

Member ID: \_\_\_\_\_

Time: \_\_\_\_\_

Rank: \_\_\_\_\_



# MANAGERIAL ACCOUNTING (135) REGIONAL 2023

## CONCEPT KNOWLEDGE:

Multiple Choice (20 @ 2 points each) \_\_\_\_\_ (40 points)

## APPLICATION KNOWLEDGE:

Short Answer \_\_\_\_\_ (21 points)

Problem 1: Activity-Based Costing \_\_\_\_\_ (20 points)

Problem 2: Job Order Costing \_\_\_\_\_ (25 points)

***TOTAL POINTS*** \_\_\_\_\_ ***(106 points)***

**Test Time: 90 minutes**

### **GENERAL GUIDELINES:**

*Failure to adhere to any of the following rules will result in disqualification:*

1. Member must hand in this test booklet and all printouts if any. Failure to do so will result in disqualification.
2. No equipment, supplies, or materials other than those specified for this event are allowed in the testing area. No previous BPA tests and/or sample tests (handwritten, photocopied, or keyed) are allowed in the testing area.
3. Electronic devices will be monitored according to ACT standards.

### **EXAM GUIDELINES:**

You have been hired as a Financial Assistant and will be keeping the accounting records for Digital Solutions, located at 700 Morse Road, Suite 201, Columbus, Ohio 43214. Digital Solutions provides accounting and other financial services for clients. You will complete jobs for Digital Solutions' own accounting records, as well as for clients.

You will have 90 minutes to complete your work. The test is divided into two parts: concept knowledge and application knowledge.

Your name and/or school name should *not* appear on any work you submit for grading. Write your Member ID in the provided space. Staple all pages in order before you turn in your test.

Assumptions to make when taking this assessment:

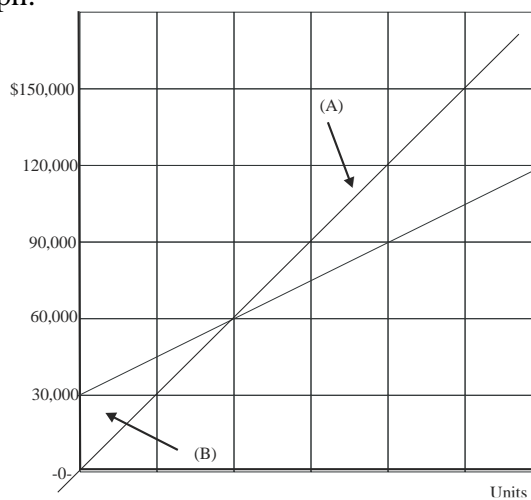
- Round all calculations to two decimal places at the final step.
- Round all percentages to one decimal place.
- Use 360 days for interest calculations.

### Multiple Choice

Identify the letter of the choice that *best* completes the statement or answers the question.

1. The \_\_\_\_\_ is a professional certification intended to indicate a level of knowledge and proficiency for management accountants
  - A. CMA
  - B. IMA
  - C. IFRS
  - D. GAAP

2. Consider the following graph:



The line designated by the letter (A) represents which of the following?

- A. Variable cost
  - B. Breakeven
  - C. Total revenue
  - D. Total cost
3. Goods that have been started in the manufacturing process but are not yet complete are included in the \_\_\_\_\_ account.
    - A. Cost of Goods Sold
    - B. Work-In-Process
    - C. Raw Materials Inventory
    - D. Finished Goods Inventory

4. When are product costs expensed?
- A. When the product is sold
  - B. When the product is completed
  - C. When the costs are incurred
  - D. When adjusting entries are recorded
5. At the beginning of the year, XYZ Company had the following account balances: Raw Materials Inventory \$95,250; Work-In-Process Inventory \$2,000; Finished Goods Inventory \$8,000; Manufacturing Overhead \$0; Cost of Goods Sold \$0; Sales Revenue \$0. The following additional details are provided for the year:

Direct materials placed into production	\$80,700
Direct labor incurred	\$191,400
Manufacturing overhead incurred	\$300,900
Manufacturing overhead allocated to production	\$286,890
Cost of jobs completed and transferred	\$501,400

What is the ending balance in the Work-In-Process account?

- A. Credit of \$70,300
  - B. Debit of \$59,590
  - C. Credit of \$57,300
  - D. Debit of \$73,600
6. Which of the following best describes cost of goods manufactured?
- A. The total cost of goods that were sold during the period
  - B. The total amount of money spent on product costs during the period
  - C. The total cost of goods that were completed during the period
  - D. The total cost of goods that were started into production during the period
7. Which of the following companies is most likely to use process costing?
- A. An accounting firm
  - B. A catering company
  - C. A movie studio
  - D. A shoe manufacturer

8. Cull Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company's predetermined overhead rate for the current year is \$2.20 per machine-hour. The company has provided the following data concerning Job X455 which was recently completed:

Number of units in the job	10
Total machine-hours	80
Direct materials	\$810
Direct labor cost	\$1,620

If the company marks up its unit product costs by 20% then the selling price for a unit in Job X455 is closest to:

- A. \$379.92
  - B. \$316.60
  - C. \$399.92
  - D. \$312.72
9. The Work-in-Process Inventory of the Model Fabricating Corp. was \$3,000 higher on December 31, 2019 than it was on January 1, 2019. This implies that in 2019:
- A. Cost of goods manufactured was higher than cost of goods sold.
  - B. Cost of goods manufactured was less than total manufacturing costs.
  - C. Manufacturing costs were higher than cost of goods sold.
  - D. Total manufacturing costs were less than cost of goods manufactured.
10. A manufacturing process requires small amounts of glue. The glue used in the production process is classified as a(n)
- A. Period cost
  - B. Indirect material
  - C. Direct material
  - D. Miscellaneous expense
11. Which of the following costs would not be inventoriable?
- A. Period costs
  - B. Factory insurance costs
  - C. Indirect materials
  - D. Indirect labor costs

12. As inventoriable costs expire, they become
- A. Selling expenses
  - B. Gross profit
  - C. Cost of goods sold
  - D. Sales revenue
13. Which of the following characteristics would likely be associated with a just-in-time inventory method?
- A. Ending inventory of work in process that would allow several production runs
  - B. A backlog of inventory orders not yet shipped
  - C. Minimal finished goods inventory on hand
  - D. An understanding with customers that they may come to the showroom and select inventory on hand
14. On the cost of goods manufactured schedule, the cost of goods manufactured agrees with the
- A. Balance of Finished Goods Inventory at the end of the period
  - B. Total debits to Work in Process Inventory during the period
  - C. Amount transferred from Work in Process Inventory to Finished Goods Inventory during the period
  - D. Debits to Cost of Goods Sold during the period
15. If the Manufacturing Overhead account has a debit balance at the end of the period, it means that
- A. Actual overhead costs were less than the overhead costs applied to jobs
  - B. Actual overhead costs were greater than the overhead costs applied to jobs
  - C. Actual overhead costs were equal to overhead costs applied to jobs
  - D. No jobs have been completed during the period
16. At the end of the year, any balance in the Manufacturing Overhead account is generally eliminated by adjusting
- A. Work in Process Inventory
  - B. Finished Goods Inventory
  - C. Cost of Goods Sold
  - D. Raw Materials Inventory
17. In a manufacturing company, the cost of factory labor consists of all of the following except
- A. Employer payroll taxes
  - B. Fringe benefits incurred by the employer
  - C. Net earnings of factory workers
  - D. Gross earnings of factory workers

18. Which best describes the flow of overhead costs in an activity-based costing system?

- A. Overhead costs → direct labor cost or hours → products
- B. Overhead costs → products
- C. Overhead costs → activity cost pools → cost drivers → products
- D. Overhead costs → machine hours → products

19. Which of the following is a limitation of activity-based costing?

- A. More cost pools
- B. Less control over overhead costs
- C. Poorer management decisions
- D. Some arbitrary allocations continue

20. Activity based costing is used in

- |    | Service<br>Industries | Manufacturing<br>Industries |
|----|-----------------------|-----------------------------|
| A. | Yes                   | No                          |
| B. | Yes                   | Yes                         |
| C. | No                    | No                          |
| D. | No                    | Yes                         |

### Short Answer

1. Leonard Corporation's relevant range of activity is 2,900 units to 7,500 units. When it produces and sells 5,200 units, its average costs per unit are as follows:

	Average Cost per Unit
Direct materials	\$ 6.50
Direct labor	\$ 3.40
Variable manufacturing overhead	\$ 1.25
Fixed manufacturing overhead	\$ 3.50
Fixed selling expense	\$ 0.85
Fixed administrative expense	\$ 0.55
Sales commissions	\$ 0.65
Variable administrative expense	\$ 0.55

If 4,200 units are produced, what is the total amount of indirect manufacturing cost?	
If 4,200 units are produced, what is the total amount of direct manufacturing cost?	

2. The following costs were incurred in May:

Direct materials	\$40,100
Direct labor	\$29,700
Manufacturing overhead	\$21,200
Selling expenses	\$25,600
Administrative expenses	\$32,100

What were total conversion costs during the month?	
What were total prime costs during the month?	

3. Lionel Corporation has provided the following information:

	Cost per Unit	Cost per Period
Direct materials	\$ 7.05	
Direct labor	\$ 3.70	
Variable manufacturing overhead	\$ 1.30	
Fixed manufacturing overhead		\$ 11,900
Sales commissions	\$ 0.50	
Variable administrative expense	\$ 0.60	
Fixed selling and administrative expense		\$ 3,600

If 3,500 units are produced, what is the total amount of manufacturing overhead?	
If 3,500 units are produced, what is the total amount of product costs?	
If 3,500 units are produced, what is the total amount of period costs?	



**Problem 1 (20 Points)**

King Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, R78S and N32Y, about which it has provided the following data:

	R78S	N32Y
Direct materials per unit	\$ 27.20	\$ 54.70
Direct labor per unit	\$ 8.80	\$ 22.00
Direct labor-hours per unit	0.4	1.0
Annual production (units)	35,000	10,000

The company's estimated total manufacturing overhead for the year is \$1,427,040.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost
Assembling products (DLHs)	\$ 672,000
Preparing batches (batches)	255,840
Product support (product variations)	499,200
Total	\$ 1,427,040

	Expected Activity		
	R78S	N32Y	Total
DLHs	14,000	10,000	24,000
Batches	816	1,152	1,968
Product variations	840	408	1,248

What is the unit product cost of product R78S under traditional costing?	
What is the unit product cost of product N32Y under traditional costing?	
What is the unit product cost of product R78S under the activity-based costing system?	
What is the unit product cost of product N32Y under the activity-based costing system?	

## Problem 2 (25 Points)

Crosby Company uses a job-order costing system. Its plantwide predetermined overhead rate uses direct labor-hours as the allocation base. The company pays its direct laborers \$14.00 per hour. During the year, the company started and completed only two jobs—Job Alpha, which used 57,600 direct labor-hours, and Job Omega. The job cost sheets for these two jobs are shown below:

Job Alpha	
Direct materials	?
Direct labor	?
Manufacturing overhead applied	?
Total job cost	<u>\$ 1,638,000</u>

Job Omega	
Direct materials	\$ 218,300
Direct labor	331,800
Manufacturing overhead applied	<u>165,900</u>
Total job cost	<u>\$ 716,000</u>

<b>What is the plantwide predetermined overhead rate?</b>	
<b>Complete the Job Cost Sheet for Job Alpha:</b>	
Direct Materials	
Direct Labor	
Manufacturing Overhead	
Total Job Cost	