



**MANAGERIAL**

**ACCOUNTING**

(135)

**REGIONAL 2022**

**CONCEPT KNOWLEDGE:**

Multiple Choice (10 @ 2 points each) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (20 points)

Matching (10 @ 2 points each) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (20 points)

**APPLICATION KNOWLEDGE:**

Short Answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (27 points)

Problem 1: Activity-Based Costing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (40 points)

Problem 2: Departmental Accounting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (55 points)

Problem 3: Job Order Costing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (48 points)

***TOTAL POINTS*** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ***(210 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 (10 @ 2 points each = 20 points)**

1. A
2. A
3. C
4. B
5. A
6. A
7. A
8. A
9. B
10. B

**Matching (1 point each; total 20 Points)**

|  |  |  |
| --- | --- | --- |
|  | Classify each cost as either Product (PR) or Period (PE) | Classify each cost as either Direct Materials (DM), Direct Labor (DL), Manufacturing Overhead (MOH), or Neither (N/A) |
| Wages paid to the corporate accountant | **PE** | **N/A** |
| Wood used by a furniture manufacturer | **PR** | **DM** |
| Electricity for the factory | **PR** | **MOH** |
| Utilities for the corporate headquarters | **PE** | **N/A** |
| Wages paid to an assembly line worker | **PR** | **DL** |
| Depreciation on factory equipment | **PR** | **MOH** |
| Sales commissions | **PE** | **N/A** |
| Depreciation on corporate jet | **PE** | **N/A** |
| Salary for Plant Manager | **PR** | **MOH** |
| Repair of factory machinery | **PR** | **MOH** |

**Short Answer (Each answer worth 3 points; total 27 Points)**

1. Pluto & Co. has provided the following information:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Cost per unit | | |  | Cost per period | | |
| Direct materials | | $ | 5.00 |  |  |  |
| Direct labor | | $ | 4.25 |  |  |  |
| Variable manufacturing overhead | | $ | 1.85 |  |  |  |
| Fixed manufacturing overhead | |  |  |  | $ | 35,000 |
| Sales commissions | | $ | 0.70 |  |  |  |
| Variable administrative expense | | $ | 0.60 |  |  |  |
| Fixed selling and administrative expense | |  |  |  | $ | 9,100 |

a. For financial reporting purposes, what is the total amount of product costs incurred to make 7,000 units?

b. For financial reporting purposes, what is the total amount of period costs incurred to sell 7,000 units?

c. If the selling price is $23.80 per unit, what is the contribution margin per unit sold? (Round your answer to 2 decimal places.)

|  |  |  |
| --- | --- | --- |
| a. | Total product cost | **$112,700** |
| b. | Total period cost | **$18,200** |
| c. | Contribution margin per unit | **$11.40** |

2. Donald Corporation reports costs for the year as follows:

|  |  |
| --- | --- |
| Direct Materials Used | $780,000 |
| Wages to Line Workers | 245,000 |
| Office Rent | 33,000 |
| Indirect Materials Used | 800,000 |

|  |  |
| --- | --- |
| How much are the total product costs for the year? | **$1,825,000** |

3. Selected data for Aladdin, Inc. for the year are provided below:

|  |  |
| --- | --- |
| Factory Utilities | $1,000 |
| Indirect Materials Used | 34,000 |
| Direct Materials Used | 292,000 |
| Property Taxes on Factory Building | 5,900 |
| Sales Commissions | 85,000 |
| Indirect Labor Incurred | 22,000 |
| Direct Labor Incurred | 150,000 |
| Depreciation on Factory Equipment | 6,800 |

|  |  |
| --- | --- |
| What is the total manufacturing overhead? | **$69,700** |

4. Alice Manufacturing provided the following details for the year:

|  |  |
| --- | --- |
| Direct materials placed in production | $83,300 |
| Direct labor incurred | 191,100 |
| Manufacturing overhead incurred | 300,200 |
| Manufacturing overhead allocated to production | 297,500 |
| Cost of jobs completed and transferred | 500,300 |

|  |  |
| --- | --- |
| What is the unadjusted balance in the Manufacturing Overhead? | **$2,700** |
| Which side of the Manufacturing Overhead T-account is the balance on? | **Debit** |
| Is overhead over- or under-applied? | **Under** |

5. The following additional details are provided for the year:

|  |  |
| --- | --- |
| Direct materials placed in production | $82,000 |
| Direct labor incurred | 191,400 |
| Manufacturing overhead incurred | 302,000 |
| Manufacturing overhead allocated to production | 295,700 |
| Cost of jobs completed and transferred | 500,900 |

|  |  |
| --- | --- |
| What is the ending balance in the Work-in-Process Inventory? | **$68,200** |

**Problem 1 (Each answer worth 5 points; total 40 Points)**

WDW Inc.’s activity-based costing system has three activity cost pools--Machining, Setups, and Other. The company's overhead costs have already been allocated to these cost pools as follows:

|  |  |  |
| --- | --- | --- |
| Machining | $ | 60,592 |
| Setups | $ | 93,729 |
| Other | $ | 22,500 |

Costs in the Machining cost pool are assigned to products based on machine-hours, and costs in the Setups cost pool are assigned to products based on the number of batches. Costs in the Other cost pool are not assigned to products.

|  |  |  |
| --- | --- | --- |
|  | MHs | Batches |
| Product Mickey | 2,200 | 1,320 |
| Product Minnie | 8,620 | 670 |
| Total | 10,820 | 1,990 |

Additional data:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Product Mickey | | Product Minnie | |
| Sales (total) | $ | 284,000 | $ | 226,000 |
| Direct materials (total) | $ | 88,300 | $ | 84,200 |
| Direct labor (total) | $ | 99,300 | $ | 58,300 |

**Required:**

a. Calculate activity rates for each activity cost pool using activity-based costing.

|  |  |  |
| --- | --- | --- |
| **Activity Cost Pools** | **Activity Rate** | |
| Machining | **$5.60** | per MH |
| Setups | **$47.10** | per batch |

b. Determine the amount of overhead cost that would be assigned to the product using activity-based costing.

|  |  |
| --- | --- |
|  | **Amount of Overhead Cost** |
| Product Mickey | **$74,492** |
| Product Minnie | **$79,829** |

c. Determine the total cost for each product using activity-based costing.

|  |  |
| --- | --- |
|  | **Total Cost** |
| Product Mickey | **$262,092** |
| Product Minnie | **$222,329** |

d. Determine the product margin for the product using activity-based costing.

|  |  |
| --- | --- |
|  | **Product Margin** |
| Product Mickey | **$21,908** |
| Product Minnie | **$3,671** |

**Problem 2 (Each answer worth 5 points; total 55 Points)**

Belle Corporation has two manufacturing departments—Setting and Printing. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Setting | | Printing | | Total | |
| Estimated total machine-hours (MHs) | 8,000 | 2,000 | | 10,000 | |
| Estimated total fixed manufacturing overhead cost | $16,800 | $7,400 | | $24,200 | |
| Estimated variable manufacturing overhead cost per MH | $3.00 | $6.00 | |  | |

During the period, the company started and completed two jobs--Job 12 and Job 14. Data concerning those two jobs follow:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Job 12 | | Job 14 | |
| Direct materials | $ | 14,900 | $ | 8,600 | |
| Direct labor cost | $ | 21,800 | $ | 8,800 | |
| Setting machine-hours |  | 1,250 |  | 6,750 | |
| Printing machine-hours |  | 1,250 |  | 750 | |

**Required:**

a. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. (Round your answer to 2 decimal places.)

b. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job 14. (Do not round intermediate calculations.)

c. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job 14. **(**Do not round intermediate calculations.)

d. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 20% on manufacturing cost to establish selling prices. Calculate the selling price for Job 14. **(**Do not round intermediate calculations.)

|  |  |  |
| --- | --- | --- |
| a) | Plantwide POHR | **$6.02** |
| b) | MOH Applied to Job 14 | **$45,150** |
| c) | Total Manufacturing Cost of Job 14 | **$62,550** |
| d) | Selling Price for Job 14 | **$75,060** |

Belle decides to implement a departmental costing system. Uses the data given previously, calculate the following:

1. Compute the total estimated MOH for each department

|  |  |
| --- | --- |
| Setting | **$40,800** |
| Printing | **$19,400** |

1. Compute the POHR for each department

|  |  |
| --- | --- |
| Setting | **$5.10** |
| Printing | **$9.70** |

1. Apply the MOH to Job 14

|  |  |
| --- | --- |
| Setting | **$34,425** |
| Printing | **$7,275** |

1. Calculate the total manufacturing cost for Job 14.

|  |  |
| --- | --- |
| Total Job Cost | **$59,100** |

**Problem 3 (For journal entries, each account is worth 1 point and each amount is worth 1 point, the answer to #10 is worth 4 points; total 48 Points)**

Write the appropriate journal entries on the journal paper provided. Use the question number as the date.

1. Olaf Manufacturing purchased $95,000 of raw materials on account. The materials will be used to produce custom sleighs.
2. Olaf Manufacturing manufactures custom sleighs. During the year, Olaf requisitioned the following materials:
   1. Job-Anna $25,000
   2. Job-Elsa $20,000
   3. Job-Kristof $40,000
   4. General Factory Use $8,000
3. Olaf Manufacturing manufactures custom sleighs. During the year, Olaf used the following labor:
   1. Job-Anna $12,000
   2. Job-Elsa $8,000
   3. Job-Kristof $15,000
   4. General Factory Use $4,000
4. Olaf Manufacturing incurred $15,000 in machinery depreciation.
5. Olaf Manufacturing paid $6,000 for factory maintenance and repairs.
6. Olaf Manufacturing applied overhead to at a rate of 70% of direct labor.
7. Olaf Manufacturing completed Jobs Anna & Elsa.
8. Olaf Manufacturing sold Job-Elsa units for $80,000 on account to Sven.
9. Provide the year-end adjusting entry needed to adjust the Manufacturing Overhead account.
10. What is the balance in Work-in-Process at the end of the year? **$65,500**

|  |  |  |  |
| --- | --- | --- | --- |
| **General Journal** | | | |
| **Date** | **Account** | **Debit** | **Credit** |
| **1)** | **Raw Materials** | **95,000** |  |
|  | **Accounts Payable** |  | **95,000** |
| **2)** | **Work-in-Process** | **85,000** |  |
|  | **Manufacturing Overhead** | **8,000** |  |
|  | **Raw Materials** |  | **93,000** |
| **3)** | **Work-in-Process** | **35,000** |  |
|  | **Manufacturing Overhead** | **4,000** |  |
|  | **Wages Payable** |  | **39,000** |
| **4)** | **Manufacturing Overhead** | **15,000** |  |
|  | **Accumulated Depreciation** |  | **15,000** |
| **5)** | **Manufacturing Overhead** | **6,000** |  |
|  | **Cash** |  | **6,000** |
| **6)** | **Work-in-Process** | **24,500** |  |
|  | **Manufacturing Overhead** |  | **24,500** |
| **7)** | **Finished Goods** | **79,000** |  |
|  | **Work-in-Process** |  | **79,000** |
| **8)** | **Accounts Receivable** | **80,000** |  |
|  | **Sales Revenue** |  | **80,000** |
|  | **Cost of Goods Sold** | **33,600** |  |
|  | **Finished Goods** |  | **33,600** |
| **9)** | **Cost of Goods Sold** | **8,500** |  |
|  | **Manufacturing Overhead** |  | **8,500** |
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