國立彰化師範大學 98 學年度碩士班招生考試試題

系所：會計學系　　　　科目：管理會計(含成本會計學)

☆☆請在答案紙上作答☆☆　　

Part I (50%)

I. Multiple Choices (20%, 2% for each question)

The following information for questions 1-3

Adam Company makes a household appliance with model number 001. The goal for 2009 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 001 units that can be produced. The industry market size for appliances increased 10% from 2008 to 2009. The following additional data are available for 2008 and 2009:

	2008	2009
Units of 001 produced and sold	10,000	11,000
Selling price	$100	$95
Direct materials (square feet)	30,000	29,000
Direct material costs per square foot	$11	$12
Manufacturing capacity for 001 (units)	12,500	12,000
Total conversion costs	$250,000	$240,000
Conversion costs per unit of capacity	$20	$20

1. What is operating income for 2008?
A) $420,000　B) $450,000　C) $750,000　D) $700,000　E) none of above

2. What is operating income for 2009?
A) $997,500　B) $678,500　C) $457,000　D) $447,000　E) none of above

3. Which strategy is Adam Corporation pursuing?
A) Product differentiation, because the units produced and sold increased.
B) Product differentiation, because total conversion costs decreased.
C) Cost leadership, because direct material costs per square foot increased.
D) Cost leadership, because the selling price decreased.
E) none of above

4. The ________ approach adjusts individual job-cost records to account for under-allocated or over-allocated overhead.
A) adjusted allocation-rate　B) proration　C) write-off to cost of goods sold
D) Both A and B are correct　E) none of above

5. All of the following are operating budgets *except* the _____
A) purchases budget　B) capital budget　C) cost of goods sold budget
D) budgeted income statement　E) none of above

6. The following data for the Hebbe Company pertain to the production of 2,000 glass pigeons during July:
Standard variable-overhead cost: $6.00 per pound of glass.
Total actual variable-overhead cost: $11,000.
Standard variable-overhead cost allowed for units produced was $13,000.
Variable-overhead efficiency variance was $240 unfavorable
_____ is the variable-overhead flexible-budget variance.
A) $2,000 favorable　B) $240 unfavorable　C) $1,280 favorable
D) $1,000 unfavorable　E) none of above

The following information for questions 7-8

Havord Manufacturing uses a normal cost system and had the following data available for 2009:

Direct materials purchased on account	$ 73,000
Direct materials requisitioned	40,000
Direct labor cost incurred	65,000
Factory overhead incurred	73,000
Cost of goods completed	146,000
Cost of goods sold	128,000
Beginning direct materials inventory	13,000
Beginning WIP inventory	32,000
Beginning finished goods inventory	29,000

Overhead application rate, as a percent of direct-labor costs 125 percent

7. The journal entry to record the materials placed into production would include a:
   A) credit to Direct Materials Inventory for $40,000
   B) debit to Direct Materials Inventory for $74,000
   C) credit to WIP Inventory for $40,000
   D) debit to WIP Inventory for $74,000　　E) none of above

8. The ending balance of work-in-process inventory is:
   A) $219,250　B) $72,250　C) $65,000　D) $211,000　E) none of above

9. Which of the following inventory costing methods shown below is required by GAAP (Generally Accepted Accounting Principles) for external financial reporting?
   A) absorption costing　B) variable costing　C) throughput costing
   D) direct costing　E) none of above

10. Which budget is NOT necessary to prepare the budgeted balance sheet?
   A) cash budget　B) budgeted statement of cash flows
   C) budgeted income statement　D) revenues budget　E) none of above

II Problem

1. Following a strategy of product differentiation, Nobel Corporation makes a high-end computer monitor, OK10. Nobel Corporation presents the following data for the years 2008 and 2009:

	2008	**2009**
Units of OK10 produced and sold	5,000	5,500
Selling price	$400	$450
Direct materials (pounds)	15,000	15,375
Direct materials costs per pound	$40	$45
Manufacturing capacity for OK10 (units)	10,000	10,000
Conversion costs	$1,000,000	$1,100,000
Conversion costs per unit of capacity	$100	$110
Selling and customer-service capacity (customers)	60	58
Total selling and customer-service costs	$360,000	$362,500
Selling and customer-service capacity cost per customer	$6,000	$6,250

Nobel Corporation produces no defective units but it wants to reduce direct materials usage per unit of OK10 in 2009. Manufacturing conversion costs in each year depend on production capacity defined in terms of OK10 units that can be produced. Selling and customer-service costs depend on the number of customers that the customer and service functions are designed to support. Nobel Corporation has 46 customers in 2008 and 50 customers in 2009. The industry market size for high-end computer monitors increased 5% from 2008 to 2009.

Required: (15%)

a. What is the revenue effect of the price-recovery component?
b. What is the cost effect of the price-recovery component?
c. What is the net effect on operating income as a result of the price-recovery component?

2. What are the three criteria a company should use to evaluate and choose a cost driver? Briefly explain each of the three criteria. (10%)

3. Why is the book value of old equipment irrelevant to the equipment replacement decision? (5%)

Part II (50%)

作答說明：題號請標明清楚（請在答案卷上註明第二部份）。所有計算題皆須列示過程，否則不予計分。

Problem

1. DYS Medical Instruments sells 25,000 units of MR-25, a surgical scalpel, each year, which it purchases from Sloco Manufacturing. Sloco's reputation for quality is the best in the industry. DYS is now considering adopting JIT purchasing. The purchase price of each scalpel will increase by a small amount, and more-frequent, smaller orders will be placed with Sloco. DYS expects that realistically, under JIT purchasing, there will be stockouts for about 4 units each month and each stockout will cost about $4 to handle. The expected relevant changes are summarized here:

	Current Purchasing Policy	**JIT Purchasing Policy**
Number of units ordered per year	25,000	25,000
Purchase price per unit	$16	$16.04
Ordering cost per purchase order	$3	$3
Number of purchase orders per year	50	500
Required annual rate of return on investment	20%	20%
Other carrying costs per unit per year	$5	$5
Expected number of stockout units per month	-	4
Cost per stockout unit	-	$4

Required

(1) Compute the estimated dollar savings (loss) for DYS Medical Instruments from the adoption of JIT purchasing. (12 %)

2. The JR corporation produces and sells three soft drinks: Limor, Cola and Orlem. Budgeted and actual results for 2009 are as follows:

	Budget for 2009			**Actual for 2009**		
Product	Selling Price per Carton	Variable Cost per Carton	Cartons Sold	Selling Price per Carton	Variable Cost per Carton	Cartons Sold
Limor	$6	$4	400,000	$6.2	$4.5	480,000
Cola	$4	$2.8	600,000	$4.25	$2.75	900,000
Orlem	$7.2	$4.4	1,000,000	$6.8	$4.6	1,620,000

The total soft drinks market was estimated to reach sales of 25 million cartons in the eastern region of the United States for 2009. However, actual total sales volume in the region was 30 million cartons.

Required:

(1) Compute the total sales mix variance for Orlem. (5%)

(2) Compute the market-share and market-size variances for JR in 2009. (10%)

3. The YWW Corporation makes wire harnesses for the aircraft industry. YWW is uncertain about when and how many customer orders will be received. The company makes harnesses only after receiving firm orders from its customers. YWW has recently purchased a new machine to make two types of wire harnesses, one for Boeing airplanes (X7) and the other for Airbus Industries airplanes (A3). The annual capacity of the new machine is 8,450 hours. The following information is available for next year:

Customer	Annual average number of orders	Manufacturing time required	Selling price per order if average manufacturing lead time per order is		Variable cost per order	Inventory carrying cost per order per hour
			Less than 100 hours	More than 100 hours		
X7	150	40 hours	$20,000	$19,400	$15,000	$0.6
A3	20	50 hours	18,500	18,100	14,000	0.55

Required

(1) Compute the average manufacturing lead times per order if YWW produces both X7 and A3. (6%)

(2) Even though A3 has a positive contribution margin, managers are evaluating whether YWW should (i) manufacture and sell only X7 or (ii) manufacture and sell both X7 and A3. Which alternative will maximize the operating income of YWW? Show your computation. (8%)

4. Please fill in the following blanks: (9%)

	A company
Revenues	?
Income	?
Investment	$4,000,000
Income as a percentage of revenues	0.5%
Investment turnover	4
ROI	?