Chapter 2  An Introduction to Cost Terms and Purposes

2.1 Identify and distinguish between two manufacturing cost classification systems: direct and indirect, prime and conversion.

1) "Cost" is defined by accountants as a resource sacrificed or foregone to achieve a specific objective.
Answer: TRUE
Diff: 1  Type: TF
Skill: Knowledge
Objective: LO 2-1

2) Costs of Sales is another way of phrasing Cost of Goods Sold.
Answer: TRUE
Diff: 2  Type: TF
Skill: Knowledge
Objective: LO 2-1

3) An actual cost is a predicted cost.
Answer: FALSE
Diff: 1  Type: TF
Skill: Knowledge
Objective: LO 2-1

4) Nearly all accounting systems accumulate forecasted costs.
Answer: FALSE
Diff: 1  Type: TF
Skill: Knowledge
Objective: LO 2-1

5) A cost object is anything for which a separate measurement of costs is desired.
Answer: TRUE
Diff: 1  Type: TF
Skill: Knowledge
Objective: LO 2-1

6) Indirect costs cannot be economically traced directly to the cost objective.
Answer: TRUE
Diff: 1  Type: TF
Skill: Knowledge
Objective: LO 2-1
7) Delivery charges are typically considered to be an indirect cost because it cannot be traced to each customer.
Answer: FALSE
Diff: 2 Type: TF
Skill: Comprehension
Objective: LO 2-1

8) A cost is classified as a direct or indirect cost based on the applicable cost object.
Answer: TRUE
Diff: 1 Type: TF
Skill: Knowledge
Objective: LO 2-1

9) Cost tracing assigns indirect costs to the chosen cost object.
Answer: FALSE
Diff: 1 Type: TF
Skill: Knowledge
Objective: LO 2-1

10) Factors affecting direct/indirect cost classifications are the materiality of the cost in question, the information-gathering technology used, and the operations.
Answer: TRUE
Diff: 1 Type: TF
Skill: Knowledge
Objective: LO 2-1

11) A firm’s strategy and mission are usually the same.
Answer: FALSE
Diff: 1 Type: TF
Skill: Knowledge
Objective: LO 2-1

12) Governance refers to a company’s relationship with all levels of government.
Answer: FALSE
Diff: 1 Type: TF
Skill: Knowledge
Objective: LO 2-1

13) A value proposition is a distinct benefit for which customers will pay.
Answer: TRUE
Diff: 1 Type: TF
Skill: Knowledge
Objective: LO 2-1
14) Rent for the building that contains the manufacturing and engineering departments can all be charged as manufacturing overhead costs.
Answer: FALSE
Diff: 2 Type: TF
Skill: Comprehension
Objective: LO 2-1

15) The plant supervisor’s salary is a direct labour cost.
Answer: FALSE
Diff: 2 Type: TF
Skill: Knowledge
Objective: LO 2-1

16) Inventoriable costs are reported as an asset when incurred and expensed on the income statement when the product is sold.
Answer: TRUE
Diff: 2 Type: TF
Skill: Knowledge
Objective: LO 2-1

17) Period costs are never included as part of inventory.
Answer: TRUE
Diff: 1 Type: TF
Skill: Knowledge
Objective: LO 2-1

18) Conversion costs include all direct manufacturing costs.
Answer: FALSE
Diff: 1 Type: TF
Skill: Knowledge
Objective: LO 2-1

19) Overtime premium consists of wages paid to all workers in excess of their straight-time wage rates.
Answer: TRUE
Diff: 1 Type: TF
Skill: Knowledge
Objective: LO 2-1

20) Prime costs consist of direct and indirect manufacturing labour.
Answer: FALSE
Diff: 1 Type: TF
Skill: Knowledge
Objective: LO 2-1
21) Conversion costs are all manufacturing costs other than direct materials.
   Answer: TRUE
   Diff: 1  Type: TF
   Skill: Knowledge
   Objective: LO 2-1

22) Overtime premium is always a component of direct labour.
   Answer: FALSE
   Diff: 1  Type: TF
   Skill: Knowledge
   Objective: LO 2-1

23) Products, services, departments, and customers may be cost objects.
   Answer: TRUE
   Diff: 1  Type: TF
   Skill: Knowledge
   Objective: LO 2-1

24) Costs are accounted for in two basic stages: assignment followed by accumulation.
   Answer: FALSE
   Explanation: Costs are accounted for in two basic stages: accumulation followed by assignment.
   Diff: 1  Type: TF
   Skill: Comprehension
   Objective: LO 2-1

25) A cost object is always either a product or a service.
   Answer: FALSE
   Explanation: A cost object could be anything management wishes to determine the cost of, for example, a department.
   Diff: 2  Type: TF
   Skill: Knowledge
   Objective: LO 2-1

26) Assigning direct costs poses more problems than assigning indirect costs.
   Answer: FALSE
   Explanation: Tracing direct costs is quite straightforward, whereas assigning indirect costs to a number of different cost objects can be very challenging.
   Diff: 2  Type: TF
   Skill: Comprehension
   Objective: LO 2-1

27) A department could be considered a cost object.
   Answer: TRUE
   Diff: 2  Type: TF
   Skill: Knowledge
   Objective: LO 2-1
28) Improvements in information-gathering technologies are making it possible to trace more costs as direct.
Answer: TRUE
Diff: 2 Type: TF
Skill: Comprehension
Objective: LO 2-1

29) Anything for which a separate measurement of costs is desired is known as
A) a cost item.
B) a cost object.
C) a fixed cost item.
D) a variable cost object.
E) a cost driver.
Answer: B
Diff: 1 Type: MC
Skill: Knowledge
Objective: LO 2-1

30) Which of the following is a cost object?
A) direct materials
B) customers
C) conversion costs
D) cost assignments
E) indirect labour
Answer: B
Diff: 2 Type: MC
Skill: Knowledge
Objective: LO 2-1

31) Which of the following is an indirect production cost?
A) materials placed into production
B) calibrating factory equipment
C) labour placed into production
D) cost of shipping a product to the customer
E) advertising
Answer: B
Diff: 1 Type: MC
Skill: Knowledge
Objective: LO 2-1
32) Actual costs are defined as
A) costs incurred.
B) direct costs.
C) indirect costs.
D) predicted costs.
E) sunk costs.
Answer: A
Diff: 1 Type: MC
Skill: Knowledge
Objective: LO 2-1

33) Whether a company traces costs directly to an output unit or not depends upon
A) the materiality of the contribution a cost makes to the total cost per output unit.
B) the amount of similar costs in the cost assignment.
C) the effect of cost tracing on overhead.
D) the employment of cost management.
E) the amount of customer satisfaction.
Answer: A
Diff: 1 Type: MC
Skill: Knowledge
Objective: LO 2-1

34) Which one of the following items is typically an example of an indirect cost of a cost object?
A) courier charges for shipment delivery
B) manufacturing plant electricity
C) direct manufacturing labour
D) wood used for furniture manufacture
E) refundable sales tax on direct materials
Answer: B
Diff: 2 Type: MC
Skill: Comprehension
Objective: LO 2-1

35) Prime costs can include
A) conversion costs.
B) direct material costs.
C) indirect manufacturing labour.
D) machine set up costs.
E) advertising costs.
Answer: B
Diff: 2 Type: MC
Skill: Knowledge
Objective: LO 2-1
36) Which one of the following examples could be classified as a direct cost?
A) The costs of an entire factory’s electricity related to a product; the product line is the cost object.
B) The printing costs incurred for payroll cheque processing; the payroll cheque processing is the cost object.
C) The salary of a maintenance supervisor in the manufacturing plant; Product A is the cost object.
D) The costs incurred for electricity in the office; the accounting office is the cost object.
E) The cost of advertising the products.
Answer: B
Diff: 2 Type: MC
Skill: Comprehension
Objective: LO 2-1

37) The determination of a cost as being either direct or indirect depends upon
A) the accounting system.
B) the allocation system.
C) the cost tracing system.
D) only the cost object chosen to determine its individual costs.
E) the choice of the cost object, and the materiality of the cost in question.
Answer: E
Diff: 2 Type: MC
Skill: Knowledge
Objective: LO 2-1

38) Cost assignment is
A) always arbitrary.
B) linking actual costs to cost objects.
C) the same as cost accumulation.
D) finding the difference between budgeted and actual costs.
E) the same as cost conversion.
Answer: B
Diff: 2 Type: MC
Skill: Knowledge
Objective: LO 2-1

39) Wages paid to machine operators on an assembly line are an example of which type of cost?
A) direct manufacturing labour costs
B) direct manufacturing overhead costs
C) direct materials costs
D) indirect manufacturing overhead costs
E) indirect material costs
Answer: A
Diff: 2 Type: MC
Skill: Comprehension
Objective: LO 2-1
40) Which of the following is true concerning prime costs?
A) Prime costs are direct manufacturing costs.
B) They include indirect direct manufacturing labour.
C) They equal the sum of direct manufacturing costs plus conversion costs.
D) They equal the sum of fixed manufacturing costs plus conversion costs.
E) They are indirect manufacturing costs.
Answer: A
Diff: 1 Type: MC  
Skill: Knowledge  
Objective: LO 2-1

41) Which statement about conversion costs is correct, using the three-part classification of costs?
A) They include only direct manufacturing labour costs.
B) They include only indirect manufacturing costs.
C) They include both direct manufacturing labour costs and manufacturing overhead costs.
D) They include indirect manufacturing labour costs but not manufacturing overhead costs.
E) They include indirect manufacturing costs and direct manufacturing labour costs.
Answer: B
Diff: 2 Type: MC  
Skill: Knowledge  
Objective: LO 2-1

42) Cost tracing is
A) the assignment of direct costs to the chosen cost object.
B) a function of cost allocation.
C) the process of tracking both direct and indirect costs associated with a cost object.
D) the process of determining the actual cost of the cost object.
E) the assignment of both direct and indirect costs associated with a cost object.
Answer: A
Diff: 2 Type: MC  
Skill: Knowledge  
Objective: LO 2-1

43) Cost allocation is
A) the process of tracking both direct and indirect costs associated to a cost object.
B) the process of determining the actual cost of the cost object.
C) the assignment of indirect costs to the chosen cost object.
D) a function of cost tracing.
E) the assignment of direct costs to the chosen cost object.
Answer: C
Diff: 2 Type: MC  
Skill: Knowledge  
Objective: LO 2-1
44) The components of prime costs in the three-part classification include
A) only direct materials costs.
B) only direct manufacturing labour costs.
C) both direct materials and direct manufacturing labour costs.
D) only conversion costs.
E) direct materials, direct manufacturing labour and conversion costs.
Answer: C
Diff: 2  Type: MC
Skill: Knowledge
Objective: LO 2-1

45) Classifying a cost as either direct or indirect depends upon
A) the behaviour of the cost in response to volume changes.
B) whether the cost is expensed in the period in which it is incurred.
C) whether the cost can be identified with the cost object.
D) whether an expenditure is avoidable or not in the future.
E) the inventory classification system.
Answer: C
Diff: 2  Type: MC
Skill: Knowledge
Objective: LO 2-1

46) A manufacturing plant produces two product lines: football equipment and hockey equipment. Direct costs for the football equipment line are the
A) beverages provided daily in the plant break room.
B) monthly lease payments for a specialized piece of equipment needed to manufacture the football helmet.
C) salaries of the clerical staff that work in the company administrative offices.
D) utilities paid for the manufacturing plant.
E) advertising costs.
Answer: B
Diff: 2  Type: MC
Skill: Comprehension
Objective: LO 2-1

47) A manufacturing plant produces two product lines: football equipment and hockey equipment. An indirect cost for the hockey equipment line is the
A) material used to make the hockey sticks.
B) labour to bind the shaft to the blade of the hockey stick.
C) shift supervisor for the hockey line.
D) plant supervisor.
E) salesperson travelling expenses.
Answer: D
Diff: 2  Type: MC
Skill: Comprehension
Objective: LO 2-1
48) Sheen Manufacturing has three cost objects that it uses to assign costs in its manufacturing plants. They are:

- Cost object #1 The existence of buildings and equipment
- Cost object #2 The use of buildings and equipment
- Cost object #3 The availability and use of manufacturing labour

The following manufacturing overhead costs categories are found in the accounting records:

1. Amortization on buildings and equipment
2. Fringe benefits
3. Idle time wages
4. Lubricants for machines
5. Night security
6. Overtime premiums
7. Property insurance
8. Property taxes
9. Safety hats and shoes
10. Supervisor’s salaries
11. Utilities

Required:
Assign each of the cost categories to the one cost object you consider most appropriate.

Answer:
Cost object #1 includes categories 1, 5, 7, and 8.
Cost object #2 includes categories 4, and 11.
Cost object #3 includes categories 2, 3, 6, 9, and 10.

Diff: 2 Type: ES
Skill: Comprehension
Objective: LO 2-1
49) Eichhorn Company’s Process Engineering department has the responsibility of rearranging the individual work tasks for each assembly line worker, with the goal of utilizing each worker as much as possible. Currently, on average, each assembly line worker only has tasks that require 47 minutes per hour, and the plant manager wants this increased by at least 10%. The company builds the Eichhorn Rocket Roadster, which is selling out of dealers’ showrooms faster than the company’s assembly plants can produce them. If production can't be increased, then sales will soon suffer.

Required:
Explain the effect on total costs of production, using the number of engineering changes (from Process Engineering) and at least two other cost drivers. Choose the cost driver that you think is most logical in the circumstances, and begin your answer with a brief explanation of a cost driver.

Answer: A cost driver is any factor that affects total costs. When a new engineering change has to be implemented, obviously there will be down time for staff to learn the new work processes, and for any physical changes required on the assembly line that may result in rearranging the workload tasks (such as material handling changes). These costs would have to be balanced against the expected savings by being able to utilize the production worker’s time more efficiently. The costs of the engineer’s time would not be relevant.

A second cost driver would be the units of production. As the workers time utilization becomes more efficient, production should increase, so total variable costs will increase. Total fixed costs will not increase assuming no problems with the relevant range. The direct manufacturing labour costs would increase in total, but as indicated above, we expect decreased variable direct manufacturing labour cost per unit.

Another possible cost driver is the number of setups. To the extent that the number of setups is increased by the engineering changes, then total costs will increase, and these costs would have to be considered when contemplating the engineering changes. In this situation, it appears that production must be increased, and that the plant manager is most concerned with achieving this through reducing the direct labour required per unit, rather than by reducing labour costs per unit. Therefore, the most likely cost driver in this situation would be the number of units produced.

Diff: 2 Type: ES
Skill: Comprehension
Objective: LO 2-1
Office Supply Company manufactures office furniture. Recently the company decided to develop a formal cost accounting system. The company is currently converting all costs into classifications as related to its manufacturing processes.

Required:
For the following items, label each as being appropriate for
- direct cost tracing of the finished furniture,
- indirect cost allocation of an indirect manufacturing cost to the finished furniture, or
- as a nonmanufacturing item.

<table>
<thead>
<tr>
<th>Item</th>
<th>Direct Cost Tracing</th>
<th>Indirect Cost Allocation</th>
<th>Nonmanufacturing</th>
</tr>
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<tr>
<td>Carpenter wages</td>
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<td></td>
<td></td>
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<td>Amortization - office building</td>
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<tr>
<td>Glue for assembly</td>
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<td>Lathe department supervisor</td>
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<td>Lathe amortization</td>
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<td>Lathe maintenance</td>
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<td>Lathe operator wages</td>
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<tr>
<td>Lumber</td>
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<tr>
<td>Sales staff wages</td>
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<tr>
<td>Metal brackets for drawers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washroom supplies</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Answer:

<table>
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<th>Indirect Cost Allocation</th>
<th>Nonmanufacturing</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Amortization - office building</td>
<td></td>
<td>X</td>
<td></td>
</tr>
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<td>Glue for assembly</td>
<td></td>
<td>X</td>
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<td>Lathe department supervisor</td>
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<td>X</td>
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<tr>
<td>Lathe amortization</td>
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<td>X</td>
<td></td>
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<tr>
<td>Lathe maintenance</td>
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<td>X</td>
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<tr>
<td>Lathe operator wages</td>
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<td></td>
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<tr>
<td>Lumber</td>
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<tr>
<td>Washroom supplies</td>
<td>X</td>
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</tr>
</tbody>
</table>

Diff: 2  Type: ES
Skill: Comprehension
Objective: LO 2-1
51) Lucas Manufacturing has three cost objects that it uses to accumulate costs for its manufacturing plants. They are:

Cost object #1: The physical buildings and equipment  
Cost object #2: The use of buildings and equipment  
Cost object #3: The availability and use of manufacturing labour

The following manufacturing overhead cost categories are found in the accounting records:

a. Depreciation on buildings and equipment  
b. Lubricants for machines  
c. Property insurance  
d. Supervisors’ salaries  
e. Fringe benefits  
f. Property taxes  
g. Utilities

Required:
Assign each of the above costs to the most appropriate cost object.

Answer:
Cost object #1 includes categories a, c, and f.  
Cost object #2 includes categories b and g.  
Cost object #3 includes categories d and e.

Diff: 2  Type: ES  
Skill: Comprehension  
Objective: LO 2-1

2.2 Differentiate fixed from variable cost behaviour and explain the relationship of cost behaviour to direct and indirect cost classifications.

1) A relevant range is the range of the cost driver in which a specific relationship between cost and driver is valid.
   Answer: TRUE
   Diff: 2  Type: TF  
   Skill: Knowledge  
   Objective: LO 2-2

2) Changes in particular cost drivers automatically result in decreases in overall costs.
   Answer: FALSE
   Diff: 2  Type: TF  
   Skill: Comprehension  
   Objective: LO 2-2

3) A fixed cost is a cost that changes per unit as a cost driver changes.
   Answer: TRUE
   Diff: 2  Type: TF  
   Skill: Knowledge  
   Objective: LO 2-2
4) Total variable costs change in direct proportion to changes in cost drivers.
Answer: TRUE
Diff: 2 Type: TF
Skill: Knowledge
Objective: LO 2-2

5) When defining variable and fixed costs, it is assumed that there is only one cost driver.
Answer: TRUE
Diff: 2 Type: TF
Skill: Knowledge
Objective: LO 2-2

6) The variable cost per unit of a product should stay the same throughout the relevant range of production.
Answer: TRUE
Diff: 2 Type: TF
Skill: Knowledge
Objective: LO 2-2

7) An appropriate cost driver for shipping costs might be the number of units shipped.
Answer: TRUE
Diff: 2 Type: TF
Skill: Knowledge
Objective: LO 2-2

8) Competition places an increased emphasis on cost reductions. For an organization to reduce costs it must focus on
A) maximizing the cost allocation system.
B) reporting non-value added costs separately from value-added costs.
C) efficiently managing the use of the cost drivers in those value-added activities.
D) the cost allocation process.
E) reducing the number of cost drivers.
Answer: C
Diff: 2 Type: MC
Skill: Knowledge
Objective: LO 2-2

9) Which of the following statements about cost management is true?
A) It requires that managers actively strive to increase revenues.
B) It only focuses on inventoriable costs.
C) It is not affected by the organization’s customers.
D) It only applies to period costs.
E) It requires efficient management of the use of the cost drivers in the value-added activities.
Answer: E
Diff: 2 Type: MC
Skill: Knowledge
Objective: LO 2-2
10) Which one of the following is a variable cost in a grocery store?
A) rent
B) president’s salary
C) inventory of vegetables
D) property taxes
E) administrative salaries
Answer: C
Diff: 1 Type: MC
Skill: Comprehension
Objective: LO 2-2

11) Which of the following statements is a fixed cost in a clothing store?
A) store manager’s salary
B) electricity
C) sales commissions
D) inventory
E) paper for the cash register
Answer: A
Diff: 2 Type: MC
Skill: Comprehension
Objective: LO 2-2

12) If each furnace required a hose that costs $20 and 2,000 furnaces are produced for the month, the $40,000 total cost for hoses
A) is considered to be a direct fixed cost.
B) is considered to be a direct variable cost.
C) is considered to be an indirect fixed cost.
D) is considered to be an indirect variable cost.
E) is considered to be variable or fixed, depending on the relevant range.
Answer: B
Diff: 2 Type: MC
Skill: Knowledge
Objective: LO 2-2
Use the information below to answer the following question(s).

Macadamia Co. produced and sold 40,000 units last year. Per unit revenue and costs were as follows:

<table>
<thead>
<tr>
<th>Revenue</th>
<th>$100.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Goods Sold:</td>
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<tr>
<td>Direct Materials</td>
<td>$15.00</td>
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<tr>
<td>Direct Labour</td>
<td>30.00</td>
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<tr>
<td>Variable Manufacturing Overhead</td>
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<tr>
<td>Fixed Manufacturing Overhead</td>
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<tr>
<td>Total Cost of Goods Sold</td>
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<td>Gross Margin</td>
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<td>Selling and Administrative Costs:</td>
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<tr>
<td>Sales Commissions (10% of Sales)</td>
<td>$10.00</td>
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<tr>
<td>Administrative Salaries</td>
<td>20.00</td>
</tr>
<tr>
<td>Total Selling and Administrative</td>
<td>$30.00</td>
</tr>
<tr>
<td>Operating Income &lt;Loss&gt;</td>
<td>&lt;$5.00&gt;</td>
</tr>
</tbody>
</table>

Fixed manufacturing overhead and administrative salaries are fixed costs. The per unit amounts are based on last year’s production.

13) Calculate last year's operating income when the company produced and sold 40,000 units.
   A) $0
   B) <$200,000>
   C) <$500,000>
   D) <$800,000>
   E) <$1,000,000>
   Answer: B
   Explanation: B) 40,000 × [(100 - (15 + 30 + 20 + 10)) - (40,000 × (20 + 10))] = <$200,000>
   Diff: 2 Type: MC
   Skill: Application
   Objective: LO 2-2

14) Calculate this year's operating income if the company plans to produce and sell 50,000 units.
   A) $50,000
   B) $0
   C) <$250,000>
   D) <$550,000>
   E) $250,000
   Answer: A
   Explanation: A) 50,000 × [(100 - (15 + 30 + 20 + 10)) - (40,000 × (20 + 10))] = $50,000
   Diff: 2 Type: MC
   Skill: Application
   Objective: LO 2-2
15) Calculate this year’s operating income if the company plans to produce and sell 60,000 units.
A) $150,000
B) $0
C) $<300,000>
D) $<650,000>
E) $300,000
Answer: E
Explanation: E) 60,000 × [100 - (15 + 30 + 20 + 10)] - [40,000 × (20 + 10)] = $50,000
Diff: 3 Type: MC Skill: Application Objective: LO 2-2

16) Cost behaviour refers to
A) how costs react to a change in the level of activity.
B) whether a cost is incurred in a manufacturing, merchandising, or service company.
C) classifying costs as either inventoriable or period costs.
D) whether a particular expense has been ethically incurred.
E) how costs react to a change in selling price.
Answer: A
Diff: 2 Type: MC Skill: Comprehension Objective: LO 2-2

17) A mixed cost is
A) a fixed cost.
B) a cost with fixed and variable elements.
C) a variable cost.
D) always an indirect cost.
E) a cost with direct and indirect elements.
Answer: B
Diff: 2 Type: MC Skill: Knowledge Objective: LO 2-2

18) Variable costs
A) are always indirect costs.
B) increase in total when the actual level of activity increases.
C) include most personnel costs and depreciation on machinery.
D) can always be traced directly to the cost object.
E) change in relation to selling price.
Answer: B
Diff: 2 Type: MC Skill: Knowledge Objective: LO 2-2
19) The relevant range is important because
A) it specifies which costs should be used for a given decision.
B) it provides a basis for determining a range of acceptable cost alternatives.
C) it is required to determine inventorable costs under Canadian GAAP.
D) it specifies the limits beyond which the relationship of cost to cost drivers may not be valid.
E) it determines the time horizon.
Answer: D
Diff: 2 Type: MC
Skill: Knowledge
Objective: LO 2-2

20) Which of the following statements about the key features of cost accounting and cost management is true?
A) When making decisions about what products to produce, managers need to know how revenue and costs vary with changes in output levels.
B) Managers need to understand that period costs remain the same from one period to the next.
C) The costing system allocates direct costs and traces indirect costs to products.
D) When making decisions, managers must understand that all revenue and costs are relevant.
E) Cost accounting is used for managerial decision making, not for financial statements.
Answer: A
Diff: 2 Type: MC
Skill: Comprehension
Objective: LO 2-2

21) Fixed costs
A) may include either direct or indirect costs.
B) vary with production or sales volumes.
C) include parts and materials used to manufacture a product.
D) can be adjusted in the short run to meet actual demands.
E) remain fixed regardless of the relevant range of production.
Answer: A
Diff: 2 Type: MC
Skill: Knowledge
Objective: LO 2-2

22) Fixed costs depend on the
A) amount of resources used.
B) amount of resources acquired.
C) volume of production.
D) volume of sales.
E) allocation method.
Answer: B
Diff: 3 Type: MC
Skill: Comprehension
Objective: LO 2-2
23) Which one of the following is a variable cost for an insurance company?
A) rent
B) president's salary
C) sales commissions
D) property taxes
E) amortization on the office equipment
Answer: C
Diff: 1    Type: MC
Skill: Comprehension
Objective: LO 2-2

24) Which of the following is a fixed cost for an automobile manufacturing plant?
A) amortization on factory equipment
B) electricity used by assembly-line machines
C) sales commissions
D) windows for each car produced
E) labour cost of assembly line workers
Answer: A
Diff: 2    Type: MC
Skill: Comprehension
Objective: LO 2-2
25) Boone Hospital wants to determine, to the extent possible, the actual cost for each patient stay. It is a general health care facility with all basic services but does not perform specialized services such as organ transplants.

Required:
Complete the following table by
a. Classifying each cost as a direct or indirect cost with respect to each patient.
b. Classifying each item as fixed or variable with respect to the number of patient days (sum of days each patient was in hospital) the hospital incurs.

<table>
<thead>
<tr>
<th>Cost</th>
<th>Direct</th>
<th>Indirect</th>
<th>Fixed</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic monitoring</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab test charges</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meals for patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses' salaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating room usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Answer:

<table>
<thead>
<tr>
<th>Cost</th>
<th>Direct</th>
<th>Indirect</th>
<th>Fixed</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning activities</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Electronic monitoring</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab test charges</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meals for patients</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses' salaries</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating room usage</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking maintenance</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Security</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diff: 2   Type: ES
Skill: Comprehension
Objective: LO 2-2
26) Whippany manufacturing wants to estimate costs for each product they produce at its Troy plant. The Troy plant produces three products at this plant, and runs two flexible assembly lines. Each assembly line can produce all three products.

Required:

a. Classify each of the following costs as either direct or indirect for each product.
b. Classify each of the following costs as either fixed or variable with respect to the number of units produced of each product.

<table>
<thead>
<tr>
<th></th>
<th>Direct</th>
<th>Indirect</th>
<th>Fixed</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly line labour wages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant manager’s wages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation on the</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>assembly line equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Component parts for the</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>product</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages of security personnel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for the factory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Answer:

<table>
<thead>
<tr>
<th></th>
<th>Direct</th>
<th>Indirect</th>
<th>Fixed</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly line labour wages</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Plant manager’s wages</td>
<td></td>
<td></td>
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<tr>
<td>Depreciation on the</td>
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<tr>
<td>assembly line equipment</td>
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<tr>
<td>Component parts for the</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>product</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Adhesive to hold the parts</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>together and is an</td>
<td></td>
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<tr>
<td>insignificant part of the</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>final cost of the product</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diff: 2  Type: ES  
Skill: Comprehension  
Objective: LO 2-2
27) Combs, Inc., reports the following information for September sales:

Sales $15,000  
Variable costs $3,000  
Fixed costs $4,000  
Operating income $8,000

Required:
If sales double in October, what is the projected operating income?
Answer: ($15,000 × 2) - ($3,000 × 2) - $4,000 = $20,000

Diff: 2   Type: ES  
Skill: Application  
Objective: LO 2-2

28) A new employee in the accounting department is having difficulty understanding two sets of accounting terms—variable and fixed costs as opposed to period and product costs. He understands that variable costs change during an accounting period while fixed costs do not. However, he explains that a period cost implies that it is for a period of time and is, therefore, also fixed. Does his assumption imply that all product costs are then variable?

Required:
As part of your responsibility to train new staff, explain the difference between these terms.
Answer: First, you should explain that all costs should be first classified as either variable or fixed. This concept deals with cost behaviour and not with what the costs are associated in the organization. Many decisions are made about costs because of the type of behaviour they exhibit. Second, a cost can be assigned to "why you are in business" activities (product costs) of the organization or to "support" activities (period costs) of the organization. For a manufacturing firm period costs are all costs which have no direct relationship to the manufacturing process. Period costs are always expenses during the accounting period while product costs are inventoriable because they can be assigned to the products being produced.

Diff: 2   Type: ES  
Skill: Comprehension  
Objective: LO 2-2
29) Butler Hospital wants to estimate the cost for each patient stay. It is a general health care facility offering only basic services and not specialized services such as organ transplants.

Required:
a. Classify each of the following costs as either direct or indirect with respect to each patient.
b. Classify each of the following costs as either fixed or variable with respect to hospital costs per day.

<table>
<thead>
<tr>
<th>Cost</th>
<th>Direct</th>
<th>Indirect</th>
<th>Fixed</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic monitoring</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meals for patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses' salaries</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Parking maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Answer:

<table>
<thead>
<tr>
<th>Cost</th>
<th>Direct</th>
<th>Indirect</th>
<th>Fixed</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic monitoring</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meals for patients</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses' salaries</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking maintenance</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diff: 2 Type: ES
Skill: Comprehension
Objective: LO 2-2

30) A manufacturing company contracts with the labour union to guarantee full employment for all employees with at least 10 years seniority. The Company expects to be working at capacity for the next 2 years (the life of the contract), so this was seen as a bargaining concession without any cost to the company. On average, an employee earns $30 per hour, including benefits. The work force consists of 800 employees, with seniority ranging from 1 year to 18 years.

Required:
Analyze the direct labour cost in term of variable costs, fixed costs, and the relevant range.

Answer: Usually, we think of direct labour as a variable cost, since it increases in proportion to the increases in output. However in this case, the manufacturer has converted a portion of the direct labour cost into a fixed cost, since the union contract appears to require the company to pay full wages to all employees with at least 10 years seniority, regardless of the level of production. The direct labour costs in excess of this amount would still be a variable cost. The relevant range would be the number of employees with at least 10 years seniority, times the wage for a regular work week. This will be the case until the contract expires.

Diff: 2 Type: ES
Skill: Comprehension
Objective: LO 2-2
31) What is the meaning of the term "cost object"? Give an example of a cost object that would be used in a manufacturing company, a merchandising company, and a service sector company?
Answer: A cost object is anything for which a measurement of costs is desired. An example of a cost object for a manufacturing company might be the cost of manufacturing a particular product. An example of a cost object for a merchandising company might be a particular department of a retail store. An example of a cost object for a service sector company might be the cost to serve or supply a particular customer.
Diff: 3   Type: ES
Skill: Knowledge
Objective: LO 2-2

32) What are the differences between direct costs and indirect costs? Give an example of each.
Answer: Direct costs are costs that can be traced easily and economically to the product manufactured or the service rendered. Examples of direct costs include direct materials and direct manufacturing labour used in a product. Indirect costs cannot be easily identified in a cost efficient manner (economically)with individual products or services rendered, and are usually assigned using allocation formulas. In a plant that manufactures multiple products, examples of indirect costs include the plant supervisor's salary and the cost of machines used to produce more than one type of product.
Diff: 2   Type: ES
Skill: Knowledge
Objective: LO 2-2

33) Describe a variable cost. Describe a fixed cost. Explain why the distinction between variable and fixed costs is important in cost accounting.
Answer: Total variable costs increase with increased production or sales volumes; Unit variable cost remains constant no matter the level of activity; all within the relevant range. Fixed costs are not influenced by fluctuations in production or sales volumes. Unit fixed costs will decrease as activity level increases; within the relevant range. Without the knowledge of cost behaviors, budgets and other forecasting tools will be inaccurate and unreliable. Understanding whether a cost behaves as a variable or a fixed cost is essential to estimating and planning for business success.
Diff: 2   Type: ES
Skill: Knowledge
Objective: LO 2-2

2.3 Interpret unitized fixed costs appropriately when making cost management decisions.

1) A unit cost is computed by dividing a total cost by some number of units.
Answer: TRUE
Diff: 1   Type: TF
Skill: Knowledge
Objective: LO 2-3
2) Unit costs are considered to be an average cost per unit.
Answer: TRUE
Diff: 2  Type: TF
Skill: Knowledge
Objective: LO 2-3

3) When a manager is making a decision based on cost figures, it is preferable that he (she) thinks in terms of unit costs.
Answer: FALSE
Diff: 2  Type: TF
Skill: Knowledge
Objective: LO 2-3

4) When 50,000 units are produced the fixed costs are $10 per unit. Therefore when 100,000 units are produced fixed costs will remain at $10 per unit.
Answer: FALSE
Diff: 3  Type: TF
Skill: Knowledge
Objective: LO 2-3

5) Unit costs and average costs are really the same thing.
Answer: TRUE
Diff: 2  Type: TF
Skill: Knowledge
Objective: LO 2-3

6) Wheel and Tire Manufacturing currently produces 1,000 tires per month. The following per unit data apply for sales to regular customers:

<table>
<thead>
<tr>
<th>Direct materials</th>
<th>$20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct manufacturing labour</td>
<td>3</td>
</tr>
<tr>
<td>Variable manufacturing overhead</td>
<td>6</td>
</tr>
<tr>
<td>Fixed manufacturing overhead</td>
<td>10</td>
</tr>
<tr>
<td>Total manufacturing costs</td>
<td>$39</td>
</tr>
</tbody>
</table>

The plant has capacity for 3,000 tires and is considering expanding production to 2,000 tires. What is the total cost of producing 2,000 tires?
A) $39,000
B) $78,000
C) $68,000
D) $62,000
Answer: C
Explanation: C) [($20 + $3 + $6) × 2,000 units] + ($10 × 1,000 units) = $68,000
Diff: 2  Type: MC
Skill: Application
Objective: LO 2-3
7) Christi Manufacturing provided the following information for last month:

<table>
<thead>
<tr>
<th>Sales</th>
<th>$10,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable costs</td>
<td>3,000</td>
</tr>
<tr>
<td>Fixed costs</td>
<td>5,000</td>
</tr>
<tr>
<td>Operating income</td>
<td>$2,000</td>
</tr>
</tbody>
</table>

If sales double next month, what is the projected operating income?

A) $4,000  
B) $7,000  
C) $9,000  
D) $12,000

Answer: C  
Explanation: C) $(10,000 \times 2) - (3,000 \times 2) - 5,000 = 9,000$

Diff: 3  
Skill: Application  
Objective: LO 2-3

8) Kym Manufacturing provided the following information for last month:

<table>
<thead>
<tr>
<th>Sales</th>
<th>$12,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable costs</td>
<td>4,000</td>
</tr>
<tr>
<td>Fixed costs</td>
<td>1,000</td>
</tr>
<tr>
<td>Operating income</td>
<td>$7,000</td>
</tr>
</tbody>
</table>

If sales double next month, what is the projected operating income?

A) $14,000  
B) $15,000  
C) $18,000  
D) $19,000

Answer: B  
Explanation: B) $(12,000 \times 2) - (4,000 \times 2) - 1,000 = 15,000$

Diff: 3  
Skill: Application  
Objective: LO 2-3
9) Springfield Manufacturing produces electronic storage devices, and uses the following three-part classification for its manufacturing costs: direct materials, direct manufacturing labour, and indirect manufacturing costs. Total indirect manufacturing costs for January were $300 million, and were allocated to each product on the basis of direct manufacturing labour costs of each line. Summary data for January for the most popular electronic storage device, the Big Bertha, was:

<table>
<thead>
<tr>
<th></th>
<th>Big Bertha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct manufacturing costs</td>
<td>$9,000,000</td>
</tr>
<tr>
<td>Direct manufacturing labour costs</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>Indirect manufacturing costs</td>
<td>$8,500,000</td>
</tr>
<tr>
<td>Units produced</td>
<td>40,000</td>
</tr>
</tbody>
</table>

Required:
a. Compute the total manufacturing cost per unit for each product produced in January.

b. Suppose production will be reduced to 30,000 units in February. If indirect manufacturing costs include fixed costs then explain if the total cost per unit be higher or lower than in January.

Answer:
a. Unit costs for January were:

\[
\frac{($9,000,000 + $3,000,000 + $8,500,000)}{40,000} = $512.50 \text{ per unit}
\]

b. Unit costs will be higher in February if only 30,000 units are to be produced. Since fewer units are expected to be produced in February, total fixed costs will be spread over fewer units. This will result in an increase in total cost per unit since variable costs per unit will most likely not change with the decreased production.

Diff: 2 Type: ES
Skill: Application
Objective: LO 2-3
10) Things are not going well for the widget industry this year. The well-known cyclical nature of widget sales is in a downturn and your plant has been ordered to cut costs by its American parent corporation. The plant manager explains that he has shown the lead by negotiating a $1.50 hourly wage decrease with the production workers, based on a formula that pegs a $1.50 per hour wage increase/decrease to sales volume, and since sales are down this year, so are hourly wage costs. In the quarterly management meeting, the sales manager complained that sales could have been higher, but that somehow costs had increased, at least that’s what the reports out of your office in management accounting, indicated. The Purchasing manager assured everyone that she was able to obtain raw materials at the same price as last year, and unfortunately, you as the management accountant, were not in attendance at the meeting. Your assistant, a new employee attended in your place, and promised at the meeting to redo the reports and find the errors. Your assistant has come to you as he cannot find any errors in the reports. Consequently, the plant manager wants you to redo the reports, find the error reports produced by your department for the last quarter and to explain to your boss, the plant manager, why average costs have increased.

Required:
Assuming there are no errors in the cost reports, explain to the plant manager how direct labour costs could be decreased and direct materials costs could be the same as last year, and yet the selling price cannot be lowered without sacrificing net income for the plant.

Answer: The key to the problem lies in recognizing the difference between variable and fixed costs, and understanding the implication that declining volume has on average costs. Part of the solution may be due to indirect materials, but one would assume this is a minor factor. The major factor is that there are fewer units of widgets to absorb the fixed costs. On a per widget basis, the plant is saving say, $1.50 per hour in labour costs, but each widget has to absorb more of the fixed costs. If the $1.50 per hour component is not a significant part of the cost, compared to the fixed cost per unit at that level of production, for example, if the direct labour per widget is only 6 minutes, then the savings in variable cost per widget is only $0.15. This isn’t much in savings when the fixed costs per unit have to increase. The next point is that setting the sales price perhaps should not consider actual fixed cost burden, but the plant could consider using a budgeted amount, and lower the sales price somewhat in hopes that this would increase sales.

Diff: 3  Type: ES
Skill: Comprehension
Objective: LO 2-3
11) The vice president of production has just completed the January meeting with all production department heads. Everyone is upset that the production variances for the month were unfavourable. They do not understand why everything was unfavourable. January is typically the company’s lowest production month of the year.
The company uses annual average unit costs for production evaluation purposes. The average costs are based on the prior year’s actual performance with adjustments for any predicted changes in the coming year. Both production and economic items are considered in setting the averages for each new year.

Required:
Explain the problems with using average costs in evaluating production.
Answer: One of the problems with average unit costs is that actual costs may never be average. The probable shortcoming with the situation presented is that the costs included a fixed cost element and with the production low the fixed costs were averaged using a denominator that was smaller than the year's average which caused the unit averages to increase.
Diff: 2  Type: ES
Skill: Comprehension
Objective: LO 2-3

2.4 Apply cost information to produce a GAAP-compliant income statement showing proper cost of goods sold and a balance sheet showing proper inventory valuation.

1) Manufacturing-sector companies purchase materials and other resources for conversion into various finished goods.
Answer: TRUE
Diff: 1  Type: TF
Skill: Knowledge
Objective: LO 2-4

2) Manufacturing firms have three types of inventory: direct materials, work in process, and merchandise.
Answer: FALSE
Diff: 2  Type: TF
Skill: Knowledge
Objective: LO 2-4

3) Direct materials inventory is products held for resale.
Answer: FALSE
Diff: 1  Type: TF
Skill: Knowledge
Objective: LO 2-4

4) Work-in-process consists of partially completed goods not yet ready for sale.
Answer: TRUE
Diff: 1  Type: TF
Skill: Knowledge
Objective: LO 2-4
5) Operating income does not include interest expense and income taxes.
   Answer: TRUE  
   Diff: 1   Type: TF  
   Skill: Knowledge  
   Objective: LO 2-4

6) Service-sector companies provide services or intangible products to their customers.
   Answer: TRUE  
   Diff: 1   Type: TF  
   Skill: Knowledge  
   Objective: LO 2-4

7) Merchandising companies purchase products and sell them to customers without changing their basic form.
   Answer: TRUE  
   Diff: 2   Type: TF  
   Skill: Knowledge  
   Objective: LO 2-4

8) Manufacturing sector firms normally hold three types of inventory: direct materials inventory, work-in-process inventory, and finished goods inventory.
   Answer: TRUE  
   Diff: 2   Type: TF  
   Skill: Knowledge  
   Objective: LO 2-4
Use the information below to answer the following question(s).

Consider the following data of the Vancouver Company for the year 20X4:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandpaper-Plant</td>
<td>$10,000</td>
<td>Leasing costs - plant</td>
<td>$120,000</td>
</tr>
<tr>
<td>Materials handling-Plant</td>
<td>100,000</td>
<td>Amortization- equip.</td>
<td>70,000</td>
</tr>
<tr>
<td>Coolants-Plant</td>
<td>7,000</td>
<td>Property taxes - equip.</td>
<td>10,000</td>
</tr>
<tr>
<td>Indirect manufacturing labour</td>
<td>86,000</td>
<td>Fire insurance - equip.</td>
<td>5,000</td>
</tr>
<tr>
<td>Direct manufacturing labour</td>
<td>680,000</td>
<td>Direct material purchases</td>
<td>980,000</td>
</tr>
<tr>
<td>Direct materials, 1/1/X4</td>
<td>120,000</td>
<td>Direct materials 12/31/X4</td>
<td>86,000</td>
</tr>
<tr>
<td>Finished goods, 1/1/X4</td>
<td>210,000</td>
<td>Sales</td>
<td>4,000,000</td>
</tr>
<tr>
<td>Finished goods, 12/31/X4</td>
<td>400,000</td>
<td>Sales commissions</td>
<td>200,000</td>
</tr>
<tr>
<td>WIP, 1/1/X4</td>
<td>30,000</td>
<td>Sales salaries</td>
<td>180,000</td>
</tr>
<tr>
<td>WIP, 12/31/X4</td>
<td>20,000</td>
<td>Advertising costs</td>
<td>150,000</td>
</tr>
<tr>
<td>Administration costs</td>
<td>250,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9) What is the unit cost for the direct materials for 20X4 assuming direct materials costs are for the production of 1,014,000 units?
   A) $0.80
   B) $0.95
   C) $1.00
   D) $1.08
   E) $1.11

Answer:  C
Explanation:  C) ($120,000 + $980,000 - $86,000) / 1,014,000 units = $1.00
Diff: 3  Type: MC
Skill: Application
Objective:  LO 2-4

10) What is the unit cost for the plant leasing costs for 20x4 assuming plant leasing costs are for the production of 1,014,000 units?
A) $0.119
B) $0.118
C) $0.110
D) $0.900
E) $0.943

Answer:  B
Explanation:  B) $120,000 / 1,014,000 units = .1183431 or .118
Diff: 2  Type: MC
Skill: Application
Objective:  LO 2-4
11) What is the unit cost for the direct materials for 20X4 assuming direct materials are for the production of 507,000 units?
A) $0.80  
B) $0.95  
C) $2.00  
D) $1.08  
E) $1.10  
Answer: C  
Explanation: C) \( \frac{($120,000 + $980,000 - $86,000)}{507,000 \text{ units}} = $2.00 \)  
Diff: 3  
Skill: Application  
Objective: LO 2-4

12) What is the unit cost for the plant leasing cost for 20x4 assuming plant leasing costs are for the production of 2,000,000 units?
A) 0.35  
B) 0.18  
C) 0.12  
D) 0.06  
E) 0.04  
Answer: D  
Explanation: D) \( \frac{$120,000}{2,000,000 \text{ units}} = $0.06 \)  
Diff: 3  
Skill: Application  
Objective: LO 2-4

**Use the information below to answer the following question(s).**

The following information pertains to Payton's Shoe Manufacturing:

<table>
<thead>
<tr>
<th>Manufacturing costs</th>
<th>$1,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoes manufactured</td>
<td>100,000</td>
</tr>
<tr>
<td>Beginning inventory</td>
<td>0 pairs</td>
</tr>
</tbody>
</table>

99,500 pairs of shoes are sold during the year for $18.

13) What is Payton's manufacturing cost per pair of shoes?
A) $10.00  
B) $10.05  
C) $100.00  
D) $18.00  
E) $9.95  
Answer: A  
Explanation: A) \( \frac{$1,000,000}{100,000} = $10.00 \)  
Diff: 2  
Skill: Application  
Objective: LO 2-4
14) What is the amount of Payton’s ending finished goods inventory?
   A) $99,500
   B) $8,000
   C) $5,000
   D) $500
   E) $0
   Answer: C
   Explanation: C) (100,000 - 99,500) × $10.00 = $5,000
   Diff: 2 Type: MC
   Skill: Application
   Objective: LO 2-4

15) What is the amount of Payton’s gross profit?
   A) $995,000
   B) $1,000,000
   C) $1,791,000
   D) $796,000
   E) $896,000
   Answer: D
   Explanation: D) 99,500 × ($18 - $10) = $796,000
   Diff: 2 Type: MC
   Skill: Application
   Objective: LO 2-4

16) The following information pertains to the Stratford Company:

   | Beginning finished goods inventory | $60,000 |
   | Cost of goods manufactured          | 410,000 |
   | Ending finished goods inventory     | 34,000  |

   What is the cost of goods sold?
   A) $436,000
   B) $384,000
   C) $376,000
   D) $316,000
   E) $444,000
   Answer: A
   Explanation: A) $60,000 + $410,000 - $34,000 = $436,000
   Diff: 1 Type: MC
   Skill: Application
   Objective: LO 2-4
Use the information below to answer the following question(s).

Montreal Industries Inc. had the following activities during the year:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials:</td>
<td></td>
</tr>
<tr>
<td>Beginning inventory</td>
<td>$50,000</td>
</tr>
<tr>
<td>Purchases</td>
<td>154,000</td>
</tr>
<tr>
<td>Ending inventory</td>
<td>26,000</td>
</tr>
<tr>
<td>Direct manufacturing labour</td>
<td>40,000</td>
</tr>
<tr>
<td>Manufacturing overhead</td>
<td>30,000</td>
</tr>
<tr>
<td>Ending work-in-process inventory</td>
<td>10,000</td>
</tr>
<tr>
<td>Beginning work-in-process inventory</td>
<td>2,000</td>
</tr>
<tr>
<td>Ending finished goods inventory</td>
<td>40,000</td>
</tr>
<tr>
<td>Beginning finished goods inventory</td>
<td>60,000</td>
</tr>
</tbody>
</table>

17) What is Montreal’s cost of direct materials used during the year?
   A) $204,000
   B) $178,000
   C) $128,000
   D) $24,000
   E) $218,000
   Answer: B
   Explanation: B) $50,000 + $154,000 - $26,000 = $178,000
   Diff: 2 Type: MC
   Skill: Application
   Objective: LO 2-4

18) What is Montreal’s cost of goods manufactured during the year?
   A) $268,000
   B) $248,000
   C) $240,000
   D) $238,000
   E) $260,000
   Answer: C
   Explanation: C) $178,000 + $40,000 + $30,000 + $2,000 - $10,000 = $240,000
   Diff: 2 Type: MC
   Skill: Application
   Objective: LO 2-4
19) What is Montreal’s cost of goods sold during the year?
A) $260,000
B) $232,000
C) $220,000
D) $200,000
E) $240,000
Answer: A
Explanation: A) $60,000 + $240,000 - $40,000 = $260,000
Diff: 2 Type: MC
Skill: Application
Objective: LO 2-4

20) Manufacturing-sector companies
A) purchase materials and convert them to finished goods.
B) buy goods and resell them.
C) provide services or intangible products.
D) have only period costs.
E) have one classification of inventory.
Answer: A
Diff: 1 Type: MC
Skill: Knowledge
Objective: LO 2-4

21) Merchandising-sector companies
A) purchase materials and convert them to finished goods.
B) buy goods and resell them.
C) provide services or intangible products.
D) have only variable costs.
E) have period and some manufacturing costs.
Answer: B
Diff: 1 Type: MC
Skill: Knowledge
Objective: LO 2-4

22) Manufacturing-sector companies report on the balance sheet
A) only merchandise inventory.
B) only finished goods inventory.
C) direct materials inventory, work-in-process inventory, and finished goods inventory accounts.
D) no inventory accounts.
E) only work in progress inventory.
Answer: C
Diff: 1 Type: MC
Skill: Knowledge
Objective: LO 2-4
23) For a manufacturing company, direct material costs may be included in
A) direct materials inventory only.
B) merchandise inventory only.
C) both work-in-process inventory and finished goods inventory.
D) direct materials inventory, work-in-process inventory, and finished goods inventory accounts.
E) period costs.
Answer: D
Diff: 3  Type: MC
Skill: Comprehension
Objective: LO 2-4

24) Which of the following statements would be correct in a manufacturing business?
A) Completed goods are not normally included in the finished goods inventory.
B) Completed goods are part of the work in process category.
C) Work-in-process inventory, at the end of the accounting period, includes direct materials but not direct labour.
D) Materials put into production are classified as work-in-process inventory.
E) There can be no beginning finished goods inventory.
Answer: D
Diff: 2  Type: MC
Skill: Comprehension
Objective: LO 2-4

25) Goods available for sale that are not in ending inventory
A) are included in goods available for sale in the next year.
B) are included in the work-in-process inventory at the end of the year.
C) are not accounted for until the next year.
D) are incorporated in the cost of goods sold amount.
E) are included in beginning inventory.
Answer: D
Diff: 3  Type: MC
Skill: Comprehension
Objective: LO 2-4
Answer the following question using the information below.

Pederson Company reported the following:

<table>
<thead>
<tr>
<th>Manufacturing costs</th>
<th>$2,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units manufactured</td>
<td>50,000</td>
</tr>
<tr>
<td>Units sold</td>
<td>47,000 units sold for $75 per unit</td>
</tr>
<tr>
<td>Beginning inventory</td>
<td>0 units</td>
</tr>
</tbody>
</table>

26) What is the amount of gross margin?
A) $1,750,000  
B) $3,525,000  
C) $3,405,000  
D) $1,645,000  
E) $1,525,000  
Answer: D  
Explanation: D) 47,000 × ($75 - ($2,000,000 / 50,000)) = $1,645,000  
Diff: 3   Type: MC  
Skill: Application  
Objective: LO 2-4

Answer the following question(s) using the information below.

The following information pertains to Alleigh's Mannequins:

<table>
<thead>
<tr>
<th>Manufacturing costs</th>
<th>$1,500,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units manufactured</td>
<td>30,000</td>
</tr>
<tr>
<td>Units sold</td>
<td>29,500 units sold for $85 per unit</td>
</tr>
<tr>
<td>Beginning inventory</td>
<td>0 units</td>
</tr>
</tbody>
</table>

27) What is the average manufacturing cost per unit?
A) $50.00  
B) $50.85  
C) $17.65  
D) $85.00  
E) $49.50  
Answer: A  
Explanation: A) $1,500,000 / 30,000 = $50.00  
Diff: 1   Type: MC  
Skill: Application  
Objective: LO 2-4
28) What is the amount of ending finished goods inventory?
A) $42,500
B) $24,750
C) $25,000
D) $25,425
E) $42,500
Answer: C
Explanation: C) $(30,000 - 29,500) \times \left(\frac{$1,500,000}{30,000}\right) = $25,000$
Diff: 2 Type: MC
Skill: Application
Objective: LO 2-4

29) What is the amount of gross margin?
A) $1,475,000
B) $1,500,000
C) $1,047,250
D) $1,032,500
E) $1,007,425
Answer: D
Explanation: D) $29,500 \times ($85 - ($1,500,000 / 30,000)) = $1,032,500$
Diff: 3 Type: MC
Skill: Application
Objective: LO 2-4
Use the information below to answer the following question(s).

Frazer Inc. had the following activities in the year:

<table>
<thead>
<tr>
<th>Direct materials:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning inventory</td>
<td>$100,000</td>
</tr>
<tr>
<td>Purchases</td>
<td>308,000</td>
</tr>
<tr>
<td>Ending inventory</td>
<td>52,000</td>
</tr>
<tr>
<td>Direct manufacturing labour</td>
<td>80,000</td>
</tr>
<tr>
<td>Manufacturing overhead</td>
<td>60,000</td>
</tr>
<tr>
<td>Ending work in process inventory</td>
<td>20,000</td>
</tr>
<tr>
<td>Beginning work in process inventory</td>
<td>4,000</td>
</tr>
<tr>
<td>Ending finished goods inventory</td>
<td>80,000</td>
</tr>
<tr>
<td>Beginning finished goods inventory</td>
<td>120,000</td>
</tr>
</tbody>
</table>

30) What is Frazer’s cost of goods manufactured?
   A) $536,000
   B) $496,000
   C) $480,000
   D) $476,000
   E) $512,000
   Answer: C
   Explanation: C) ($100,000 + $308,000 - $52,000) + $80,000 + $60,000 + $4,000 - $20,000 = $480,000
   Diff: 2   Type: MC
   Skill: Application
   Objective: LO 2-4

31) What is Frazer’s cost of goods sold?
   A) $520,000
   B) $464,000
   C) $440,000
   D) $400,000
   E) $516,000
   Answer: A
   Explanation: A) $120,000 + $480,000 - $80,000 = $520,000
   Diff: 2   Type: MC
   Skill: Application
   Objective: LO 2-4
32) Which of the following formulae would determine costs of goods sold in a merchandising entity?
A) Purchases - Ending inventory
B) Beginning inventory + Purchases - Ending inventory
C) Beginning inventory - Purchases + Ending inventory
D) Beginning inventory - Ending inventory - Purchases
E) Ending Inventory - Beginning inventory - Purchases
Answer: B
Diff: 2 Type: MC
Skill: Comprehension
Objective: LO 2-4

33) Which of the following formulae would determine cost of goods sold in a manufacturing entity?
A) Beginning inventory + Ending inventory - Cost of goods manufactured
B) Cost of goods manufactured + Ending inventory + Beginning inventory
C) Beginning inventory - Ending inventory - Cost of goods manufactured.
D) Cost of goods manufactured - Ending inventory + Beginning inventory
E) Ending inventory - Beginning inventory - Cost of goods manufactured
Answer: D
Diff: 2 Type: MC
Skill: Comprehension
Objective: LO 2-4

34) The following information pertains to Tom’s Country Wood Shop:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning finished goods, 1/1/X4</td>
<td>$15,000</td>
</tr>
<tr>
<td>Ending finished goods, 12/31/X4</td>
<td>9,500</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>56,000</td>
</tr>
<tr>
<td>Sales</td>
<td>112,500</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>25,000</td>
</tr>
</tbody>
</table>

What is the cost of goods manufactured for 20X4?
A) $56,500
B) $31,500
C) $50,500
D) $61,500
E) $66,500
Answer: C
Explanation: C) $56,000 + $9,500 - $15,000 = $50,500
Diff: 3 Type: MC
Skill: Application
Objective: LO 2-4
35) Which of the following is true of period costs?
A) They are also called fixed costs.
B) They are part of the cost of goods sold.
C) They are expected to benefit future periods.
D) They are costs incurred to generate revenue in a specific time period except the cost of manufacturing accumulated as cost of goods sold.
E) For merchandising sector companies they include all costs not related to the cost of goods purchased for resale.
Answer: D
Diff: 1 Type: MC
Skill: Knowledge
Objective: LO 2-4

36) Generally, costs which are initially recorded as an asset and subsequently become an expense are called
A) inventoriable costs.
B) non-manufacturing costs.
C) manufacturing costs.
D) non-capitalized costs.
E) non-inventoriable costs.
Answer: A
Diff: 1 Type: MC
Skill: Knowledge
Objective: LO 2-4

37) Finished goods inventory would normally include
A) direct materials in stock and awaiting use in the manufacturing process.
B) goods partially worked on but not yet fully completed.
C) goods fully completed but not yet sold.
D) products in their original form intended to be sold without changing their basic form.
E) goods completed and sold.
Answer: C
Diff: 1 Type: MC
Skill: Knowledge
Objective: LO 2-4

38) Inventoriable costs
A) include administrative and marketing costs.
B) are expensed in the accounting period in which the products are sold.
C) are particularly useful in management accounting.
D) are also referred to as nonmanufacturing costs.
E) are similar to period costs.
Answer: B
Diff: 2 Type: MC
Skill: Knowledge
Objective: LO 2-4
Answer the following question(s) using the information below.

The Singer Company manufactures several different products. Unit costs associated with Product ICT101 are as follows:

<table>
<thead>
<tr>
<th>Cost</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials</td>
<td>$60</td>
</tr>
<tr>
<td>Direct manufacturing labour</td>
<td>$10</td>
</tr>
<tr>
<td>Variable manufacturing overhead</td>
<td>$18</td>
</tr>
<tr>
<td>Fixed manufacturing overhead</td>
<td>$32</td>
</tr>
<tr>
<td>Sales commissions (2% of sales)</td>
<td>$4</td>
</tr>
<tr>
<td>Administrative salaries</td>
<td>$16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$140</strong></td>
</tr>
</tbody>
</table>

39) What are the variable costs per unit associated with Product ICT101?
   A) $18
   B) $22
   C) $88
   D) $92
   E) $28
   Answer: D
   Explanation: D) $60 + $10 + $18 + $4 = $92
   Diff: 2 Type: MC
   Skill: Application
   Objective: LO 2-3, 4

40) What are the fixed costs per unit associated with Product ICT101?
   A) $102
   B) $48
   C) $52
   D) $32
   E) $36
   Answer: B
   Explanation: B) $32 + $16 = $48
   Diff: 2 Type: MC
   Skill: Application
   Objective: LO 2-3, 4

41) What are the inventoriable costs per unit associated with Product ICT101?
   A) $120
   B) $140
   C) $50
   D) $88
   E) $70
   Answer: A
   Explanation: A) $60 + $10 + $18 + $32 = $120
   Diff: 2 Type: MC
   Skill: Application
   Objective: LO 2-3, 4
42) What are the period costs per unit associated with Product ICT101?
A) $4
B) $16
C) $20
D) $52
Answer: C
Explanation: C) $4 + 16 = $20
Diff: 2 Type: MC
Skill: Application
Objective: LO 2-3, 4

Answer the following question(s) using the information below.

The West Company manufactures several different products. Unit costs associated with Product ORD203 are as follows:

<table>
<thead>
<tr>
<th>Cost</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials</td>
<td>$40</td>
</tr>
<tr>
<td>Direct manufacturing labour</td>
<td>8</td>
</tr>
<tr>
<td>Variable manufacturing overhead</td>
<td>12</td>
</tr>
<tr>
<td>Fixed manufacturing overhead</td>
<td>23</td>
</tr>
<tr>
<td>Sales commissions (2% of sales)</td>
<td>6</td>
</tr>
<tr>
<td>Administrative salaries</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$98</strong></td>
</tr>
</tbody>
</table>

43) What are the variable costs per unit associated with Product ORD203?
A) $60
B) $83
C) $66
D) $48
E) $12
Answer: C
Explanation: C) $40 + $8 + $12 + $6 = $66
Diff: 2 Type: MC
Skill: Application
Objective: LO 2-3, 4

44) What are the inventoriable costs per unit associated with Product ORD203?
A) $60
B) $66
C) $48
D) $83
E) $92
Answer: D
Explanation: D) $40 + $8 + $12 + $23 = $83
Diff: 2 Type: MC
Skill: Application
Objective: LO 2-3, 4
45) What are the fixed costs per unit associated with Product ORD203?
A) $23
B) $32
C) $35
D) $44
E) $38
Answer: B
Explanation: B) $23 + 9 = $32
Diff: 2 Type: MC
Skill: Application
Objective: LO 2-3, 4

46) What are the period costs per unit associated with Product ORD203?
A) $15
B) $6
C) $9
D) $27
E) $48
Answer: A
Explanation: A) $6 + 9 = $15
Diff: 2 Type: MC
Skill: Application
Objective: LO 2-3, 4
47) Macadamia Co. produced and sold 40,000 units last year. **Per unit** revenue and costs were as follows:

<table>
<thead>
<tr>
<th>Revenues</th>
<th>$120.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Goods Sold:</td>
<td></td>
</tr>
<tr>
<td>Direct Materials</td>
<td>$15.00</td>
</tr>
<tr>
<td>Direct Labour</td>
<td>20.00</td>
</tr>
<tr>
<td>Variable Manufacturing Overhead</td>
<td>10.00</td>
</tr>
<tr>
<td>Fixed Manufacturing Overhead</td>
<td>6.00</td>
</tr>
<tr>
<td>Total Cost of Goods Sold</td>
<td>51.00</td>
</tr>
<tr>
<td>Gross Margin</td>
<td>$69.00</td>
</tr>
<tr>
<td>Selling and Administrative Costs:</td>
<td></td>
</tr>
<tr>
<td>Sales Commissions (10% of Sales)</td>
<td>$12.00</td>
</tr>
<tr>
<td>Administrative Salaries</td>
<td>5.00</td>
</tr>
<tr>
<td>Total Selling and Administrative</td>
<td>17.00</td>
</tr>
<tr>
<td>Operating Income &lt;Loss&gt;</td>
<td>$52.00</td>
</tr>
</tbody>
</table>

The Fixed Manufacturing Overhead provides a capacity of 50,000 units. The Production Manager has proposed leasing a new machine at a cost of $80,000 per year. This will reduce Direct Labour by 30% and improve quality so the selling price per unit can be increased by $10. Production and sales are expected to remain the same as last year.

Required:
Prepare a statement of operating income assuming the leasing proposal is accepted.

Answer:
<table>
<thead>
<tr>
<th></th>
<th>1 unit</th>
<th>40,000 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue ($120 + $10)</td>
<td>$130</td>
<td>$5,200,000</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM</td>
<td>$15</td>
<td>$600,000</td>
</tr>
<tr>
<td>DL $20 \times (1 - 30%)</td>
<td>14</td>
<td>560,000</td>
</tr>
<tr>
<td>VMOH</td>
<td>10</td>
<td>400,000</td>
</tr>
<tr>
<td>FMOH ($6 \times 40,000 + $80,000)/40,000</td>
<td>8</td>
<td>47</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>$83</td>
<td>$3,320,000</td>
</tr>
<tr>
<td>Selling &amp; Administration Costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales Commissions (10% of Sales)</td>
<td>$13</td>
<td>$520,000</td>
</tr>
<tr>
<td>Administration Salaries</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Operating Income</td>
<td>$65</td>
<td>$2,600,000</td>
</tr>
</tbody>
</table>

Recommendation: Accept the leasing proposal as it raises OI by $13 per unit or $520,000.

Diff: 3 Type: ES
Skill: Application
Objective: LO 2-4
48) Big Bird Pet Store had the following financial activities for June. Revenue was $860,000 with cost of goods sold equalling $440,000. Salaries and wages of all employees were $100,000. Fringe benefits were 15 percent of salaries and wages. Rent on the building was $100,000 and equipment amortization was $46,000. Office supplies and utilities totalled $28,000. Income taxes withheld from employees totalled $46,000 for the month while ending accounts payable were $24,680. Cash flows from accounts receivable totalled $880,000.

Required:
Using an income statement format, determine the operating income of the store.
Answer:

Big Bird Pet Store
Income Statement
For the Month of June

<table>
<thead>
<tr>
<th>Revenues</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Goods Sold</td>
<td>$440,000</td>
</tr>
<tr>
<td>Salaries and Wages</td>
<td>100,000</td>
</tr>
<tr>
<td>Fringe Benefits</td>
<td>15,000</td>
</tr>
<tr>
<td>Rent</td>
<td>100,000</td>
</tr>
<tr>
<td>Equipment Amortization</td>
<td>46,000</td>
</tr>
<tr>
<td>Office supplies and utilities</td>
<td>28,000</td>
</tr>
<tr>
<td>Operating Income &lt;Loss&gt;</td>
<td>$131,000</td>
</tr>
</tbody>
</table>

Diff: 2  Type: ES
Skill: Application
Objective: LO 2-4
49) Ames Power Point had sales in October of $28,000,000 for its three stores in Toronto. The beginning merchandise inventories for October and November were $5,000,000 and $4,000,000, respectively. October purchases totalled $19,000,000. All sales are on account (terms 2/15, net 30 days) and are collected 50 percent in the month of the sale and 50 percent in the following month. One-half of all sales discounts are taken for a total of $265,000. September sales totalled $25,000,000 while November sales were $30,000,000. Additional information for October is as follows:

- Supplies used: $1,000,000
- Salaries and benefits: $1,500,000
- Maintenance: $45,000
- Amortization: $9,000
- Utilities: $35,000
- Principal payment on maturing bonds: $2,000,000

Required:

Using an appropriately formatted income statement, determine the operating income of the company.

Answer:

Ames Power Point Company
Income Statement
For the Month of October

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$28,000,000</td>
</tr>
<tr>
<td>Less: Sales Discounts</td>
<td>265,000</td>
</tr>
<tr>
<td>Net Sales</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$27,735,000</td>
</tr>
<tr>
<td>Cost of Goods Sold</td>
<td></td>
</tr>
<tr>
<td>Beginning inventory</td>
<td>$5,000,000</td>
</tr>
<tr>
<td>Purchases</td>
<td>19,000,000</td>
</tr>
<tr>
<td>Cost of Goods Available for sale</td>
<td></td>
</tr>
<tr>
<td>Ending inventory</td>
<td>4,000,000</td>
</tr>
<tr>
<td></td>
<td>20,000,000</td>
</tr>
<tr>
<td>Gross Margin</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$7,735,000</td>
</tr>
<tr>
<td>Other costs</td>
<td></td>
</tr>
<tr>
<td>Supplies</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Amortization</td>
<td>9,000</td>
</tr>
<tr>
<td>Salaries &amp; benefits</td>
<td>1,500,000</td>
</tr>
<tr>
<td>Maintenance</td>
<td>45,000</td>
</tr>
<tr>
<td>Utilities</td>
<td>35,000</td>
</tr>
<tr>
<td>Total other costs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,589,000</td>
</tr>
<tr>
<td>Operating Income &lt;Loss&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$5,146,000</td>
</tr>
</tbody>
</table>

Diff: 3 Type: ES
Skill: Application
Objective: LO 2-4
50) Eschliman Manufacturing Company had the following account balances for the quarter ending September 30, unless otherwise noted:

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amortization of manufacturing equipment</td>
<td>$88,000</td>
</tr>
<tr>
<td>Amortization of office equipment</td>
<td>$41,200</td>
</tr>
<tr>
<td>Direct manufacturing labour</td>
<td>$160,000</td>
</tr>
<tr>
<td>Direct materials used</td>
<td>$126,000</td>
</tr>
<tr>
<td>Finished goods inventory (July 1)</td>
<td>$180,000</td>
</tr>
<tr>
<td>Finished goods inventory (September 30)</td>
<td>$170,000</td>
</tr>
<tr>
<td>General office expenses</td>
<td>$101,800</td>
</tr>
<tr>
<td>Indirect manufacturing labour</td>
<td>$62,000</td>
</tr>
<tr>
<td>Indirect materials used</td>
<td>$28,000</td>
</tr>
<tr>
<td>Marketing distribution costs</td>
<td>$10,000</td>
</tr>
<tr>
<td>Miscellaneous plant overhead</td>
<td>$45,000</td>
</tr>
<tr>
<td>Plant utilities</td>
<td>$30,800</td>
</tr>
<tr>
<td>Property taxes on plant building</td>
<td>$9,600</td>
</tr>
<tr>
<td>Property taxes on salespersons’ company vehicles</td>
<td>$4,000</td>
</tr>
<tr>
<td>Work-in-process inventory (July 1)</td>
<td>$46,800</td>
</tr>
<tr>
<td>Work-in-process inventory (September 30)</td>
<td>$57,000</td>
</tr>
</tbody>
</table>

Required:

a. Prepare a cost of goods manufactured schedule for the quarter.
b. Prepare a cost of goods sold schedule for the quarter.

Answer:

a. Eschliman Manufacturing Company
   Cost of Goods Manufactured Schedule
   For the Quarter Ending September 30

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials used</td>
<td>$126,000</td>
</tr>
<tr>
<td>Direct manufacturing labour</td>
<td>$160,000</td>
</tr>
<tr>
<td>Manufacturing overhead</td>
<td></td>
</tr>
<tr>
<td>Amortization of mfg. equip.</td>
<td>$88,000</td>
</tr>
<tr>
<td>Indirect mfg. labour</td>
<td>$62,000</td>
</tr>
<tr>
<td>Indirect materials</td>
<td>$28,000</td>
</tr>
<tr>
<td>Miscellaneous plant overhead</td>
<td>$45,000</td>
</tr>
<tr>
<td>Plant utilities</td>
<td>$30,800</td>
</tr>
<tr>
<td>Property taxes on building</td>
<td>$9,600</td>
</tr>
<tr>
<td>Total manufacturing costs</td>
<td>$549,400</td>
</tr>
<tr>
<td>Add beginning work-in-process inventory</td>
<td>$46,800</td>
</tr>
<tr>
<td>Total manufacturing costs</td>
<td>$596,200</td>
</tr>
<tr>
<td>Less: ending work-in-process inventory</td>
<td>$57,000</td>
</tr>
<tr>
<td>Cost of goods manufactured</td>
<td>$539,200</td>
</tr>
</tbody>
</table>
b. Eschliman Manufacturing Company
Cost of Goods Sold Schedule
For the Quarter Ending September 30

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning finished goods inventory</td>
<td>$180,000</td>
</tr>
<tr>
<td>Cost of goods manufactured</td>
<td>$539,200</td>
</tr>
<tr>
<td>Cost of goods available for sale</td>
<td>$719,200</td>
</tr>
<tr>
<td>Ending finished goods inventory</td>
<td>$170,000</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>$549,200</td>
</tr>
</tbody>
</table>

Diff: 3  Type: ES
Skill: Application
Objective: LO 2-4
51) The following information is taken from the records of Britton Company for March:

Purchases:
- Direct materials: $9,000,000
- Indirect materials: 200,000
- Office supplies: 420,000
- Sales: 36,000,000

Salaries and Benefits:
- Selling and administrative: 4,000,000
- Direct manufacturing labour: 6,000,000
- Rent*: 4,000,000
- Utilities*: 1,200,000
- Advertising: 700,000

Inventories:

<table>
<thead>
<tr>
<th></th>
<th>March 1</th>
<th>March 31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials</td>
<td>$4,400,000</td>
<td>$1,600,000</td>
</tr>
<tr>
<td>Indirect materials</td>
<td>500,000</td>
<td>600,000</td>
</tr>
<tr>
<td>Office supplies</td>
<td>150,000</td>
<td>180,000</td>
</tr>
<tr>
<td>Finished goods</td>
<td>24,000,000</td>
<td>16,000,000</td>
</tr>
</tbody>
</table>

* Of these costs, 60 percent are assigned to manufacturing and 40 percent to selling and administration.

Required:

a. Prepare a schedule of cost of goods manufactured.
b. Prepare an income statement for the month.
c. Compute the prime costs using a two-part production costing system, conversion costs, and indirect manufacturing costs.

Answer:

a.

Britton Company
Cost of Goods Manufactured Schedule
For March

Direct materials:
- Beginning inventory: $4,400,000
- Purchases of direct materials: 9,000,000
- Cost of direct materials available: $13,400,000
- Ending inventory: 1,600,000

Direct materials used: $11,800,000

Direct manufacturing labour: 6,000,000

Manufacturing overhead:
- Rent (60%): 2,400,000
- Utilities (60%): 720,000

Indirect materials: 100,000

($200,000 + $500,000 - $600,000) = 100,000

Cost of goods manufactured: $21,020,000
b. Britton Company
Income Statement
For the Month of March

Sales $36,000,000
Cost of goods sold
  Beginning inventory $24,000,000
  Cost of goods manufactured 21,020,000
  Cost of goods available for sale $45,020,000
  Ending inventory 16,000,000 29,020,000
Gross margin $6,980,000
Other costs
  Supplies $(420,000 + $150,000 - $180,000) $390,000
  Selling and administrative salaries 4,000,000
  Rent (40%) 1,600,000
  Utilities (40%) 480,000
  Advertising 700,000 7,170,000
Operating Income <Loss> $(190,000)

c. Prime costs $11,800,000
Conversion costs $3,220,000 + $6,000,000 = $9,220,000
Indirect manufacturing costs = $3,220,000
Diff: 3 Type: ES
Skill: Application
Objective: LO 2-1, 4
52) Farley Muffler Inc. received the following monthly report from its newly hired accountant, who quit after only a week on the job.

Farley Muffler Inc.  
Cost of Goods Sold Schedule

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finished Goods Inventory (beginning)</td>
<td>$15,000</td>
</tr>
<tr>
<td>Work-in-Process Inventory (beginning)</td>
<td>$3,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$18,000</strong></td>
</tr>
</tbody>
</table>

**Current Manufacturing Costs:**

- **Salaries and wages:**
  - Direct manufacturing labour: $5,000
  - Indirect manufacturing labour: $2,000
  - Sales salaries: $4,000
  - Administrative: $3,000

- **Other:**
  - Manufacturing supplies: $1,500
  - Manufacturing amortization: $3,500
  - Insurance on showroom: $1,000
  - Miscellaneous factory overhead: $6,500

**Total Work in Process:**

**Ending Work-in-Process and Finished Goods Inventory:**

**Cost of Goods Sold:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$100,000</td>
</tr>
<tr>
<td>Less direct materials</td>
<td>$20,000</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td><strong>$80,000</strong></td>
</tr>
</tbody>
</table>

**Less other expenses:**

- Cost of goods sold: $44,500
- Office supplies: $250
- Manufacturing utilities: $1,000
- Office utilities: $250

**Net Income:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Income</strong></td>
<td><strong>$34,000</strong></td>
</tr>
</tbody>
</table>

**Required:**

a. Prepare a cost of goods manufactured schedule.  
b. Prepare an income statement in good form.
Answer: a.

Farley Muffler Inc.
Cost of Goods Manufactured Schedule

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials</td>
<td>$20,000</td>
</tr>
<tr>
<td>Direct Manufacturing labour</td>
<td>5,000</td>
</tr>
<tr>
<td>Indirect manufacturing cost:</td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>$1,000</td>
</tr>
<tr>
<td>Supplies</td>
<td>1,500</td>
</tr>
<tr>
<td>Amortization</td>
<td>3,500</td>
</tr>
<tr>
<td>Indirect manufacturing labour</td>
<td>2,000</td>
</tr>
<tr>
<td>Miscellaneous factory overhead</td>
<td>6,500</td>
</tr>
<tr>
<td>Manufacturing cost incurred</td>
<td>14,500</td>
</tr>
<tr>
<td>Add beginning work in process inventory</td>
<td>3,000</td>
</tr>
<tr>
<td>Total manufacturing costs</td>
<td>$42,500</td>
</tr>
<tr>
<td>Less ending work in process inventory</td>
<td>0</td>
</tr>
<tr>
<td>Cost of goods manufactured</td>
<td>$42,500</td>
</tr>
</tbody>
</table>

b.

Farley Muffler Inc.
Income Statement

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$100,000</td>
</tr>
<tr>
<td>Cost of goods sold:</td>
<td></td>
</tr>
<tr>
<td>Beginning finished goods inventory</td>
<td>$15,000</td>
</tr>
<tr>
<td>Cost of goods manufactured</td>
<td>42,500</td>
</tr>
<tr>
<td>Cost of goods available for sale</td>
<td>57,500</td>
</tr>
<tr>
<td>Ending finished goods inventory</td>
<td>0</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>57,500</td>
</tr>
<tr>
<td>Gross margin</td>
<td>$42,500</td>
</tr>
<tr>
<td>Other costs:</td>
<td></td>
</tr>
<tr>
<td>Office supplies</td>
<td>$250</td>
</tr>
<tr>
<td>Office utilities</td>
<td>250</td>
</tr>
<tr>
<td>Sales salaries and wages</td>
<td>4,000</td>
</tr>
<tr>
<td>Administrative salaries and wages</td>
<td>3,000</td>
</tr>
<tr>
<td>Insurance on showroom</td>
<td>1,000</td>
</tr>
<tr>
<td>Operating income</td>
<td>$34,000</td>
</tr>
</tbody>
</table>
53) Find the required amounts, assuming each is an independent case.

a. Direct Materials
   - Beginning balance: $14,000
   - Ending balance: 28,000
   - Purchases: 96,000

   Direct materials used: $14,000 + $96,000 - $28,000 = $82,000

b. Finished Goods Inventory
   - Cost of goods manufactured: 124,000
   - Ending balance: 40,000
   - Cost of goods sold: 122,000

   Beginning balance: $40,000 + $122,000 - $124,000 = $38,000

c. Work in Process Inventory
   - Ending Balance: 44,000
   - Cost of goods manufactured: 42,000
   - Beginning balance: 16,000

   Current manufacturing costs: $42,000 + $44,000 - $16,000 = $70,000

d. Merchandise Inventory
   - Purchases: 420,000
   - Cost of goods sold: 446,000
   - Beginning balance: 82,000

   Ending balance: $82,000 + $420,000 - $446,000 = $56,000

Answer:

a. Direct materials used: $14,000 + $96,000 - $28,000 = $82,000
b. Beginning balance of finished goods inventory: $40,000 + $122,000 - $124,000 = $38,000
c. Current manufacturing costs: $42,000 + $44,000 - $16,000 = $70,000
d. Ending balance of merchandise inventory: $82,000 + $420,000 - $446,000 = $56,000

Diff: 3  Type: ES
Skill: Application
Objective: LO 2-4
54) Evans Inc., had the following activities during 2012:

Direct materials:
- Beginning inventory $40,000
- Purchases 123,200
- Ending inventory 20,800
- Direct manufacturing labour 32,000
- Manufacturing overhead 24,000
- Beginning work-in-process inventory 1,600
- Ending work-in-process inventory 8,000
- Beginning finished goods inventory 48,000
- Ending finished goods inventory 32,000

Required:
- What is the cost of direct materials used during 2012?
- What is cost of goods manufactured for 2012?
- What is cost of goods sold for 2012?
- Assume that Evans uses a two-part classification system for prime and conversion costs.
- What amount of prime costs was added to production during 2012?
- What amount of conversion costs was added to production during 2012?

Answer:
- $40,000 + $123,200 - $20,800 = $142,400
- $142,400 + $32,000 + $24,000 + $1,600 - $8,000 = $192,000
- $192,000 + $48,000 - $32,000 = $208,000
- $142,400 + $32,000 = $174,400
- $32,000 + $24,000 = $56,000

Diff: 2 Type: ES
Skill: Application
Objective: LO 2-4
55) Explain the difference between an inventoriable cost and a period cost. What potential problems does an inaccurate classification of product and period costs cause?

Answer: Inventoriable costs are all costs of a product that are considered as assets in the balance sheet when they are incurred and which become cost of goods sold only when the product is sold. Period costs are treated as expenses of the accounting period in which they are incurred. An inaccurate classification of inventoriable and period costs could lead to violations of the matching principle, which states that costs used in producing revenue should be matched on the income statement when the revenue is recognized. In extreme cases, net income for a given period might be significantly misstated if proper matching does not occur.

Diff: 2   Type: ES   Skill: Application   Objective: LO 2-4
56) Each of the following items pertains to one of these companies: Bedell Electronics (a manufacturing company), Gregory Food Retailers (a merchandising company), and Larson Real Estate (a service sector company). Classify each item as either inventoriable (I) costs or period (P) costs.

<table>
<thead>
<tr>
<th>Item</th>
<th>Inventoriable (I) Costs or Period (P) Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Salary of Bedell Electronics president</td>
<td>P</td>
</tr>
<tr>
<td>b. Depreciation on Bedell Electronics assembly equipment.</td>
<td>I</td>
</tr>
<tr>
<td>c. Salaries of Bedell's assembly line workers</td>
<td>I</td>
</tr>
<tr>
<td>d. Purchase of frozen food for sale to customers by Gregory Food Retailers</td>
<td>I</td>
</tr>
<tr>
<td>e. Salaries of frozen food personnel at Gregory Food Retailing</td>
<td>P</td>
</tr>
<tr>
<td>f. Depreciation on freezers at Gregory Food Retailing</td>
<td>P</td>
</tr>
<tr>
<td>g. Salary of a receptionist at Larson Real Estate</td>
<td>P</td>
</tr>
<tr>
<td>h. Depreciation on a computer at Larson Real Estate</td>
<td>P</td>
</tr>
<tr>
<td>i. Salary of a real estate agent at Larson Real Estate</td>
<td>P</td>
</tr>
</tbody>
</table>

Answer:

Diff: 2  Type: ES
Skill: Application
Objective: LO 2-4
57) Messinger Manufacturing Company had the following account balances for the quarter ending March 31, unless otherwise noted:

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-in-process inventory (January 1)</td>
<td>$140,400</td>
</tr>
<tr>
<td>Work-in-process inventory (March 31)</td>
<td>171,000</td>
</tr>
<tr>
<td>Finished goods inventory (January 1)</td>
<td>540,000</td>
</tr>
<tr>
<td>Finished goods inventory (March 31)</td>
<td>510,000</td>
</tr>
<tr>
<td>Direct materials used</td>
<td>378,000</td>
</tr>
<tr>
<td>Indirect materials used</td>
<td>84,000</td>
</tr>
<tr>
<td>Direct manufacturing labour</td>
<td>480,000</td>
</tr>
<tr>
<td>Indirect manufacturing labour</td>
<td>186,000</td>
</tr>
<tr>
<td>Property taxes on manufacturing plant building</td>
<td>28,800</td>
</tr>
<tr>
<td>Salespersons’ company vehicle costs</td>
<td>12,000</td>
</tr>
<tr>
<td>Amortization of manufacturing equipment</td>
<td>264,000</td>
</tr>
<tr>
<td>Amortization of office equipment</td>
<td>123,600</td>
</tr>
<tr>
<td>Miscellaneous plant overhead</td>
<td>135,000</td>
</tr>
<tr>
<td>Plant utilities</td>
<td>92,400</td>
</tr>
<tr>
<td>General office expenses</td>
<td>305,400</td>
</tr>
<tr>
<td>Marketing distribution costs</td>
<td>30,000</td>
</tr>
<tr>
<td>Direct materials used</td>
<td></td>
</tr>
<tr>
<td>Direct manufacturing labour</td>
<td></td>
</tr>
<tr>
<td>Manufacturing overhead</td>
<td></td>
</tr>
<tr>
<td>Amortization of manufacturing equipment</td>
<td>$264,000</td>
</tr>
<tr>
<td>Indirect manufacturing labour</td>
<td>186,000</td>
</tr>
<tr>
<td>Indirect materials</td>
<td>84,000</td>
</tr>
<tr>
<td>Miscellaneous plant overhead</td>
<td>135,000</td>
</tr>
<tr>
<td>Plant utilities</td>
<td>92,400</td>
</tr>
<tr>
<td>Property taxes on building</td>
<td>28,800</td>
</tr>
<tr>
<td>Manufacturing costs incurred</td>
<td>$1,648,200</td>
</tr>
<tr>
<td>Add beginning work-in-process inventory</td>
<td>140,400</td>
</tr>
<tr>
<td>Total manufacturing costs</td>
<td>$1,788,600</td>
</tr>
<tr>
<td>Less ending work-in-process inventory</td>
<td>171,000</td>
</tr>
<tr>
<td>Cost of goods manufactured</td>
<td>$1,617,600</td>
</tr>
</tbody>
</table>

Required:

a. Prepare a cost of goods manufactured schedule for the quarter.
b. Prepare a cost of goods sold schedule for the quarter.

Answer:

a. Messinger Manufacturing Company
   Cost of Goods Manufactured Schedule
   For quarter ending March 31

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials used</td>
<td>$378,000</td>
</tr>
<tr>
<td>Direct manufacturing labour</td>
<td>480,000</td>
</tr>
<tr>
<td>Manufacturing overhead</td>
<td></td>
</tr>
<tr>
<td>Amortization of manufacturing equipment</td>
<td>$264,000</td>
</tr>
<tr>
<td>Indirect manufacturing labour</td>
<td>186,000</td>
</tr>
<tr>
<td>Indirect materials</td>
<td>84,000</td>
</tr>
<tr>
<td>Miscellaneous plant overhead</td>
<td>135,000</td>
</tr>
<tr>
<td>Plant utilities</td>
<td>92,400</td>
</tr>
<tr>
<td>Property taxes on building</td>
<td>28,800</td>
</tr>
<tr>
<td>Manufacturing costs incurred</td>
<td>$1,648,200</td>
</tr>
<tr>
<td>Add beginning work-in-process inventory</td>
<td>140,400</td>
</tr>
<tr>
<td>Total manufacturing costs</td>
<td>$1,788,600</td>
</tr>
<tr>
<td>Less ending work-in-process inventory</td>
<td>171,000</td>
</tr>
<tr>
<td>Cost of goods manufactured</td>
<td>$1,617,600</td>
</tr>
</tbody>
</table>
b. Messinger Manufacturing Company
Cost of Goods Sold Schedule
For the quarter ending March 31

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning finished goods inventory</td>
<td>$540,000</td>
</tr>
<tr>
<td>Cost of goods manufactured</td>
<td>$1,617,600</td>
</tr>
<tr>
<td>Cost of goods available for sale</td>
<td>$2,157,600</td>
</tr>
<tr>
<td>Ending finished goods inventory</td>
<td>($510,000)</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>$1,647,600</td>
</tr>
</tbody>
</table>

Diff: 2 Type: ES Skill: Application Objective: LO 2-4

58) Helmer Sporting Goods Company manufactured 100,000 units in 20X5 and reported the following costs:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandpaper</td>
<td>$32,000</td>
</tr>
<tr>
<td>Materials handling</td>
<td>$320,000</td>
</tr>
<tr>
<td>Coolants &amp; lubricants</td>
<td>$22,400</td>
</tr>
<tr>
<td>Indirect manufacturing labour</td>
<td>$275,200</td>
</tr>
<tr>
<td>Direct manufacturing labour</td>
<td>$2,176,000</td>
</tr>
<tr>
<td>Direct materials, 1/1/X5</td>
<td>$384,000</td>
</tr>
<tr>
<td>Finished goods, 1/1/X5</td>
<td>$672,000</td>
</tr>
<tr>
<td>Finished goods, 12/31/X5</td>
<td>$1,280,000</td>
</tr>
<tr>
<td>Work-in-process, 1/1/X5</td>
<td>$96,000</td>
</tr>
<tr>
<td>Work-in-process, 12/31/X5</td>
<td>$64,000</td>
</tr>
<tr>
<td>Leasing costs-plant</td>
<td>$384,000</td>
</tr>
<tr>
<td>Amortization-equipment</td>
<td>$224,000</td>
</tr>
<tr>
<td>Property taxes-equipment</td>
<td>$32,000</td>
</tr>
<tr>
<td>Fire insurance-equipment</td>
<td>$16,000</td>
</tr>
<tr>
<td>Direct material purchases</td>
<td>$3,136,000</td>
</tr>
<tr>
<td>Direct materials, 12/31/X5</td>
<td>$275,200</td>
</tr>
<tr>
<td>Sales revenue</td>
<td>$12,800,000</td>
</tr>
<tr>
<td>Sales commissions</td>
<td>$640,000</td>
</tr>
<tr>
<td>Sales salaries</td>
<td>$576,000</td>
</tr>
<tr>
<td>Advertising costs</td>
<td>$480,000</td>
</tr>
<tr>
<td>Administration costs</td>
<td>$800,000</td>
</tr>
</tbody>
</table>

Required:

a. What is the cost of direct materials used during 20X5?
b. What manufacturing costs were added to WIP during 20X5?
c. What is cost of goods manufactured for 20X5?
d. What is cost of goods sold for 20X5?

Answer:

a. $384,000 + $3,136,000 - $275,200 = $3,244,800
b. $3,244,800 + $2,176,000 + $32,000 + $320,000 + $22,400 + $275,200 + $384,000 + $224,000 + $32,000 + $16,000 = $6,726,400
c. $6,726,400 + $96,000 - $64,000 = $6,758,400
d. $6,758,400 + $672,000 - $1,280,000 = $6,150,400

Diff: 3 Type: ES Skill: Application Objective: LO 2-4
2.5 Explain cost identification, classification, and management systems and their use within the decision framework.

1) Product costs are the sum of the costs assigned to a product for a specific purpose.
   Answer: TRUE
   Diff: 1   Type: TF
   Skill: Knowledge
   Objective: LO 2-5

2) For purposes of calculating inventory costs under GAAP, only production costs can be used.
   Answer: TRUE
   Diff: 1   Type: TF
   Skill: Knowledge
   Objective: LO 2-5

3) When producing for a government contract, all costs allowed by the producer will be paid by the government.
   Answer: FALSE
   Diff: 1   Type: TF
   Skill: Comprehension
   Objective: LO 2-5

4) Overtime premium is normally considered as a component of direct labour.
   Answer: FALSE
   Explanation: Overtime premium is normally considered as part of indirect labour since it is usually not associated with a particular job.
   Diff: 2   Type: TF
   Skill: Knowledge
   Objective: LO 2-5

5) If a worker is paid for 8 hours, but is idle for 1 of those 8 hours, the 1 hour of idle time would be considered a component of direct labour.
   Answer: FALSE
   Explanation: Idle time is normally considered a component of indirect labour since it is usually not associated with a particular job.
   Diff: 2   Type: TF
   Skill: Knowledge
   Objective: LO 2-5

6) Overtime premium consists of the wages paid to all workers (for both direct labour and indirect labour) in excess of their straight-time wage rates.
   Answer: TRUE
   Diff: 1   Type: TF
   Skill: Knowledge
   Objective: LO 2-5
7) The total of the costs assigned to a particular product for a specific purpose is called
   A) direct cost.
   B) inventoriable cost.
   C) marketing cost.
   D) product cost.
   E) prime cost.
   Answer: D
   Diff: 1 Type: MC
   Skill: Knowledge
   Objective: LO 2-5

8) Which of the following statements is true?
   A) Product costs and period costs are the same.
   B) Inventoriable costs are expensed as incurred according to GAAP.
   C) Inventoriable costs are costs that remain in inventory after the product is sold.
   D) “Product costs” refers to the particular costs allocated to a product to make a specific decision.
   E) Conversion costs are non-manufacturing costs.
   Answer: D
   Diff: 2 Type: MC
   Skill: Knowledge
   Objective: LO 2-5

9) Product costs used for pricing and product-mix decisions generally include
   A) manufacturing costs only.
   B) design costs plus manufacturing costs.
   C) all costs incurred along the value chain.
   D) distribution costs only.
   E) prime costs but not conversion costs.
   Answer: C
   Diff: 3 Type: MC
   Skill: Knowledge
   Objective: LO 2-5

10) Product costs used for external reporting under GAAP include
    A) manufacturing costs only.
    B) design costs plus manufacturing costs.
    C) all costs incurred along the value chain.
    D) prime costs but not conversion costs.
    E) only conversion costs.
    Answer: A
    Diff: 2 Type: MC
    Skill: Knowledge
    Objective: LO 2-5
11) Why is it possible that a raw material such as glue might be considered as an indirect material for one furniture manufacturer and as a direct material for another furniture manufacture?  
Answer: It is possible for a raw material such as glue to be considered as an indirect material by one furniture manufacturer and as a direct material by another furniture manufacturer. The decision is largely a choice by the manufacturer and depends on a number of factors including the materiality of the cost in question, the cost of gathering the information, and the design of the manufacturing process. If the product in question has an insignificant cost, it might not be worth the trouble to trace the cost of the glue to each piece of furniture, and the glue would be considered indirect. If the cost of tracing the cost of the glue is high in relation to the benefits received from tracing it, the glue would likely be considered as indirect material. If the design of the manufacturing process easily permits all the glue to be traced to a single type of furniture, then it would be easy for a company to consider that material to be direct. Overall, the direct/indirect classification is decided on a cost/benefit basis.
Diff: 3  Type: ES  
Skill: Application  
Objective: LO 2-5

12) When should the overtime premium of direct manufacturing labour be considered an indirect manufacturing cost? A direct manufacturing cost?  
Answer: The overtime premium of direct manufacturing labour should be considered an indirect manufacturing cost when it is attributable to the overall volume of work, and a direct manufacturing cost when a "rush job" is the sole source of the overtime.
Diff: 2  Type: ES  
Skill: Knowledge  
Objective: LO 2-5