

國立中興大學 107 學年度碩士班招生考試試題

科目：成本與管理會計學

系所：會計學系

本科目可以使用計算機

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注意事項：

- 一、請務必按照題號順序作答，違反者將予扣分。
- 二、計算題請列出計算過程，沒有列出計算過程者將不予計分。
- 三、所有計算如果無法整除，請取至小數點後第二位，四捨五入。

I. Multiple Choice (2% each, 30% total)

1. To complete the first setup on a new machine took an employee 320 minutes. Using a 70% cumulative average-time learning curve indicates that the second setup on the new machine is expected to take _____.

- A) 112 minutes B) 128 minutes C) 272 minutes D) 224 minutes

2. Stella Company sells only two products, Product A and Product B.

	Product A	Product B	Total
Selling price	\$50	\$30	
Variable cost per unit	\$20	\$10	
Total fixed costs			\$2,110,000

Stella sells two units of Product A for each unit it sells of Product B. Stella faces a tax rate of 40%. Stella desires a net after-tax income of \$54,000. The breakeven point in units would be _____.

- A) 25,250 units of Product A and 50,500 units of Product B
 B) 27,500 units of Product A and 55,000 units of product B
 C) 50,500 units of Product A and 25,250 units of Product B
 D) 55,000 units of Product A and 27,500 units of Product B

3. A well-designed activity-based cost system helps managers make better decisions because information derived from an ABC analysis _____.

- A) can be used to eliminate nonvalue-added activities B) is easy to analyze and interpret
 C) takes the choices and judgment challenges away from the managers
 D) emphasizes how managers can achieve higher sales

4. Sherry and John Enterprises are using the kaizen approach to budgeting for 2018. The budgeted income statement for January 2018 is as follows:

Sales (168,000 units)	\$1,080,000
Less: Cost of goods sold	<u>650,000</u>
Gross margin	430,000
Operating expenses	330,000
(includes \$60,000 of fixed costs)	
Operating income	<u>\$100,000</u>

Under the kaizen approach, cost of goods sold and variable operating expenses are budgeted to decline by 1% per month. What is budgeted cost of goods sold for March 2018?

- A) \$637,065 B) \$656,500 C) \$650,000 D) \$643,500

5. Which of the following statements is true of variable overhead costs?

- A) Variable overhead costs always have unused capacity.
 B) Variable overhead costs have no production-volume variance.
 C) Variable overhead costs have no spending variance.
 D) Variable overhead costs have no efficiency variance.

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6. Zebra Corporation currently produces baseball caps in an automated process. Expected production per month is 17,000 units, direct material costs are \$7.50 per unit, and manufacturing overhead costs are \$60,000 per month. Manufacturing overhead is entirely fixed costs. What is the flexible budget for 11,000 and 17,000 units, respectively?
A) \$60,000; \$187,500 B) \$60,000; \$105,000 C) \$142,500; \$187,500 D) \$142,500; \$105,000
7. Jupiter Corporation incurred fixed manufacturing costs of \$18,000 during 2017. Other information for 2017 includes:
The budgeted denominator level is 2,400 units.
Units produced total 2,700 units.
Units sold total 1,600 units.
Variable cost per unit is \$4
Beginning inventory is zero.
The fixed manufacturing cost rate is based on the budgeted denominator level.
The operating income using variable costing will be _____ as compared to the operating income under absorption costing. (Round any intermediary calculations to the nearest cent and your final answer to the nearest dollar.)
A) lower by \$8,250.00 B) lower by \$2,250.00 C) higher by \$8,250.00 D) higher by \$2,250.00
8. When deciding to accept a one-time-only special order from a wholesaler, management should _____.
A) consider the sunk costs and opportunity costs
B) not consider the special order's impact on future prices of their products
C) determine whether excess capacity is available D) verify past design costs for the product
9. Excellent Mugs Inc. produced 1,600,000 units in 2017 at a units of output per dollar of input cost was \$0.09. Its cost of input at 2017 prices that would have been used in 2016 was \$20,000,000. How much did the total factor productivity (TFP) increase as a result of 2017 operations?
A) about 0.1% B) about 12.5% C) about 0.08% D) about 0.17%
10. How is value-engineering relevant to a well done customer profitability analysis, especially when an ABC system is utilized to calculate customer profits (or losses)?
A) ABC will satisfy GAAP and provide input into value-engineering decisions
B) ABC offers the opportunity to analyze the costs of activities assigned to each customer and to determine if improvements can be made to optimize profits
C) customer profitability analysis will reveal that the cost drivers of less profitable customers are the problem and that value-engineering is the solution
D) Only value-added activities will be shown in the cost analysis and thus all other costs will be eliminated via value-engineering
11. Which of the following statements is true of sell-or-process-further decisions in joint costing?
A) Joint costs incurred before the split-off point are relevant in deciding whether to process the product further.
B) All separable costs in joint-cost allocations are incremental costs.
C) Separable costs incurred before the split-off point are irrelevant in deciding whether to process the product further.
D) Costs that differ between the alternatives of selling products or processing further are relevant.
12. An important difference between financial measures of quality and nonfinancial measures of quality is that _____.
A) financial measures of quality tend to be useful indicators of future long-term performance, while nonfinancial measures have more of a short-term focus
B) nonfinancial measures of quality tend to be useful indicators of future long-term performance, while financial measures of quality have more of a short-term focus

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- C) nonfinancial measures are generally too subjective to have any long-term value, while financial measures are too objective for taxation purposes
- D) nonfinancial measures are generally too subjective to have any short-term value, while financial measures are too objective to have medium-term value

13. Which of the following statements is true of the economic order quantity decision model?

- A) The economic order quantity increases with higher demand and higher carrying costs and decreases with higher ordering costs.
- B) The simplest version of the economic order quantity model assumes there are only ordering costs, carrying costs, stockout costs, and purchasing costs.
- C) It assumes the purchase order lead time is not known with certainty.
- D) The larger the order quantity, the lower the annual relevant ordering costs and the higher the annual relevant carrying costs.

14. A transfer-pricing method leads to goal congruence when _____.

- A) there is a price difference in different markets due to market inefficiencies
- B) managers do not act for their own best interest and work for the long-term best interest of the manager's subunit
- C) managers act in their own best interest and the decision is in the long-term best interest of the company
- D) there is a low degree of centralization

15. A company which favors the residual income approach to financial performance evaluation wants managers to _____

- A) concentrate on maximizing an absolute amount of dollars of residual income as opposed to a percentage yield as is the case with ROI
- B) concentrate on maximizing a percentage return in excess of the cost of capital
- C) maximize the investment turnover ratio
- D) maximize return on sales

II. NCHU Supply Corporation manufactures two models of grooming stations, a standard and a deluxe model. The following activity and cost information has been compiled:

Product	Number of Setups	Number of Components	Number of Direct Labor Hours
Standard	4	35	550
Deluxe	6	45	250
Overhead costs	\$40,000	\$120,000	

Required: (17%)

Assume a traditional costing system applies the \$160,000 of overhead costs based on direct labor hours.

- a. What is the total amount of overhead costs assigned to the standard model? (3%)
- b. What is the total amount of overhead costs assigned to the deluxe model? (3%)

Then assume an activity-based costing system is used and that the number of setups and the number of components are identified as the activity-cost drivers for overhead.

- c. What is the total amount of overhead costs assigned to the standard model? (3%)
- d. What is the total amount of overhead costs assigned to the deluxe model? (3%)
- e. Explain the difference between the costs obtained from the traditional costing system and the ABC system. Which system provides a better estimate of costs? Why? (5%)

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III. Following a strategy of product differentiation, DCF Corporation makes a high-end computer monitor, CM9. DCF Corporation presents the following data for the years 2017 and 2018:

	<u>2017</u>	<u>2018</u>
Units of CM9 produced and sold	5,000	5,500
Selling price	\$400	\$450
Direct materials (pounds)	15,000	15,375
Direct materials costs per pound	\$40	\$45
Manufacturing capacity for CM9 (units)	10,000	10,000
Conversion costs	\$1,000,000	\$1,100,000
Conversion costs per unit of capacity	\$100	\$110
Selling and customer-service capacity (customers)	60	62
Total selling and customer-service costs	\$360,000	\$372,620
Selling and customer-service capacity cost per customer	\$6,000	\$6,010

DCF Corporation produces no defective units but it wants to reduce direct materials usage per unit of CM9 in 2017. Manufacturing conversion costs in each year depend on production capacity defined in terms of CM9 units that can be produced. Selling and customer-service costs depend on the number of customers that the customer and service functions are designed to support. DCF Corporation has 100 customers in 2017 and 115 customers in 2018. The industry market size for high-end computer monitors increased 5% from 2017 to 2018.

Required: (20%)

- What is the revenue effect of the price-recovery component? (4%)
- What is the cost effect of the price-recovery component? (6%)
- What is the net effect on operating income as a result of the price-recovery component? (4%)
- What is the net effect on operating income as a result of the productivity component? (6%)

IV. New Taichung Incorporated is a manufacturer of kitchen utensils. It produces all of its products in one department. The information for the current month is as follows:

Beginning work in process	40,000 units
Units started	56,000 units
Units completed	73,000 units
Ending work in process	20,000 units
Spoilage	3,000 units
Beginning work-in-process direct materials	\$30,000
Beginning work-in-process conversion	\$ 8,000
Direct materials added during month	\$126,400
Direct manufacturing labor during month	\$60,480

Beginning work in process was 25% complete as to conversion. Direct materials are added at the beginning of the process. Factory overhead is applied at a rate equal to 40% of direct manufacturing labor. Ending work in process was 70% complete. All spoilage is normal and is detected at the end of the process.

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Required: (15%)

Prepare a production cost worksheet in a good form if spoilage is recognized and assume that the weighted-average method is used.

V. XYZ Company supplies helicopters to corporate clients. XYZ has two sources of funds: long term debt with a market and book value of \$36 million issued at an interest rate of 10%, and equity capital that has a market value of \$14 million (book value of \$8 million). The cost of equity capital for XYZ is 15%, and its tax rate is 30%. XYZ has profit centers in four divisions that operate autonomously. The company's results for 2017 are as follows:

	Operating Income	Assets	Current Liabilities
New York	\$1,750,000	\$11,500,000	\$2,500,000
Boston	2,400,000	9,000,000	3,500,000
Houston	4,675,000	27,500,000	9,500,000
San Francisco	4,200,000	25,000,000	8,000,000

Required: (18%)

- Compute XYZ's weighted average cost of capital. (6%)
- Compute each division's Economic Value Added (EVA). (8%)
- Rank the divisions by EVA. (4%)

本科考試於此結束。