

靜宜大學 97 學年度碩士班招生考試試題

系所：會計學系

科目：成本及管理會計

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First Part: Questions in Management Accounting 50%

- 一、ABC Company considers the following two mutually exclusive projects, each of which requires an initial investment of \$100,000 and has no salvage value. The organization, which has a cost of capital of 15%, must choose one or the other.

| Year | Cash inflows (End of Year) | |
|------|----------------------------|-----------|
| | Project A | Project B |
| 1 | \$ 30,000 | \$ 0 |
| 2 | 30,000 | 20,000 |
| 3 | 30,000 | 20,000 |
| 4 | 30,000 | 50,000 |
| 5 | 30,000 | 90,000 |

Required:

1. Compute payback period of these projects under using cost of capital. Which project is more desirable? 5%
2. Compute net present value of these projects. Which project is more desirable? 7%
3. Compute accounting rate of return of these projects under using straight-line depreciation. Which project is more desirable? 8%

| Year | Mathematical Table (Cost of capital is 15%) | |
|------|---|---|
| | Present value of \$1 to be received after t periods | Present value of an annuity of \$1 per period for t periods |
| 1 | 0.8696 | 0.8696 |
| 2 | 0.7561 | 1.6257 |
| 3 | 0.6575 | 2.2832 |
| 4 | 0.5718 | 2.8550 |
| 5 | 0.4972 | 3.3522 |

- 二、Mary is controller of City Company. She is gathering data as following information and planning to prepare a cash budget for July 2008:

- a. Of all sales, 30 percent are cash sales.
- b. Of credit sales, 60 percents are collected within the month of sale. Half of credit sales collected within the month received a 2 percent cash discount (for accounts paid within 10 days). 20 percent of credit sales are collected in the following month; remaining credit sales are collected the month thereafter. There are virtually no bad debts.
- c. Sales for the second two quarters of the year follow. (The first three months are actual sales, and the last three months are estimated sales.)

| | Sales |
|-----------|-----------|
| April | \$460,000 |
| May | 600,000 |
| June | 1,000,000 |
| July | 1,140,000 |
| August | 1,200,000 |
| September | 1,200,000 |

- d. The company sells all that it produces each month. The cost of raw materials equals 20 percent of each sales dollar. The company requires a monthly ending inventory equal to coming month's production requirements. Of raw materials purchases, 50 percent are paid for in the month of purchase. The remaining 50 percent is paid for in the following month.
- e. Budgeted monthly operating expenses total \$336,000, of which \$50,000 is depreciation and \$6,000 is expiration of prepaid insurance (the annual premium of \$72,000 is paid on January 1.)
- f. Old equipment will be sold for \$40,000 on July 4. On July 20, new equipment will be purchased for \$180,000.
- g. Dividends of \$140,000 had declared on June 30 and will be paid on July 15.
- h. Wages total \$110,000 each month and are paid in the month incurred.
- i. Cash balance on July 1 is \$27,000. She must maintain \$20,000 of minimum cash balance.

Required:

Prepare a cash budget for July. Give a supporting schedule that details the cash collections from sales. 20%

- 三、 Many companies are interested in adopting a Kaizen costing approach to reducing costs. However, they are not sure how their current standard costing system will fit with Kaizen costing approach.

Required:

1. Explain the similarities and differences between standard costing approach and Kaizen costing approach. 5%
2. Explain under what conditions, standard costing approach or Kaizen costing approach can be adapted to company. 5%

- 四、 Taichung Company implements Activity-Based Costing system and manufactures two products, keyboard and mouse. Data related to the two products are presented here.

| | Keyboard | Mouse |
|----------------------------------|-----------|-----------|
| Annual production in units | 50,000 | 100,000 |
| Direct material costs | \$200,000 | \$200,000 |
| Direct manufacturing labor costs | \$ 50,000 | \$100,000 |
| Direct manufacturing labor-hours | 2,500 | 5,000 |
| Machine-hours | 25,000 | 50,000 |
| Number of production runs | 50 | 70 |
| Inspection hours | 1,000 | 500 |

Total manufacturing overhead costs are as follows:

| | Total |
|-----------------|------------|
| Machining costs | \$ 300,000 |
| Setup costs | \$ 120,000 |
| Inspection cost | \$ 150,000 |

Required:

1. Compute the manufacturing overhead cost per unit for each product. (4%)
2. Compute the manufacturing cost per unit for each product. (4%)

UNIT

- 五、 The Supercomputer Assembly Division of Parker Company uses the FIFO method of process costing.

| | Physical Units (supercomputers) | Direct Materials | Conversion Costs |
|---|------------------------------------|------------------|------------------|
| Beginning work in process (June 1) ^a | 10 | \$ 4,900,000 | \$ 910,000 |
| Started in June 2007 | 50 | | |
| Completed during June 2007 | 48 | | |
| Ending work in process (June 31) ^b | 12 | | |
| Total costs added during June 2007 | | \$ 35,400,000 | \$ 14,280,000 |

^a Degree of completion: direct materials, 80%; conversion costs, 40%

^b Degree of completion: direct materials, 60% conversion costs, 30%

Required:

1. Compute equivalent units for direct materials and conversion costs. (4%)
2. Compute cost per equivalent unit for direct materials and conversion costs, summarize total costs to account for, and assign total costs to units completed and transferred out and to units in ending work in process. (15%)

六、Lopez Company budgeted production and sales at its maximum capacity of 20,000 units for 2007. However, Lopez was able to produce and sell only 16,000 units for the year. There are no beginning or ending inventories. Other data for 2007 is as follows.

| | |
|---------------------------------|------------|
| Budgeted fixed overhead costs | \$ 400,000 |
| Budgeted selling price | \$ 100 |
| Budgeted variance cost per unit | \$ 50 |

Required:

1. Compute the static-budget operating income, the flexible-budget operation income, and the operating income based on the budgeted profit per unit. (6%)
2. Compute sales-volume variance, production-volume variance, and operating income volume variance. (6%)

七、The Formosa Company retails two products: a standard and a deluxe version of suitcase. The budgeted income statement for next period is as follows:

| | Standard Suitcase | Deluxe Suitcase | Total |
|--|-------------------|-----------------|--------------|
| Units sold | 100,000 | 25,000 | 125,000 |
| Revenues at \$30 and \$40 per unit | \$ 3,000,000 | \$ 1,000,000 | \$ 4,000,000 |
| Variable costs at \$24 and \$28 per unit | \$ 2,400,000 | \$ 700,000 | \$ 3,100,000 |
| Fixed costs | | | \$ 612,000 |
| Operating income | | | \$ 288,000 |

Required:

1. Compute the breakeven point in units, assuming that the planned sales mix is attained. (3%)
2. Suppose 125,000 units are sold but only 12,500 of them are deluxe suitcases. Compute the operating income and breakeven point in units and compare your answer with the answer to requirement 1. What is the major lesson of this problem? (8%)