

國立中正大學 113 學年度碩士班招生考試試題

科目名稱：成本及管理會計學

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系所組別：會計與資訊科技學系-甲組

一、選擇題(單選，每題 2 分，共計 40 分)

1. Waldorf Company has two sources of funds: long-term debt with a market and book value of \$5,200,000 issued at an interest rate of 13%, and equity capital that has a market value of \$4,200,000 (book value of \$2,400,000). Waldorf Company has profit centers in the following locations with the following operating incomes, total assets, and current liabilities. The cost of equity capital is 13%, while the tax rate is 25%.

	Operating Income	Assets	Current Liabilities
St. Louis	\$480,000	\$2,000,000	\$100,000
Cedar Rapids	\$620,000	\$2,000,000	\$310,000
Wichita	\$1,020,000	\$6,000,000	\$600,000

What is the EVA[®] for Cedar Rapids? (Round intermediary calculations to four decimal places.)

- A) \$275,720
 B) \$465,000
 C) \$430,720
 D) \$241,000

2. Axelia Corporation has two divisions, Refining and Extraction. The company's primary product is Luboil Oil. Each division's costs are provided below:

<i>Extraction:</i>	Variable costs per barrel of oil	\$16
	Fixed costs per barrel of oil	\$9
<i>Refining:</i>	Variable costs per barrel of oil	\$26
	Fixed costs per barrel of oil	\$38

The Refining Division has been operating at a capacity of 40,900 barrels a day and usually purchases 25,600 barrels of oil from the Extraction Division and 15,400 barrels from other suppliers at \$64 per barrel.

Assume 260 barrels are transferred from the Extraction Division to the Refining Division for a transfer price of \$26 per barrel. The Refining Division sells the 260 barrels at a price of \$220 each to customers. What is the operating income of both divisions together?

- A) \$13,520
 B) \$34,060
 C) \$16,380
 D) \$50,440

3. Vision Company sells optical equipment. Blitz Company manufactures special glass lenses. Vision orders 11,700 lenses per year, 260 per week, at \$38 per lens. Blitz covers all shipping costs. Vision earns 22% on its cash investments. The purchase-order lead time is 4.0 weeks. Vision sells 315 lenses per week. The following data are available:

Relevant ordering costs per purchase order	\$45.25
Relevant insurance, materials handling, breakage, and so on, per year	\$5.50

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- What is the economic order quantity for Vision?
- A) 276 lenses
 - B) 356 lenses
 - C) 439 lenses
 - D) 595 lenses
4. If the net present value for a project is positive, which of the following is true?
- A) its expected rate of return is below the required rate of return
 - B) its internal rate of return is more than its cost of capital
 - C) the project should be accepted because its expected rate of return is greater than the cost of capital
 - D) its internal rate of return is less than its cost of capital
5. Which of the following statement is true of costs of normal and abnormal spoilage?
- A) Costs of normal spoilage are shown as an asset in a balance sheet; however, abnormal spoilage costs are shown as liabilities in a balance sheet.
 - B) Costs of abnormal spoilage are shown as an asset in a balance sheet; however, normal spoilage costs are shown as liabilities in a balance sheet.
 - C) Costs of normal spoilage are separately accounted for as losses of the accounting period in which they are detected.
 - D) Costs of abnormal spoilage are separately accounted for as losses of the accounting period in which they are detected.
6. Serile Pharma places 800 units in production during the month of January. All 800 units are completed during the month. It had no opening inventory. Direct material costs added during January was \$74,000 and conversion costs added during January was \$8400. What is the total cost per unit of the product produced during January?
- A) \$103
 - B) \$10
 - C) \$80
 - D) \$93
7. How does the physical-measure method allocate joint costs?
- A) allocates joint costs to joint products in a way that each product has an identical gross-margin percentage
 - B) allocates joint costs to joint products on the basis of a comparable physical measure at the split-off point
 - C) allocates joint costs to joint products on the basis of the relative sales value at the split-off point
 - D) allocates joint costs to joint products on the basis of relative NRV
8. If management wants to choose a method of revenue allocation that best captures the "benefits received" by customers then they would use _____ to allocate revenue to products in a bundle.
- A) stand-alone revenue-allocation based on selling prices
 - B) stand-alone revenue -allocation based on unit costs
 - C) stand-alone revenue-allocation based on physical units
 - D) stand-alone revenue-allocation based on unit costs

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9. Dartmouth Building Products Inc. provides the following information.

Corporate advertising costs = \$850,000
 Division A – \$5,000,000
 Division B – \$20,000,000
 Number of ads run relevant on Division A products 500
 Number of ads run relevant to Division B products 3667

Assume that customers with higher revenues benefited more from corporate advertising costs than customers with lower revenues. What is the allocated corporate costs for Division A?

- A) \$348,000
 B) \$212,500
 C) \$170,000
 D) \$250,000

10. Twenty Technologies, currently sells 17" monitors for \$270. It has costs of \$230. A competitor is bringing a new 17" monitor to market that will sell for \$245. Management believes it must lower the price to \$245 to compete in the market for 17" monitors. Twenty Technologies believes that the new price will cause sales to increase by 10%, even with a new competitor in the market. Twenty Technologies's sales are currently 5200 monitors per year.

What is the change in operating income if marketing manager is correct and only the sales price is changed?

- A) \$130,000
 B) \$122,200
 C) (\$130,000)
 D) (\$122,200)

11. Foley Products Company makes a household appliance with model number X500. The goal for 2023 is to reduce direct materials usage per unit. No defective units are currently produced. Manufacturing conversion costs depend on production capacity defined in terms of X500 units that can be produced. The industry market size for appliances increased 10% from 2022 to 2023. The following additional data are available for 2022 and 2023:

	<u>2022</u>	<u>2023</u>
Units of X500 produced and sold	16,000	17,600
Selling price	\$140	\$133
Direct materials (square feet)	36,000	35,000
Direct material costs per square foot	\$10	\$13
Manufacturing capacity for X500 (units)	12,500	11,800
Total conversion costs	\$350,000	\$330,400
Conversion costs per unit of capacity	\$28	\$28

What is operating income for 2022?

- A) \$1,530,000
 B) \$1,240,000
 C) \$1,890,000
 D) \$1,320,000

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12. South Coast Appliance Store is a small company that has hired you to perform some management advisory services. The following information pertains to 2017 operations.

Sales (6,000 microwave ovens)	\$6,000,000
Cost of goods sold	870,000
Store manager's salary per year	192,000
Operating costs per year	305,000
Advertising and promotion per year	40,000
Commissions (4.1% of sales)	246,000

What are the estimated total costs if South Coast's store expects to sell 8,900 units next year?

- A) \$3,567,950
 B) \$4,104,950
 C) \$2,192,400
 D) \$1,901,900
13. Which of the following statements is true of performance reports?
 A) The performance report shows actual performance as compared to the budget.
 B) The performance report depicts the performance of a firm's competitors.
 C) The performance report compares only the budgeted performance over the years.
 D) The performance report contains no actual results due to confidentiality.
14. Based on the theory of constraints, investments equal _____.
 A) the sum of material costs in direct and indirect materials, work-in-process, and finished goods inventories; R&D costs; and business function costs
 B) the sum of material costs in direct materials, work-in-process, and finished goods inventories; R&D costs; and capital costs of equipment and buildings
 C) the sum of material costs in direct and indirect materials, work-in-process, and finished goods inventories; R&D costs; and full costs
 D) the sum of material costs in direct materials, work-in-process, and finished goods inventories; R&D costs; sunk costs, full costs, and business function costs

15. Advanced Enterprises reports year-end information from 2023 as follows:

Sales (160,750 units)	\$965,000
Cost of goods sold	<u>643,000</u>
Gross margin	322,000
Operating expenses	<u>267,000</u>
Operating income	<u>\$55,000</u>

Advanced is developing the 2024 budget. In 2024 the company would like to increase selling prices by 12.5%, and as a result expects a decrease in sales volume of 9%. All other operating expenses are expected to remain constant. Assume that cost of goods sold is a variable cost and that operating expenses are a fixed cost.

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- What is budgeted cost of goods sold for 2024?
- A) \$723,375
B) \$643,000
C) \$800,870
D) \$585,130
16. 下列敘述何者正確？
- A) 作業基礎成本制和傳統成本制之差別，主要在於分攤基礎增加
B) 作業基礎成本制不適用於非營利組織
C) 作業基礎成本制不適用於服務業
D) 由於生產自動化的盛行，作業活動愈來愈多樣，製造費用佔總生產成本的比例上升，故採用作業基礎成本制有助於提升產品成本衡量的正確性。
17. 緯民公司投資 \$2,000,000 於一條生產線用以製造甲產品，並希望該生產線平均之長期利益達成 \$300,000。甲產品每單位成本為 \$2,000，若該公司以目標之投資報酬率作為產品訂價之加成基礎，則甲產品之單位售價應為若干？
- A) \$2,000
B) \$2,300
C) \$5,000
D) \$6,500。
18. 訂價基礎考量全部成本為之優點為何？ ①讓經理人瞭解長期而言，企業應回收之最低成本有多少 ②可限制銷售人員遇到競爭壓力時，即任意削減售價 ③此法需對成本習性進行詳細的分析。
- A) ①②
B) ①③
C) ②③
D) ①②③。
19. 襄荷公司實施責任會計，3 月份某部門之相關資料如下：變動成本包括，製造部分為 \$1,000,000，銷管部分為 \$72,000；固定成本包括，部門經理可控制部分為 \$86,000，部門經理不可控制部分 \$72,000。若邊際貢獻為 \$180,000，則編製部門別責任報告以評估部門經理績效時，部門經理之貢獻額為若干？
- A) \$22,000
B) \$30,000
C) \$94,000
D) \$108,000。
20. Cold Products Corporation manufactured 27,000 ice chests during September. The variable overhead cost-allocation base is \$11.75 per machine-hour. The following variable overhead data pertain to September:

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	<u>Actual</u>	<u>Budgeted</u>
Production	27,000 units	26,000 units
Machine-hours	13,500 hours	7,800 hours
Variable overhead cost per machine-hour:	\$11.25	\$11.75

What is the variable overhead efficiency variance?

- A) \$63,450 unfavorable
- B) \$64,750 favorable
- C) \$56,700 favorable
- D) \$66,975 unfavorable

二、計算題 (請詳列計算過程並清楚標記答案,「答案」與「分錄」須完全正確才給予得分,每小題 3 分,共計 60 分)

1. 泰尚公司生產高級防曬油,目前要編製 8 月份的現金預算,以免在營業旺季發生現金週轉不靈的現象,其估計的資料如下:

- (1) 估計 8 月 1 日的現金餘額為 \$50,000。
- (2) 公司商品採購皆採賒購,有 50% 的進貨於當月付清,其餘則於次月付清。
- (3) 公司客戶於購買產品當月份付清 40% 的帳款,餘額於次月付清,預計有 2% 的壞帳。
- (4) 行銷及管理費用於當月付清。
- (5) 現金股利預期於 8 月份發放 \$1,000,000。
- (6) 預估所得稅以當月份之會計所得為準,稅率 30%,於次月繳交。
- (7) 公司訂定月底最低現金餘額為 \$70,000。
- (8) 其他資料:

	7 月	8 月
銷 貨	\$2,500,000	\$3,000,000
進 貨	800,000	1,200,000
銷貨成本	1,250,000	1,500,000
折舊費用	400,000	550,000
行銷管理費用	800,000	1,000,000

試計算下列各項數字以完成現金預算:

- 1. 銷貨收現數 (3 分)
- 2. 進貨付現數 (3 分)
- 3. 銷管費用付現數 (3 分)
- 4. 所得稅付現數 (3 分)
- 5. 估計現金餘額(8/31) (3 分)

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2. 采玉公司於本年 1 月 1 日開始營業，其正常產能為 150,000 單位，但采玉公司當年度只生產了 125,000 單位之產品，並按每單位\$200 之售價出售 120,000 單位。變動成本總額為\$7,500,000，其中 2/3 為製造成本，而 1/3 為銷售費用。固定成本總額為\$12,000,000，其中製造費用佔 60%，而銷售費用佔 40%，采玉公司本年底無材料與在製品存貨，每單位產品所實際投入之價格與數量均與標準相同。

試作：

1. 採用全部成本法，求算采玉公司按標準成本計算之銷貨成本（不考慮標準成本差異）。（3 分）
2. 採用變動成本法，攤入期末存貨之成本為若干？（3 分）
3. 求算采玉公司本年度之製造費用能量差異（請標明「有利」或「不利」）。（3 分）
4. 若採用變動成本法，其營業利潤若干？（3 分）

3. 月德公司採用分批成本制，製造費用是依據直接人工成本的 150% 分攤，所有多分攤及少分攤之製造費用均於月底結入銷貨成本。該公司於本年 7 月 31 日當天，僅有批號 A1 的工作尚未完工，其成本資料如下：

直接材料	\$200,000
直接人工	160,000
已分攤製造費用	150,000

在 8 月份開工的批次有 B1、C1 及 D1 等三批。8 月份實際發生之成本如下：

直接材料	\$1,340,000
直接人工	1,000,000
製造費用	2,580,000

8 月底尚未完工的僅有批號 D1 的工作，該工作已投入直接原料\$140,000 及直接人工\$92,000。

試作：

1. 請分別計算 8 月分的
 - (1) 製造成本(3 分)
 - (2) 製成品成本(3 分)
 - (3) 多分攤或少分攤製造費用(3 分)
2. 作製造費用的相關分錄（需完全正確才給予分數）
 - (1) 發生分錄(3 分)
 - (2) 分攤分錄(3 分)

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4. Cheng Corp makes small motorcycles. The monthly demand ranges from 80 to 100 motorcycles. The average demand is 92 motorcycles. The plant operates 300 hours a month. Each motorcycle takes approximately 1.5 hours.

If the company adds a new line of scooters, initial demand will be 20 per month. Each scooter will take 1 hour to make. To offset approaching production capacity, expanding the assembly line is possible. This will decrease manufacturing time for all products by 20%. However, this will increase the costs of motorcycles from \$400 to \$500 and scooters from \$200 to \$240. The change will also cause increases in prices from \$700 to \$750 for motorcycles and from \$450 to \$500 for scooters.

Required (請計算至小數點後三位並四捨五入):

1. What is the average waiting time for motorcycles if they are the only item manufactured? (3 分)
2. What are the average waiting times if both motorcycles and scooters are produced and the assembly line is not enlarged? (3 分)
3. What are the average waiting times if both motorcycles and scooters are produced and the assembly line is enlarged? (3 分)
4. What is the expected monthly margin without scooters if the company sells all 92 motorcycles it manufactures? (3 分)
5. What are the expected monthly contribution margins if scooters are made with (Assume average sales and that sales equal production):
 - (1) the current assembly line? (3 分)
 - (2) the new assembly line? (3 分)?