

國立中央大學100學年度碩士班考試入學試題卷

所別：企業管理學系碩士班 一般丁組(一般生)

科目：管理會計學

共 4 頁 第 1 頁

本科考試可使用計算器，廠牌、功能不拘

*請在試卷答案卷(卡)內作答

如為計算題，請列出計算過程，計算題只列出答案不列計算過程不予計分

1. Henderson Company is in the process of evaluating a new part using the following information.

Part SLC2002 has one production run each month, each with \$16,000 in setup costs.

Part SLC2002 incurred \$40,000 in development costs and is expected to be produced over the next three years.

Direct costs of producing Part SLC2002 are \$56,000 per run of 24,000 parts each.

Indirect manufacturing costs charged to each run are \$88,000.

Destination charges for each run average \$18,000.

Part SLC2002 is selling for \$12.50 in the United States and \$25 in all other countries. Sales are one-third domestic and two-thirds exported.

Sales units equal production units each year.

Required: (16%)

- What are the estimated life-cycle revenues?
- What is the estimated life-cycle operating income for the first year?

2. ABC Boat Company is interested in replacing a molding machine with a new improved model. The old machine has a salvage value of \$20,000 now and a predicted salvage value of \$4,000 in six years, if rebuilt. If the old machine is kept, it must be rebuilt in one year at a predicted cost of \$40,000. The new machine costs \$160,000 and has a predicted salvage value of \$24,000 at the end of six years. If purchased, the new machine will allow cash savings of \$40,000 for each of the first three years, and \$20,000 for each year of its remaining six-year life.

Required: (18%)

What is the net present value of purchasing the new machine if the company has a required rate of return of 14%?

3. The Home Office Company makes all types of office desks. The Computer Desk Division is currently producing 10,000 desks per year with a capacity of 15,000. The variable costs assigned to each desk are \$300 and annual fixed costs of the division are \$900,000. The computer desk sells for \$400.

The Executive Division wants to buy 5,000 desks at \$280 for its custom office design business. The Computer Desk manager refused the order because the price is below variable cost. The executive manager argues that the order should be accepted because it will lower the fixed cost per desk from \$90 to \$60 and will take the division to its capacity, thereby causing operations to be at their most efficient level.

參考用

注意：背面有試題

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Required: (16%)

- a. Should the order from the Executive Division be accepted by the Computer Desk Division? Why? (5%)
 - b. From the perspective of the Computer Desk Division and the company, should the order be accepted if the Executive Division plans on selling the desks in the outside market for \$420 after incurring additional costs of \$100 per desk? (5%)
 - c. What action should the company president take? (6%)
4. The controller for Ocean Sailboats Inc., a company which uses an automated process to make sailboats, established the following overhead cost pools and cost drivers:

<u>Overhead Cost Pool</u>	Budgeted	<u>Cost Driver</u>	Estimated
	<u>Overhead</u>		<u>Cost Driver Level</u>
Machine setups	\$250,500	# of setups	500 setups
Quality control	419,500	# of inspections	2,500 inspections
Other overhead cost	180,000	# of machine hrs	20,000 machine hrs

A recent order for sailboats used:

Machine setups	50 setups
Quality inspections	305 inspections
Machine hours	2,024 machine hours

Required: (18%)

- a. What is the overhead rate per machine hour if the number of machine hours is used as a single cost driver under traditional costing system?
 - b. Utilizing traditional costing, how much overhead is assigned to the order based on machine hours as a single cost driver?
 - c. Utilizing ABC, how much total overhead is assigned to the order?
5. Evans Company has the following information:

Annual demand	4,000 units
Order size	1,000 units
Ordering cost per order	\$500
Carrying costs per unit for one year	\$50
Lead time (maximum 20 days)	10 days
Maximum daily use	25 units
Work year	250 days

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Required: (16%)

- a. Determine the economic order quantity for Evans.
 - b. What is the annual savings to Evans Company if it was to change from an order size of 1,000 to the economic order quantity?
 - c. What is the reorder point?
 - d. What is the safety stock needed to prevent stockouts?
6. The following standard costs were developed for one of the products of Larry Corporation:

STANDARD COST CARD PER UNIT

Materials: 4 feet × \$14 per foot	\$ 56.00
Direct labor: 8 hours × \$10 per hour	80.00
Variable overhead: 8 hours × \$8 per hour	64.00
Fixed overhead: 8 hours × \$12 per hour	96.00
Total standard cost per unit	<u>\$296.00</u>

The following information is available regarding the company's operations for the period:

Units produced:	11,000
Materials purchased:	52,000 feet @ \$13.70 per foot
Materials used:	40,000 feet
Direct labor:	84,000 hours costing \$840,000

Manufacturing overhead incurred:	
Variable	\$756,000
Fixed	\$1,000,000

Budgeted fixed manufacturing overhead for the period is \$960,000, and the standard fixed overhead rate is based on expected capacity of 80,000 direct labor hours.

參考用

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Required: (16%)

- a. Calculate the materials price variance.
- b. Calculate the materials usage variance.
- c. Calculate the direct labor rate variance.
- d. Calculate the direct labor efficiency variance.
- e. Calculate the variable manufacturing overhead spending variance.
- f. Calculate the variable manufacturing overhead efficiency variance.
- g. Calculate the fixed manufacturing overhead spending variance.
- h. Calculate the fixed manufacturing overhead volume variance.

參考用

注意：背面有試題