

國立中正大學 114 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

單選題(30 Points)

1) X Inc. sells 400 units resulting in \$8,000 of sales revenue, \$4,000 of variable costs, and \$1,500 of fixed costs. Contribution margin per unit is: (Round the final answer to the nearest cent.)

- A) \$23.75
- B) \$20.00
- C) \$10.00
- D) \$6.25

2) Assume the following cost information for F Company:

Selling price	\$190 per unit
Variable costs	\$80 per unit
Total fixed costs	\$95,000
Tax rate	35%

What is the number of units that must be sold to earn an after-tax net income of \$30,000? (Do not round interim calculations and round the final answer to the nearest unit.)

- A) 1,284 units
- B) 1,137 units
- C) 658 units
- D) 1,329 units

3) The E Company manufactures several different products. Unit costs associated with Product ORD105 are as follows:

Direct materials	\$54
Direct manufacturing labor	8
Variable manufacturing overhead	11
Fixed manufacturing overhead	25
Sales commissions (2% of sales)	5
Administrative salaries	<u>12</u>
Total	<u>\$115</u>

What is the percentage of the total fixed costs per unit associated with Product ORD105 with respect to total cost?

- A) 37%
- B) 32%
- C) 15%
- D) 26%

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4) M Corp manufactures expensive tables. Its varnishing department is fully automated and requires substantial inspection to keep the machines operating properly. An improperly varnished table is very expensive to correct. Inspection hours for the 5,400 tables varnished in September totaled 1,800 hours by 12 employees. Eight quarts of varnish were used, on average, for each table. The standard amount of varnish per table is nine quarts. The cost of inspection for September was equal to the budgeted amount of \$40,200.

What is the inspection cost per unit? (Round the final answer to the nearest cent.)

- A) \$28.18
- B) \$7.44
- C) \$8.44
- D) \$21.13

5) Job-costing is likely to be used by:

- A) oil refining companies
- B) advertising agencies
- C) mortgage payment processors
- D) breakfast cereal producers

6) Facility-sustaining costs are the costs of activities:

- A) undertaken to support individual products or services regardless of the number of units or batches in which the units are produced
- B) related to a group of units of a product or services, rather than each individual unit of product or service
- C) that managers cannot trace to individual products or services but that support the organization as a whole
- D) performed on each individual unit of a product or service such as the cost of energy, machine depreciation, and repair

7) W Company provides the following data for next year:

Month	Budgeted Sales
January	\$129,000
February	112,000
March	134,000
April	147,000

The gross profit rate is 25% of sales. Inventory at the end of December is \$23,600 and target ending inventory levels are 10% of next month's sales, stated at cost.

What is the amount of purchases budgeted for February?

- A) \$30,150
- B) \$84,000

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C) \$85,650

D) \$106,800

8) Three Bears Manufacturing produces an auto-quartz watch movement called OM362. Three Bears expects to sell 10,000 units of OM362 and to have an ending finished inventory of 3,000 units. Currently, it has a beginning finished inventory of 1,200 units. Each unit of OM362 requires two labor operations, one labor hour(s) of assembling and three labor hour(s) of polishing. The direct labor rate for assembling is \$11 per assembling hour and the direct labor rate for polishing is \$15.50 per polishing hour.

The expected number of hours of direct labor for OM362 is:

A) 8,200 hours of assembling; 24,600 hours of polishing

B) 11,800 hours of assembling; 35,400 hours of polishing

C) 24,600 hours of assembling; 8,200 hours of polishing

D) 35,400 hours of assembling; 11,800 hours of polishing

9) While calculating the costs of products and services, a standard costing system:

A) allocates overhead costs on the basis of the actual overhead-cost rates

B) uses standard costs to determine the cost of products

C) does not keep track of overhead cost

D) traces direct costs to output by multiplying the standard prices or rates by the actual quantities

10) S Inc. produces and sells a decorative pillow for \$97.50 per unit. In the first month of operation, 2,300 units were produced and 1,900 units were sold. Actual fixed costs are the same as the amount budgeted for the month. Other information for the month includes:

Variable manufacturing costs	\$22.00 per unit
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Variable marketing costs	\$7.00 per unit
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Fixed manufacturing costs	\$16 per unit
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Administrative expenses, all fixed	\$20.00 per unit
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Ending inventories:

Direct materials	-0-
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WIP	-0-
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Finished goods	400 units
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What is the contribution margin using variable costing?

A) \$143,450

B) \$130,150

C) \$171,950

D) \$134,650

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計算題(70 Points)

1) The fixed costs of operating the maintenance facility of General Hospital are \$4,500,000 annually. Variable costs are incurred at the rate of \$30 per maintenance-hour. The facility averages 40,000 maintenance-hours a year. Budgeted and actual hours per user for 2020 are as follows:

	Budgeted hours	Actual hours
Building and grounds	10,000	12,000
Operating and emergency	8,000	8,000
Patient care	21,000	22,000
Administration	1,000	1,200
Total	40,000	43,200

Assume that budgeted maintenance-hours are used to calculate the allocation rates. (24 Points)

Required:

- If a single-rate cost-allocation method is used, what amount of maintenance cost will be budgeted for each department? (4 Points)
- If a single-rate cost-allocation method is used, what amount of maintenance cost will be allocated to each department based on actual usage? (4 Points)
- If a dual-rate cost-allocation method is used, what amount of maintenance cost will be budgeted for each department? (8 Points)
- If a dual-rate cost-allocation method is used, what amount of maintenance cost will be allocated to each department based on actual usage? Based on budgeted usage for fixed operating costs and actual usage for variable operating costs? (8 Points)

2) Oregon Lumber processes timber into four products. During January, the joint costs of processing were \$280,000. There was no inventory at the beginning of the month. Production and sales value information for the month is as follows:

Product	Board feet	Sales Value at	
		Split-off Point	Ending Inventory
2 × 4's	6,000,000	\$0.30 per board foot	500,000 bdft.
2 × 6's	3,000,000	0.40 per board foot	250,000 bdft.
4 × 4's	2,000,000	0.45 per board foot	100,000 bdft.
Slabs	1,000,000	0.10 per board foot	50,000 bdft.

Required:

Determine the value of each ending inventory if the sales value at split-off method is used for product costing. Round to 3 decimal places when necessary. (12 Points)

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3) Aunt Ethel's Fancy Cookie Company manufactures and sells three flavors of cookies: Macaroon, Sugar, and Buttercream. The batch size for the cookies is limited to 1,000 cookies based on the size of the ovens and cookie molds owned by the company. Based on budgetary projections, the information listed below is available:

	<u>Macaroon</u>	<u>Sugar</u>	<u>Buttercream</u>
Projected sales in units	500,000	800,000	600,000

PER UNIT data:

Selling price	\$0.80	\$0.75	\$0.60
Direct materials	\$0.20	\$0.15	\$0.14
Direct labor	\$0.04	\$0.02	\$0.02

Hours per 1000-unit batch:

Direct labor hours	2	1	1
Oven hours	1	1	1
Packaging hours	0.5	0.5	0.5

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		2,400 hours
Oven	\$210,000	1,900 oven hours
Packaging	\$150,000	950 packaging hours
	<u>\$360,000</u>	

Required:

Round to 2 decimal places when necessary (24 Points)

- a. Determine the activity-cost-driver rate for packaging costs. (4 Points)
- b. Using the ABC system, for the sugar cookie: (10 Points)
 1. compute the estimated overhead costs per thousand cookies.
 2. compute the estimated operating profit per thousand cookies.
- c. Using a traditional system (with direct labor hours as the overhead allocation base), for the sugar cookie: (10 Points)
 1. compute the estimated overhead costs per thousand cookies.
 2. compute the estimated operating profit per thousand cookies.

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4) Aspen Popular Company prepared the following absorption-costing income statement for the year ended May 31, 2020.

Sales (8,000 units)	\$160,000
Cost of goods sold	<u>108,000</u>
Gross margin	\$52,000
Selling and administrative expenses	<u>18,000</u>
Operating income	<u>\$ 29,000</u>

Additional information follows:

Selling and administrative expenses include \$1.50 of variable cost per unit sold. There was no beginning inventory, and 8,750 units were produced. Variable manufacturing costs were \$11 per unit. Actual fixed costs were equal to budgeted fixed costs

Required:

If Aspen Popular Company prepares a variable-costing income statement for the same period. (10 Points)

- What is the amount of contribution margin?
- What is the amount of operational income?