

※ 考生請注意：本試題可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

一、選擇題：(60%，3% each)

1. Which of the following differentiates job costing from process costing?

- A) Job costing is used when each unit of output is identical, and process costing deals with unique products.
- B) Job costing is used when each unit of output is identical and not produced in batches, and process costing deals with unique products produced on large scale.
- C) Process costing is used when each unit of output is identical, and job costing deals with unique products not produced in batches.
- D) Job costing is used by manufacturing industries, and process costing is used by service industries.

2. Which account is credited to write off the difference between allocated and actual overhead using the proration approach?

- A) Work-in Process Control
- B) Manufacturing Overhead Allocated
- C) Finished Goods Control
- D) Manufacturing Overhead Control

3. In a cost-benefit approach, managers should spend resources if the _____.

- A) marginal costs to the company exceed the marginal benefits
- B) expected benefits to the company exceed the expected costs
- C) marginal costs to the company equal the marginal benefits
- D) expected benefits to the company equal the expected costs

4. A favorable efficiency variance for direct materials might indicate that _____.

- A) lower-quality materials were purchased
- B) work is scheduled efficiently
- C) there is an unexpected increase in direct labor rates
- D) management hired underskilled workers

5. Given a constant contribution margin per unit and constant fixed costs, the period-to-period change in operating income under variable costing is driven solely by _____.

- A) changes in the quantity of units actually sold
- B) changes in the quantity of units produced
- C) changes in ending inventory
- D) changes in sales price per unit

6. In a make-or-buy decision, which of the following would not be relevant?

- A) the quality of the product
- B) the portion of fixed costs that could be eliminated by outsourcing
- C) a lease that could be discontinued upon accepting the "buy proposal"
- D) property taxes on the plant that will still be necessary even if the product is outsourced

7. Which of the following statements is true of costs and pricing decisions?

- A) Companies get profit from selling products only when they are the price makers.
- B) Companies supply products as long as the price the customer is willing to pay for its products exceeds the price that is charged by the competitor.
- C) Companies supply products as long as there is a demand for the product in the market regardless of the price at which the products are sold.
- D) Companies supply products as long as the revenues from selling the additional units exceed the cost of producing them.

8. Which of the following is true of corporate-sustaining costs?

- A) are common to all individual customers
- B) have a clear cause-and-effect relationship with several cost-allocation bases
- C) should be allocated for decisions regarding reducing customer costs
- D) evaluates the effectiveness of sales personnel

9. Sensitivity analysis helps managers evaluate risks _____.

- A) by showing the effects of changes to the original data or an underlying assumption
- B) by identifying inconsistencies in underlying assumptions and actual conditions
- C) by removing the effects of foreign currency exposure and other uncontrollable factors
- D) by identifying gaps in the production process using information on setups needed to manufacture products

10. In the computation of the cost per equivalent unit, the weighted-average method of process costing considers all the costs _____.

- A) entering work in process from the units in beginning inventory plus the costs for the work completed during the current accounting period
- B) that have entered work in process from the units started or transferred in during the current accounting period
- C) that have entered work in process during the current accounting period from the units started or transferred in minus the costs associated with ending inventory
- D) that have entered work in process during the current accounting period from the units started or transferred in plus the costs associated with ending inventory

11. Columbia Autos sells a single product. 8,000 units were sold resulting in \$83,000 of sales revenue, \$21,000 of variable costs, and \$20,000 of fixed costs. If variable costs decrease by \$1.00 per unit, the new margin of safety is _____.

- A) \$39,290
- B) \$49,290
- C) \$59,290
- D) \$69,290

12. NCKU 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

NCKU sells two units of Product A for each unit it sells of Product B. NCKU faces a tax rate of 40%. NCKU 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

13. Simon 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). Simon 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 35%.

	Operating Income	Assets	Current Liabilities
St. Louis	\$480,000	\$2,600,000	\$110,000
Cedar Rapids	\$600,000	\$4,000,000	\$300,000
Wichita	\$1,020,000	\$6,000,000	\$600,000

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

- A) \$65,739
- B) \$51,048
- C) \$312,000
- D) \$260,952

14. Freedom Auto produces and sells an auto part for \$60 per unit. In 2017, 120,000 parts were produced and 75,000 units were sold. Other information for the year includes:

Direct materials	\$20 per unit
Direct manufacturing labor	\$5 per unit
Variable manufacturing costs	\$3 per unit
Sales commissions	\$7 per part
Fixed manufacturing costs	\$760,000 per year
Administrative expenses, all fixed	\$270,000 per year

What is the inventoriable cost per unit using variable costing?

- A) \$20
- B) \$25
- C) \$28
- D) \$35

15. Freedom Auto produces and sells an auto part for \$85 per unit. In 2017, 110,000 parts were produced and 90,000 units were sold. Other information for the year includes:

Direct materials	\$23 per unit
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Direct manufacturing labor	\$6 per unit
Variable manufacturing costs	\$1 per unit
Sales commissions	\$6 per part
Fixed manufacturing costs	\$790,000 per year
Administrative expenses, all fixed	\$310,000 per year

What is the inventoriable cost per unit using absorption costing?

- A) \$30.00
- B) \$36.00
- C) \$37.18
- D) \$40.00

Answer the following questions 16-20 using the information below:

Taiwan Beverages Corporation has two divisions: A and B. Division A makes beverages that Division B is currently buying on the open market. Division A has a capacity to produce 400,000 units of beverages at a variable cost of \$6.50 per unit and a full cost of \$10.00 per unit.

Division A has outside sales of 360,000 units of beverages at a price of \$12.50 per unit. Division B currently buys 50,000 units from an outside supplier at a price of \$12.00 per unit. Assume Division B wants to use a single supplier for beverages.

16. What is the minimum transfer price for Division B to buy internally (from Division A)?

- A) \$7.2
- B) \$7.7
- C) \$8.2
- D) \$8.7

17. What is the (net) effect on Taiwan Beverages Corporation's operating profit if the transfer (of 50,000 units) is made internally (that Division B buys internally from Division A)?

- A) \$215,000
- B) \$205,000
- C) \$195,000
- D) \$185,000

18. Assume Division A has outside sales of 390,000 units of beverages, instead of 360,000 units of beverages.

What is the minimum transfer price for Division B to buy internally (from Division A)?

- A) \$12.0
- B) \$11.3
- C) \$11.0
- D) \$10.5

19. Assume Division A has outside sales of 390,000 units of beverages, instead of 360,000 units of beverages.

What is the (net) effect on Taiwan Beverages Corporation's operating profit if the transfer (of 50,000 units) is made internally (that Division B buys internally from Division A)?

- A) \$65,000
- B) \$55,000
- C) \$45,000
- D) \$35,000

20. Assume Division A has outside sales of 390,000 units of beverages, instead of 360,000 units of beverages.

Also assume that Division B currently buys from an outside supplier at a price of \$13.50 per unit, instead of \$12.00 per unit.

What is the (net) effect on NCKU Corporation's operating profit if the transfer (of 50,000 units) is made internally (that Division B buys internally from Division A)?

- A) \$150,000
- B) \$130,000
- C) \$110,000
- D) \$90,000

二、計算題：(40%)

NCKU's Office Supplies manufactures desk organizers in its Processing Department. Direct materials are included at the inception of the production cycle and must be bundled in single kits for each unit. Conversion

costs are incurred evenly throughout the production cycle. Inspection takes place as units are placed into production. After inspection, some units are spoiled due to undetectable material defects. Spoiled units generally constitute 3% of the good units. Data provided for February 2017 are as follows:

WIP, beginning inventory 2/1/2017 51,600 units
 Direct materials (100% complete)
 Conversion costs (65% complete)

Started during February 170,100 units
 Completed and transferred out 180,800 units

WIP, ending inventory 2/28/2017 26,800 units
 Direct materials (100% complete)
 Conversion costs (35% complete)

Costs:

WIP, beginning inventory:	
Direct materials	\$281,888
Conversion costs	80,333
Direct materials added	408,999
Conversion costs added	264,666

Required (40 points in total):

1. Prepare a production cost worksheet if the *First-in, first-out (FIFO)* method is used and abnormal spoilage is recognized. (20 points)
2. Prepare a production cost worksheet if the *weighted-average (WA)* method is used and abnormal spoilage is recognized. (20 points)

For *each* of the two methods (FIFO and WA) above, please answer the following questions:

- a) What are the equivalent units for direct material and conversion cost, respectively? (4 points)
- b) What are the equivalent-unit costs for direct material and conversion cost, respectively? (4 points)
- c) What costs would be associated with normal and abnormal spoilage, respectively? (4 points)

d) What costs are allocated to the ending work-in-process inventory for direct materials and conversion costs, respectively? (4 points)

e) What dollar amount correctly represents the transfer of completed goods begun during February? In other words, what is the cost of good units? (2 points)

f) What is the cost per good unit? (2 points)

(Round any calculation to 1 decimal place.)