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科目：成本與管理會計學

1. Multiple choice (16%)

- 1) The five steps in process costing include
- Beginning inventory, costs added, units completed, ending inventory, and spoilage.
 - Units to account for, units accounted for, equivalent number of units, costs to account for, and unit costs.
 - Physical units, equivalent number of units, cost of work in process beginning, costs added during the period, and unit cost.
 - Physical units, equivalent number of units, costs to account for, cost per unit, and costs accounted for.
 - None of the above.
- 2) The break-even point in units will decrease if
- Unit contribution margin decreases
 - Total Fixed costs decrease
 - Unit selling price decreases
 - Unit variable cost increases
 - None of the above
- 3) Brownwood Co. uses a job order cost system and allocates manufacturing overhead costs to jobs, using direct labor cost as the activity base. The manufacturing overhead rate for Activity A is 200% of the cost driver and the manufacturing overhead rate for Activity B is 100% of the cost driver. What are the total costs of Job 001, given the above information:

	Job 001	
	Activity A	Activity B
Total Direct Material used	\$10000	\$3000
Direct Labor	?	\$10000
Manufacturing overhead	\$20000	?

- 45000
- 63000
- 58000
- 87000
- none of the above.

- 4) Which one of the following companies would *most likely* use process costing?
- Beef Producer
 - CPA firm
 - Furniture Retailer
 - Printing Company
 - None of the above
- 5) Activity Based Costing is LEAST appropriate for a company that
- mass produces one product.
 - operates in a highly competitive environment.
 - has multiple processes which vary in complexity.
 - uses job costing
 - none of the above
- 6) XYZ Manufacturing Company produces two products on which the following data are available:

Product	Unit Variable Costs	Unit Price	Percentage of Sales units
A	\$10	\$15	40
B	8	12	60

Total Fixed Cost for XYZ: \$66,000. XYZ must sell how many units of product B to break-even assuming the sales mix will not change

- a. 12,000
b. 3,000
c. 9,000
d. 18,000
e. None of the above
- 7) An organization would record which of the following to account for OVERAPPLIED manufacturing overhead?
- a. A debit to Work-in-Process
b. A debit to Cost of Goods Sold
c. A credit to Cost of Goods Sold
d. A credit to Revenue
e. None of the above
- 8) In discounted cash flow analysis, we consider the following **except**
- a. future revenues of the project.
b. future appreciation of the asset.
c. working capital needs of the project.
d. salvage value of the project.
e. tax effect of depreciation of the project.
f. None of the above

2. (22%) ABC manufacturing, Inc., manufactures a new toy for kids with ages of 3-5. Information regarding its resources for the 2004 is as follows:

	Resources Used	Resources Supplied
Marketing	25000	27000
Depreciation	30000	46000
Materials	80000	80000
Setups	15000	21000
Energy	15000	16000
Parts management	12000	13000
Engineering changes	13000	15000
labor	20000	24000
Administrative services	25000	31000
Customer services	6000	8000
quality inspections	20000	22000

Sales for 2004 were \$300,000. ABC's cost of capital has recently increased significantly, resulting in a return on sales requirement of 30% for all new business. The expected sales will increase to \$400,000 in three years.

Required:

- a. Prepare an activity-based income statement for 2004. (10%)
b. Calculate the dollar and percentage target-cost reduction the new product in three years. (6%)
c. Explain how unused resources affect ABC's income statement and target cost. (6%)

3. (22%) ACup Inc., is a manufacturer of luxurious cups. The company's master budget for the year 2005 is in the preparation process. The sales forecast, production and material requirement plans are based on the following information.

● **Sales forecast**

	Q1	Q2	Q3	Q4	Year	Q1 (2006)
Sales in Units	10,000	11,000	12,000	15,000	48,000	12,000
Unit sales price	100	100	100	120	106.25	
Total sales revenue	\$1,000,000	\$1,100,000	\$1,200,000	\$1,800,000	\$5,100,000	

- The quarterly ending inventory is 10% of the expected sales for the next quarter.
- Each unit of product requires 2 units of direct material input and 0.1 hours of direct labor. The direct material is \$10 per unit and the direct labor is \$100 per hour. The ending material is 10% of the direct material required for next quarter's production.

Required: prepare budgets for direct material and direct labor for Q1 and Q2 of 2005.

4. (20%) CMV Tech produces two products—LCD and LCDTV. The products are sold in two markets (customers)—EU and US. The revenues and cost information is displayed in the following product-market matrix.

Product profitability	Total	LCD	LCDTV
Contribution margin ratio	48.00%	40.00%	60.00%
Revenues	\$10,000,000	\$6,000,000	\$4,000,000
Customer sales to:		EU	US
Sales of: LCD	100%	40%	60%
LCDTV	100%	30%	70%
Operating costs <i>traced</i> to markets	\$2,500,000	\$1,000,000	\$1,500,000

Required: Prepare a statement for product and customer (customer) profitability. (note: operating costs are allocated to *products* based on the relative sales.)

(Division A's total asset is \$1,400,000 on January 1)

5. (20%) XYZ corp. is a high tech manufacturer. On January 2, its division A purchased a new machine for \$600,000. The new machine has a useful life of four years and no salvage value. On January 3, the expected income items for the division were as follows:

Sales	\$1,000,000
Operating costs	
Cash costs	
Unit level	300,000
Batch level	50,000
Product level	50,000
Facility level	100,000
Depreciation on new machine (4 years of life)	150,000
Other information	
Total assets (1/1)	1,400,000
Tax rate	25%
After-tax cost of capital used for EVA computations	15%
Current liabilities	0

On January 5, the manager of division A is approached by a sales representative, recommending a high-tech machine, which can improve production efficiency and quality significantly over the machine that division A just acquired on January 2. With the high-tech machine, the sales and the unit level costs will both increase by 40%. The facility level costs will decrease by 10%. Other cost items remain the same. The high-tech machine will cost \$800,000 and has useful life of four years and no salvage value. Division A can sell the new machine for \$500,000 if it acquires the high-tech machine.

Required:

- Calculate division A's EVA if the high-tech machine is not acquired.
- Calculate division A's EVA if the high-tech machine is acquired.