

DEFINITIONS AND CONCEPTS

**** CONCEPTS AND DEFINITIONS IN THIS MODULE APPEAR IN VARIOUS CHAPTERS ****

Key Terms and Concepts to Know

Major Management Activities

- Planning - formulating long and short-term plans
- Directing and Motivating- implementing plans
- Controlling- measuring performance; comparing actual to planned performance
- Improving - feedback supporting continuous process improvement to deliver the right products in the right quantities at the right time
- Decision making – inherent in the other four processes

Manufacturing or Product Costs

- Direct Costs can be easily and conveniently traced to the finished product:
 - Direct Materials includes material costs which are an integral part of the finished product
 - Direct Labor includes labor costs used to make the finished product
- Indirect Costs- cannot be easily and conveniently traced to specified cost objects:
 - Manufacturing Overhead includes all costs of manufacturing except direct materials and direct labor; i.e., only those costs associated with *operating the factory* are included in manufacturing overhead.
- Prime Costs are Direct Materials + Direct Labor
- Conversion Costs are Direct Labor + Manufacturing Overhead
- Product Costs flow through the inventory accounts before becoming an expense, Cost of Goods Sold, when the units of product are sold

Nonmanufacturing or Period Costs

- Period costs, generally divided into Selling Costs and Administrative Costs, consist of all other costs not included in product costs. Period costs are expensed in the period incurred.

Cost Classifications for Predicting Cost Behavior

- In addition to classifying costs by function (manufacturing vs. non-manufacturing), costs may be classified by how they behave in total when the activity level changes:

	In Total	Per Unit
Variable Cost	Varies	The same
Fixed Cost	The same	Varies inversely
Mixed Cost	Varies	Varies (often inversely)

- The relevant range is the range of activity levels throughout which the assumptions for cost behavior are valid. Outside the relevant range, total fixed costs may change and/or variable costs per unit may change.
- Committed fixed costs relate to costs that the company will incur over the long-term. These costs, such as depreciation expense, property tax expense and insurance expense, cannot be changed during short periods of time and are only somewhat under the control of management.
- Discretionary fixed costs usually arise from annual decisions by management and can be changed during short periods of time. Advertising, research and development, public relations are some examples of discretionary fixed costs.
- Mixed costs contain both variable and fixed cost elements. For example, a company's selling expenses may include fixed expenses, such as the advertising costs and the base salary of the sales manager; and variable costs, such as sales commissions paid to the regional salesmen.

Cost Classifications for Decision Making

- Differential Costs and Revenues differ among alternatives
- Opportunity Costs are the potential benefits given up by making a decision
- Sunk Cost is a cost previously incurred; it cannot be changed by a present or future decision

Key Topics to Know

Cost Classifications for Decision-Making

Example #1

Classify the following costs according to how they are traced to a unit of product.

1. Wood used for making tables
2. Wages of the assembly workers in a furniture factory
3. Salary of the factory supervisor
4. Electricity to run factory equipment
5. Janitorial salaries
6. Rent on a factory building
7. Plastic parts used to make toys
8. Glue used to make toys
9. Lubricants on production machines

Solution #1

	<u>To Units of Production</u>	
	<u>Direct</u>	<u>Indirect</u>
1.	X	
2.	X	
3.		X
4.		X
5.		X
6.		X
7.	X	
8.		X*
9.		X

*These materials would usually be considered indirect. They are insignificant in amount and it would not be cost-effective to trace them to individual products.

Example #2

Which of the following is classified as a direct labor cost?

	<u>Wages of assembly- line workers</u>	<u>Wages of a factory supervisor</u>
1.	No	No
2.	Yes	Yes
3.	No	Yes
4.	Yes	No

Solution #2

Assembly line workers' wages are direct labor; their labor "makes" the product. Factory supervisors do not "make" the product; their wages are manufacturing overhead.

Example #3

Classify the following costs according to their behavior as production volume changes.

1. Wood used for making tables
2. Wages of the assembly workers in a furniture factory
3. Salary of the factory supervisor
4. Electricity to run factory equipment
5. Rent on a factory building
6. Plastic parts used to make toys
7. Glue used to make toys

Solution #3

	<u>Cost Behavior</u>	
	<u>Variable</u>	<u>Fixed</u>
1.	X	
2.	X	
3.		X
4.	X	
5.		X
6.	X	
7.	X	

Example #4

Determine whether the following costs would be recorded in the period of sale or period when the cost was incurred.

1. Wood used for making tables
2. Wages of the accounting department workers
3. Salary of the factory supervisor
4. Utilities to operate sales offices
5. Janitorial salaries for the factory
6. Rent on a corporate building
7. Plastic parts used to make toys
8. Glue used to make toys
9. Supplies for administrative copy machines

Solution #4

	<u>Period when product is sold</u>	<u>Period when cost is incurred</u>
1.	X	
2.		X
3.	X	
4.		X
5.	X	
6.		X
7.	X	
8.	X	
9.		X

Practice Problems

Practice Problem #1

A partial listing of costs incurred during December at Rooks Corporation appears below:

Factory supplies	\$7,000
Administrative wages	92,000
Direct materials	176,000
Sales staff salaries	32,000
Factory depreciation	2,000
Headquarters building rent	47,000
Indirect labor	23,000
Marketing expenses	136,000
Direct labor	82,000

Required: Determine the total of the manufacturing overhead costs for December.

Practice Problem #3

Jarvis Company provided the following information regarding its first year of operations:

Administrative salaries	\$60,000
Factory depreciation	16,000
Indirect materials	4,000
Marketing expenses	40,000
Factory supervision salaries	28,000
Direct labor	80,000
Direct materials used	100,000
Research and development costs	32,000
Factory building rent	18,000
Sales revenues	432,000
Sales staff salaries	32,000
Headquarters building rent	17,000
Selling expenses	7,000

Required: a) Total overhead costs
 b) Total product costs
 c) Total period costs

Practice Problem #3

Management of Wallen Corporation has provided the following financial information for September. Direct materials cost was \$57,000, direct labor cost was \$43,000, and manufacturing overhead was \$71,000. Selling expense was \$15,000 and administrative expense was \$32,000.

Required: Determine the conversion cost for September.

True / False Questions

1. Managerial accounting must follow GAAP.
True False
2. Managerial accounting emphasizes decisions affecting the future.
True False
3. Manufacturing costs are product costs.
True False
4. Period costs are expensed in the period incurred.
True False
5. Direct materials and direct labor are also called prime costs.
True False
6. Conversion costs are manufacturing costs.
True False
7. Sales commissions are a product cost because they are incurred when a unit of product is sold.
True False
8. Manufacturing companies have one inventory account.
True False
9. A direct cost cannot be easily traced to a cost object.
True False
10. A cost that differs between two alternatives is a sunk cost.
True False
11. Manufacturing overhead can be a variable cost or a fixed cost, but not both.
True False
12. Depreciation on administrative office's equipment is a product cost.
True False
13. Direct material costs are generally fixed costs.
True False

14. Conversion cost equals product cost less direct labor cost.

True False

15. Only direct costs can be classified as product costs; indirect costs are classified as period costs.

True False

Multiple Choice Questions

1. Which of the following is not a characteristic of managerial accounting:
 - a) Emphasizes decisions affecting the future
 - b) Mandatory for external reports
 - c) Need not follow GAAP
 - d) Reports to those inside the organization

2. Which of the following is not a manufacturing cost:
 - a) Direct materials
 - b) Manufacturing overhead
 - c) Administrative costs
 - d) Direct labor

3. How many classes of inventory accounts do manufacturing companies have:
 - a) One
 - b) Three
 - c) Two
 - d) Four

4. Costs that are taken directly to the income statement as expenses in the period in which they are incurred are:
 - a) Product costs
 - b) Prime costs
 - c) Sunk costs
 - d) Period costs

5. Prime costs + Conversion Costs equals:
 - a) Product costs
 - b) Prime costs
 - c) Manufacturing costs
 - d) A meaningless total because direct labor is counted twice.

6. Potential benefits given up when one alternative is selected over another are:
 - a) Prime costs
 - b) Sunk costs
 - c) Opportunity costs
 - d) Direct costs

7. A direct cost is one which:
 - a) Is not worth the effort of tracing to a specific cost object
 - b) Remains constant no matter the activity level
 - c) Can be easily and conveniently traced to a specific cost object
 - d) Always sunk

8. At production level of 2,000 units a cost is \$20,000; at production level of 4,500 units the same cost is \$45,000. This is an example of a:
 - a) Variable cost
 - b) Direct cost
 - c) Fixed cost
 - d) Sunk cost

9. An example of a fixed cost in a manufacturing company is:
 - a) The cost of raw materials
 - b) The cost of electricity for running machines
 - c) Wages of assembly line workers
 - d) Depreciation on factory equipment

10. Mary's job pays \$400 a week. She thinks she will have to quit her job if she goes to college. The wages that she will lose if she chooses college are:
 - a) Sunk cost
 - b) Opportunity cost
 - c) Indirect cost
 - d) Prime cost

11. The costs of prescription drugs administered to patients by nurses on the fourth floor of Central Hospital should be classified as:
 - a) Direct patient costs.
 - b) Indirect patient costs.
 - c) Overhead costs of the nursing station.
 - d) Period costs of the hospital.

12. All of the following costs would be found in a company's accounting records except:
 - a) Sunk cost.
 - b) Opportunity cost.
 - c) Indirect costs.
 - d) Direct costs.

13. Which of the following would most likely be included as part of manufacturing overhead in the production of a wooden table?
- a) The amount paid to the individual who stains the table.
 - b) The commission paid to the salesperson who sold the table.
 - c) The cost of glue used in the table.
 - d) The cost of the wood used in the table.
14. Inventoriable costs are also known as:
- a) Variable costs.
 - b) Conversion costs.
 - c) Product costs.
 - d) Fixed costs.
15. At production level of 2,000 units a cost is \$20,000; at production level of 4,500 units the same cost is \$20,000. This is an example of a:
- a) Variable cost
 - b) Direct cost
 - c) Fixed cost
 - d) Sunk cost

Solutions to Practice Problems

Practice Problem #1:

Factory supplies	\$7,000
Factory depreciation	2,000
Indirect labor	<u>23,000</u>
Total Overhead	\$32,000

Practice Problem #3:

a)

Factory depreciation	\$16,000
Indirect materials	4,000
Factory supervision salaries	28,000
Factory building rent	<u>18,000</u>
Total overhead costs	\$66,000

b)

Direct materials used	\$100,000
Direct labor	80,000
Total overhead costs	<u>66,000</u>
Total product costs	\$246,000

c)

Administrative salaries	\$60,000
Marketing expenses	40,000
Research and development costs	32,000
Sales staff salaries	32,000
Headquarters building rent	17,000
Selling expenses	<u>7,000</u>
Total period costs	\$188,000

Practice Problem #2:

Direct labor	\$43,000
Manufacturing overhead	<u>71,000</u>
Total Conversion Cost	\$114,000

Solutions to True / False Problems

1. False - because managerial accounting may use financial and non-financial information.
2. True
3. True
4. True
5. True
6. True
7. False - sales commissions are a selling expense.
8. False - manufacturing companies have three inventory accounts: Direct materials, Work in Process, Finished Goods.
9. False - direct costs have a direct and easily traceable relationship to cost objects.
10. False - costs that differ among alternatives are differential costs.
11. True
12. False - administrative costs are never product costs.
13. False – direct materials costs are variable costs as the total cost increases when more units are produced.
14. False – conversion cost equals product cost minus direct materials cost
15. False – indirect manufacturing costs, i.e. manufacturing overhead, are classified as product costs

Solutions to Multiple Choice Questions

- | | |
|-----|---|
| 1. | B |
| 2. | C |
| 3. | B |
| 4. | D |
| 5. | D |
| 6. | C |
| 7. | C |
| 8. | A |
| 9. | D |
| 10. | B |
| 11. | A |
| 12. | B |
| 13. | C |
| 14. | C |
| 15. | C |