

# 臺中健康暨管理學院

## 九十二年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	管理會計學	92.3.30	13:30-15:10	共四頁

- 1.. The Bruggs & Strutton Company manufactures an engine for carpet cleaners called the "Snooper." Cost and revenue data for the "Snooper" are given below, based on sales of 40,000 units.

Sales	\$1,600,000
Less: Cost of goods sold	<u>1,120,000</u>
Gross margin	\$ 480,000
Less: Operating expenses	<u>100,000</u>
Operating income before taxes	<u>\$ 380,000</u>

Cost of goods sold consists of \$800,000 of variable costs and \$320,000 of fixed costs.  
 Operating expenses consist of \$40,000 of variable costs and \$60,000 of fixed costs.

Required:

- A. Calculate the break-even point in units and sales dollars.
- B. Calculate the safety margin.
- C. Bruggs & Strutton received an order for 6,000 units at a price of \$25.00. There will be no increase in fixed costs, but variable costs will be reduced by \$0.54 per unit because of cheaper packaging. Determine the projected increase or decrease in profit from the order.
- D. Bruggs also received an order for 2,500 units at \$29 per unit. If packaging costs will not be reduced on this order and only one order ("C" or "D") can be accepted, which order is more attractive?

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2. The following selected data relate to the Montana Division of Restaurant Enterprises (RE):

Sales revenue	\$3,600,000
Uncontrollable fixed costs traceable to the division	1,100,000
Allocated corporate overhead	320,000
Controllable fixed costs traceable to the division	710,000
Variable costs	40% of revenue

Required:

A. Compute the following for the Montana Division:

1. Segment contribution margin.
2. Controllable profit margin.
3. Segment profit margin.

B. Which of the three preceding measures should be used when evaluating the Montana Division as an investment of RE's resources? Why?

C. Assume that management made the decision to prepare a segmented income statement that reflected Montana's five operating departments. Would all \$710,000 of the controllable fixed costs be easily traced to the departments? Briefly explain.

D. Which of the five dollar amounts presented in the body of the problem would be used in computing the income before taxes of Restaurant Enterprises?

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3. Mantle Company has met all production requirements for the current month and has an opportunity to manufacture additional units with its excess capacity. Unit selling prices and unit costs for three product lines follow.

	<u>Plain</u>	<u>Regular</u>	<u>Super</u>
Selling price	\$30.00	\$43.00	\$40.00
Direct material	9.00	10.00	9.50
Direct labor (at \$20 per hour)	5.00	15.00	10.00
Variable overhead	4.00	12.00	8.00
Fixed overhead	8.00	7.50	7.50

Variable overhead is applied on the basis of direct labor dollars, whereas fixed overhead is applied on the basis of machine hours. There is sufficient demand for the additional manufacture of all products.

Required:

- A. If Mantle Company has excess machine capacity and can add more labor as needed (i.e., neither machine capacity nor labor is a constraint), which product is the most attractive to produce?
- B. If Mantle Company has excess machine capacity but a limited amount of labor time available, which product or products should be manufactured in the excess capacity?

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4. Belkin Roofing performs roofing services for commercial clients. The company recently submitted a bid of \$297,000 to the San Jose School System, computed as follows:

Construction materials	\$ 70,000
Labor costs	<u>150,000</u>
Total direct costs	\$220,000
Construction overhead—20% of labor	30,000
Allocated administrative overhead	<u>14,000</u>
Total cost	<u>\$264,000</u>

Belkin adds a 15% profit margin to all jobs, computed on the basis of total direct cost. In San Jose's case the profit margin amounted to \$33,000 ( $\$220,000 \times 15\%$ ), producing a bid price of \$297,000. Assume that 60% of construction overhead is fixed.

Required:

- A. If Belkin had excess capacity, what would be the lowest cost total that the company should use when figuring its bid for the district? How can Belkin justify this amount?
- B. If Belkin had no excess capacity, what would be the lowest price that the company should charge?
- C. What is the primary benefit and problem of approaching a competitive bid situation with a low-bid philosophy?