underline{\$6,000}$$

PTS: 1                      OBJ: 2-3

82. Inventory balances for the James Enterprises in February 2009 were as follows:

	<u>February 1, 2009</u>	<u>February 28, 2009</u>
Raw materials	\$ 27,000	\$21,000
Work in process	48,000	37,200
Finished goods	108,000	90,000

During February, purchases of direct materials were \$36,000. Direct labor and factory overhead costs were \$60,000 and \$84,000, respectively.

Prime costs for February were

- \$81,000.
- \$87,000.
- \$96,000.
- \$102,000.

ANS: D

SUPPORTING CALCULATIONS:

$$(\$27,000 + \$36,000 - \$21,000) + \$60,000 = \underline{\$102,000}$$

PTS: 1                      OBJ: 2-3

83. The sum of the total additions to work in process during a period is

- total manufacturing costs added.
- factory overhead applied.
- material used.
- cost of goods manufactured.

ANS: A                      PTS: 1                      OBJ: 2-3

84. The ending work-in-process inventory is deducted on the

- balance sheet.
- statement of cost of goods manufactured.
- income statement.
- statement of cash flows.

ANS: B                      PTS: 1                      OBJ: 2-3

85. Cost of goods sold equals cost of goods manufactured
- when finished goods inventories remain constant.
  - when work-in-process inventories remain constant.
  - plus beginning work-in-process inventory minus ending work-in-process inventory.
  - when materials inventories remain constant.

ANS: A                      PTS: 1                      OBJ: 2-3

86. The following information has been provided:

Cost of goods manufactured	\$100
Work in process:	
Beginning	15
Ending	20
Direct labor	30
Direct materials used	?
Factory overhead	45

What is the amount of direct materials used?

- \$25
- \$30
- \$35
- \$100

ANS: B

SUPPORTING CALCULATIONS:

$$\$100 + \$20 - \$15 - \$30 - \$45 = \underline{\$30}$$

PTS: 1                      OBJ: 2-3

87. Inventory balances for Rude, Inc., in April 2010 were as follows:

	<u>April 1, 2010</u>	<u>April 30, 2010</u>
Materials	\$ 9,000	\$ 7,000
Work in process	16,000	12,400
Finished goods	36,000	30,000

During April, purchases of direct materials were \$18,000. Direct labor and factory overhead costs were \$20,000 and \$28,000, respectively.

The cost of goods manufactured in April was

- \$68,000.
- \$77,600.
- \$74,000.
- \$71,600.

ANS: D

SUPPORTING CALCULATIONS:

$$\$9,000 + \$18,000 - \$7,000 + \$20,000 + \$28,000 + \$16,000 - \$12,400 = \$71,600$$

PTS: 1                      OBJ: 2-3

88. Selected data concerning the past year's operations of the Beach Corporation are as follows:

Selling and administrative expenses	\$225,000
Direct materials used	397,500
Direct labor (50,000 hours)	450,000
Factory overhead application rate	8 per DLH

	<u>Inventories</u>	
	<u>Beginning</u>	<u>Ending</u>
Direct material	\$ 75,000	\$ 67,500
Work in process	112,500	135,000
Finished goods	60,000	37,500

The cost of direct materials purchased is

- a. \$397,500.
- b. \$390,000.
- c. \$367,500.
- d. \$405,000.

ANS: B

SUPPORTING CALCULATIONS:

$$\$397,500 + \$67,500 - \$75,000 = \underline{\$390,000}$$

PTS: 1                      OBJ: 2-3

89. Selected data concerning the past year's operations of the Karl Enterprises are as follows:

Selling and administrative expenses	\$75,000
Direct materials used	265,000
Direct labor (25,000 hours)	300,000
Factory overhead application rate	16 per DLH

	<u>Inventories</u>	
	<u>Beginning</u>	<u>Ending</u>
Direct materials	\$50,000	\$45,000
Work in process	75,000	90,000
Finished goods	40,000	25,000

What is the cost of goods manufactured?

- a. \$965,000
- b. \$1,115,000
- c. \$950,000
- d. \$955,000

ANS: C

SUPPORTING CALCULATIONS:

$$\$265,000 + \$300,000 + \$400,000 + \$75,000 - \$90,000 = \underline{\$950,000}$$

PTS: 1                      OBJ: 2-3

90. The cost of units completed during a period is called

- a. cost of goods sold.
- b. cost of goods manufactured.
- c. current manufacturing costs.
- d. finished goods inventory.

ANS: B                      PTS: 1                      OBJ: 2-3

91. Selected data concerning the past year's operations of the Wood Corporation are as follows:

Selling and administrative expenses	\$300,000
Direct materials used	530,000
Direct labor (100,000 hours)	600,000
Factory overhead application rate	5 per DLH

Inventories

	<u>Beginning</u>	<u>Ending</u>
Work in process	\$150,000	\$160,000
Finished goods	80,000	50,000

The cost of goods sold is

- a. \$1,630,000.
- b. \$1,880,000.
- c. \$1,600,000.
- d. \$1,650,000.

ANS: D

SUPPORTING CALCULATIONS:

$$\$530,000 + \$600,000 + \$500,000 + \$150,000 - \$160,000 + \$80,000 - \$50,000 = \underline{\underline{\$1,650,000}}$$

PTS: 1

OBJ: 2-3

92. The following information has been provided:

Cost of goods manufactured	\$75
Work in process	
Beginning	12
Ending	14
Direct labor	40
Materials placed in production	15
Factory overhead	?

What is the amount of factory overhead?

- a. \$20
- b. \$22
- c. \$14
- d. \$55

ANS: B

SUPPORTING CALCULATIONS:

$$\$75 + \$14 - \$12 - \$40 - \$15 = \underline{\underline{\$22}}$$

PTS: 1

OBJ: 2-3

93. Information from the records of the Tyler Enterprises for March 2010 was as follows:

Sales	\$41,000
Direct labor	10,000
Selling and administrative expenses	7,000
Direct materials purchases	6,000
Factory overhead	13,500

Inventories

	<u>March 1, 2010</u>	<u>March 31, 2010</u>
Direct materials	\$1,200	\$1,400
Work in process	2,500	2,800
Finished goods	2,300	1,900

Tyler Enterprises' cost of goods manufactured in March is

- a. \$29,300.
- b. \$29,700.
- c. \$29,200.
- d. \$29,000.

ANS: D

SUPPORTING CALCULATIONS:

$$(\$1,200 + \$6,000 - \$1,400) + \$10,000 + \$13,500 + \$2,500 - \$2,800 = \underline{\$29,000}$$

PTS: 1                      OBJ: 2-3

94. Assume the following information:

Net direct materials purchase cost	\$225,000
Total direct materials used	275,000
Beginning direct materials inventory	125,000

The ending direct materials inventory is

- a. \$175,000.
- b. \$75,000.
- c. \$50,000.
- d. \$100,000.

ANS: B

SUPPORTING CALCULATIONS:

$$\$125,000 + \$225,000 - \$275,000 = \underline{\$75,000}$$

PTS: 1                      OBJ: 2-3

95. Newton Company recently had a fire in its accounting office, destroying most of its records. Only the following information could be salvaged for 2009:

Direct labor	\$400,000
Factory overhead	200,000
Cost of goods sold	800,000
Work in process, January 1	80,000
Finished goods, January 1	160,000
Work in process, December 31	100,000
Finished goods, December 31	120,000

The cost of direct materials used in production during 2009 is

- a. \$140,000.
- b. \$180,000.
- c. \$200,000.
- d. \$260,000.

ANS: B

SUPPORTING CALCULATIONS:

$$\$800,000 + \$120,000 - \$160,000 + \$100,000 - \$80,000 - \$400,000 - \$200,000 = \underline{\$180,000}$$

PTS: 1                      OBJ: 2-3

96. The cost of goods sold for a manufacturing firm for the month of January was \$90,000. The finished goods inventory was \$15,000 on January 1 and \$17,500 on January 31. Beginning and ending work-in-process inventories were \$20,000 and \$25,000, respectively. What was the cost of goods manufactured during January?

- a. \$92,500
- b. \$90,000
- c. \$87,500
- d. \$97,500

ANS: A

SUPPORTING CALCULATIONS:

$$\$90,000 + \$17,500 - \$15,000 = \underline{\$92,500}$$

PTS: 1                      OBJ: 2-3

97. Which of the following is not an example of a difference between the income statement of a service organization and the income statement of a manufacturing organization?
- a. A service company will never have a work in process
  - b. The service company will not have a finished goods inventory
  - c. Fulfillment costs may be added to cost of goods sold in a service company
  - d. Research and development expenses are not usually a major component of a service organization

ANS: A                      PTS: 1                      OBJ: 2-3

98. Assume the following information for Knight Corporation for the year ended December 31, 2010:

Sales	\$2,250
Cost of goods manufactured for the year	1,350
Beginning finished goods inventory	450
Ending finished goods inventory	495
Selling and administrative expenses	300

What is the cost of goods sold for the year ended December 31, 2010?

- a. \$1,305
- b. \$1,605
- c. \$1,350
- d. \$1,650

ANS: A

SUPPORTING CALCULATIONS:

$$\$1,350 + 450 - \$495 = \underline{\$1,305}$$

PTS: 1                      OBJ: 2-3

99. Assume the following data for Gross, Inc., for February:

Beginning finished goods inventory	\$ 60,000
Beginning work-in-process inventory	40,000
Ending work-in-process inventory	80,000
Ending finished goods inventory	50,000
Factory overhead costs	200,000
Direct materials used	160,000
Direct labor	100,000

What is the cost of goods manufactured for February?

- a. \$470,000
- b. \$420,000
- c. \$460,000
- d. \$430,000

ANS: B

SUPPORTING CALCULATIONS:

$$\$160,000 + \$100,000 + \$200,000 + \$40,000 - \$80,000 = \underline{\$420,000}$$

PTS: 1

OBJ: 2-3

100. Assume the following information:

Direct materials used	\$ 90,000
Direct labor	130,000
Factory overhead	150,000
Beginning work-in-process inventory	15,000
Beginning finished goods inventory	20,000
Ending work-in-process inventory	42,000
Selling and administrative expenses	37,500

What was the cost of goods manufactured during the year?

- a. \$370,000
- b. \$365,000
- c. \$343,000
- d. \$333,000

ANS: C

SUPPORTING CALCULATIONS:

$$\$90,000 + \$130,000 + \$150,000 + \$15,000 - \$42,000 = \underline{\$343,000}$$

PTS: 1

OBJ: 2-3

101. Which of the following items would NOT appear on an income statement of a service organization?

- a. selling expenses
- b. cost of goods sold
- c. administrative expenses
- d. gross margin

ANS: B

PTS: 1

OBJ: 2-3

102. Which of the following items is NEVER relevant to the cost flows of a service organization?

- a. finished goods inventory
- b. materials inventory
- c. work-in-process inventory
- d. All of these are always relevant.

ANS: A

PTS: 1

OBJ: 2-3

103. Assume the following data for Graham Services, an architecture firm, for February:

Beginning materials inventory	\$ 20,000
Beginning work-in-process inventory	40,000
Ending work-in-process inventory	50,000
Ending materials inventory	10,000
Actual overhead costs	100,000
Direct materials used	60,000
Direct labor	200,000

What is the cost of services sold for February?

- a. \$370,000
- b. \$350,000
- c. \$360,000
- d. \$330,000

ANS: B

SUPPORTING CALCULATIONS:

$$\$60,000 + \$200,000 + \$100,000 + \$40,000 - \$50,000 = \underline{\$350,000}$$

PTS: 1

OBJ: 2-3

**Figure 2-1**

An appliance repair shop purchased materials costing \$9,000 in May. The beginning inventory of material parts was \$4,500 and the ending inventory of material parts was \$4,000. Payments for direct labor for May totaled \$27,000, secretarial costs were \$2,000, and overhead of \$5,000 was incurred. In addition, \$5,000 was spent on advertising and \$2,000 for the franchise name. Revenue for May was \$50,000.

104. Refer to Figure 2-1. What is the cost of services sold for May?

- a. \$41,500
- b. \$43,500
- c. \$50,500
- d. \$40,500

ANS: A

SUPPORTING CALCULATIONS:

$$\$9,000 + \$4,500 - \$4,000 + \$27,000 + \$5,000 = \underline{\$41,500}$$

PTS: 1

OBJ: 2-3

105. Refer to Figure 2-1. What is the gross margin for May?

- a. \$41,500
- b. \$43,500
- c. \$1,500
- d. \$8,500

ANS: D

SUPPORTING CALCULATIONS:

$$\text{COSS} = \$9,000 + \$4,500 - \$4,000 + \$27,000 + \$5,000 = \$41,500$$

$$\text{GM} = \$50,000 - 41,500 = \underline{\$8,500}$$

PTS: 1

OBJ: 2-3

106. \_\_\_\_\_ is (are) a cost accounting system that uses only unit-based activity drivers to assign costs to cost objects.

- a. Activity-based management
- b. Activity-based costing system
- c. Functional-based cost management system
- d. Both a and b

ANS: C

PTS: 1

OBJ: 2-4

107. Which of the following would be associated with a functional-based cost accounting information system?
- a. setup costs assigned to products using the number of setups as the driver
  - b. purchasing costs assigned to products using number of direct labor hours as the activity driver
  - c. customer service costs assigned to products using the number of complaints as the activity driver
  - d. materials handling costs assigned to products using the number of moves as the activity driver

ANS: B                      PTS: 1                      OBJ: 2-4

108. In a functional-based management system, one is NOT likely to find
- a. unit- and non-unit-based cost drivers.
  - b. maximization of individual unit performance.
  - c. narrow and rigid product costing.
  - d. allocation intensive cost assignment.

ANS: A                      PTS: 1                      OBJ: 2-4

109. Which of the following items would be associated with both a functional-based cost accounting information system and an activity based cost information system?
- a. Overhead is assigned on a plant-wide rate based on direct labor hours.
  - b. Customer service costs are assigned to products using number of complaints as the activity driver.
  - c. Direct labor cost is assigned to products using direct tracing.
  - d. None of these.

ANS: C                      PTS: 1                      OBJ: 2-4

110. A functional-based operational control system:
- a. assigns costs to organizational units and then holds the organizational unit manager responsible for controlling the assigned costs
  - b. assigns costs using both unit based and non-unit based activity drivers
  - c. uses an expanded role of driver tracing
  - d. focuses on managing activities

ANS: A                      PTS: 1                      OBJ: 2-4

111. \_\_\_\_\_ focuses on the management of activities with the objective of improving the value received by the customer and the profit received by providing this value.
- a. Activity-based management
  - b. Contemporary cost control
  - c. Functional-based cost management system
  - d. JIT

ANS: A                      PTS: 1                      OBJ: 2-4

112. In a cost management system, the process view does NOT include
- a. resources.
  - b. activities.
  - c. driver analysis.
  - d. performance analysis.

ANS: A                      PTS: 1                      OBJ: 2-4

113. In a cost management system, the cost view does NOT include
- resources.
  - activities.
  - driver analysis.
  - products and customers.

ANS: C                    PTS: 1                    OBJ: 2-4

114. Which is NOT a benefit of an activity-based cost management system?
- greater product costing accuracy
  - increased cost of implementing the system
  - improved decision making
  - enhanced strategic planning

ANS: B                    PTS: 1                    OBJ: 2-4

115. In an activity-based management system, one is NOT likely to find
- tracing of costs to activities.
  - only unit-based drivers.
  - broad flexible product costing.
  - systemwide performance maximization.

ANS: B                    PTS: 1                    OBJ: 2-4

116. Which of the following is NOT a trait of a functional-based cost management system?
- unit-based drivers
  - focus on managing activities
  - allocation-intensive
  - narrow and rigid product costing

ANS: B                    PTS: 1                    OBJ: 2-4

117. Which of the following is a trait of a functional-based cost management system?
- unit-based drivers
  - tracing intensive
  - use of both financial and nonfinancial measures of performance
  - detailed activity information

ANS: A                    PTS: 1                    OBJ: 2-4

118. Which of the following is a trait of an activity-based cost management system?
- allocation-intensive
  - narrow and rigid product costing
  - non-unit-based drivers
  - focus on managing costs

ANS: C                    PTS: 1                    OBJ: 2-4

119. The optimal level in the trade-off between measurement and error costs is when
- measurement costs are greater than error costs.
  - measurement costs are less than error costs.
  - measurement costs equal error costs.
  - the total of measurement costs and error costs are maximized.

ANS: C                    PTS: 1                    OBJ: 2-4

120. Error costs can be defined as:
- the costs associated with the measurements required by the cost management system
  - unit costs assigned based on activities
  - the costs associated with making poor decisions based on bad cost information
  - none of the above

ANS: C                      PTS: 1                      OBJ: 2-4

## PROBLEM

1. What are the three important dimension differences between tangible products and services.

ANS:

Tangible products are goods produced by converting raw materials through the use of labor and capital inputs such as plant, land, and machinery. Services are tasks or activities performed for a customer or an activity performed by a customer using an organization's products or facilities. Services differ from tangible products on three important dimensions. Intangibility means buyers of services can not see, feel, hear, or taste a service before it is bought. Perishability means that services can not be stored. Inseparability means that producers and buyers must usually be in direct contact for an exchange to take place.

PTS: 1                      OBJ: 2-1

2. Explain the differences between direct tracing, driver tracing, and allocation.

ANS:

Direct tracing is the process of identifying and assigning costs to a cost object that are specifically or physically associated with the cost object.

Driver tracing is assigning costs using drivers, which are causal factors. The driver approach relies on identification of factors that allegedly capture the causal relationship.

Allocation is the assignment of indirect costs to cost objects based on convenience or assumed linkages.

PTS: 1                      OBJ: 2-1

3. Classify the following costs incurred by a step railing manufacturing company as direct materials, direct labor, factory overhead, or period costs:
- Wages paid to production workers
  - Utilities in the office
  - Depreciation on machinery in plant
  - Steel
  - Accountant's salary
  - Rent on factory building
  - Rent on office equipment
  - Maintenance workers' wages
  - Utilities in the plant
  - Maintenance on office equipment

ANS:

- |                     |                     |
|---------------------|---------------------|
| a. Direct labor     | f. Factory overhead |
| b. Period           | g. Period           |
| c. Factory overhead | h. Factory overhead |
| d. Direct materials | i. Factory overhead |
| e. Period           | j. Period           |

PTS: 1                      OBJ: 2-2

4. Big Foot Athletics designs and manufactures running shoes. A new model of shoes, Fast Track, has been developed and is ready for production.

Required:

Which costs will the production manager collect from the value chain, and how would these costs be used in different decisions?

- traditional product costs
- operating product costs
- value-chain product costs

ANS:

Production costs would be included in all of these definitions.

- |                               |   |
|-------------------------------|---|
| a. traditional product costs: | Direct materials, direct labor and manufacturing overhead are the traditional product costs. They would be used for external reporting, budgeting, and control of costs.  |
| b. operating product costs:   | In addition to the traditional product costs, marketing and customer service costs would be considered in analyzing profitability of the product. Strategic questions about the operating design, i.e., materials and plant layout, would be addressed. The focus is on the revenue and cost of Fast Track. |
| c. value-chain product costs: | Production costs of Fast Track must be viewed in relation to other products. Strategic pricing and product mix decisions must be made. The profitability of all the product lines is at issue.  |

PTS: 1                      OBJ: 2-2

5. Based on the following information:
- |  |           |
|--|-----------|
| Utilities paid on the corporate office | \$50,000  |
| Utilities paid on the factory          | \$75,000  |
| Depreciation on factory equipment      | \$66,000  |
| Lumber                                 | \$150,000 |
| Factory maintenance Workers Wages      | \$32,000  |
| Company President Wages                | \$89,000  |
| Assembly Workers wages                 | \$110,000 |
| Indirect Materials                     | \$75,000  |

What is amount of

- a. Direct labor
- b. Direct materials
- c. Factory Overhead
- d. Period Costs

ANS:

- a. Direct Labor = Assembly Worker Wages \$110,000
- b. Direct Materials = Lumber \$150,000
- c. Factory Overhead = Utilities paid on the factory \$75,000  
 + Depreciation on factory overhead \$66,000  
 + Maintenance worker wages \$32,000  
 + Indirect Materials \$75,000  
 Total Overhead \$248,000
- d. Period Costs = Utilities paid on the corporate office + Company President Wages =  
 \$50,000 + \$89,000 = \$139,000

PTS: 1 OBJ: 2-2

6. Information from the records of the Fisher Enterprises for the month of March 2010 was as follows:

Purchases of direct materials	\$ 54,000
Indirect labor	15,000
Direct labor	31,200
Depreciation on machinery	9,000
Sales	165,900
Selling and administrative expenses	18,900
Rent on factory building	21,000

	<u>Inventories</u>	
	<u>March 1, 2010</u>	<u>March 31, 2010</u>
Direct materials	\$24,000	\$26,100
Work in process	6,300	9,600
Finished goods	15,000	17,100

Required:

- a. Prepare a statement of cost of goods manufactured for the month of March.
- b. Prepare an income statement for the month of March.
- c. Determine prime and conversion costs.

ANS:

a.

Fisher Enterprises  
Statement of Cost of Goods Manufactured  
For the Month of March 2010

Direct materials:		
Beginning inventory	\$ 24,000	
Add: Purchases	<u>54,000</u>	
Materials available	\$ 78,000	
Less: Ending inventory	<u>26,100</u>	
Direct materials used in production		\$ 51,900
Direct labor		
Manufacturing overhead:		31,200
Indirect labor	\$ 15,000	
Depreciation on machinery	9,000	
Rent on factory	<u>21,000</u>	<u>45,000</u>
Total manufacturing costs added		\$128,100
Add: Beginning work-in-process inventory		<u>6,300</u>
Total costs in process		\$134,400
Less: Ending work-in-process inventory		<u>9,600</u>
Cost of goods manufactured		<u>\$124,800</u>

b.

Fisher Enterprises  
Income Statement  
For the Month of March 2010

Sales		\$165,900
Less: Cost of goods sold:		
Add: Cost of goods manufactured	\$124,800	
Beginning inventory finished goods	<u>15,000</u>	
Cost of goods available for sale	\$139,800	
Less: Ending inventory finished goods	<u>17,100</u>	<u>122,700</u>
Gross margin		\$ 43,200
Less: Selling and administrative expenses		<u>18,900</u>
Operating income		<u>\$ 24,300</u>

c. Prime costs = \$51,900 + \$31,200 = \$83,100

Conversion costs = \$31,200 + \$45,000 = \$76,200

PTS: 1

OBJ: 2-3

7. The following information pertains to Davis, Inc.:

Direct materials purchases	\$ 62,400
Beginning direct materials	10,400
Factory overhead	58,400
Beginning work in process	10,600
Cost of goods manufactured	164,000
Ending finished goods	20,000
Gross margin	21,000
Selling and administrative expenses	7,000
Beginning finished goods	16,000
Ending work in process	8,000
Ending direct materials	12,400
Direct labor	?
Direct materials used	?
Net income (loss)	?
Total manufacturing costs added	?
Cost of goods sold	?
Sales	?

Required:

Determine the following values:

- Net income
- Total manufacturing costs added
- Cost of goods sold
- Sales
- Direct materials used
- Direct labor

ANS:

- $\$21,000 - \$7,000 = \underline{\$14,000}$
- $\$164,000 + \$8,000 - \$10,600 = \underline{\$161,400}$
- $\$16,000 + \$164,000 - \$20,000 = \underline{\$160,000}$
- $\$21,000 + \$160,000^* = \underline{\$181,000}$
- $\$10,400 + \$62,400 - \$12,400 = \underline{\$60,400}$
- $\$161,400^{**} - \$60,400^{***} - \$58,400 = \underline{\$42,600}$

\*Found in c.

\*\*Found in b.

\*\*\*Found in e.

PTS: 1

OBJ: 2-3

8. Information about Carter Company for the year ending December 31, 2010, was as follows:

Sales	\$300,000
Selling and administrative expenses	18,000
Net income	8,000
Beginning inventories:	
Direct materials	20,000
Work in process	18,000
Finished goods	62,000

Ending direct materials is 20 percent larger than beginning direct materials. Ending work in process is half of the beginning work in process. Ending finished goods increased by \$8,000 during the year. Prime costs and conversion costs are 70 percent and 60 percent of total manufacturing costs added, respectively. Materials purchases are \$133,200.

Required:

- a. Prepare a statement of cost of goods manufactured for December.
- b. Prepare an income statement for December.

ANS:

a.

Carter Company  
Statement of Cost of Goods Manufactured  
For the Year Ended December 31, 2010

Direct materials:	
Beginning inventory*	\$ 20,000
Add: Purchases	<u>113,200</u>
Materials available	\$133,200
Less: Ending inventory* ( $\$20,000 \times 1.20$ )	<u>24,000</u>
Direct materials used in production	\$109,200
Direct labor [ $(.7 \times 273,000) - 109,200$ ]	81,900
Manufacturing overhead [ $(.6 \times 273,000) - 81,900$ ]	<u>81,900</u>
Total manufacturing costs added	\$273,000
Add: Beginning work-in-process inventory*	<u>18,000</u>
Total costs in process	\$291,000
Less: Ending work-in-process inventory* ( $\$18,000 \times 0.50$ )	<u>9,000</u>
Cost of goods manufactured	<u>\$282,000</u>

b.

Carter Company  
Income Statement  
For the Year Ended December 31, 2010

Sales*	\$300,000
Less: Cost of goods sold:	
Add: Cost of goods manufactured	\$282,000
Beginning inventory finished goods*	<u>62,000</u>
Cost of goods available for sale	\$344,000
Less: Ending inventory finished goods* ( $\$62,000 + \$8,000$ )	<u>70,000</u>
Gross margin	\$ 26,000
Less: Selling and administrative expenses*	<u>18,000</u>
Net income*	<u>\$ 8,000</u>

\*These items are provided.

Note: Find the numbers for the income statement first.

PTS: 1                      OBJ: 2-3

9. Best Corporation incurred the following costs:

Beginning direct materials inventory	\$ 17,000
Beginning work-in-process inventory	8,000
Beginning finished goods inventory	18,000
Ending direct materials inventory	15,000
Ending work in process	13,000
Ending finished goods	24,000
Factory supervisor's salary	25,000
Depreciation on plant	10,000
Sales	650,000
Selling and administrative expenses	100,000
Plant maintenance	5,000
Plant utilities	9,000
Direct material purchases	185,000
Direct labor	200,000

Required:

Calculate the following values:

- Direct materials used
- Cost of goods manufactured
- Cost of goods sold
- Net income

ANS:

- $\$17,000 + \$185,000 - \$15,000 = \underline{\$187,000}$
- $\$187,000 + \$200,000 + \$25,000 + \$10,000 + \$5,000 + \$9,000 + \$8,000 - \$13,000 = \underline{\$431,000}$
- $\$18,000 + \$431,000 - \$24,000 = \underline{\$425,000}$
- $\$650,000 - \$425,000 - \$100,000 = \underline{\$125,000}$

PTS: 1

OBJ: 2-3

10. Hoiberg Corporation incurred the following costs:

Direct labor	\$ 600,000
Direct material purchases	555,000
Depreciation on plant	30,000
Factory supervisor's salary	75,000
Plant maintenance	15,000
Plant utilities	27,000
Sales	1,950,000
Selling and administrative expenses	300,000
Beginning direct materials inventory	51,000
Beginning work-in-process inventory	24,000
Beginning finished goods inventory	54,000
Ending direct materials inventory	45,000
Ending work in process	39,000
Ending finished goods	72,000

**Required:**

Calculate the following values:

- Direct materials used
- Cost of goods manufactured
- Cost of goods sold
- Net income

**ANS:**

- $\$51,000 + \$555,000 - \$45,000 = \underline{\$561,000}$
- $\$561,000 + \$600,000 + \$75,000 + \$30,000 + \$15,000 + \$27,000 + \$24,000 - \$39,000 = \underline{\$1,293,000}$
- $\$54,000 + \$1,293,000 - \$72,000 = \underline{\$1,275,000}$
- $\$1,950,000 - \$1,275,000 - \$300,000 = \underline{\$375,000}$

PTS: 1

OBJ: 2-3

- The cost of goods sold for the Tricky Corporation for the month of June 2009 was \$450,000. Work-in-process inventory at the end of June was 95 percent of the work-in-process inventory at the beginning of the month. Overhead is 80 percent of the direct labor cost. During the month, \$110,000 of direct materials were purchased. Revenues for Tricky were \$600,000, and the selling and administrative costs were \$70,000. Other information about Tricky's inventories and production for June was as follows:

Ending inventories-June 30	
Direct materials	\$ 19,000
Work in process	?
Finished goods	105,000
Beginning inventories-June 1	
Direct materials	\$ 22,200
Work in process	40,000
Finished goods	208,500

**Required:**

- Prepare a cost of goods manufactured and cost of goods sold statements.
- Prepare an income statement.
- What are the prime costs, conversion costs, and period costs?

**ANS:**

- DM used =  $\$22,200 + \$110,000 - \$19,000 = \$113,200$   
CGM =  $\$450,000 + \$105,000 - \$208,500 = \$346,500$

Tricky Corporation  
Statement of Cost of Goods Manufactured  
For June 2009

Direct materials:	
Beginning inventory*	\$ 22,200
Add: Purchases*	<u>110,000</u>
Materials available	\$132,200
Less: Ending inventory*	<u>19,000</u>

Direct materials used in production	\$113,200
Direct labor below	128,500
Manufacturing overhead (\$128,500 × 0.80)	<u>102,800</u>
Total manufacturing costs added	\$344,500
Add: Beginning work-in-process inventory*	<u>40,000</u>
Total costs in process	\$384,500
Less: Ending work-in-process inventory (\$40,000 × 0.95)	<u>38,000</u>
Cost of goods manufactured (from COGS statement)	<u><u>\$346,500</u></u>

Total manufacturing costs added = DM + DL + MOH

$$\begin{aligned}
 \$344,500 &= 113,200 + \text{DL} + \text{MOH} \\
 \$231,300 &= \text{DL} + \text{MOH} \\
 \$231,300 &= \text{DL} + \{\text{MOH} = 0.80 \times \text{DL}\} \\
 \$231,300 &= \text{DL} + .8\text{DL} \\
 \$231,300 &= 1.8\text{DL} \\
 \$128,500 &= \text{DL} \\
 \text{MOH} &= 0.80 \times \text{DL} \\
 \text{MOH} &= 0.80 \times 128,500 = 102,800
 \end{aligned}$$

b. **Tricky Company**  
**Cost of Goods Sold Statement**  
**For June 2009**

Cost of goods sold*:	
Add: Cost of goods manufactured	\$346,500
Beginning inventory finished goods*	<u>208,500</u>
Cost of goods available for sale	\$555,000
Less: Ending inventory finished goods*	<u>105,000</u>
Cost of Goods Sold*	<u><u>\$450,000</u></u>

\*These items are provided.

**Tricky Company**  
**Income Statement**  
**For June 2009**

Sales*		\$600,000
Less: Cost of goods sold*:		
Add: Cost of goods manufactured	\$346,500	
Beginning inventory finished goods*	<u>208,500</u>	
Cost of goods available for sale	\$555,000	
Less: Ending inventory finished goods*	<u>105,000</u>	
Cost of Goods Sold		<u>450,000</u>
Gross margin		\$150,000
Less: Selling and administrative expenses*		<u>70,000</u>
Net income		<u><u>\$ 80,000</u></u>

\*These items are provided.

- c. Conversion costs = direct labor and overhead = \$231,300  
                           = \$128,500 + \$102,800 = \$231,300  
 Prime costs = DM + DL = \$113,200 + \$128,500 = \$241,700  
 Period costs = \$70,000

PTS: 1                    OBJ: 2-3

12. Home Designs Company designs decks, gazebos, and play equipment for residential homes. The following was provided for the year ended June 30, 2009:

Direct labor	\$600,000
Direct material purchases	40,000
Administrative	130,000
Overhead	75,000
Selling	265,000
Beginning direct materials inventory	20,000
Beginning designs in process	14,000
Ending direct materials inventory	10,000
Ending designs in process	39,000

The average design fee is \$700. There were 2,000 designs processed during the year.

Required:

- Prepare a statement of cost of services sold.
- Prepare an income statement.
- Discuss three differences between services and tangible products.

ANS:

- a.                    Home Designs Company  
                           Cost of Services Sold  
                           June 30, 2009

Beginning materials	\$ 20,000
Purchases	<u>40,000</u>
Materials available	60,000
Ending materials	<u>- 10,000</u>
Materials used	50,000
Direct labor	600,000
Overhead	75,000
Beginning design in process	14,000
Ending designs in process	<u>-39,000</u>
Cost of Services Sold	<u>\$700,000</u>

- b.                    Home Designs Company  
                           Income Statement  
                           June 2009

Sales	\$1,400,000
Cost of services sold	<u>700,000</u>
Gross Margin	700,000
Selling	265,000
Administrative	<u>130,000</u>
Net Income	<u>\$ 305,000</u>

- c. Services have three attributes that are not possessed by tangible products: intangibility, perishability, and inseparability.

PTS: 1                      OBJ: 2-3

13. Describe several of the major differences between a functional-based cost management system and an activity-based cost management system.

ANS:

The functional-based cost accounting system assumes that all costs can be classified as fixed or variable with respect to changes in the units or volume of product produced.

The activity-based cost management system's objective is to improve the quality, content, relevance, and timing of information.

A comparison of the two systems is shown below:

Functional-based	Activity-based
1. Unit-based drivers	1. Unit and nonunit-based drivers
2. Allocation-intensive	2. Tracing-intensive
3. Narrow and rigid product costing	3. Broad, flexible product costing
4. Focus on managing costs	4. Focus on managing activities
5. Sparse activity information	5. Detailed activity information
6. Maximization of individual unit performance	6. Systemwide performance maximization
7. Uses financial measures of performance	7. Uses both financial and nonfinancial measures of performance

PTS: 1                      OBJ: 2-4

14. Define activity-based management. In your answer, present the activity-based management model in good form.

ANS:

Activity-based management focuses on the management of activities with the objective of improving the value received by the customer and the profit received by providing this value; it includes driver analysis, activity analysis, and performance evaluation and draws on activity-based costing as a major source of information. Exhibit 2-13 in the text presents the model.

PTS: 1                      OBJ: 2-4

15. In choosing a cost management system, the controller must balance the total costs of implementing such systems. What costs must be balanced to determine total cost? How do functional-based and activity-based cost systems balance the trade-offs?

ANS:

Error costs and measurement costs must be considered in choosing a cost management system. Activity-based cost management has greater measurement costs due to analyzing many activities but has greater accuracy and fewer error costs. Functional-based cost systems have lower measurement

costs but higher error costs. Controllers must assess the need for accuracy in costing, pricing, and managing profitability.

PTS: 1                    OBJ: 2-4

16. The following items (partial list) are associated with a functional-based cost accounting information system, an activity-based cost accounting information system, or both:
- a. materials purchasing cost incurrence
  - b. assignment of purchasing cost to products using direct labor hours
  - c. assignment of purchasing cost using number of purchase orders
  - d. usage of direct materials
  - e. direct materials cost assigned to products using direct tracing
  - f. materials handling cost incurrence
  - g. materials handling cost assigned using direct labor hours
  - h. materials handling cost assigned using the number of moves as the driver
  - i. computer
  - j. materials handling equipment
  - k. decision to make a part or buy it from a supplier
  - l. costing out of products
  - m. report detailing individual product costs

Required:

1. For an activity-based cost system, classify the items into one of the following categories:
  - a. interrelated parts
  - b. processes
  - c. objectives
  - d. inputs
  - e. outputs
  - f. user actions
2. How would the choices differ between the two systems? What are the costs and benefits of each?

ANS:

1. The activity-based cost accounting system:
  - a. interrelated parts: cost accounting personnel, computer
  - b. processes: cost assignment: direct tracing of materials, driver tracing of purchasing costs (orders), materials handling cost (moves)
  - c. objectives: costing out of products
  - d. inputs: direct materials cost, purchasing cost, materials handling cost
  - e. outputs: product cost report
  - f. user actions: make-or-buy decision
2. The difference in the costing systems is found in the processes. A functional-based cost system would not use nonunit drivers such as moves and orders to assign overhead but would use a unit driver like direct labor hours. There is increased accuracy of the cost assignments in an activity-based system, and a more comprehensive idea of costs may be used for decision making.

The activity-based cost accounting system is more expensive to develop but has the benefit of more comprehensive uses for cost information. The functional-based cost system is simpler and less expensive to implement but the information generated is less versatile.

PTS: 1

OBJ: 2-4