1. Lucy Sportswear manufactures a specialty line of T-shirts. The company uses a job-order costing system. During March, the following costs were incurred on Job ICU2: direct materials \$13,700 and direct labor $\$ 4,800$. In addition, selling and shipping costs of $\$ 7,000$ were incurred on the job. Manufacturing overhead was applied a the rate of $\$ 25$ per machine-hour and Job ICU2 required 800 machine-hours. If Job ICU2 consisted of 7,000 shirts, the Cost of Goods Sold per shirt was:
A) $\$ 6.50$
B) $\$ 6.00$
C) $\$ 5.70$
D) $\$ 5.50$

Use the following to answer questions 2-4:
The following data are for Potras Company:

|  | Beginning | $\underline{\text { Ending }}$ |
| :--- | :---: | :---: |
| Finished goods inventory | $\$ 30,000$ | $\$ 40,000$ |
| Work in process inventory | $\$ 20,000$ | $\$ 13,000$ |
| Raw materials inventory | $\$ 21,000$ | $\$ 26,000$ |
| Purchases of raw materials | $\$ 71,000$ |  |
| Factory depreciation | $\$ 5,000$ |  |
| Other factory costs | $\$ 10,000$ |  |
| Direct labor | $\$ 27,000$ |  |
| Indirect labor | $\$ 6,000$ |  |
| Selling expense | $\$ 12,000$ |  |
| Over- or underapplied overhead | $-0-$ |  |

2. The cost of raw materials used in production was:
A) $\$ 26,000$.
B) $\$ 71,000$.
C) $\$ 76,000$.
D) $\$ 66,000$.
3. The cost of goods manufactured was:
A) $\$ 114,000$.
B) $\$ 133,000$.
C) $\$ 121,000$.
D) $\$ 138,000$.
4. The cost of goods sold was:
A) $\$ 131,000$.
B) $\$ 91,000$.
C) $\$ 81,000$.
D) $\$ 111,000$.
5. In a job order cost system, the journal entry to record the application of overhead cost to jobs would include:
A) a credit to the Manufacturing Overhead account.
C) a debit to Cost of Goods Sold.
B) a credit to the Work in Process inventory account.
D) a debit to the Manufacturing Overhead account.
6. Freeman Company uses a predetermined overhead rate based on direct labor hours to apply manufacturing overhead to jobs. At the beginning of the year, the company estimated manufacturing overhead would be $\$ 150,000$ and direct labor hours would be 10,000. The actual figures for the year were $\$ 186,000$ for manufacturing overhead and 12,000 direct labor hours. The cost records for the year will show:
A) overapplied overhead of $\$ 30,000$.
C) underapplied overhead of $\$ 6,000$.
B) underapplied overhead of $\$ 30,000$.
D) overapplied overhead of $\$ 6,000$.
7. Dotsero Technology, Inc., has a job-order costing system. The company uses predetermined overhead rates in applying manufacturing overhead cost to individual jobs. The predetermined overhead rate in Department A is based on machine-hours, and the rate in Department B is based on direct materials cost. At the beginning of the most recent year, the company's management made the following estimates for the year:

|  | Department |  |
| :--- | ---: | ---: |
|  | A | $\frac{\mathrm{B}}{19,000}$ |
| Machine-hours | 70,000 | 60,000 |
| Direct labor-hours | 30,000 | $\$ 282,000$ |
| Direct materials cost | $\$ 195,000$ | $\$ 520,000$ |
| Direct labor cost | $\$ 260,000$ | $\$ 705,000$ |

Job 243 entered into production an April 1 and was completed on May 12. The company's cost records show the following information about the job:

|  | Department |  |
| :--- | ---: | ---: |
|  | A | B |
| Machine-hours | 250 | 60 |
| Direct labor-hours | 70 | 120 |
| Direct materials cost | $\$ 840$ | $\$ 1,100$ |
| Direct labor cost | $\$ 610$ | $\$ 880$ |

At the end of the year, the records of Dotsero showed the following actual cost and operating data for all jobs worked on during the year:
Machine-hours
Direct labor-hours
Direct materials cost
Manufacturing overhead cost

| Department |  |
| :---: | :---: |
| A | B |
| 61,000 | 20,000 |
| 28,000 | 66,000 |
| \$156,000 | \$284,000 |
| \$385,000 | \$705,000 |

## Required: (Use the following blank page for your answer)

(a.) Compute the predetermined overhead rates for Department A and Department B.
(b.) Compute the total overhead cost applied to Job 243.
(c.) Compute the amount of underapplied or overapplied overhead in each department at the end of the current year.

## Answer Key -- Quiz Chapter 3 Fall 1999

1. D \$5.50
Format: Multiple Choice
Difficulty: Medium
Type: (None)
Origin: Chapter 3, Systems Design: Job-Order ....... 37
2. D $\$ 66,000$.

Format: Multiple Choice
Difficulty: Medium
Type: (None)
Origin: Chapter 3, Systems Design: Job-Order ....... 74
Refer To: Ref. 3-8
3. C $\$ 121,000$.

Format: Multiple Choice
Difficulty: Medium
Type: (None)
Origin: Chapter 3, Systems Design: Job-Order ....... 75
Refer To: Ref. 3-8
4. D $\$ 111,000$.

Format: Multiple Choice
Difficulty: Medium
Type: (None)
Origin: Chapter 3, Systems Design: Job-Order ....... 76
Refer To: Ref. 3-8
5. A a credit to the Manufacturing Overhead account.

Format: Multiple Choice
Difficulty: Medium
Type: (None)
Origin: Chapter 3, Systems Design: Job-Order $\qquad$
6. $C$ underapplied overhead of $\$ 6,000$.

Format: Multiple Choice
Difficulty: Medium
Type: (None)
Origin: Chapter 3, Systems Design: Job-Order ..... 27
7. (a.) Department A predetermined overhead rate:

Estimated overhead cost/Estimated machine-hours $=\$ 420,000 / 70,000=\$ 6.00$
Department B predetermined overhead rate: stimated overhead cost/Estimated direct materials cost $=\$ 705,000 / \$ 282,000=250 \%$ of direct materials cost
(b.) Overhead applied to Job 243:

Department A: $250 \times \$ 6.00=\quad \$ 1,500$
Department B: $\$ 1,100 \times 2.5=\quad \underline{\$ 2,750}$
\$4,250
aaaaa
(c.)

|  | Department A | Department B |
| :---: | :---: | :---: |
| Manufacturing overhead incurred | \$385,000 | \$705,000 |
| Manufacturing overhead applied: |  |  |
| 61,000 X \$6.00 = | 366,000 |  |
| \$284,000 X 250\% = |  | 710,000 |
| Underapplied (overapplied) overhead | $\begin{gathered} \$ 19,000 \\ \text { aaaaaaa } \end{gathered}$ | $\$(5,000)$ aaaaaa |

Format: Essay
Difficulty: Medium
Type: (None)
Origin: Chapter 3, Systems Design: Job-Order ....... 95

