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系級	會計學系碩士班	考試 時間	100 分鐘
科目	成本及管理會計學	本科總分	100 分

### \*請標明題號後,依序作答於答案卷上!

### **─ ` Multiple Choice (30%)**

- 1. If a manager is evaluated based on ROI, and is managing a division which has attained a high ROI, the manager
  - A. may not want to invest in projects that have an ROI that is higher than the firm's cost of capital, but lower than the division's ROI.
  - B. should invest in projects that have an ROI lower than the firm's cost of capital.
  - C. should only consider projects that have a negative NPV.
  - D. may prefer to invest in projects that have an ROI that is very close to the firm's cost of capital.
- 2. On a balanced scorecard, the measure of the increase in machine availability would be an example of a measure in the:
  - A. learning and growth dimension
- B. internal process dimension
- C. the customer dimension
- D. the financial dimension
- 3. Managers could use which of the following to achieve a budget income target in a given period?
  - A. Shift discretionary expenses to the next period.
  - B. Encourage customers to take shipments at the end of the period they don't want until the next period.
  - C. Fraudulently recognize the next period's sales in the current period.
  - D. All of the above techniques have been used by managers to meet targets.
- 4. What is the major difference between ABC and ABM?
  - A. ABC is used in managerial accounting while ABM is used in financial accounting.
  - B. ABC focuses on control while ABM focuses on measurement.
  - C. The goal of ABC is to accurately measure costs while the goal of ABM is to manage the activities which cause the costs.
  - D. There is no difference; ABC and ABM are two names for the same thing.
- 5. A company estimates that ordering costs are \$4.00 per order, picking costs are \$3.00 per unique item ordered, packing costs are \$0.05 per item, and return costs are \$90.00 per return. A customer makes 50 orders, orders 80 unique items, and 900 total items. The customer makes 11 returns. If the company charges using activity based pricing for each of the above items, what additional charges will be made to the customer?
  - A. \$200 B. \$240 C. \$990 D. \$1.475
- 6. A company is considering investing in a piece of machinery which will cost \$500,000. It will provide an additional \$160,000 in sales each year and its annual operating expenses are expected to be \$35,000. The machine will be depreciated on a straight-line basis over a 10 year life with no estimated salvage value. The company has a 40% tax rate. What is the net cash flow for the year with regard to this piece of machinery assuming that taxes are paid in the year in which they are incurred?

A. \$95,000

- B. \$20,000
- C. \$45,000
- D. \$5,000
- 7. Which of the following choices correctly states how funds are assumed to be reinvested under the net-present-value method and the internal-rate-of-return method?

Net Present Value
A. At the hurdle rate
B. At the hurdle rate
C. At the cost of debt capital

Internal Rate of Return
At the hurdle rate
At the hurdle rate
At the return earned on the project
At the cost of debt capital

D. At the cost of debt capital
E. At the cost of equity capital
At the cost of equity capital

A. Choice A B. Choice B. C. Choice C. D. Choice D. E. Choice E.

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- 8. Which of the following statements is (are) true regarding a company that has implemented flexible manufacturing systems and activity-based costing?
  - I. The company has erred, as these two practices used in conjunction with one another will severely limit the firm's ability to analyze costs over the relevant range.
  - II. Costs formerly viewed as fixed under traditional-costing systems may now be considered variable with respect to changes in cost drivers such as number of setups, number of material moves, and so forth.
  - III. As compared with the results obtained under a traditional-costing system, the concept of break-even analysis loses meaning.
    - A. I only. B. II only. C. III only. D. I and II. E. II and III.
- 9. The following events took place when Managers A, B, and C were preparing budgets for the upcoming period:
  - I. Manager A increased property tax expenditures by 2% when she was informed of a recent rate hike by local authorities.
  - II. Manager B reduced sales revenues by 4% when informed of recent aggressive actions by a new competitor.
  - III. Manager C, who supervises employees with widely varying skill levels, used the highest wage rate in the department when preparing the labor budget.

Assuming that the percentage amounts given are reasonable, which of the preceding cases is (are) an example of building slack in budgets?

- A. I only. B. II only. C. III only. D. I and II. E. II and III.
- 10. The tool crib at a large manufacturing company is responsible for providing tools to the factory workers on demand. The tool crib has a variable demand. Historically, its demand has ranged from 300 to 500 small tools per day with an average of 400. Diane, the tool crib attendant, works eight hours a day, five days a week. Each order is for one small tool and each small tool takes Diane 1 minute to retrieve from the bins. What is the average waiting time, in minutes?
  - A. 1 B. 1.5 C. 2.5 D. 3.5

二、(15%)

Soochow Medical Equipment Company manufactures hospital beds. Its most popular model, Deluxe, sells for \$5,000. It has variable costs totaling \$2,800 and fixed costs of \$1,000 per unit, based on an average production run of 5,000 units. It normally has four production runs a year, with \$400,000 in setup costs each time. Plant capacity can handle up to six runs a year for a total of 30,000 beds.

A competitor is introducing a new hospital bed similar to Deluxe that will sell for \$4,000. Management believes it must lower the price to compete. Marketing believes that the new price will increase sales by 25% a year. The plant manager thinks that production can increase by 25% with the same level of fixed costs. The company currently sells all the Deluxe beds it can produce.

#### Required:

- A. What is the annual operating income from Deluxe at the current price of \$5,000?
- B. What is the annual operating income from Deluxe if the price is reduced to \$4,000 and sales in units increase by 25%?
- C. What is the target cost per unit for the new price if target operating income is 20% of sales?

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### 三、(15%)

Design Products is committed to its quality program. It works with all areas of the company to establish sound quality programs within reasonable budget guidelines. For 2011, it has budgeted \$1,000,000 for prevention costs and \$700,000 for appraisal costs. Internal failure has a budget of \$100 per failed item, while external failure has a total budget of \$600,000.

Product Testing has proposed to management a change in the 2011 budget for a new method of testing products. If management decides to implement the new method, \$2 per unit of appraisal costs will be saved, up to a level of 200,000 tests. No additional savings are expected past the 200,000 level. The new method involves \$90,000 in training costs and \$60,000 in yearly testing supplies.

Traditionally, 3% of all completed items have to be reworked. External failure costs average \$120 per failed unit. The company's average external failures are 1% of units sold. The company carries no ending inventories.

#### Required:

- A. What is the adjusted budget for appraisal costs, assuming the new method is implemented and 800,000 units are tested during the manufacturing process in 2011?
- B. How much do internal failure costs change, assuming 600,000 units are tested under the new method and it reduces the amount of unacceptable units in the manufacturing process by 40%?
- C. What would be the change in the external failure budget, assuming external failures are reduced by 60% and the same facts as in part (b)?

#### 四、(20%)

Soochow Corporation assembles bicycles by purchasing frames, wheels, and other parts from various suppliers. Consider the following data:

- The company plans to sell 25,000 bicycles during each month of the year's first quarter.
- A review of the accounting records disclosed a finished-goods inventory of 1,400 bicycles on January 1 and an expected finished-goods inventory of 1,850 bicycles on January 31.
- Soochow has 4,300 wheels in inventory on January 1, a level that is expected to drop by 5% at month-end.
- Assembly time totals 30 minutes per bicycle, and workers are paid \$14 per hour.
- Soochow accounts for employee benefits as a component of direct labor cost. Pension and insurance costs average \$2 per hour (total).

#### Required:

- A. How many bicycles does Soochow expect to produce (i.e., assemble) in January?
- B. How many wheels are budgeted to be purchased in January?
- C. Compute Soochow's total direct labor cost for January.
- D. Briefly explain how the company's purchasing activity would affect the end-of-period balance sheet.

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### 五、(20%)

Soochow Manufacturing, which produces electrical components, is contemplating submitting a bid for 30,000 units of item no. 54. The bid's cost will be follows:

Raw materials	\$ 75,000
Direct labor	120,000
Manufacturing overhead	150,000
Additional set-up costs	3,000
Special device	5,000
Allocated administrative overhead	12,000
Total cost	<u>\$365,000</u>

The special device will be purchased for this job and once the job is completed, the device will be discarded. Soochow applies total manufacturing overhead of \$5 to each unit (0.5 machine hours at \$10 per hour). This figure is based, in part, on budgeted yearly fixed overhead of \$1,440,000 and an anticipated volume of 480,000 machine hours (40,000 per month). Soochow is presently working at 85% of capacity, and the client needs the order in two months.

#### Required:

- A. Is Soochow's current operating environment one of excess capacity or no excess capacity? Briefly explain.
- B. If Soochow had excess capacity, what would be the lowest cost total that the company should use when figuring its bid for the order?
- C. Can Soochow produce this order in the required time frame of two months? Explain.
- D. Suppose that Soochow is in marginal financial health. Explain the benefits and problems of approaching the bidding procedure with (1) a low bid or (2) a high bid.