

# 國立中央大學 106 學年度碩士班考試入學試題

所別： 會計研究所碩士班 不分組(一般生)

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科目： 管理會計

本科考試可使用計算器，廠牌、功能不拘

\*請在答案卷 內作答

(All answers should include detailed calculation processes.)

- 一、(5%) Thirty percent of Aling Company's sales are for cash and 70% are on account. Sixty percent of the account sales are collected in the month of sale, 25% in the month following sale, and 12% in the second month following sale. The remainder is uncollectible. The following are budgeted sales data for the company:

	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>
Total sales .....	\$45,000	\$62,000	\$40,000	\$30,000

**Required:** Compute expected total cash receipts in April.

- 二、(5%) Zoe Industries is a division of a major corporation. The following data are for the latest year of operations:

Sales .....	\$11,750,000	Net operating income ...	\$450,370
Average operating assets	\$4,000,000		
The company's minimum required rate of return .....	10%		

**Required:** What is the division's residual income?

- 三、(10%) (Ignore income taxes in this problem.) The following data concern an investment project:

Investment in equipment .....	\$12,000	Salvage value of the equipment.	\$1,200
Net annual cash inflows .....	\$2,500	Life of the project .....	7 years
Working capital required .....	\$5,300	Required rate of return .....	9%

The working capital will be released for use elsewhere at the conclusion of the project.

**Required:** Compute the project's net present value.

- 四、(10%) Cheer Mining Company currently is operating at less than 50% of practical capacity. The management of the company expects sales to drop below the present level of 9,000 tons of ore per month very soon. The sales price per ton is \$4 and the variable cost per ton is \$2.5. Fixed costs per month total \$11,500. Management is concerned that a further drop in sales volume will generate a loss and accordingly is considering temporarily suspending operations until demand in the metals markets rebounds and prices once again rise. Management estimates that suspension of operations would reduce fixed costs from \$11,500 to \$4,000 per month.

**Required:** At what sales volume per month will the company be indifferent between continuing to operate the mine and closing it?

- 五、(10%) The standards for product AC112 call for 2.6 pounds of a raw material that costs \$17 per pound. Last month, 4,200 pounds of the raw material were purchased for \$70,520. The actual output of the month was 1,400 units of product AC112. A total of 3,500 pounds of the raw material were used to produce this output.

**Required:** a. (5%) What is the materials price variance for the month? b. (5%) What is the materials quantity variance for the month?

- 六、(15%) Ling Company has developed a new product that will be marketed for the first time during the next fiscal year. Although the Marketing Department estimates that 35,000 units could be sold at \$36 per unit, Ling's management has allocated only enough manufacturing capacity to produce a maximum of 25,000 units of the new product annually. The fixed expenses associated with the new product are budgeted at \$400,000 for the year. The variable expenses of the new product are \$16 per unit.

**Required:** a. (5%) How many units of the new product must Ling sell during the next fiscal year in order to

參考用

注意:背面有試題

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break even on the product? b. (10%) What is the profit Ling would earn on the new product if all of the manufacturing capacity allocated by management is used and the product is sold for \$36 per unit?

七、(10%) Ally Housecleaning provides housecleaning services to its clients. The company uses an activity-based costing system for its overhead costs. The company has provided the following data from its activity-based costing system.

<u>Activity Cost Pool</u>	<u>Total Cost</u>	<u>Total Activity</u>
Cleaning .....	\$645,500	72,700 hours
Job support .....	\$129,500	5,410 jobs
Client support .....	\$ 20,900	750 clients
Other .....	\$110,000	Not applicable
Total .....	\$906,022	

The "Other" activity cost pool consists of the costs of idle capacity and organization sustaining costs. One particular client, the Louis family, requested 31 jobs during the year that required a total of 60 hours of housecleaning. For this service, the client was charged \$1,600.

**Required:** a. (5%) Compute the activity rates (i.e., cost per unit of activity) for the activity cost pools. Round off all calculations to the nearest whole cent. b. (5%) Using the activity-based costing system, compute the customer margin for the Louis family. Round off all calculations to the nearest whole cent.

八、(15%) Ace Inc. produces a single product. Data concerning the company's operations last year appear below:

Units in beginning inventory .....	0	Variable costs per unit:	
Units produced .....	2,000	Direct materials .....	\$30
Units sold .....	1,900	Direct labor .....	\$10
Selling price per unit .....	\$100	Variable manufacturing overhead .....	\$5
		Variable selling and administrative .....	\$1.5
		Fixed costs in total:	
		Fixed manufacturing overhead .....	\$30,000
		Fixed selling and administrative .....	\$60,000

**Required:** a. (5%) Compute the unit product cost under both absorption costing. b. (10%) Prepare an income statement for the year using absorption costing.

九、(20%) Below are cost and activity data for a particular cost over the last four periods. Your boss has asked you to analyze this cost so that management will have a better understanding of how this cost changes in response to changes in activity (cost behavior).

	<u>Activity</u>	<u>Cost</u>		<u>Activity</u>	<u>Cost</u>
Period 1	46	\$480	Period 2	41	\$460
Period 3	45	\$475	Period 4	50	\$505

**Required:** a. (5%) Using the high-low method, estimate the cost behavior for this cost. b. (15%) Using the least-squares regression method, estimate the cost behavior for this cost.