

系所組別：會計學系甲組

考試科目：成本與管理會計學

考試日期：0220，節次：3

※ 考生請注意：本試題 可 不可 使用計算機

1. Multiple choice questions (80%, 2% each).

Instructions: Choose the best answer and then put it on the answer booklet in a good order. To avoid any confusion, please write your answers using upper-case letters, i.e., A, B, C, and D. No points will be counted if you put your answers on this exam paper or use lower-case letters.

Answer questions 1-3 using the information below:

Craft Concept manufactures small tables in its Processing Department. Direct materials are added at the initiation of the production cycle and must be bundled in single kits for each unit. Conversion costs are incurred evenly throughout the production cycle. Before inspection, some units are spoiled due to nondetectable materials defects. Inspection occurs when units are 50% converted. Spoiled units generally constitute 5% of the good units. Data for December 20X5 are as follows:

WIP, beginning inventory 12/1/20X5	10,000 units
Direct materials (100% complete)	
Conversion costs (75% complete)	
Started during December	40,000 units
Completed and transferred out 12/31/20X5	38,400 units
WIP, ending inventory 12/31/20X5	8,000 units
Direct materials (100% complete)	
Conversion costs (65% complete)	

Costs for December:

WIP, beginning Inventory:	
Direct materials	\$ 50,000
Conversion costs	30,000
Direct materials added	100,000
Conversion costs added	140,000

1. What is the number of total spoiled units?

- A) 1,600 units
- B) 2,000 units
- C) 2,700 units
- D) 3,600 units

2. Normal spoilage totals:

- A) 1,600 units
- B) 2,000 units
- C) 1,920 units
- D) 2,700 units

3. Abnormal spoilage totals:

- A) 1,600 units
- B) 2,000 units
- C) 1,680 units
- D) 1,920 units

Answer questions 4-12 using the information below:

The Sasita Corporation manufactures two types of vacuum cleaners, the ZENITH for commercial building use and the House-Helper for residences. Budgeted and actual operating data for the year 20X5 were as follows:

(背面仍有題目,請繼續作答)

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<u>Static Budget</u>	ZENITH	House-Helper	Total
Number sold	5,000	20,000	25,000
Contribution margin	\$1,500,000	\$3,000,000	\$4,500,000

<u>Actual Results</u>	ZENITH	House-Helper	Total
Number sold	4,000	28,000	32,000
Contribution margin	\$1,280,000	\$3,920,000	\$5,200,000

Prior to the beginning of the year, a consulting firm estimated the total volume for vacuum cleaners of the ZENITH and House-Helper category to be 250,000 units, but actual industry volume was 256,000 units.

4. What is the contribution margin for the flexible budget?
 - A) \$1,200,000
 - B) \$4,200,000
 - C) \$5,200,000
 - D) \$5,400,000

5. What is the total static-budget variance in terms of the contribution margin?
 - A) \$900,000 favorable
 - B) \$700,000 favorable
 - C) \$200,000 unfavorable
 - D) \$360,000 unfavorable

6. What is the total flexible-budget variance in terms of the contribution margin?
 - A) \$900,000 favorable
 - B) \$700,000 favorable
 - C) \$200,000 unfavorable
 - D) \$360,000 unfavorable

7. What is the total sales-volume variance in terms of the contribution margin?
 - A) \$900,000 favorable
 - B) \$1,260,000 favorable
 - C) \$200,000 unfavorable
 - D) \$360,000 unfavorable

8. What is the total sales-quantity variance in terms of the contribution margin?
 - A) \$200,000 unfavorable
 - B) \$900,000 favorable
 - C) \$360,000 unfavorable
 - D) \$1,260,000 favorable

9. What is the total sales-mix variance in terms of the contribution margin?
 - A) \$200,000 unfavorable
 - B) \$360,000 unfavorable
 - C) \$900,000 favorable
 - D) \$1,260,000 favorable

10. What is the budgeted contribution margin per composite unit of the budgeted mix?
 - A) \$140.625
 - B) \$180.000

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- C) \$208,000
D) \$162,500

11 What is the market-size variance?

- A) \$1,152,000 F
B) \$108,000 F
C) \$360,000 U
D) \$1,260,000 F

12 What is the market-share variance?

- A) \$360,000 U
B) \$1,260,000 F
C) \$1,152,000 F
D) \$108,000 F

Answer questions 13- 16 using the information below:

Penny's TV and Appliance Store is a small company that has hired you to perform some management advisory services. The following information pertains to 20X8 operations.

Sales (2,000 televisions)	\$ 900,000
Cost of goods sold	400,000
Store manager's salary per year	70,000
Operating costs per year	157,000
Advertising and promotion per year	15,000
Commissions (4% of sales)	36,000

13. What was the variable cost per unit sold for 20X8?

- A) \$18
B) \$218
C) \$339
D) \$200

14 What were total fixed costs for 20X8?

- A) \$678,000
B) \$436,000
C) \$242,000
D) \$227,000

15 What are the estimated total costs if Penny's expects to sell 3,000 units next year?

- A) \$896,000
B) \$678,000
C) \$1,017,000
D) \$799,000

16 Which cost estimation method is being used by Penny's TV and Appliance Store?

- A) the industrial engineering method
B) the conference method
C) the account analysis method
D) the quantitative analysis method

(背面仍有題目,請繼續作答)

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17. If there was no beginning work in process and no ending work in process under the weighted-average process costing method, the number of equivalent units for direct materials, if direct materials were added at the start of the process, would be:
- A) equal to the units started or transferred in
 B) equal to the units completed
 C) less than the units completed
 D) Both A and B are correct.

Answer questions 18 – 23 using the information below:

The Townsend Tractor Company manufactures small garden tractors on a highly automated assembly line. Its costing system uses two cost categories, direct materials and conversion costs. Each tractor must pass through the Assembly Department and the Testing Department. Direct materials are added at the beginning of the production process. Conversion costs are allocated evenly throughout production. Townsend Tractor uses weighted-average costing.

Data for the Assembly Department for April 2008 are:

Work in process, beginning inventory	400 units
Direct materials (100% complete)	
Conversion costs (40% complete)	
Units started during April	1,200 units
Work in process, ending inventory:	250 units
Direct materials (100% complete)	
Conversion costs (80% complete)	

Costs for April 2008:

Work in process, beginning inventory:	
Direct materials	\$230,000
Conversion costs	\$220,000
Direct materials costs added during June	\$700,000
Conversion costs added during June	\$1,175,000

18. What are the equivalent units for direct materials and conversion costs, respectively, for April?
- A) 1,350 units; 1,350 units
 B) 1,850 units; 1,690 units
 C) 1,600 units; 1,550 units
 D) 250 units; 200 units

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19. What is the total amount debited to the Work-in-Process account during the month of April?
- A) \$230,000
B) \$430,000
C) \$2,425,000
D) \$2,855,000
20. What is the direct materials cost per equivalent unit during April?
- A) \$1,250.00
B) \$1,241.94
C) \$575.00
D) \$581.25
21. What is the conversion cost per equivalent unit in April?
- A) \$1,250.00
B) \$900.00
C) \$575.00
D) \$581.25
22. What amount of direct materials costs are assigned to the ending Work-in-Process account for April?
- A) \$248,387.10
B) \$250,000.00
C) \$143,750.00
D) \$145,312.50
23. What amount of conversion costs are assigned to the ending Work-in-Process account for April?
- A) \$143,750.00
B) \$145,312.50
C) \$180,000.00
D) \$250,000.00
24. In analyzing transfer prices, the:
- A) buyer will not willingly purchase a product for less than the incremental costs incurred to manufacture the product internally

(背面仍有題目,請繼續作答)

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- B) seller will not willingly sell a product for less than the incremental costs incurred to make the product
- C) buyer will willingly pay more than the ceiling transfer price
- D) buyer will not pay less than the ceiling transfer price
25. Which of the following is NOT true of a good balanced scorecard?
- A) It tells the story of a company's strategy by articulating a sequence of cause-and-effect relationships.
- B) It helps to communicate corporate strategy to all members of the organization.
- C) It identifies all measures, whether significant or small, that help to implement strategy.
- D) It uses nonfinancial measures to serve as leading indicators of future financial performance.

Answer questions 26 and 27 using the information below:

Berryman Products manufactures coffee tables. Berryman Products has a policy of adding a 20% markup to full costs and currently has excess capacity. The following information pertains to the company's normal operations per month:

Output units	30,000 tables
Machine-hours	8,000 hours
Direct manufacturing labor-hours	10,000 hours
Direct materials per unit	\$50
Direct manufacturing labor per hour	\$6
Variable manufacturing overhead costs	\$161,250
Fixed manufacturing overhead costs	\$600,000
Product and process design costs	\$450,000
Marketing and distribution costs	\$562,500

26. Berryman Products is approached by an overseas customer to fulfill a one-time-only special order for 2,000 units. All cost relationships remain the same except for a one-time setup charge of \$20,000. No additional design, marketing, or distribution costs will be incurred. What is the minimum acceptable bid per unit on this one-time-only special order?
- A) \$67.38
- B) \$77.38
- C) \$111.13
- D) \$80.85

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27. For long-run pricing of the coffee tables, what price will MOST likely be used by Berryman?
- A) \$67.38
 - B) \$80.85
 - C) \$111.13
 - D) \$133.35

Answer questions 28 – 30 using the information below:

Frank's Computer Monitors, Inc., currently sells 17" monitors for \$270. It has costs of \$210. A competitor is bringing a new 17" monitor to market that will sell for \$225. Management believes it must lower the price to \$225 to compete in the market for 17" monitors. Marketing believes that the new price will cause sales to increase by 10%, even with a new competitor in the market. Frank's sales are currently 10,000 monitors per year.

28. What is the target cost if operating income is 25% of sales?
- A) \$56.25
 - B) \$67.50
 - C) \$168.75
 - D) \$202.50
29. What is the change in operating income if marketing is correct and only the sales price is changed?
- A) \$165,000
 - B) \$45,000
 - C) \$(165,000)
 - D) \$(435,000)
30. What is the target cost if the company wants to maintain its same income level, and marketing is correct (rounded to the nearest cent)?
- A) \$168.75
 - B) \$170.46
 - C) \$185.00
 - D) \$210.00
31. When demand for a product is very elastic and prices are increased, demand will:
- A) remain the same, and operating profits will increase
 - B) remain the same, and operating profits may either increase or decrease

(背面仍有題目,請繼續作答)

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- C) decrease, and operating profits will decrease
 D) decrease, and operating profits may either increase or decrease

32. The Maize Eagles are evaluating ticket prices for its basketball games. Studies show that Friday and Saturday night games average more than twice the fans of games on other days. The following information pertains to the stadium's normal operations per season:

Average fans per game (all games)	2,500 fans
Average fans per Friday and Saturday night games	3,500 fans
Number of home games per season	30 games
Stadium capacity	3,500 seats
Variable operating costs per operating hour	\$2,000
Marketing costs per season for basketball	\$138,750
Customer-service costs per season for basketball	\$25,000

The stadium is open for 5 operating hours on each day a game is played. All employees work by the hour except for the administrators. A maximum of one game is played per day and each fan has only one ticket per game.

The stadium authority wants to charge more for games on Friday and Saturday. What is the minimum price that should be charged for peak attendance nights?

- A) \$4.40
 B) \$8.60
 C) \$6.19
 D) \$171.45

Answer questions 33 and 34 using the information below:

Schmidt Corporation produces a part that is used in the manufacture of one of its products. The costs associated with the production of 10,000 units of this part are as follows:

Direct materials	\$ 45,000
Direct labor	65,000
Variable factory overhead	30,000
Fixed factory overhead	<u>70,000</u>
Total costs	<u>\$210,000</u>

Of the fixed factory overhead costs, \$30,000 is avoidable.

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33. Phil Company has offered to sell 10,000 units of the same part to Schmidt Corporation for \$18 per unit. Assuming there is no other use for the facilities, Schmidt should:
- A) make the part, as this would save \$3 per unit
 - B) buy the part, as this would save \$3 per unit
 - C) buy the part, as this would save the company \$30,000
 - D) make the part, as this would save \$1 per unit
34. Assuming no other use of their facilities, the highest price that Schmidt should be willing to pay for 10,000 units of the part is:
- A) \$210,000
 - B) \$140,000
 - C) \$170,000
 - D) \$180,000

Answer questions 35 – 38 using the information below:

Braun's Brakes manufactures three different product lines, Model X, Model Y, and Model Z.

Considerable market demand exists for all models. The following per unit data apply:

	<u>Model X</u>	<u>Model Y</u>	<u>Model Z</u>
Selling price	\$50	\$60	\$70
Direct materials	6	6	6
Direct labor (\$12 per hour)	12	12	24
Variable support costs (\$4 per machine-hour)	4	8	8
Fixed support costs	10	10	10

35. Which model has the greatest contribution margin per unit?
- A) Model X
 - B) Model Y
 - C) Model Z
 - D) Models X and Y
36. Which model has the greatest contribution margin per machine-hour?
- A) Model X
 - B) Model Y
 - C) Model Z
 - D) Models Y and Z
37. If there is excess capacity, which model is the most profitable to produce?

(背面仍有題目,請繼續作答)

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- A) Model X
- B) Model Y
- C) Model Z
- D) Models X and Y

38. If there is a machine breakdown, which model is the most profitable to produce?

- A) Model X
- B) Model Y
- C) Model Z
- D) Models Y and Z

Answer questions 39 and 40 using the information below:

Frederick, Inc., is considering replacing a machine. The following data are available:

	<u>Old Machine</u>	<u>Replacement Machine</u>
Original cost	\$45,000	\$35,000
Useful life in years	10	5
Current age in years	5	0
Book value	\$25,000	
Disposal value now	\$8,000	
Disposal value in 5 years	0	0
Annual cash operating costs	\$7,000	\$4,000

39. For the decision to keep the old machine, the relevant costs of keeping the old machine total:

- A) \$60,000
- B) \$35,000
- C) \$47,000
- D) \$72,000

40. The difference between keeping the old machine and replacing the old machine is:

- A) \$37,000 in favor of keeping the old machine
- B) \$12,000 in favor of keeping the old machine
- C) \$37,000 in favor of replacing the old machine
- D) \$12,000 in favor of replacing the old machine

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1. (12%) Brilliant Accents Company manufactures and sells three styles of kitchen faucets: Brass, Chrome, and White. Production takes 25, 25, and 10 machine hours to manufacture 1000-unit batches of brass, chrome and white faucets, respectively. The following additional data apply:

	<u>BRASS</u>	<u>CHROME</u>	<u>WHITE</u>
Projected sales in units	30,000	50,000	40,000

PER UNIT data:

Selling price	\$40	\$20	\$30
Direct materials	\$ 8	\$ 4	\$ 8
Direct labor	\$15	\$ 3	\$ 9
Overhead cost based on direct labor hours (traditional system)	\$12	\$ 3	\$ 9

Hours per 1000-unit batch:

Direct labor hours	40	10	30
Machine hours	25	25	10
Setup hours	1.0	0.5	1.0
Inspection hours	30	20	20

Total overhead costs and activity levels for the year are estimated as follows:

<u>Activity</u>	<u>Overhead costs</u>	<u>Activity levels</u>
Direct labor hours		2,900 hours
Machine hours		2,400 hours
Setups	\$465,500	95 setup hours
Inspections	\$405,000	2,700 inspection hours
	<u>\$870,500</u>	

Required:

- Using the traditional system, determine the operating profit per unit for each style of faucet.
- Determine the activity-cost-driver rate for setup costs and inspection costs.
- Using the ABC system, for each style of faucet
 - compute the estimated overhead costs per unit.
 - compute the estimated operating profit per unit.
- Explain the differences between the profits obtained from the traditional system and the ABC system. Which system provides a better estimate of profitability? Why?

(背面仍有題目,請繼續作答)

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2. (8%) Mount Carmel Company sells only two products, Product A and Product B.

	Product A	Product B	Total
Selling price	\$40	\$50	
Variable cost per unit	\$24	\$40	
Total fixed costs			\$840,000

Mount Carmel sells two units of Product A for each unit it sells of Product B. Mount Carmel faces a tax rate of 30%.

Required:

- What is the breakeven point in units for each product assuming the sales mix is 2 units of Product A for each unit of Product B?
- What is the breakeven point if Mount Carmel's tax rate is reduced to 25%, assuming the sales mix is 2 units of Product A for each unit of Product B?
- How many units of each product would be sold if Mount Carmel desired an after-tax net income of \$73,500, facing a tax rate of 30%?