

***Horngren's Cost Accounting: A Managerial Emphasis, 17e* by Datar/Rajan**  
**Chapter 2 An Introduction to Cost Terms and Purposes**

Objective 2.1

- 1) Which of the following would be considered an actual cost of a current period?
- A) the \$25 of materials in a manufactured chair that is ready to be shipped to the customer
  - B) the \$22 of direct material cost per unit assumed in the actual budget of a manufacturer of chairs
  - C) the expected cost of materials for a chair as a result of engineering specifications
  - D) the average of historical material cost data for a chair manufactured in several past accounting periods

Answer: A

Diff: 2

Objective: 1

AACSB: Analytical thinking

- 2) The collection of cost data in an organized way, such as in various categories such as materials, labor, and manufacturing overhead, is called:

- A) cost application
- B) cost accumulation
- C) cost assignment
- D) cost reporting

Answer: B

Diff: 2

Objective: 1

AACSB: Analytical thinking

- 3) Budgeted costs are:

- A) the costs incurred this year
- B) the costs incurred last year
- C) planned or expected costs
- D) competitor's costs

Answer: C

Diff: 1

Objective: 1

AACSB: Analytical thinking

- 4) Cost assignment:

- A) includes future and arbitrary costs
- B) associates accumulated costs with certain cost objects
- C) is the same as cost accumulation
- D) is the difference between budgeted and actual costs

Answer: B

Diff: 1

Objective: 1

AACSB: Analytical thinking

5) A cost system determines the cost of a cost object by:

- A) accumulating and then assigning costs
- B) accumulating costs
- C) assigning and then accumulating costs
- D) assigning costs

Answer: A

Diff: 1

Objective: 1

AACSB: Analytical thinking

6) A cost object is anything for which a cost measurement is desired.

Answer: TRUE

Diff: 1

Objective: 1

AACSB: Analytical thinking

7) 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

Objective: 1

AACSB: Analytical thinking

8) An actual cost is the cost incurred—a historical or past cost.

Answer: TRUE

Diff: 1

Objective: 1

AACSB: Analytical thinking

9) Accountants define a cost as the amount of money spent on a resource.

Answer: FALSE

Explanation: A cost is a resource sacrificed or foregone and the requirement of "spending" or cash expended is not part of the definition.

Diff: 1

Objective: 1

AACSB: Analytical thinking

10) A cost is a resource sacrificed or forgone to achieve a specific objective.

Answer: TRUE

Explanation: A cost object could be anything management wishes to determine the cost of, for example, a department.

Diff: 1

Objective: 1

AACSB: Analytical thinking

11) Managers use assigned cost information to make decisions and implement them.

Answer: TRUE

Diff: 1

Objective: 1

AACSB: Analytical thinking

12) Cost accumulation and cost assignment are synonymous.

Answer: FALSE

Explanation: Cost accumulation is the collection of cost data while cost assignment is the allocation of accumulated costs to specific cost objects.

Diff: 1

Objective: 1

AACSB: Analytical thinking

13) 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 labor

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

Objective: 1

AACSB: Application of knowledge

## Objective 2.2

1) Which of the following factors affect the direct/indirect classification of a cost?

- A) the level of budgeted profit for the next year
- B) the estimation of time required to complete the order
- C) the ability to execute an order in the most cost-efficient manner
- D) the design where a particular area is dedicated to a specific cost object

Answer: D

Diff: 1

Objective: 2

AACSB: Analytical thinking

2) All of the following are factors affecting direct versus indirect cost classification EXCEPT:

- A) materiality of the cost
- B) cost accuracy
- C) information technology's ability to trace costs in an economically feasible way
- D) design of operations

Answer: B

Diff: 2

Objective: 1

AACSB: Analytical thinking

3) When costs can be traced to a particular cost object in an economically feasible way, the cost is a:

- A) direct cost
- B) indirect cost
- C) allocated cost
- D) budgeted cost

Answer: A

Diff: 2

Objective: 1

AACSB: Analytical thinking

4) Which of the following statements about the direct/indirect cost classification is true?

- A) Indirect costs are always traced.
- B) Indirect costs are always allocated.
- C) The design of sales target affects the direct/indirect classification.
- D) The direct/indirect classification depends on the cost control measures.

Answer: B

Diff: 1

Objective: 2

AACSB: Analytical thinking

5) The assignment of the cost of the leather used to make 100 bicycle seats to a custom order to be shipped to a bike retailer is an example of:

- A) the cost tracing of direct costs to the chosen cost object
- B) a function of cost accumulation
- 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

Answer: A

Diff: 1

Objective: 2

AACSB: Analytical thinking

6) Cost allocation is:

- A) the process of tracking both direct and indirect costs associated with a cost object
- B) the process of determining the opportunity cost of a cost object chosen
- C) the assignment of indirect costs to the chosen cost object
- D) made based on material acquisition document

Answer: C

Diff: 1

Objective: 2

AACSB: Analytical thinking

7) The determination of a cost as either direct or indirect depends upon the:

- A) accounting standards
- B) tax system chosen
- C) inventory valuation
- D) cost object chosen

Answer: D

Diff: 1

Objective: 2

AACSB: Analytical thinking

8) Classifying a cost as either direct or indirect depends upon:

- A) the behavior 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 traced to a particular cost object in an economically feasible way
- D) whether a cost is fixed or variable

Answer: C

Diff: 1

Objective: 2

AACSB: Analytical thinking

9) A manufacturing plant produces two product lines: golf equipment and soccer equipment. An example of a direct cost for the golf equipment line is:

- A) beverages provided daily in the plant break room for the entire staff
- B) monthly lease payments for a specialized piece of equipment needed to manufacture the golf driver
- C) salaries of the clerical staff that work in the company administrative offices
- D) overheads incurred in producing both golf and soccer equipment

Answer: B

Diff: 1

Objective: 2

AACSB: Application of knowledge

10) A manufacturing plant produces two product lines: golf equipment and soccer equipment. An example of indirect cost for the soccer equipment line is the:

- A) material used to make the soccer balls
- B) labor to shape the leather used to make the soccer ball
- C) material used to manufacture the soccer studs
- D) property taxes paid on the land and building (plant)

Answer: D

Diff: 2

Objective: 2

AACSB: Application of knowledge

11) Which one of the following items is a direct cost?

- A) Customer-service costs of a multiproduct firm; Product A is the cost object.
- B) Printing costs incurred for payroll check processing; payroll check processing is the cost object.
- C) The salary of a maintenance supervisor in a multiproduct manufacturing plant; Product B is the cost object.
- D) Utility costs of the administrative offices; the accounting department is the cost object.

Answer: B

Diff: 1

Objective: 2

AACSB: Application of knowledge

12) Indirect manufacturing costs:

- A) can be traced to the product that created the costs
- B) can be easily identified with the cost object
- C) generally include the cost of material and the cost of labor
- D) may include both variable and fixed costs

Answer: D

Diff: 1

Objective: 2

AACSB: Application of knowledge

13) Which of the following is true of indirect costs?

- A) Indirect costs are always considered sunk costs.
- B) All indirect costs are included in cost of goods sold.
- C) Indirect costs always vary in direct proportion to the level of production.
- D) Indirect costs cannot be traced to a particular cost object in an economically feasible way.

Answer: D

Diff: 1

Objective: 2

AACSB: Application of knowledge

14) Which of the following statements is true?

- A) A direct cost of one cost object will always be a direct cost of another cost object.
- B) Because of a cost-benefit tradeoff, some direct costs may be treated as indirect costs.
- C) All fixed costs are indirect costs.
- D) All direct costs are variable costs.

Answer: B

Diff: 2

Objective: 2

AACSB: Analytical thinking

15) Which of the following statements is true of direct costs?

- A) A direct cost of one cost object is a true sense of the budgeted costs.
- B) All variable costs are direct costs.
- C) A direct cost of one cost object can be an indirect cost of another cost object.
- D) All fixed costs are direct costs.

Answer: C

Diff: 1

Objective: 2

AACSB: Application of knowledge

16) A cost may be direct for one cost object and indirect for another cost object.

Answer: TRUE

Diff: 1

Objective: 2

AACSB: Application of knowledge

17) Assigning indirect costs is easier than assigning direct 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: 1

Objective: 2

AACSB: Application of knowledge

18) Improvements in information-gathering technologies are making it possible to trace more costs as direct.

Answer: TRUE

Diff: 1

Objective: 2

AACSB: Analytical thinking

19) The smaller the amount of a cost the more likely it is economically feasible to trace it to a particular cost object.

Answer: FALSE

Explanation: The smaller the amount of a cost the less likely it is economically feasible to trace it to a particular cost object.

Diff: 1

Objective: 2

AACSB: Application of knowledge

20) A direct cost of one cost object cannot be an indirect cost of another cost object.

Answer: FALSE

Explanation: A direct cost of one cost object can be an indirect cost of another cost object. For example, department A might perform some part of the processing of a product B. The costs incurred in department A would be direct costs of cost object department A but could be an indirect cost of cost object product B.

Diff: 1

Objective: 2

AACSB: Analytical thinking

21) The cost of natural gas used to heat a production facility that makes three products (A,B, and C) would be classified as an indirect cost when the cost object is one of the products (either A, B, or C).

Answer: TRUE

Diff: 1

Objective: 2

AACSB: Application of knowledge

22) The broader the cost object definition (i.e., plant versus product), the more confident the manager will be about the accuracy of the direct cost amounts.

Answer: TRUE

Diff: 2

Objective: 2

AACSB: Analytical thinking

23) All costs incurred by a company (sacrifice of a resource) are recorded in the accounting system.

Answer: FALSE

Explanation: A company can incur a cost without it being recorded in the accounting system. Examples include opportunity costs and environmental costs.

Diff: 2

Objective: 2

AACSB: Analytical thinking



24) Cutler Products Company manufactures office furniture. Recently, the company decided to develop a formal cost accounting system and classify all costs into three categories. Categorize each of the following items as being appropriate for (1) cost tracing to the finished furniture, (2) cost allocation of an indirect manufacturing cost to the finished furniture, or (3) as a nonmanufacturing item. A nonmanufacturing item would be an operating cost.

<u>Item</u>	<u>Cost Tracing</u>	<u>Cost Allocation</u>	<u>Nonmanu- facturing</u>
Carpenter wages	_____	_____	_____
Depreciation - office building	_____	_____	_____
Glue for assembly	_____	_____	_____
Lathe department supervisor	_____	_____	_____
Lathe depreciation	_____	_____	_____
Lathe maintenance	_____	_____	_____
Lathe operator wages	_____	_____	_____
Lumber	_____	_____	_____
Samples for trade shows	_____	_____	_____
Metal brackets for drawers	_____	_____	_____
Factory washroom supplies	_____	_____	_____
Answer:	<u>Cost</u>	<u>Cost</u>	<u>Nonmanu- facturing</u>
<u>Item</u>	<u>Tracing</u>	<u>Allocation</u>	<u>facturing</u>

Carpenter wages	X		
Depreciation - office building			X
Glue for assembly		X	
Lathe department supervisor		X	
Lathe depreciation		X	
Lathe maintenance		X	
Lathe operator wages	X		
Lumber	X		
Samples for trade shows			X
Metal brackets for drawers	X		
Factory washroom supplies		X	

Diff: 2

Objective: 2

AACSB: Application of knowledge

25) What are the factors that affect the classification of a cost as direct or indirect?

Answer: Several factors affect whether a cost is classified as direct or indirect:

**The materiality of the cost in question.** The smaller the amount of a cost—that is, the more immaterial the cost is—the less likely it is economically feasible to trace it to a particular cost object.

**Available information-gathering technology.** Improvements in information-gathering technology make it possible to consider more and more costs as direct costs.

**Design of operations.** Classifying a cost as direct is easier if a company's facility (or some part of it) is used exclusively for a specific cost object, such as a specific product or a particular customer.

Diff: 3

Objective: 2

AACSB: Analytical thinking

26) 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 to the product manufactured or the service rendered. Examples of direct costs include direct materials and direct manufacturing labor used in a product. Indirect costs cannot be easily identified 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

Objective: 2

AACSB: Analytical thinking

27) Match each of the following descriptions to a specific cost object category for a Miller Systems, a large software publisher of accounting applications for: Product (P), Service (S), Customer (C), Activity (A), Project (Proj) or Department (D).

Description	Cost Object (P.S.C. A, or D)
The largest manufacturer of golf carts in the United States	
Development of Miller's Wellness Program for Employees	
Coding and Programming	
Fixed Asset Accounting Module for Small Businesses	
3-year Subscription to Miller's "Bookkeeping in the Cloud"	
General Motors	

Answer:

Description	Cost Object (P.S.C. A, or D)
The largest manufacturer of golf carts in the United States	C
Development of Miller's Wellness Program for Employees	A
Coding and Programming	D
Fixed Asset Accounting Module for Small Businesses	P
3-year Subscription to Miller's "Bookkeeping in the Cloud"	S
General Motors	C

Diff: 2

Objective: 2

AACSB: Analytical thinking

## Objective 2.3

1) Which of the following is true if the volume of sales increases (within a relevant range)?

- A) total fixed cost increases
- B) total variable cost decreases
- C) total variable cost increases
- D) total fixed cost decreases

Answer: C

Diff: 1

Objective: 3

AACSB: Application of knowledge

2) Which of the following is a fixed cost with respect to units produced in a factory?

- A) monthly rent payment for the building
- B) electricity expenses
- C) utilities cost of the building
- D) direct material costs

Answer: A

Diff: 1

Objective: 3

AACSB: Application of knowledge

3) Cost behavior 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 perpetual or period costs
- D) whether a particular expense is expensed in the same or the following period

Answer: A

Diff: 1

Objective: 3

AACSB: Analytical thinking

4) Which of the following is true if the production volume decreases?

- A) fixed cost per unit increases
- B) average cost per unit decreases
- C) variable cost per unit increases
- D) variable cost per unit decreases

Answer: A

Diff: 1

Objective: 3

AACSB: Application of knowledge

5) At a plant where a union agreement sets annual salaries and conditions, annual labor costs usually:

- A) are considered a variable cost
- B) are considered a fixed cost
- C) depend on the scheduling of floor workers
- D) depend on the scheduling of production runs

Answer: B

Diff: 1

Objective: 3

AACSB: Analytical thinking

6) 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) are never considered a part of prime cost

Answer: B

Diff: 1

Objective: 3

AACSB: Analytical thinking

7) Rally Synthesis Inc. manufactures and sells 100 bottles per day. Fixed costs are \$22,000 and the variable costs for manufacturing 100 bottles are \$30,000. Each bottle is sold for \$1,200. How would the daily profit be affected if the daily volume of sales drop by 10%?

- A) profits are reduced by \$9,000
- B) profits are reduced by \$3,000
- C) profits are reduced by \$12,000
- D) profits are reduced by \$59,000

Answer: A

Explanation: A) Variable cost per unit =  $\$30,000 / 100 = \$300$

Profit for 100 bottles =  $(\$1,200 \times 100) - (\$22,000 + \$30,000) = 68,000$

Sales after 10% drop =  $100 \times (1 - 0.1) = 90$

Profit for 90 bottles =  $(\$1,200 \times 90) - (\$22,000 + (90 \times 300)) = \$59,000$

Change in profit =  $\$68,000 - \$59,000 = \$9,000$ . Hence, the profit has decreased by \$9,000.

Diff: 3

Objective: 3

AACSB: Application of knowledge

8) Within the certain expected range of production during the next year, which of the following would be true?

- A) total variable costs decrease as production increases
- B) total fixed costs remain the same when production increases or decreases
- C) fixed costs per unit decreases as production decreases
- D) total variable costs remain the same when production increases or decreases

Answer: B

Diff: 1

Objective: 3

AACSB: Analytical thinking

9) Which one of the following is a variable cost for an insurance company?

- A) rent of the building
- B) CEO's salary
- C) electricity expenses
- D) property taxes

Answer: C

Diff: 1

Objective: 3

AACSB: Application of knowledge

10) Which of the following is a fixed cost for an automobile manufacturing plant?

- A) administrative salaries
- B) electricity used by assembly-line machines
- C) sales commissions
- D) tires

Answer: A

Diff: 1

Objective: 3

AACSB: Application of knowledge

11) If each motorcycle requires a belt that costs \$20 and 2,000 motorcycles are produced for the month, the total cost for belts is:

- A) considered to be a direct fixed cost
- B) considered to be a direct variable cost
- C) considered to be an indirect fixed cost
- D) considered to be an indirect variable cost

Answer: B

Diff: 1

Objective: 3

AACSB: Application of knowledge

12) The most likely cost driver of distribution costs is the:

- A) number of parts within the product
- B) number of miles driven
- C) number of products manufactured
- D) number of production hours

Answer: B

Diff: 1

Objective: 3

AACSB: Application of knowledge

13) The most likely cost driver of direct labor costs is the:

- A) number of machine setups for the product
- B) number of miles driven
- C) number of production hours
- D) number of machine hours

Answer: C

Diff: 1

Objective: 3

AACSB: Application of knowledge

14) Which of the following statements is true?

- A) There is a cause-and-effect relationship between the cost driver and the amount of cost.
- B) Fixed costs have cost drivers over the short run.
- C) Over the short run all costs have cost drivers.
- D) Volume of production is a cost driver of distribution costs.

Answer: A

Diff: 1

Objective: 3

AACSB: Analytical thinking

15) A band of normal activity or volume in which specific cost-volume relationships are maintained is referred to as the:

- A) average range
- B) cost-allocation range
- C) cost driver range
- D) relevant range

Answer: D

Diff: 1

Objective: 3

AACSB: Analytical thinking

16) Within the relevant range, if there is a change in the level of the cost driver, then:

- A) total fixed costs and total variable costs will change
- B) total fixed costs and total variable costs will remain the same
- C) total fixed costs will remain the same and total variable costs will change
- D) total fixed costs will change and total variable costs will remain the same

Answer: C

Diff: 2

Objective: 3

AACSB: Analytical thinking

17) Outside the relevant range, variable costs, such as direct material costs:

- A) will decrease proportionately with changes in sales volumes
- B) will remain the same with changes in production volumes
- C) will not change proportionately with changes in production volumes
- D) will increase proportionately with changes in sales volumes

Answer: C

Diff: 2

Objective: 3

AACSB: Analytical thinking

18) Which of the following is a cost driver for a company's human resource costs?

- A) the number of employees in the company
- B) the number of job applications processed
- C) the number of units sold
- D) the square footage of the office space used by the human resource department

Answer: B

Diff: 1

Objective: 3

AACSB: Analytical thinking

19) Puritan Apparels is a clothing retailer. Unit costs associated with one of its products, Product AHF 130, are as follows:

Direct materials	\$110
Direct manufacturing labor	90
Variable manufacturing overhead	45
Fixed manufacturing overhead	33
Sales commissions (2% of sales)	10
Administrative salaries	<u>28</u>
Total	<u>\$316</u>

What are the variable manufacturing costs per unit associated with Product AHF 130?

- A) \$288
- B) \$200
- C) \$245
- D) \$255

Answer: C

Explanation: C) Variable manufacturing costs = \$110 + \$90 + \$45 = \$245

Diff: 1

Objective: 3

AACSB: Application of knowledge

20) Puritan Apparels is a clothing retailer. Unit costs associated with one of its products, Product DCF 130, are as follows:

Direct materials	\$120
Direct manufacturing labor	40
Variable manufacturing overhead	15
Fixed manufacturing overhead	33
Sales commissions (2% of sales)	5
Administrative salaries	<u>24</u>
Total	<u>\$237</u>

What are the indirect nonmanufacturing variable costs per unit associated with Product DCF130?

- A) \$5
- B) \$29
- C) \$160
- D) \$213

Answer: A

Explanation: A) Indirect variable costs = Sales commissions = \$5

Diff: 1

Objective: 3

AACSB: Application of knowledge

21) The East Company manufactures several different products. Unit costs associated with Product ORD105 are as follows:

Direct materials	\$92
Direct manufacturing labor	32
Variable manufacturing overhead	12
Fixed manufacturing overhead	32
Sales commissions (2% of sales)	26
Administrative salaries	<u>6</u>
Total	<u>\$200</u>

What is the percentage of the total variable costs per unit associated with Product ORD105 with respect to total cost?

- A) 81%
- B) 68%
- C) 84%
- D) 71%

Answer: A

Explanation: A)  $\$92 + \$32 + \$12 + \$26 = \$162 \div 200 = 81\%$

Diff: 3

Objective: 3

AACSB: Application of knowledge



22) The East Company manufactures several different products. Unit costs associated with Product ORD105 are as follows:

Direct materials	\$54
Direct manufacturing labor	8
Variable manufacturing overhead	11
Fixed manufacturing overhead	25
Sales commissions (2% of sales)	5
Administrative salaries	<u>12</u>
Total	<u>\$115</u>

What is the percentage of the total fixed costs per unit associated with Product ORD105 with respect to total cost?

- A) 37%
- B) 32%
- C) 15%
- D) 26%

Answer: B

Explanation: B)  $\$25 + 12 = \$37/115 = 32\%$

Diff: 3

Objective: 3

AACSB: Application of knowledge

23) Which of the following is a variable cost if the cost object is a product?

- A) Interest payments on the company's mortgage on the headquarters' building
- B) Direct materials cost incurred to make products sold by the company
- C) Property taxes on all real estate owned by the firm
- D) Insurance premiums paid during the year

Answer: B

Diff: 2

Objective: 3

AACSB: Application of knowledge

24) A cost driver is a variable, such as the level of activity or volume that causally affects costs over a given time span.

Answer: TRUE

Diff: 1

Objective: 3

AACSB: Analytical thinking

25) Fixed cost per unit falls with an increase in production volume.

Answer: TRUE

Diff: 2

Objective: 3

AACSB: Analytical thinking

26) Variable costs per unit vary with the level of production or sales volume.

Answer: FALSE

Explanation: Variable costs per unit are constant with the level of production or sales volume.

Diff: 2

Objective: 3

AACSB: Analytical thinking

27) Wood used to manufacture chairs is considered a direct variable cost when the cost object is the chair.

Answer: TRUE

Diff: 1

Objective: 3

AACSB: Analytical thinking

28) Cost drivers casually affect total costs of a cost object over a given time span.

Answer: TRUE

Explanation: Cost drivers are variables, such as the level of activity or volume, that casually affects costs over a given time span.

Diff: 1

Objective: 3

AACSB: Analytical thinking

29) A fixed cost remains unchanged in total for a given time period, despite wide changes in the related level

of total activity or volume of output produced.

Answer: TRUE

Diff: 1

Objective: 3

AACSB: Analytical thinking

30) A lease for a store calls for a base monthly rent of \$1,500 up to \$10,000 of sales with a possible additional monthly cost of 2% of sales over \$10,000. The rent is a fixed cost for the month for a relevant range of zero to \$10,000 sales.

Answer: TRUE

Diff: 2

Objective: 3

AACSB: Application of knowledge

31) 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:**

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

	<u>Direct</u>	<u>Indirect</u>	<u>Fixed</u>	<u>Variable</u>
Electronic monitoring	_____	_____	_____	_____
Meals for patients	_____	_____	_____	_____
Nurses' salaries	_____	_____	_____	_____
Parking maintenance	_____	_____	_____	_____
Security	_____	_____	_____	_____
Answer:	<u>Direct</u>	<u>Indirect</u>	<u>Fixed</u>	<u>Variable</u>

Electronic monitoring	X			X
Meals for patients	X			X
Nurses' salaries		X	X	
Parking maintenance		X	X	
Security		X	X	

Diff: 3

Objective: 2, 3

AACSB: Application of knowledge

32) The list of representative cost drivers in the right column below are randomized with respect to the list of functions in the left column. That is, they do not match.

	Function		Representative Cost Driver
1.	Purchasing	A.	Number of employees
2.	Billing	B.	Number of shipments
3.	Shipping	C.	Number of customers
4.	Computer Support	D.	Number of invoices
5.	Personnel	E.	Number of desktop computers
6.	Customer Service	F.	Number of purchase orders

**Required:**

Match each business function with its representative cost driver.

	Function	Insert letter of appropriate driver (A through F)
1.	Purchasing	
2.	Billing	
3.	Shipping	
4.	Computer Support	
5.	Personnel	
6.	Customer Service	

Answer:

	Function	Insert letter of appropriate driver (A through F)
1.	Purchasing	F
2.	Billing	D
3.	Shipping	B
4.	Computer Support	E
5.	Personnel	A
6.	Customer Service	C

Diff: 3

Objective: 3

AACSB: Application of knowledge

33) Describe both variable and fixed costs. 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. Fixed costs are not influenced by fluctuations in production or sales volumes. However, variable cost per unit remains the same at all levels of production and fixed cost per unit reduces with increase in production. 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: 3

Objective: 3

AACSB: Analytical thinking

## Objective 2.4

1) A unit cost is computed by:

- A) multiplying total cost by the number of units produced
- B) dividing total cost by the number of units produced
- C) dividing variable cost by the number of units produced
- D) dividing fixed cost by the number of units produced

Answer: B

Diff: 1

Objective: 4

AACSB: Analytical thinking

2) In its first year of operation, the Excellent Publishing Company sells 52,000 units and has 1,700 units in stock at year end. The cost of goods sold are \$3,100,000. What are the total manufacturing costs for the year if the average unit cost is \$8.50?

- A) \$3,114,450
- B) \$3,100,000
- C) \$3,085,550
- D) \$14,450

Answer: A

Explanation: A)  $\$3,100,000 + (1,700 \times \$8.50) = \$3,114,450$

Diff: 2

Objective: 4

AACSB: Analytical thinking

3) When 25,000 units are produced, fixed costs are \$21.00 per unit. Therefore, when 20,000 units are produced, fixed costs will:

- A) increase to \$26.25 per unit
- B) remain at \$21.00 per unit
- C) decrease to \$16.80 per unit
- D) total \$420,000

Answer: A

Explanation: A) Fixed costs are \$525,000 ( $\$21.00 \times 25,000$  units). Dividing \$525,000 by 20,000 units = \$26.25.

Diff: 3

Objective: 4

AACSB: Application of knowledge

4) When 24,000 units are produced, variable costs are \$12.00 per unit. Therefore, when 18,000 units are produced:

- A) variable costs will remain at \$12.00 per unit
- B) variable costs will total \$288,000
- C) variable unit costs will increase to \$16.00 per unit
- D) variable unit costs will decrease to \$9.00 per unit

Answer: A

Diff: 2

Objective: 4

AACSB: Application of knowledge

5) Wonderful Products Manufacturing Corp. provided the following information for last month:

Sales	\$43,000
Variable costs	14,000
Fixed costs	<u>11,000</u>
Operating income	<u>\$18,000</u>

If sales reduce to half of the amount in the next month, what is the projected operating income?

- A) \$2,000
- B) \$9,000
- C) \$18,000
- D) \$3,500

Answer: D

Explanation: D) Projected operating income =  $(\$43,000 / 2) - (\$14,000 / 2) - \$11,000 = \$3,500$

Diff: 3

Objective: 4

AACSB: Application of knowledge

6) Rapid Cabinet Makers Inc. provided the following information for last month:

Sales	\$25,000
Variable costs	10,000
Fixed costs	<u>3,000</u>
Operating income	<u>\$12,000</u>

If sales reduce to half the amount in the next month, what is the projected operating income?

- A) \$1,000
- B) \$6,000
- C) \$4,500
- D) \$18,500

Answer: C

Explanation: C) Projected operating income =  $(\$25,000 \times 0.5) - (\$10,000 \times 0.5) - \$3,000 = \$4,500$

Diff: 3

Objective: 4

AACSB: Application of knowledge

7) Swansea Manufacturing currently produces 3,000 tires per month. The following per unit data for 3,000 tires apply for sales to regular customers:

Direct materials	\$38
Direct manufacturing labor	14
Variable manufacturing overhead	19
Fixed manufacturing overhead	<u>20</u>
Total manufacturing costs	<u>\$91</u>

The plant has capacity for 5,000 tires and is considering expanding production to 4,000 tires. What is the total cost of producing 4,000 tires?

- A) \$364,000
- B) \$344,000
- C) \$209,000
- D) \$288,000

Answer: B

Explanation: B) Total cost of producing 4,000 tires =  $[(\$38 + \$14 + \$19) \times 4,000 \text{ units}] + (\$20 \times 3,000 \text{ units}) = \$344,000$

Diff: 3

Objective: 4

AACSB: Application of knowledge

8) Atlas Manufacturing produces a unique valve, and has the capacity to produce 50,000 valves annually. Currently Atlas produces 40,000 valves and is thinking about increasing production to 45,000 valves next year. What is the most likely behavior of total manufacturing costs and unit manufacturing costs given this change?

- A) Total manufacturing costs will increase and unit manufacturing costs will stay the same.
- B) Total manufacturing costs will increase and unit manufacturing costs will decrease.
- C) Total manufacturing costs will stay the same and unit manufacturing costs will stay the same.
- D) Total manufacturing costs will increase and unit manufacturing costs will also increase.

Answer: B

Diff: 2

Objective: 4

AACSB: Application of knowledge

9) Eaton Manufacturing currently produces 4,000 bicycles per month. The following per unit data apply for sales to regular customers:

Direct materials	\$53
Direct manufacturing labor	10
Variable manufacturing overhead	12
Fixed manufacturing overhead	<u>14</u>
Total manufacturing costs	<u>\$89</u>

The plant has capacity for 6,000 bicycles and is considering expanding production to 5,000 bicycles. What is the per unit cost of producing 5,000 bicycles?

- A) \$91.80 per unit
- B) \$111.25 per unit
- C) \$69.80 per unit
- D) \$86.20 per unit

Answer: D

Explanation: D) Cost of producing 5,000 bicycles =  $[(\$53 + \$10 + \$12) \times 5,000 \text{ units}] + (\$14 \times 4,000 \text{ units}) = 375,000 \div 5,000 \text{ units} = \$86.20$

Diff: 3

Objective: 4

AACSB: Application of knowledge

10) Eaton Manufacturing currently produces 2,000 tables per month. The following per unit data for 2,000 tables apply for sales to regular customers:

Direct materials	\$75
Direct manufacturing labor	20
Variable manufacturing overhead	20
Fixed manufacturing overhead	40
Total manufacturing costs	\$155

The plant has capacity for 4,000 tables and is considering expanding production to 4,000 tables. What is the total cost of producing 4,000 tables?

- A) \$540,000
- B) \$500,000
- C) \$390,000
- D) \$620,000

Answer: A

Explanation: A)  $[(\$75 + \$20 + \$20) \times 4,000 \text{ units}] + (\$40 \times 2,000 \text{ units}) = \$540,000$

Diff: 3

Objective: 4

AACSB: Application of knowledge



11) Eaton Manufacturing currently produces 2,000 tables per month. The following per unit data for 2,000 tables apply for sales to regular customers:

Direct materials	\$75
Direct manufacturing labor	20
Variable manufacturing overhead	20
Fixed manufacturing overhead	40
Total manufacturing costs	\$155

What is the per unit cost when producing 4,000 tables?

- A) \$125.00
- B) \$195.00
- C) \$135.00
- D) \$155.00

Answer: C

Explanation: C)  $\$540,000 / 4,000 = \$135.00$

Diff: 2

Objective: 4

AACSB: Application of knowledge

12) Pederson Company reported the following:

Manufacturing costs	\$480,000
Units manufactured	8,000
Units sold	7,500 units sold for \$90 per unit
Beginning inventory	2,000 units

What is the average manufacturing cost per unit? (Round the answer to the nearest dollar.)

- A) \$48.00
- B) \$80.00
- C) \$60.00
- D) \$64.00

Answer: C

Explanation: C)  $\$480,000 / 8,000 = \$60.00$

Diff: 2

Objective: 4

AACSB: Application of knowledge

13) Pederson Company reported the following:

Manufacturing costs	\$360,000	
Units manufactured	9,000	
Units sold	7,500	units sold for \$90 per unit
Beginning inventory	1,000	units

What is the manufacturing cost for the ending finished goods inventory?

- A) \$100,000
- B) \$60,000
- C) \$744,000
- D) \$54,000

Answer: A

Explanation: A)  $(1,000 + 9,000 - 7,500) \times 40 = \$100,000$

Diff: 3

Objective: 4

AACSB: Application of knowledge

14) Pederson Company reported the following:

Manufacturing costs	\$187,000	
Units manufactured	17,000	
Units sold	8,500	units sold for \$50 per unit
Beginning inventory	3,400	units

What is the average manufacturing cost per unit?

- A) \$11.20
- B) \$11.00
- C) \$22.00
- D) \$22.40

Answer: B

Explanation: B)  $\$187,000 / 17,000 = \$11.00$

Diff: 2

Objective: 4

AACSB: Application of knowledge

15) Pederson Company reported the following:

Manufacturing costs	\$187,000	
Units manufactured	17,000	
Units sold	8,500	units sold for \$20 per unit
Beginning inventory	3,400	units

What is the manufacturing cost for the ending finished goods inventory?

A) \$238,000

B) \$37,400

C) \$93,500

D) \$130,900

Answer: D

Explanation: D) Ending finished inventory =  $3,400 + (17,000 - 8,500) \times \$11 = \$130,900$

Diff: 3

Objective: 4

AACSB: Application of knowledge

16) When making decisions for product mix and pricing, the focus should be on total costs and not unit costs.

Answer: TRUE

Diff: 1

Objective: 4

AACSB: Analytical thinking

17) Although unit costs are regularly used in financial reports and for making product mix and pricing decisions, managers should think in terms of total costs rather than unit costs for making decisions.

Answer: TRUE

Diff: 2

Objective: 4

AACSB: Analytical thinking

18) A unit cost is computed by dividing total cost by the number of units.

Answer: TRUE

Diff: 1

Objective: 4

AACSB: Analytical thinking

19) A unit cost is also called an average cost.

Answer: TRUE

Diff: 1

Objective: 4

AACSB: Analytical thinking

20) Universal Works Inc., reports the following information for September sales:

Sales	\$90,000
Variable costs	(14,000)
Fixed costs	<u>(16,000)</u>
Operating income	<u>\$ 60,000</u>

Promotional expenses for September were \$1,000.

**Required:**

If sales double in October, what is the impact on the variable costs?

Answer: The variable costs also double up to  $\$14,000 \times 2 = \$28,000$ . Promotional expenses are variable costs and are already included in \$14,000.

Diff: 2

Objective: 4

AACSB: Analytical thinking

21) Denver City Manufacturing currently produces 2,000 glasses per month. The following per unit data apply for sales to regular customers and is based on 1,000 units produced.

Direct materials	\$200
Direct manufacturing labor	40
Variable manufacturing overhead	70
Fixed manufacturing overhead	<u>50</u>
Total manufacturing costs	<u>\$360</u>

The plant has capacity for 3,000 glasses. Plant supervisor's salary is \$15,000.

**Required:**

- What is the total cost of producing 2,000 glasses?
- What is the total cost of producing 1,600 glasses?
- What is the per unit cost when producing 1,500 glasses?

Answer:

a.  $[(\$200 + \$40 + \$70) \times 2,000 \text{ units}] + (\$50 \times 1,000 \text{ units}) = \$670,000$

Plant supervisor's salary is already included in fixed manufacturing overhead hence not added.

b.  $[(\$200 + \$40 + \$70) \times 1,600 \text{ units}] + \$50,000 = \$546,000$

c.  $\$546,000 / 1,600 = \$341.25 \text{ per unit}$

Diff: 2

Objective: 4

AACSB: Application of knowledge

22) During 2020, Get There Corporation incurred manufacturing expenses of \$200,000 to produce 40,000 finished units. It was determined that 35,000 units were sold by the end of November while 5,000 units remained in ending inventory. The storage cost for December is \$0.5 per unit.

**Required:**

- a. What is the cost of producing one unit?
- b. What is the amount that will be reported on the income statement for cost of goods sold?
- c. What is the cost incurred for storing the inventory?

Answer:

- a.  $\$200,000 / 40,000 = \$5$
- b.  $35,000 \text{ units} \times \$5 = \$175,000$
- c.  $5,000 \text{ units} \times \$0.5 = \$2,500$

Diff: 2

Objective: 4

AACSB: Application of knowledge

23) For the year just ended, the unit cost of product A (materials, labor, and overhead), your best-selling item, was \$100. With zero very likely for the cost of all the inputs for Product A, explain why using a cost assumption of \$100 per unit in this year's budget may be an unwise decision.

Answer: Even if inflation with regards to the inputs for Product A is nonexistent in the upcoming year, the determination of a unit's cost is impacted by volume. For example, if last year's volume for product A was 100,000 units but next year's volume is expected to be 110,000, the budgeted total costs for variable expense items will be higher for next year and the budget should reflect that.

Diff: 2

Objective: 4

AACSB: Analytical thinking

## Objective 2.5

1) Pederson Company reported the following:

Manufacturing costs	\$2,385,000
Units manufactured	53,000
Units sold	40,000 units sold for \$100 per unit
Beginning inventory	0 units

What is the amount of gross profit margin?

- A) \$2,915,000
- B) \$4,000,000
- C) \$1,615,000
- D) \$2,200,000

Answer: D

Explanation:  $D) 40,000 \times (\$100 - (\$2,385,000 / 53,000)) = \$2,200,000$

Diff: 3

Objective: 5

AACSB: Application of knowledge

2) \_\_\_\_\_ sector companies purchase materials and components and convert them into finished goods.

- A) Merchandising
- B) Service
- C) Manufacturing
- D) Professional

Answer: C

Diff: 1

Objective: 5

AACSB: Analytical thinking

3) Merchandising-sectors:

- A) purchase and then sell tangible products without changing their basic form
- B) provide intangible products
- C) purchase materials and components and convert them into finished goods
- D) purchase and then sell tangible products by changing their basic form

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

4) Service-sector companies:

- A) do not produce tangible products but cost accounting is still utilized in service firms
- B) do not manufacture a product and therefore do not apply or adapt cost accounting to their operations
- C) purchase and then sell tangible products by changing their basic form and therefore need cost accounting
- D) purchase merchandise then sell it without changing its basic form and therefore do not need cost accounting systems

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

5) Wages paid to machine operators on an assembly line are classified as a:

- A) direct material cost
- B) direct manufacturing labor cost
- C) manufacturing overhead cost
- D) period cost

Answer: B

Diff: 1

Objective: 5

AACSB: Analytical thinking

6) The following information pertains to Alleigh's Mannequins:

Manufacturing costs	\$2,240,000
Units manufactured	32,000
Units sold	29,500 units sold for \$110 per unit
Beginning inventory	0 units

What is the amount of gross margin?

- A) \$2,065,000
- B) \$1,005,000
- C) \$3,245,000
- D) \$1,180,000

Answer: D

Explanation: D)  $29,500 \times (\$110 - (\$2,240,000 / 32,000)) = \$1,180,000$

Diff: 3

Objective: 5

AACSB: Analytical thinking

7) Which of the following companies is part of the service sector of our economy?

- A) Macy's
- B) KPMG
- C) Apple Inc.
- D) Amazon.com

Answer: B

Diff: 1

Objective: 5

AACSB: Application of knowledge

8) Which of the following companies is part of the merchandising sector of our economy?

- A) Jaguar
- B) Hewlett Packard
- C) Whole Foods Market
- D) KPMG

Answer: C

Diff: 1

Objective: 5

AACSB: Application of knowledge

9) Which of the following companies is part of the manufacturing sector of our economy?

- A) Nike
- B) Barnes & Noble
- C) Smith and Jones Law Firm
- D) Target

Answer: A

Diff: 1

Objective: 5

AACSB: Application of knowledge

10) Marriott International, would be classified as a(n):

- A) manufacturing-sector company
- B) merchandising-sector company
- C) service-sector company
- D) financial services firm

Answer: C

Diff: 1

Objective: 5

AACSB: Application of knowledge

11) The balance sheet of a service-sector companies would show:

- A) work-in-process inventory, and finished goods inventory accounts
- B) only finished goods inventory
- C) direct materials inventory, work-in-process inventory, and finished goods inventory accounts
- D) no inventory accounts

Answer: D

Diff: 1

Objective: 5

AACSB: Analytical thinking

12) The balance sheet of a manufacturing-sector companies would report:

- A) only merchandise inventory
- B) only finished goods inventory
- C) direct materials inventory, work-in-process inventory, and finished goods inventory accounts
- D) direct materials inventory and finished goods inventory accounts only

Answer: C

Diff: 1

Objective: 5

AACSB: Analytical thinking



13) For a manufacturing company, direct material costs may be included in:

- A) only the direct materials inventory account
- B) only in the merchandise inventory account reflecting the inventory on hand
- C) only in both work-in-process inventory and finished goods inventory
- D) direct materials inventory, work-in-process inventory, and finished goods inventory accounts

Answer: D

Diff: 1

Objective: 5

AACSB: Analytical thinking

14) For a manufacturing company, direct labor costs would be included in:

- A) only the direct materials inventory to reflect the cost of labor that has worked using those materials
- B) only in the merchandise inventory to reflect the value added in the production process
- C) only in both work-in-process inventory and finished goods inventory
- D) direct materials inventory, work-in-process inventory, and finished goods inventory accounts

Answer: C

Diff: 3

Objective: 5

AACSB: Analytical thinking

15) For a manufacturing company, indirect manufacturing costs would 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

Answer: C

Diff: 3

Objective: 5

AACSB: Analytical thinking

16) For a manufacturing-sector company, the cost of factory depreciation is classified as a:

- A) direct material cost
- B) direct manufacturing labor cost
- C) manufacturing overhead cost
- D) period cost

Answer: C

Diff: 1

Objective: 5

AACSB: Analytical thinking

17) Which of the following cost is included in cost of goods sold?

- A) customer service cost
- B) manufacturing labor cost
- C) distribution cost
- D) marketing cost

Answer: B

Explanation: A) This is a period cost and is not included in cost of goods sold.

B) This is a direct cost and is included in cost of goods sold along with direct material and overhead costs (in the case of a production facility)

C) This is a period cost and is not included in cost of goods sold.

D) This is a period cost and is not included in cost of goods sold.

Diff: 1

Objective: 5

AACSB: Application of knowledge

18) Manufacturing overhead costs in an automobile manufacturing plant most likely include:

- A) labor costs of the painting department
- B) indirect material costs such as lubricants
- C) leather seat costs
- D) tire costs

Answer: B

Diff: 1

Objective: 5

AACSB: Analytical thinking

19) Manufacturing overhead costs are also referred to as:

- A) indirect manufacturing costs
- B) prime costs
- C) direct manufacturing costs
- D) direct material

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

20) The only type of inventory that Macy's, a major U.S. department store chain would report on its balance sheet is:

- A) merchandise inventory
- B) finished goods inventory
- C) direct materials inventory, work-in-process inventory, and finished goods inventory accounts
- D) no inventory accounts as Macy's is a service-sector company

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

21) Direct materials inventory costs would normally include:

- A) the cost of materials in stock are part of the cost object (product) and can be traced to that cost object in an economically feasible way
- B) the cost of goods partially worked on but not yet fully completed
- C) the cost of goods fully completed but not yet sold
- D) the cost of products in their original form intended to be sold without changing their basic form

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

22) Work-in-process 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) goods returned after being sold to be re-worked on further improvements and quality

Answer: B

Diff: 1

Objective: 5

AACSB: Analytical thinking

23) 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) goods returned after being sold to be re-worked on further improvements and quality

Answer: C

Diff: 1

Objective: 5

AACSB: Analytical thinking

24) Which of the following is a period cost?

- A) costs incurred to provide customer service such as the operation of an 800 phone line to trouble shoot product problems and to answer questions about product warranties
- B) the cost of materials used to make a product when those materials are an insignificant part of the finished product
- C) the cost of direct labor
- D) the amount of depreciation expense recognized because of the use of plant assets such as building and equipment

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

25) Which of the following is NOT an inventoriable cost of a manufacturer?

- A) sales commissions paid to sales representatives who sell the products made by the manufacturer
- B) wages paid to assembly-line workers
- C) plant depreciation incurred
- D) property taxes on plant

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

26) Which of the following is a direct manufacturing cost?

- A) plant maintenance
- B) plant rent
- C) fringe benefits paid to machine operators
- D) property taxes on plant

Answer: C

Diff: 1

Objective: 5

AACSB: Analytical thinking

27) \_\_\_\_\_ are all manufacturing costs that are related to the cost object but cannot be traced to that cost object in an economically feasible way.

- A) Indirect manufacturing costs
- B) Marketing costs incurred
- C) Variable manufacturing costs
- D) Custom duties paid for the materials

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

28) Which of the following is NOT reported on the income statement of a manufacturing firm?

- A) cost of goods sold
- B) administrative and selling expenses
- C) work in progress
- D) marketing and distribution costs

Answer: C

Diff: 1

Objective: 5

AACSB: Analytical thinking

29) The income statement of a service-sector firm reports:

- A) period costs only
- B) cost of goods sold
- C) both period costs and cost of goods sold
- D) direct labor costs

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

30) Which of the following is an inventoriable cost?

- A) manufacturing overhead cost
- B) customer service costs
- C) distribution costs
- D) marketing costs

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

31) Inventoriable costs:

- A) include administrative and marketing costs
- B) are expensed in the accounting period in which the products are sold
- C) are expensed in the accounting period in which the products are manufactured
- D) are also referred to as nonmanufacturing costs

Answer: B

Diff: 1

Objective: 5

AACSB: Analytical thinking

32) Inventoriable costs are expensed on the income statement:

- A) when direct materials for the product are purchased
- B) when the direct materials are used in production
- C) when the products are sold
- D) when the goods move from work-in process to finished goods account

Answer: C

Diff: 1

Objective: 5

AACSB: Analytical thinking

33) Costs that are initially recorded as assets and expensed when goods sold are called:

- A) period costs
- B) inventoriable costs
- C) irrelevant costs
- D) research and development costs

Answer: B

Diff: 1

Objective: 5

AACSB: Analytical thinking

34) For merchandising companies, inventoriable costs include:

- A) selling expenses
- B) shipping (incoming) costs to acquire merchandise
- C) distribution costs
- D) outgoing freight and handling costs

Answer: B

Diff: 1

Objective: 5

AACSB: Analytical thinking

35) For manufacturing firms, inventoriable costs include:

- A) plant supervisor salaries
- B) advertising costs to promote the sale of finished goods
- C) costs of dealing with customer questions about warranties after the sale
- D) distribution costs such the cost of operating a fleet of delivery vehicles

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

36) A plant manufactures several different products. If a particular product is the cost object, then the wages of the plant supervisor can be classified as a(n):

- A) direct cost because it occurs in the production facility
- B) indirect manufacturing cost and therefore is an inventoriable cost
- C) variable cost as it will vary on a per unit basis depending on volume
- D) period cost

Answer: B

Diff: 1

Objective: 5

AACSB: Application of knowledge

37) R&D costs are treated as period costs because:

- A) these costs may increase revenues in the current period
- B) these costs may increase revenues in the future period
- C) these costs may decrease revenues in the current period
- D) these costs are expensed when the goods are sold

Answer: B

Diff: 1

Objective: 5

AACSB: Analytical thinking

38) For an automobile manufacturer, period costs include the cost of:

- A) the dashboard
- B) labor used for assembly
- C) advertising
- D) assembly-line equipment

Answer: C

Diff: 1

Objective: 5

AACSB: Application of knowledge

39) Period costs:

- A) include only fixed costs
- B) seldom influence financial success or failure
- C) include the cost of selling, delivering, and after-sales support for customers
- D) should be treated as an indirect cost rather than as a direct manufacturing cost

Answer: C

Diff: 1

Objective: 5

AACSB: Application of knowledge

40) Period costs:

- A) are treated as expenses in the period they are incurred
- B) are directly traceable to products
- C) are treated as expenses in the following period they are incurred
- D) are also referred to as manufacturing overhead costs

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

41) Inventoriable costs are costs of a product that are considered:

- A) assets in a company's balance sheet when the costs are incurred and that are expensed as cost of goods sold only when the product is sold
- B) liabilities in a company's balance sheet when the costs are incurred and that are expensed only when the product is sold
- C) assets in a company's income statement when the costs are capitalized and that are expensed as cost of goods sold only when the product is sold
- D) liabilities in a company's income statement when the costs are capitalized and that are expensed only when the product is sold

Answer: A

Diff: 3

Objective: 5

AACSB: Analytical thinking

42) Costs expensed on the income statement in the accounting period incurred are called:

- A) direct costs
- B) indirect costs
- C) period costs
- D) inventoriable costs

Answer: C

Diff: 1

Objective: 5

AACSB: Analytical thinking

43) In the cost classification system used by manufacturing firms, assembly workers' wages would be included in:

- A) irrelevant cost
- B) direct manufacturing costs
- C) indirect manufacturing costs
- D) period cost

Answer: B

Diff: 1

Objective: 5

AACSB: Analytical thinking

44) Total manufacturing costs are comprised of:

- A) direct materials costs and period costs
- B) direct materials costs, direct manufacturing labor costs, and manufacturing overhead costs
- C) indirect materials costs, indirect manufacturing labor costs, and manufacturing overhead costs
- D) prime costs and period costs

Answer: B

Diff: 1

Objective: 5

AACSB: Analytical thinking

45) Puritan Apparels is a clothing manufacturer. Unit costs associated with one of its products, Product FGS1156 are as follows:

Direct materials	\$80
Direct manufacturing labor	40
Variable manufacturing overhead	45
Fixed manufacturing overhead	31
Sales commissions (2% of sales)	7
Administrative salaries	<u>20</u>
Total	<u>\$223</u>

What are the inventoriable costs per unit associated with Product FGS1156?

- A) \$196
- B) \$165
- C) \$178
- D) \$143

Answer: A

Explanation: A)  $\$80 + \$40 + \$45 + \$31 = \$196$

Diff: 2

Objective: 5

AACSB: Application of knowledge



46) Campus Apparels is a clothing maker. Unit costs associated with one of its products, Product DCT121, are as follows:

Direct materials	\$160
Direct manufacturing labor	50
Variable manufacturing overhead	55
Fixed manufacturing overhead	32
Sales commissions (2% of sales)	13
Administrative salaries	<u>17</u>
Total	<u>\$327</u>

What are the period costs per unit associated with Product DCT121?

- A) \$33
- B) \$17
- C) \$30
- D) \$100

Answer: C

Explanation: C)  $\$13 + 17 = \$30$

Diff: 2

Objective: 5

AACSB: Application of knowledge

47) The American West Company manufactures several different products. Unit costs associated with Product ORD210 are as follows:

Direct materials	\$90
Direct manufacturing labor	24
Variable manufacturing overhead	20
Fixed manufacturing overhead	10
Sales commissions (2% of sales)	18
Administrative salaries	<u>38</u>
Total	<u>\$200</u>

What are the inventoriable costs per unit associated with Product ORD210?

- A) \$134
- B) \$124
- C) \$144
- D) \$114

Answer: C

Explanation: C)  $\$90 + \$24 + \$20 + \$10 = \$144$

Diff: 2

Objective: 5

AACSB: Application of knowledge

48) The American West Company manufactures several different products. Unit costs associated with Product ORD210 are as follows:

Direct materials	\$90
Direct manufacturing labor	24
Variable manufacturing overhead	20
Fixed manufacturing overhead	10
Sales commissions (2% of sales)	18
Administrative salaries	<u>38</u>
Total	<u>\$200</u>

What are the period costs per unit associated with Product ORD210?

- A) \$18
- B) \$38
- C) \$56
- D) \$66

Answer: C

Explanation: C)  $\$18 + 38 = \$56$

Diff: 2

Objective: 5

AACSB: Application of knowledge

49) Expert Manufacturing reported the following:

Revenue	\$450,000
Beginning inventory of direct materials, January 1, 2015	24,000
Purchases of direct materials	151,000
Ending inventory of direct materials, December 31, 2015	18,000
Direct manufacturing labor	27,000
Indirect manufacturing costs	50,000
Beginning inventory of finished goods, January 1, 2015	43,000
Cost of goods manufactured	234,000
Ending inventory of finished goods, December 31, 2015	48,000
Operating costs	152,000

How much of the above would be considered period costs for Expert Manufacturing?

- A) \$229,000
- B) \$279,000
- C) \$152,000
- D) \$284,000

Answer: C

Explanation: C) \$152,000 of operating costs are period costs.

Diff: 3

Objective: 5

AACSB: Application of knowledge

50) Banks provide services or what some might call "intangible products" to their customers.

Answer: TRUE

Diff: 1

Objective: 5

AACSB: Application of knowledge

51) Department stores, such as Macy's and Kohl's, are examples of a merchandising company.

Answer: TRUE

Diff: 1

Objective: 5

AACSB: Application of knowledge

52) Merchandising companies purchase products and sell them to customers without changing their basic form.

Answer: TRUE

Diff: 1

Objective: 5

AACSB: Application of knowledge

53) Manufacturing companies hold only one type of inventory: direct material.

Answer: FALSE

Explanation: Manufacturing companies normally hold three types of inventory: Materials, WIP, and Finished Goods.

Diff: 1

Objective: 5

AACSB: Analytical thinking

54) Manufacturing sector firms normally hold three types of inventory: direct materials inventory, work-in-process inventory, and finished goods inventory.

Answer: TRUE

Diff: 1

Objective: 5

AACSB: Analytical thinking

55) Work-in-process inventory are goods partially worked on but not yet completed.

Answer: TRUE

Diff: 1

Objective: 5

AACSB: Analytical thinking

56) Direct material costs are the acquisition costs of all materials that eventually become part of the cost object and cannot be traced to the cost object in an economically feasible way.

Answer: FALSE

Explanation: Direct material costs can be traced to the cost object.

Diff: 2

Objective: 5

AACSB: Analytical thinking

57) Acquisition costs of direct materials include freight-in charges, sales taxes, and custom duties.

Answer: TRUE

Diff: 2

Objective: 5

AACSB: Analytical thinking

58) Indirect manufacturing costs include the compensation of all manufacturing labor that can be traced to the cost object in an economically feasible way.

Answer: FALSE

Explanation: Direct manufacturing labor costs include the compensation of all manufacturing labor that can be traced to the cost object.

Diff: 2

Objective: 5

AACSB: Analytical thinking

59) Direct manufacturing cost labor includes plant rent and salaries paid to plant supervisors.

Answer: FALSE

Explanation: Plant rent and salaries paid to plant supervisors are classified as indirect manufacturing costs.

Diff: 2

Objective: 5

AACSB: Application of knowledge

60) Inventoriable costs are reported as a liability on the balance sheet when incurred and expensed on the income statement when the product is sold.

Answer: FALSE

Explanation: Inventoriable costs are reported as an asset when incurred and expensed on the income statement when the product is sold.

Diff: 2

Objective: 5

AACSB: Application of knowledge

61) All manufacturing costs are period costs.

Answer: FALSE

Explanation: Manufacturing costs - materials, labor and manufacturing overhead are initially part of inventory cost and do not become expensed until the product is sold (cost of goods sold)

Diff: 2

Objective: 5

AACSB: Analytical thinking

62) All costs reported on the income statement of a service-sector company are inventoriable costs.

Answer: FALSE

Explanation: None of the costs reported on the income statement of a service-sector company are inventoriable costs. All costs shown on the income statement for a service business are period costs.

Diff: 1

Objective: 5

AACSB: Analytical thinking

63) Period costs are included in the cost of goods sold.

Answer: FALSE

Explanation: Period costs are expensed as incurred and are not part of inventory costs. Inventoriable costs become expensed (cost of goods sold) when goods are sold.

Diff: 2

Objective: 5

AACSB: Analytical thinking

64) Once product costs are defined, all other costs are period costs.

Answer: TRUE

Diff: 1

Objective: 5

AACSB: Analytical thinking

65) Indirect manufacturing costs are also referred to as manufacturing overhead costs or factory overhead costs.

Answer: TRUE

Diff: 1

Objective: 5

AACSB: Analytical thinking

66) 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.

	<u>Direct</u>	<u>Indirect</u>	<u>Fixed</u>	<u>Variable</u>
Assembly line labor wages	_____	_____	_____	_____
Plant manager's wages	_____	_____	_____	_____
Depreciation on the assembly line equipment	_____	_____	_____	_____
Component parts for the product	_____	_____	_____	_____
Wages of security personnel for the factory	_____	_____	_____	_____

Answer:

	<u>Direct</u>	<u>Indirect</u>	<u>Fixed</u>	<u>Variable</u>
Assembly line labor wages	X			X
Plant manager's wages		X	X	
Depreciation on the assembly line equipment		X	X	
Component parts for the product	X			X
Wages of security personnel for the factory		X		X

Diff: 2

Objective: 2, 4, 5

AACSB: Application of knowledge

67) What are the three types of manufacturing cost?

Answer: Direct materials costs are the acquisition costs of all materials that eventually become part of the cost object (work in process and then finished goods) and can be traced to the cost object in an economically feasible way. Examples of direct materials costs include steel used to manufacture cars, wood used in furniture, and semiconductor chips used in laptops.

Direct manufacturing labor costs include the compensation of all manufacturing labor that can be traced to the cost object (work in process and then finished goods) in an economically feasible way. Examples of direct manufacturing labor include wages paid to assembly-line workers.

Indirect manufacturing costs are all manufacturing costs that are related to the cost object (work in process and then finished goods) but cannot be traced to that cost object in an economically feasible way.

Examples of indirect manufacturing costs include plant insurance paid, plant rent, property taxes on plant.

Diff: 3

Objective: 5

AACSB: Analytical thinking

68) 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. Note that the cost of goods sold includes all manufacturing costs (direct materials, direct manufacturing labor, and manufacturing overhead costs) that are inventoriable costs incurred to produce them. Period costs are all costs in the income statement other than cost of goods sold. 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.

Diff: 2

Objective: 5

AACSB: Analytical thinking

## Objective 2.6

1) Which of the following formulas determine cost of goods sold in a merchandising entity?

- A) Beginning inventory + Purchases + Ending inventory = Cost of goods sold
- B) Beginning inventory + Purchases - Ending inventory = Costs of goods sold
- C) Beginning inventory - Purchases + Ending inventory = Cost of goods sold
- D) Beginning inventory - Ending inventory - Purchases = Cost of goods sold

Answer: B

Diff: 1

Objective: 6

AACSB: Analytical thinking

2) Which of the following formulas determine cost of goods sold in a manufacturing entity?

- A) Beginning work-in-process inventory + Cost of goods manufactured - Ending work-in-process inventory = Cost of goods sold
- B) Beginning work-in-process inventory + Cost of goods manufactured + Ending work-in-process inventory = Cost of goods sold
- C) Cost of goods manufactured - Beginning finished goods inventory - Ending finished goods inventory = Cost of goods sold
- D) Cost of goods manufactured + Beginning finished goods inventory - Ending finished goods inventory = Cost of goods sold

Answer: D

Diff: 1

Objective: 6

AACSB: Analytical thinking

3) A company reported revenues of \$377,000, cost of goods sold of \$122,000, selling expenses of \$12,000, and total operating costs of \$72,000. Gross margin for the year is:

- A) \$255,000
- B) \$243,000
- C) \$171,000
- D) \$293,000

Answer: A

Explanation: A)  $\$377,000 - \$122,000 = \$255,000$

Diff: 2

Objective: 6

AACSB: Application of knowledge

4) All Rite Manufacturing reported the following:

Revenue	\$460,000
Beginning inventory of direct materials, January 1, 2015	26,000
Purchases of direct materials	156,000
Ending inventory of direct materials, December 31, 2015	14,000
Direct manufacturing labor	30,000
Indirect manufacturing costs	41,000
Beginning inventory of finished goods, January 1, 2015	46,000
Cost of goods manufactured	239,000
Ending inventory of finished goods, December 31, 2015	45,000
Operating costs	150,000

What is All Rite Manufacturing's cost of goods sold?

- A) \$390,000
- B) \$240,000
- C) \$239,000
- D) \$389,000

Answer: B

Explanation: B)  $\$46,000 + \$239,000 - \$45,000 = \$240,000$

Diff: 3

Objective: 6

AACSB: Application of knowledge

5) All Rite Manufacturing reported the following:

Revenue	\$450,000
Beginning inventory of direct materials, January 1, 2015	30,000
Purchases of direct materials	153,000
Ending inventory of direct materials, December 31, 2015	18,000
Direct manufacturing labor	26,000
Indirect manufacturing costs	42,000
Beginning inventory of finished goods, January 1, 2015	47,000
Cost of goods manufactured	233,000
Ending inventory of finished goods, December 31, 2015	41,000
Operating costs	157,000

What is All Rite's gross margin (or gross profit)?

- A) \$54,000
- B) \$217,000
- C) \$211,000
- D) \$60,000

Answer: C

Explanation: C)  $\$450,000 - (\$47,000 + \$233,000 - \$41,000) = \$211,000$

Diff: 3

Objective: 6

AACSB: Application of knowledge



6) Cost of goods sold for a manufacturer is calculated as follows: beginning finished goods + cost of goods manufactured - ending finished goods.

Answer: TRUE

Diff: 2

Objective: 6

AACSB: Analytical thinking

7) Cost of goods sold refers to the products brought to completion, whether they were started before or during the current accounting period.

Answer: FALSE

Explanation: Cost of goods MANUFACTURED refers to the products brought to completion, whether they were started before or during the current accounting period.

Diff: 2

Objective: 6

AACSB: Application of knowledge

8) Worcester Manufacturing produces electronic storage devices, and uses the following three-part classification for its manufacturing costs: direct materials, direct manufacturing labor, 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 labor costs of each line. Summary data (in millions) for January for the most popular electronic storage device, the Big Brain, was:

	<b>Big Brain</b>
Direct manufacturing costs	\$4,600,000
Direct manufacturing labor costs	\$1,700,000
Indirect manufacturing costs	\$4,750,000
Units produced	40,000

**Required:**

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

b. Suppose production will be reduced to 30,000 units in February. Speculate as to whether the unit costs in February will most likely be higher or lower than unit costs in January; it is not necessary to calculate the exact February unit cost. Briefly explain your reasoning.

Answer:

a. Unit costs for January were:

$$(\$4,600,000 + \$1,700,000 + \$4,750,000) / 40,000 = \$276.25 \text{ per unit}$$

b. Unit costs should be higher in February if only 30,000 units are to be produced. Indirect manufacturing costs most likely include both fixed and variable components. 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

Objective: 6

AACSB: Application of knowledge

9) Millworks Company manufactured 100,000 units in 2020 and reported the following costs:

Sandpaper	\$ 32,000	Leasing costs-plant	\$ 384,000
Materials handling	320,000	Depreciation-equipment	224,000
Coolants & lubricants	22,400	Property taxes-equipment	32,000
Indirect manufacturing labor	275,200	Fire insurance-equipment	16,000
Direct manufacturing labor	2,176,000	Direct material purchases	3,140,000
Direct materials, 1/1/18	348,000	Direct materials, 12/31/18	280,000
Finished goods, 1/1/18	672,000	Sales revenue	12,800,000
Finished goods, 12/31/18	1,280,000	Sales commissions	640,000
Work-in-process, 1/1/18	96,000	Sales salaries	576,000
Work-in-process, 12/31/18	64,000	Advertising costs	480,000
		Administration costs	800,000

**Required:**

- What is the amount of direct materials used during 2020?
- What manufacturing costs were added to WIP during 2020?
- What is cost of goods manufactured for 2020?
- What is cost of goods sold for 2020?

Answer:

a.  $\$348,000 + \$3,140,000 - \$280,000 = \$3,208,000$

b.  $\$3,208,000 + \$2,176,000 + \$32,000 + \$320,000 + \$22,400 + \$275,200 + \$384,000 + \$224,000 + \$32,000 + \$16,000 = \$6,689,600$

c.  $\$6,689,600 + \$96,000 - \$64,000 = \$6,529,600$

d.  $\$6,529,600 + \$672,000 - \$1,280,000 = \$5,921,600$

Diff: 3

Objective: 6

AACSB: Application of knowledge

10) Howard Manufacturing Company had the following account balances for the quarter ending March 31, unless otherwise noted:

Work-in-process inventory (January 1)	\$ 140,400
Work-in-process inventory (March 31)	171,000
Finished goods inventory (January 1)	540,000
Finished goods inventory (March 31)	510,000
Direct materials used	420,000
Indirect materials used	84,000
Direct manufacturing labor	480,000
Indirect manufacturing labor	186,000
Property taxes on manufacturing plant building	28,800
Salespersons' company vehicle costs	12,000
Depreciation of manufacturing equipment	264,000
Depreciation of office equipment	123,600
Miscellaneous plant overhead	135,000
Plant utilities	92,400
General office expenses	305,400
Marketing distribution costs	30,000

**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. **Howard Manufacturing Company**  
**Cost of Goods Manufactured Schedule**  
**For quarter ending March 31**

Direct materials used		\$ 420,000
Direct manufacturing labor		480,000
Manufacturing overhead		
Depreciation of manufacturing equipment	\$264,000	
Indirect manufacturing labor	186,000	
Indirect materials	84,000	
Miscellaneous plant overhead	135,000	
Plant utilities	92,400	
Property taxes on building	<u>28,800</u>	<u>790,200</u>
Manufacturing costs incurred		\$1,690,200
Add beginning work-in-process inventory		<u>140,400</u>
Total manufacturing costs		\$1,830,600
Less ending work-in-process inventory		<u>(171,000)</u>
Cost of goods manufactured		<u>\$1,659,600</u>

b. **Howard Manufacturing Company**  
**Cost of Goods Sold Schedule**  
**For the quarter ending March 31**

Beginning finished goods inventory	\$ 540,000
Cost of goods manufactured	<u>1,659,600</u>
Cost of goods available for sale	2,199,600
Ending finished goods inventory	<u>(510,000)</u>
Cost of goods sold	<u>\$1,689,600</u>

Diff: 3

Objective: 6

AACSB: Application of knowledge

11) Using the following information find the unknown amounts. Assume each set of information is an independent case.

a. Merchandise Inventory	Purchases	\$210,000
	Cost of goods sold	223,000
	Beginning balance	41,000
	Ending balance	?
b. Direct Materials	Beginning balance	\$ 7,000
	Ending balance	14,000
	Purchases	48,000
	Direct materials used	?
c. Work-in-process Inventory	Ending balance	\$ 22,000
	Cost of goods manufactured	21,000
	Beginning balance	8,000
	Current manufacturing costs	?
d. Finished Goods Inventory	Cost of goods manufactured	\$62,000
	Ending balance	20,000
	Cost of goods sold	61,000
	Beginning balance	?

Answer:

a. Ending balance of merchandise inventory:  
 $\$41,000 + \$210,000 - \$223,000 = 28,000$

b. Direct materials used:  
 $\$7,000 + \$48,000 - \$14,000 = \$41,000$

c. Current manufacturing costs:  
 $\$21,000 + \$22,000 - \$8,000 = \$35,000$

d. Beginning balance of finished goods inventory:  
 $\$20,000 + \$61,000 - \$62,000 = \$19,000$

Diff: 3

Objective: 6

AACSB: Analytical thinking

12) 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.

		inventoriable (I) costs or period (P) costs
a.	Salary of Bedell Electronics president	
b.	Depreciation on Bedell Electronics assembly equipment	
c.	Salaries of Bedell's assembly line workers	
d.	Purchase of frozen food for sale to customers by Gregory Food Retailers	
e.	Salaries of frozen food personnel at Gregory Food Retailing	
f.	Depreciation on freezers at Gregory Food Retailing	
g.	Salary of a receptionist at Larson Real Estate	
h.	Depreciation on a computer at Larson Real Estate	
i.	Salary of a real estate agent at Larson Real Estate	

Answer:

		inventoriable (I) costs or period (P) costs
a.	Salary of Bedell Electronics president	P
b.	Depreciation on Bedell Electronics assembly equipment	I
c.	Salaries of Bedell's assembly line workers	I
d.	Purchase of frozen food for sale to customers by Gregory Food Retailers	I
e.	Salaries of frozen food personnel at Gregory Food Retailing	I
f.	Depreciation on freezers at Gregory Food Retailing	P
g.	Salary of a receptionist at Larson Real Estate	P
h.	Depreciation on a computer at Larson Real Estate	P
i.	Salary of a real estate agent at Larson Real Estate	P

Diff: 3

Objective: 6

AACSB: Analytical thinking

13) For last year, Watson Limited reported revenues of \$420,000, cost of goods sold of \$118,000, cost of goods manufactured of \$105,000, and total operating costs of \$60,000. Operating income for that year was:

- A) \$315,000
- B) \$302,000
- C) \$255,000
- D) \$242,000

Answer: D

Explanation: D)  $\$420,000 - \$118,000 - \$60,000 = \$242,000$

Diff: 2

Objective: 6

AACSB: Application of knowledge

14) Prime costs include:

- A) direct materials and direct manufacturing labor costs
- B) direct manufacturing labor and manufacturing overhead costs
- C) direct materials and manufacturing overhead costs
- D) only direct materials

Answer: A

Diff: 1

Objective: 6

AACSB: Analytical thinking

15) Expert Manufacturing reported the following:

Revenue	\$460,000
Beginning inventory of direct materials, January 1, 2015	30,000
Purchases of direct materials	15,800
Ending inventory of direct materials, December 31, 2015	16,000
Direct manufacturing labor	26,000
Indirect manufacturing costs	42,000
Beginning inventory of finished goods, January 1, 2015	45,000
Cost of goods manufactured	97,800
Ending inventory of finished goods, December 31, 2015	41,000
Operating costs	158,000

What is Expert's operating income?

- A) \$346,400
- B) \$218,200
- C) \$204,200
- D) \$200,200

Answer: D

Explanation: D)  $\$460,000 - (\$45,000 + \$97,800 - \$41,000) - \$158,000 = \$200,200$

Diff: 3

Objective: 6

AACSB: Application of knowledge

16) Conversion costs include:

- A) direct materials and direct manufacturing labor costs
- B) direct manufacturing labor and manufacturing overhead costs
- C) direct materials and manufacturing overhead costs
- D) only direct materials

Answer: B

Diff: 1

Objective: 6

AACSB: Analytical thinking

17) Total manufacturing costs equal:

- A) direct materials plus prime costs
- B) direct materials plus conversion costs
- C) direct manufacturing labor costs plus sunk costs
- D) direct manufacturing labor costs plus conversion costs

Answer: B

Diff: 1

Objective: 6

AACSB: Analytical thinking

18) The following information pertains to the Ruby Corp:

Beginning work-in-process inventory	\$74,000
Ending work-in-process inventory	82,000
Beginning finished goods inventory	172,000
Ending finished goods inventory	209,000
Cost of goods manufactured	1,202,000

What is cost of goods sold?

- A) \$1,210,000
- B) \$1,165,000
- C) \$1,157,000
- D) \$1,239,000

Answer: B

Explanation: B) Cost of goods sold = \$172,000 + \$1,202,000 - \$209,000 = \$1,165,000

Diff: 2

Objective: 6

AACSB: Application of knowledge



19) The following information pertains to Expert System Corporation:

Beginning work-in-process inventory	\$18,000
Ending work-in-process inventory	25,000
Beginning finished goods inventory	36,000
Ending finished goods inventory	31,000
Cost of goods manufactured	241,000
Sales	302,000

What is the gross profit margin earned by the company?

- A) \$56,000
- B) \$63,000
- C) \$68,000
- D) \$66,000

Answer: A

Explanation: A)  $\$36,000 + \$241,000 - \$31,000 = \$246,000$

Sales = \$302,000

Profit =  $\$302,000 - 246,000 = \$56,000$

Diff: 2

Objective: 6

AACSB: Application of knowledge

20) What is the cost of goods manufactured for 2020?

Beginning finished goods, 1/1/2020	\$84,000
Ending finished goods, 12/31/2020	79,000
Cost of goods sold	306,000
Sales revenue	450,000
Operating expenses	98,000

- A) \$404,000
- B) \$399,000
- C) \$301,000
- D) \$311,000

Answer: C

Explanation: C)  $\$306,000 + \$79,000 - \$84,000 = \$301,000$

Diff: 2

Objective: 6

AACSB: Application of knowledge

21) What is the gross margin for 2020?

Beginning finished goods, 1/1/2020	\$91,000
Ending finished goods, 12/31/2020	77,000
Cost of goods sold	310,000
Sales revenue	459,000
Operating expenses	103,000

A) \$135,000

B) \$46,000

C) \$163,000

D) \$149,000

Answer: D

Explanation: D)  $\$459,000 - \$310,000 = \$149,000$

Diff: 2

Objective: 6

AACSB: Application of knowledge

22) What is the operating income for 2020?

Beginning finished goods, 1/1/2020	\$90,000
Ending finished goods, 12/31/2020	77,000
Cost of goods sold	306,000
Sales revenue	456,000
Operating expenses	101,000

A) \$73,000

B) \$49,000

C) \$36,000

D) \$62,000

Answer: B

Explanation: B)  $\$456,000 - \$306,000 - \$101,000 = \$49,000$

Diff: 3

Objective: 6

AACSB: Application of knowledge

23) What is the cost of goods manufactured for 2020?

Beginning finished goods, 1/1/2020	\$47,000
Ending finished goods, 12/31/2020	36,000
Cost of goods sold	259,000
Sales revenue	488,000
Operating expenses	110,000

A) \$248,000

B) \$369,000

C) \$270,000

D) \$259,000

Answer: A

Explanation: A)  $\$259,000 + \$36,000 - \$47,000 = \$248,000$

Diff: 2

Objective: 6

AACSB: Application of knowledge

24) What is gross margin for 2020?

Beginning finished goods, 1/1/2020	\$53,000
Ending finished goods, 12/31/2020	37,000
Cost of goods sold	256,000
Sales revenue	484,000
Operating expenses	106,000

A) \$212,000

B) \$228,000

C) \$244,000

D) \$122,000

Answer: B

Explanation: B)  $\$484,000 - \$256,000 = \$228,000$

Diff: 3

Objective: 6

AACSB: Application of knowledge

25) What is operating income for 2020?

Beginning finished goods, 1/1/2020	\$50,000
Ending finished goods, 12/31/2020	35,000
Cost of goods sold	251,000
Sales revenue	485,000
Operating expenses	109,000

A) \$199,000

B) \$110,000

C) \$125,000

D) \$140,000

Answer: C

Explanation: C)  $\$485,000 - \$251,000 - \$109,000 = \$125,000$

Diff: 3

Objective: 6

AACSB: Application of knowledge

26) A company reported revenues of \$382,000, cost of goods sold of \$125,000, selling expenses of \$16,000, and total operating costs of \$74,000. Gross margin for the year is:

A) \$257,000

B) \$241,000

C) \$167,000

D) \$292,000

Answer: A

Explanation: A)  $\$382,000 - \$125,000 = \$257,000$

Diff: 2

Objective: 6

AACSB: Application of knowledge

27) Operating income is sales revenue minus operating expenses.

Answer: FALSE

Explanation: Operating income = sales revenue - cost of goods sold - operating expenses

Diff: 1

Objective: 6

AACSB: Analytical thinking

28) Conversion costs include all direct manufacturing costs and some of the period costs including research and development costs and customer service.

Answer: FALSE

Explanation: Conversion costs are production costs necessary to convert materials to finished goods which include direct labor and manufacturing overhead (indirect production costs).

Diff: 1

Objective: 6

AACSB: Analytical thinking

29) Designing, marketing, customer services, research and development expenses are all examples of operating costs.

Answer: TRUE

Diff: 2

Objective: 6

AACSB: Application of knowledge

30) Since costs that are inventoried are not expensed until the units associated with them are sold, a manager can produce more units than are expected to be sold in a period without reducing a firm's net income.

Answer: TRUE

Diff: 3

Objective: 6

AACSB: Analytical thinking

31) Indirect manufacturing costs such as rent, factory supervisor salary, and depreciation on production equipment are always costs of the period in which they are incurred and are not associated with inventories.

Answer: FALSE

Explanation: When indirect costs are incurred in marketing or in corporate headquarters, they are period costs. However, when these costs are incurred in manufacturing, they are manufacturing overhead costs and are inventoriable.

Diff: 3

Objective: 6

AACSB: Analytical thinking

32) Design costs incurred in a manufacturing company flow through the accounting system from work-in-process to finished goods and when the products are sold, the design costs are part of cost of goods sold.

Answer: FALSE

Explanation: Design costs along with the costs of R&D, marketing, distribution, and customer service are period costs and therefore when incurred are operating expenses and not inventoriable costs.

Diff: 2

Objective: 6

AACSB: Analytical thinking

## Objective 2.7

1) Which of the following is a manufacturing overhead cost?

- A) the use of direct materials in the making of a finished good
- B) labor cost of plant workers that can be traced accurately and easily to a particular product
- C) cost of materials that can be traced to individual products in an economically feasible manner
- D) overtime premiums paid to plant workers

Answer: D

Diff: 1

Objective: 6

AACSB: Application of knowledge

2) U.S. Systems Inc., had the following activities during 2020:

Direct materials:	
Beginning inventory	\$ 24,000
Purchases	61,600
Ending inventory	11,000
Direct manufacturing labor	18,000
Manufacturing overhead	11,500
Beginning work-in-process inventory	1,000
Ending work-in-process inventory	3,500
Beginning finished goods inventory	25,000
Ending finished goods inventory	19,000

### Required:

- a. What is the cost of direct materials used during 2020?
- b. What is cost of goods manufactured for 2020?
- c. What is cost of goods sold for 2020?
- d. What amount of prime costs was added to production during 2020?
- e. What amount of conversion costs was added to production during 2020?

Answer:

- a. Cost of direct materials =  $\$24,000 + \$61,600 - \$11,000 = \$74,600$
- b. Cost of goods manufactured =  $\$74,600 + \$18,000 + \$11,500 + \$1,000 - \$3,500 = \$101,600$
- c. Cost of goods sold =  $\$101,600 + \$25,000 - \$19,000 = \$107,600$
- d. Amount of prime costs added to production =  $\$72,800 + \$18,000 = \$92,600$
- e. Amount of conversion costs was added to production =  $\$18,000 + \$11,500 = \$29,500$

Diff: 2

Objective: 7

AACSB: Application of knowledge

3) Many government agency contracts exclude all but which of the following costs from reimbursement under cost-plus agreements?

- A) marketing costs
- B) design costs
- C) production costs
- D) part of the research and development costs

Answer: D

Diff: 1

Objective: 7

AACSB: Application of knowledge

4) On the assembly floor, Jennifer is paid a regular rate of \$25 an hour for straight-time assuming 8 working hours a day and five working days in a week. She is paid 1.5 times her regular rate for overtime hours. One week she worked 48 hours.

**Required:**

- a. What is Jennifer's total compensation for the week?
- b. What amount of compensation would be reported as direct manufacturing labor?
- c. What amount of compensation would be reported as manufacturing overhead?

Answer:

- a. Total compensation = Direct labor (40 hours × \$25) + Overtime premium (8 hrs × \$37.50) = \$1,300
- b. Direct manufacturing labor (48 hours × \$25) = \$1,200
- c. Manufacturing overhead costs = Overtime premium (8 hrs × \$12.50) = \$100

Diff: 3

Objective: 7

AACSB: Application of knowledge

5) In the manufacturing plant, Alex is paid \$40 an hour for straight-time and \$60 an hour for overtime. One week she worked 54 hours, which included 8 hours of overtime, and 6 hours of idle time caused by material shortages.

**Required:**

- a. What is Alex's total compensation for the week?
- b. What amount of compensation would be reported as direct manufacturing labor?
- c. What amount of compensation would be reported as manufacturing overhead?

Answer:

- a. Total compensation (48 hours × \$40) + Idle time (6 hrs × \$40) + Overtime premium (8 hrs × \$20) = \$2,320
- b. Direct manufacturing labor (48 hours × \$40) = \$1,920
- c. Manufacturing overhead costs = Idle time (6 hrs × \$40) + Overtime premium (8 hrs × \$20) = \$400

Diff: 3

Objective: 7

AACSB: Application of knowledge

6) Exceptional Manufacturing Co. wants to classify costs for the product produced at its facility. The company produces only one product at the facility and operates continually. The cost categories are:

Product cost  
Prime cost  
Conversion cost  
Period cost

The following costs are found in the accounting records:

- a. Quality control inspection wages
- b. Raw material purchases
- c. Sales commissions
- d. Factory depreciation
- e. Assembly wages

**Required:**

Assign each of the above costs to the most appropriate cost categories.

Answer: Product cost includes a, b, d, e.

Prime cost includes a, b, e.

Conversion cost includes a, d, e.

Period cost includes c.

Diff: 3

Objective: 7

AACSB: Analytical thinking



7) A publisher employs authors and editors at their office to write accounting textbooks. They also utilize subcontractors, who are accounting faculty, to proofread and provide feedback on manuscripts. In the table below, classify each of the publishers' costs of producing textbooks.

Costs	Direct or Indirect (Cost object = textbook)	Fixed or Variable with regards to sales of books)

Explanation:

Costs	Direct or Indirect (Cost object = textbook)	Fixed or Variable with regards to sales of books)
Authors' salaries	Direct	Fixed
Editors' salaries	Direct	Fixed
Social Security paid on employers' portion)	Indirect	Fixed
Cost of paper bound in hardcopy texts	Direct	Variable
Life insurance premiums paid on the lives of the authors' and editors	Indirect	Fixed
Wages paid to office staff	Indirect	Fixed
Security staff wages	Indirect	Fixed

Diff: 3

Objective: 7

AACSB: Analytical thinking

8) Which of the following is included in product cost for pricing and product-mix decisions?

- A) marketing costs
- B) sunk costs
- C) opportunity costs
- D) cost of capital

Answer: A

Diff: 2

Objective: 7

AACSB: Application of knowledge

9) Under GAAP, only \_\_\_\_\_ can be assigned to inventories in the financial statements.

- A) manufacturing costs
- B) period costs
- C) cost of goods sold
- D) historical costs

Answer: A

Diff: 2

Objective: 7

AACSB: Application of knowledge

10) Product costs for financial statements are:

- A) inventoriable costs for external reporting purposes
- B) exchange costs incurred during transportation
- C) only the costs incurred along the supply chain
- D) opportunity costs incurred for the decisions forgone

Answer: A

Diff: 2

Objective: 7

AACSB: Analytical thinking

11) Under GAAP, for the purposes of calculating inventory costs, product costs include:

- A) all costs incurred along the value chain
- B) design costs
- C) only inventoriable costs
- D) only research and development costs

Answer: C

Diff: 2

Objective: 7

AACSB: Analytical thinking

12) Product costs used for government contracts generally include:

- A) marketing costs, and customer service costs
- B) design costs and production costs
- C) all the costs for pricing and product-mix decisions
- D) production costs, distribution costs, marketing costs, and customer service costs

Answer: B

Diff: 1

Objective: 7

AACSB: Analytical thinking

13) A common classification of costs is by business function. Which of the following classifications is NOT by business function?

- A) cost object
- B) research and development
- C) distribution
- D) production

Answer: A

Diff: 1

Objective: 7

AACSB: Analytical thinking

14) Which of the following might explain why one manager might assign certain costs to a cost object while a different manager might assign some different costs to that same cost object?

A) One manager might classify one cost as direct while another might classify that same cost as indirect.

B) For financial statement purposes, one manager might include all the costs of the value chain while the other might only include GAAP cost.

C) One manager might value an inventory item for the balance sheet as the sum of all the value chain costs while another manager might choose to only recognize variable costs as inventoriable costs for GAAP purposes.

D) One manager might be pricing a cost object while the other manager might be seeking the inventoriable cost.

Answer: D

Diff: 2

Objective: 7

AACSB: Analytical thinking

15) For external reporting:

A) costs are classified as either inventoriable or period costs

B) costs reflect current values

C) there are no prescribed rules since no one is exactly sure how investors and creditors will use these numbers

D) costs include amounts that reflect both current and future benefits

Answer: A

Diff: 1

Objective: 7

AACSB: Analytical thinking

16) Which of the following statements is true?

A) Product costs and design costs are interchangeable terms.

B) Inventoriable costs are assigned to inventories under GAAP.

C) Manufacturing costs are a special case of period costs.

D) Intangible costs refer to a particular cost of a product.

Answer: B

Diff: 1

Objective: 7

AACSB: Analytical thinking

17) One possible item that some companies include as direct manufacturing labor include:

A) fringe benefits

B) overtime

C) idle time

D) plant supervisor's salary

Answer: A

Diff: 1

Objective: 7

AACSB: Analytical thinking

18) Francis Kenney is paid \$19 an hour for straight-time and \$29 an hour for overtime. One week she worked 44 hours, which included 4 hours of overtime. What is the overtime premium incurred to the company?

- A) \$116
- B) \$440
- C) \$40
- D) \$876

Answer: A

Explanation: D) Overtime premium (4 hrs × \$29) = \$116

Diff: 2

Objective: 7

AACSB: Analytical thinking

19) Ralph Johnson is paid \$30 an hour for straight-time and \$40 an hour for overtime. One week he worked 39 hours, which included 9 hours of overtime, and 4 hours of idle time caused by material shortages. What is the direct labor cost incurred to the company?

- A) \$1,050
- B) \$1,260
- C) \$1,140
- D) \$1,100

Answer: A

Explanation: A) Direct labor (39 - 4 = 35 hours × \$30) = \$1,050

Diff: 3

Objective: 7

AACSB: Analytical thinking

20) Andy worked 60 hours last week for Bread Works Manufacturing. Of the 60 hours 10 hours were considered overtime, and also Tony was idle for 8 of the 60 hours due to an equipment malfunction. Andy makes \$90 per hour and is paid \$135 an hour (time and a half) for overtime. Andy's total compensation for that week would be \_\_\_\_\_, and assuming Bread Works charges overtime premium and idle time to indirect labor, the amount of this compensation credited to indirect labor would be \_\_\_\_\_.

- A) \$5,850; \$1,170
- B) \$6,300; \$2,070
- C) \$5,130; \$2,430
- D) \$5,400; \$1,620

Answer: A

Explanation: A) total compensation (50 × \$90) + (10 × \$135) = \$5,850;

indirect labor (8 × \$90) + (10 × \$45) = \$1,170

Diff: 3

Objective: 7

AACSB: Analytical thinking

21) Idle time wages consists of the wages paid to all workers (for both direct labor and indirect labor) in excess of their straight-time wage rates.

Answer: FALSE

Explanation: Overtime premium consists of the wages paid to all workers (for both direct labor and indirect labor) in excess of their straight-time wage rates. Idle time wages refers to the wages paid for unproductive time caused by lack of orders, machine or computer breakdowns, work delays, etc.

Diff: 1

Objective: 7

AACSB: Analytical thinking

22) Rework labor time is considered an overhead cost and not a direct labor cost.

Answer: TRUE

Diff: 1

Objective: 7

AACSB: Analytical thinking

23) For external reporting purposes, indirect manufacturing costs must be allocated to individual units.

Answer: TRUE

Diff: 1

Objective: 7

AACSB: Analytical thinking

24) Overtime premium is normally considered as a component of direct labor.

Answer: FALSE

Explanation: Overtime premium is normally considered as part of indirect labor since it is usually not associated with a particular job.

Diff: 1

Objective: 7

AACSB: Analytical thinking

25) It is common for fringe benefit costs, such as the portion of social security premiums paid by the employer and the costs incurred by the company for its portion of premiums for health and disability insurance, to be classified as an indirect (overhead) cost.

Answer: TRUE

Diff: 1

Objective: 7

AACSB: Analytical thinking

26) If a worker is paid for 40 hours, but is idle for 5 of those 40 hours, the 5 hours of idle time would be considered a component of direct labor.

Answer: FALSE

Explanation: Idle time is normally considered a component of indirect labor since it is usually not associated with a particular job.

Diff: 1

Objective: 7

AACSB: Analytical thinking

27) When should an overtime premium of direct manufacturing labor be considered an indirect manufacturing cost? A direct manufacturing cost?

Answer: The overtime premium of direct manufacturing labor 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: 1

Objective: 7

AACSB: Analytical thinking

28) In determining product cost, what concerns does a manufacturing firm have when contracting with a government agency?

Answer: Government contracts often reimburse on the basis of "cost of a product" plus a pre specified profit margin. Government agencies provide detailed guidelines on the cost items they allow and disallow when calculating the cost of a product. For example, expenses such as marketing, distribution, and customer service costs may be prohibited but research and development costs are sometimes partially allowed as part of the cost.

Diff: 1

Objective: 7

AACSB: Analytical thinking

## Objective 2.8

1) Which of the following influences the make or buy decision to the company?

A) opportunity cost

B) sunk cost

C) historical cost

D) plant depreciation

Answer: A

Diff: 2

Objective: 8

AACSB: Analytical thinking

2) Since budgeting is a financial function and mostly an analytical and quantitative exercise, it generally has no impact on human behavior, motivation and decision making.

Answer: FALSE

Explanation: Budgeting can impact the way people work. Budgeted goals can help people focus on the activities that will help assure achievement of the goals. Financial rewards, promotions, and recognition tied to budgetary performance can also alter behaviors.

Diff: 2

Objective: 8

AACSB: Analytical thinking

3) Cost accounting and cost management include calculating various costs, obtaining financial and nonfinancial information, and analyzing relevant information for decision making.

Answer: TRUE

Diff: 1

Objective: 8

AACSB: Analytical thinking

4) Cost accounting helps to aids managers in formulating strategies, setting prices for products and services and making decisions about the mix of products and services to be offered to customers.

Answer: TRUE

Diff: 2

Objective: 8

AACSB: Analytical thinking

5) Management accountants help managers identify what information is relevant and what information is irrelevant that help in decision making.

Answer: TRUE

Diff: 1

Objective: 8

AACSB: Analytical thinking

6) The capability of most state-of-the-art cost accounting systems are limited to calculating the cost of products, and services.

Answer: FALSE

Explanation: A cost accounting system should support calculations of the cost of products, services, and other cost objects, provide useful information for planning and control and performance evaluation, and for analyzing the relevant information for making decisions.

Diff: 2

Objective: 8

AACSB: Analytical thinking

7) The cost system of Charlton Fabricators indicates that a product cost \$30 to make in house. Of that \$30 cost, \$7 consists of plant costs that have already been paid for. A supplier proposes to make the same product for \$26 but Charlton's plant will have idle time and because of budgetary constraints, will not be retooled to take advantage of that idle time. Should the product be outsourced to the supplier?

A) No because the relevant cost for making the product is only \$23 .

B) Yes, because the Supplier can produce the product for \$4.00 less per unit than Charlton can.

C) Yes, because the Supplier can produce the product for \$11.00 less per unit than Charlton can.

D) No because the plant can be utilized for other purposes and either save the company even more money or produce additional revenue.

Answer: A

Explanation: A) The relevant cost of making the product is \$23 because the \$7 is a sunk cost.

Diff: 2

Objective: 8

AACSB: Analytical thinking

8) A company is considering buying a product at \$15 per unit, the in-house manufacturing of the same product is \$17. The fixed cost per unit is \$3 is included in the \$17 in-house product manufacturing cost. What should the company do in this scenario?

Answer: If the company purchases the product from the vendor it will incur a cost of  $\$15 + \$3 = \$18$ , whereas it manufactures the product in-house for \$17. Thus, the company saves \$1 per unit by manufacturing in-house. Hence, it should manufacture the product in-house.

Diff: 2

Objective: 8

AACSB: Application of knowledge