

臺中健康暨管理學院

九十二學年度碩士班暨碩士在職專班招生考試試題紙

系 所 別	組 別	考試科目	考試日期	時 間	備 註
經營管理研究所碩士班	丙	成本會計學	92.3.30	13:30-15:10	共四頁

I.. Montgomery, Inc., which uses a job-costing system, is a labor-intensive firm, with many skilled craftspeople on the payroll. Job no. 789 was the only job in process on January 1, having costs of \$22,500 as of that date. Direct materials used and direct labor incurred during January were:

<u>Job No.</u>	<u>Direct Materials</u>	<u>Direct Labor</u>
Job no. 789	\$ 2,000	\$ 6,000
Job no. 790	9,000	10,000
Job no. 791	14,000	8,000

Job no. 791 was the only job in production as of January 31.

Required:

- A. Should Montgomery use direct labor or machine hours as a cost driver. Why?
- B. Assume that the company decided to use direct labor as its cost driver. If the budgeted amount of direct labor and manufacturing overhead are anticipated to be \$200,000 and \$300,000, respectively, what is the firm's predetermined overhead rate?
- C. Compute the cost of work-in-process inventory as of January 31.
- D. Compute the cost of jobs completed during January.
- E. Suppose that the company sold all of its completed jobs, adding a 40% markup to cost. How much would the firm report as (1) cost of good sold and (2) sales revenue?

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2. Portal Manufacturing, which began business in 1956, uses a weighted-average process-costing system. The following figures pertain to July:

	Physical Units	<u>Equivalent Units</u>	
		<u>Materials</u>	<u>Conversion</u>
Units completed	120,000	120,000	120,000
Ending work in process	40,000	40,000	18,000

All materials are introduced at the start of the process, and conversion cost is incurred evenly throughout production. The company used direct materials that cost \$640,000; conversion amounted to \$8 per equivalent unit.

Required:

- A. Calculate the direct materials cost per equivalent unit.
- B. Calculate the cost of units completed and transferred.
- C. What percentage of conversion work will be performed on the 40,000-unit ending work-in-process inventory during August?
- D. In all likelihood, were all of the 120,000 completed units begun in July? Explain.

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3. Pitney Corporation manufactures two types of space-age transponders—No. 156 and No. 157—and applies manufacturing overhead to all units at the rate of \$76.50 per machine hour. Production information follows.

	<u>No. 156</u>	<u>No. 157</u>
Anticipated volume (units)	6,000	14,000
Direct material cost	\$40	\$65
Direct labor cost	25	25

The controller, who is studying the use of activity-based costing, has determined that the firm's overhead can be identified with three activities: manufacturing setups, machine processing, and product shipping. Data on the number of setups, machine hours worked, and outgoing shipments, the activities' three respective cost drivers, follow.

	<u>No. 156</u>	<u>No. 157</u>	<u>Total</u>
Setups	60	40	100
Machine hours worked	15,000	25,000	40,000
Outgoing shipments	120	80	200

The firm's total overhead of \$3,060,000 is subdivided as follows: manufacturing setups, \$260,000; machine processing, \$2,400,000; and product shipping, \$400,000.

Required:

- A. Compute the application rates that would be used for manufacturing setups, machine processing, and product shipping in an activity-based costing system.
- B. Assuming use of activity-based costing, compute the unit manufacturing costs of No. 156 and No. 157 if the expected manufacturing volume is attained.
- C. Assuming use of activity-based costing, compute the total cost per unit of No. 156.
- D. If the company's selling price is based heavily on cost, would a switch to activity-based costing from the current traditional system result in a price increase or decrease for model No. 156? Show computations.

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4. Forrester is considering the replacement of some machinery that has zero book value and a current market value of \$1,500. One possible alternative is to invest in new machinery that costs \$24,000. The new equipment has a four-year service life and an estimated salvage value of \$2,000, will produce annual cash operating savings of \$7,000, and will require a \$1,900 overhaul in year 3. The company uses straight-line depreciation.

Required:

Prepare a net-present-value analysis of Forrester's replacement decision, assuming a 10% hurdle rate and no income taxes. Should the machinery be acquired? Note: Round calculations to the nearest dollar.