I、選擇題（題號務必標示清楚）(48%)

1. A company can best reduce the life cycle costs of product and services by managing the revenues and costs associated with which function of the value chain?
   a. Production is the best function to reduce the life cycle costs of product and services.
   b. Design is the best function to reduce the life cycle costs of product and services.
   c. Customer service is the best function to reduce the life cycle costs of product and services.
   d. Support is the best function to reduce the life cycle costs of product and services.

2. Which of the following statements is (are) true?
   (A) A favorable variance is not necessarily good, and an unfavorable variance is not necessarily bad.
   (B) The master budget includes operating budgets (e.g., production budget) and financial budgets (e.g., cash budget).
   a. Only A is true.
   b. Only B is true.
   c. Both A and B are true.
   d. Neither A nor B is true.

3. Which of the following statements is (are) true regarding the potential effects of using reported product costs for decision making?
   (A) Traditional product costing systems (e.g., job and process costing) are designed primarily to accumulate cost information for financial reporting.
   (B) Applied manufacturing overhead for product costing purposes may lead to inappropriate managerial decisions because a single cost driver is used as the allocation base.
   a. Only A is true.
   b. Only B is true.
   c. Both A and B are true.
   d. Neither A nor B is true.

4. Which of the following is most likely to be a characteristic of a successful just-in-time system?
   a. Suppliers who offer slow service but the lowest prices
   b. Acquiring most favored customer status with a small number of suppliers
   c. Using a large number of suppliers to avoid dependence on any one or two suppliers
   d. Avoiding long term commitments with suppliers

5. Transfer-pricing systems exist to ______.
   a. encourage managers to purchase goods and services internally
   b. maximize worldwide taxes, duties, and tariffs
   c. evaluate segment performance
   d. all of these answers are correct

6. Before prorating the manufacturing overhead costs at the end of 2008, the Cost of Goods Sold and Finished Goods Inventory had applied overhead costs of $57,500 and $20,000 in them, respectively. There was no work in process at the beginning or end of 2008. During the year, manufacturing overhead costs of $74,000 were actually incurred. The balance in the Applied Manufacturing Overhead was $77,500 at the end of 2008. If the under- or overapplied overhead is prorated between Cost of Goods Sold and the inventory accounts, how much will be the Cost of Goods Sold after the proration?
   a. $58,403
   b. $56,907
   c. $60,097
   d. $54,903
7. At the beginning of the year, Roach Company expected to incur $54,000 of overhead costs in producing 6,000 units of product. The direct material cost is $20 per unit of product. Direct labor cost is $30 per unit.

   During January, 500 units were produced. The total cost of the units made in January was:
   a. $29,500
   b. $25,000
   c. $4,500
   d. None of the above

8. Truman Company started the accounting period with the following beginning balances:

   Raw material inventory $42,000
   Work in process inventory $90,000
   Finished goods inventory $20,000

   During the accounting period, the company purchased $60,000 of raw materials and ended the period with $16,000 in raw material inventory. Direct labor costs for the period were $120,000 and $36,000 of manufacturing overhead costs was allocated to work in process. There was no over or underapplied overhead. Ending work in process was $82,000 and ending finished goods inventory was $35,000. Goods were sold during the period for revenue of $350,000. The amount of cost of goods manufactured (i.e., amount transferred from WIP to finished goods) would be:
   a. $235,000.
   b. $242,000.
   c. $250,000.
   d. $332,000.

9. The Zook Corporation manufactures 5,000 telephones per year. The full manufacturing costs per telephone are as follows:

   Direct materials $2
   Direct labor $8
   Variable manufacturing overhead $5
   Average fixed manufacturing overhead $5
   Total $20

   The Telecommunications Company has offered to sell Zook 5,000 telephones for $17 per unit. If Zook accepts the offer, $20,000 of fixed overhead will be eliminated. Applying differential analysis to the situation, Zook should:
   a. buy the telephones; the savings is $5,000.
   b. make the telephones; the savings is $5,000.
   c. buy the telephones; the savings is $10,000.
   d. make the telephones; the savings is $10,000.

10. Riverside Industries has three product lines, A, B, and C. The following information is available:

    |      | A       | B       | C       |
    |------|---------|---------|---------|
    | Sales| $100,000| $90,000 | $44,000 |
    | Variable costs | $76,000 | $48,000 | $35,000 |
    | Contribution margin | $24,000 | $42,000 | $9,000  |
    | Fixed costs: |         |         |         |
    | Avoidable | $9,000  | $18,000 | $3,000  |
    | Unavoidable | $6,000  | $2,000  | $7,000  |
    | Operating income | $2,000  | $15,000 | $(1,700) |
Riverside Industries is thinking of dropping product line C because it is reporting a loss. Assuming Riverside drops line C and does not replace it, the operating income will _______.

a. decrease by $6,000
b. increase by $2,400
c. increase by $600
d. decrease by $9,000

11. Bourke Printing is considering the purchase of a used printing press costing $38,400. The printing press would generate a net cash inflow of $16,000 a year for 3 years. At the end of 3 years, the press would have no salvage value. The company’s cost of capital is 10 percent. The company uses straight-line depreciation. The present value factors of an annuity of $1.00 for different rates of return are as follows:

<table>
<thead>
<tr>
<th>Period</th>
<th>8%</th>
<th>10%</th>
<th>12%</th>
<th>14%</th>
<th>16%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1.78</td>
<td>1.74</td>
<td>1.69</td>
<td>1.65</td>
<td>1.61</td>
</tr>
<tr>
<td>3</td>
<td>2.58</td>
<td>2.49</td>
<td>2.40</td>
<td>2.32</td>
<td>2.25</td>
</tr>
<tr>
<td>4</td>
<td>3.31</td>
<td>3.17</td>
<td>3.04</td>
<td>2.91</td>
<td>2.80</td>
</tr>
</tbody>
</table>

What is the net present value for the press?

a. $9,600
b. $39,840
c. $38,400
d. $1,440

12. Lite Co. manufactures products X and Y from a joint process that also yields a byproduct, Z. Revenue from sales of Z is treated as a reduction of joint costs. Additional information is as follows:

<table>
<thead>
<tr>
<th>PRODUCTS</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units produced</td>
<td>20,000</td>
<td>20,000</td>
<td>10,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Joint costs</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>$262,000</td>
</tr>
<tr>
<td>Sales value at split-off</td>
<td>$300,000</td>
<td>$150,000</td>
<td>$10,000</td>
<td>$460,000</td>
</tr>
</tbody>
</table>

Joint costs were allocated using the net realizable value method at splitoff approach. The joint costs allocated to product X were

a. $75,000.
b. $100,800.
c. $150,000.
d. $168,000.

13. JJ Motors Inc. employs 45 sales personnel to market their line of luxury automobiles. The average car sells for $23,000, and a 6 percent commission is paid to the salesperson. JJ Motors is considering a change to the commission arrangement where the company would pay each salesperson a salary of $2,000 per month plus a commission of 2 percent of the sales made by that salesperson. The amount of total monthly car sales at which JJ Motors would be indifferent as to which plan to select is

a. $2,250,000.
b. $3,000,000.
c. $1,500,000.
d. $1,250,000.
14. REB Service Co. is a computer service center. For the month of May, REB had the following operating statistics:

- Sales: $450,000
- Operating income: 25,000
- Net profit after taxes: 8,000
- Total assets: 500,000
- Shareholders’ equity: 200,000
- Cost of capital: 6%

Based on the above information, which one of the following statements is correct? REB has a
a. Return on investment of 4%.
b. Residual income of $5,000.
c. Return on investment of 1.6%.
d. Residual income of $22,000.

15. Wilburn, Inc. reported the following information for the company's two products:

<table>
<thead>
<tr>
<th>Product</th>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling price per unit</td>
<td>$25</td>
<td>$35</td>
</tr>
<tr>
<td>Variable cost per unit</td>
<td>15</td>
<td>20</td>
</tr>
</tbody>
</table>

If the products can be produced by machines instead of manual labor, 75,000 machine hours would be available and product X would take 2 machine hours to produce and product Y would take 4 machine hours to produce. Which of the following statements is true?
  a. Product Y should be produced because more of it can be produced.
  b. Product X should be produced because it will produce greater profit.
  c. Product Y should be produced because it provides a greater contribution margin.
  d. Both products provide the same total profit.

16. Rice Corporation has two operating divisions A and B. The following information is provided for Division A:

- Unit selling price: $50
- Unit variable costs: $30
- Unit fixed costs: $10

Division B uses the product produced by Division A and has approached Division A about buying the product internally. Division B is currently paying $45 to purchase the product from an outside source. If Division A sells internally it can save $1 per unit in variable costs. Assuming Division A is operating at capacity, what price should it charge Division B?
  a. $40
  b. $45
  c. $49
  d. $50

二、填充與計算題【每題皆請列出計算過程】(52%)

1. Presented below is the production data for the first six months of the year showing the mixed costs incurred by Brooklyn Company.
Brooklyn Company uses the high-low method to analyze mixed costs. The total cost at an operating level of 10,000 units is _____.

2. A company has the following information for its first month of operations:
   - Raw materials used: $25,000
   - Sales ($65 per unit): $78,000
   - Direct labor: $42,000
   - Variable factory overhead: $17,000
   - Fixed factory overhead: unknown
   - Variable selling and administrative: $3,000
   - Fixed selling and administrative: $5,000
   - Gross profit: $30,000

   Contribution margin: unknown
   - Ending inventories:
     - Raw materials: $7,000
     - WIP: none
     - Finished goods: 1,200 units

   The total contribution margin under variable costing is _____.

3. Hokel Manufacturing Company has two service departments, Maintenance Department and Personnel Department, and two producing departments, X and Y. The Maintenance Department costs of $120,000 are allocated on the basis of standard service hours used. The Personnel Department costs of $18,000 are allocated on the basis of number of employees. The direct costs of Departments X and Y are $36,000 and $60,000, respectively. Data on standard service-hours and number of employees are as follows:

<table>
<thead>
<tr>
<th>Standard service hours used</th>
<th>Maintenance Dept.</th>
<th>Personnel Dept.</th>
<th>Dept. X</th>
<th>Dept. Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>250</td>
<td>150</td>
<td>1,200</td>
<td>600</td>
</tr>
<tr>
<td>250</td>
<td>250</td>
<td>250</td>
<td>1,000</td>
<td>500</td>
</tr>
</tbody>
</table>

   What are the total overhead costs associated with Department Y after allocating the Maintenance and Personnel Departments using the direct method? _____

4. Harrison Corporation sells a product for $250 per unit. Its market share is 20 percent. The marketing manager believes that the market share can be increased to 30 percent with a reduction in price to $225. The product is currently earning a profit of $35 per unit. The president of Harrison Corporation believes that the $35 profit per unit must be maintained. What is the target cost per unit? _____

5. The following information pertains to Kabitzke Company for the current year:
   - Sales: $20,000,000
   - Appraisal costs: 250,000
   - Cost of goods sold: 10,000,000
   - External failure costs: 400,000
   - Internal failure costs: 600,000
   - Prevention costs: 100,000

   Quality costs are what percentage of sales? _____
6. The Sledge Hammer Company manufactures a line of high quality tools. The company sold 1,000,000 hammers at a price of $4 per unit in 2008. The company estimates that this volume represents a 20% share of the current hammers market. The market is expected to increase by 5%. Marketing specialists have determined that, as a result of a new advertising campaign and packaging, the company will increase its share of this larger market to 24%. Due to changes in prices, the new price for the hammer will be $4.30 per unit. This new price is expected to be in line with the competition and have no effect on the volume estimates. What are the estimated sales revenues in 2009?

7. The Super Supply Company manufactures cleaning spray for public schools. During 2008, the company spent $600,000 on prime costs and $800,000 on conversion costs. Overhead is applied at a rate of 150% of direct labor costs. How much did the company spend on manufacturing overhead during 2008?

8. Rodriguez Company sells its product for $100 per unit. The company’s accountant provided the following cost information:

   Manufacturing costs: $35,000 + 45% of sales
   Selling costs: $15,000 + 20% of sales
   Administrative costs: $25,000 + 10% of sales

   What is the company’s break-even point?

9. The Katie Corporation has budgeted fixed costs of $125,000 and an estimated selling price of $16.50 per unit. The contribution margin ratio is 40% and the company plans to sell 25,000 units in 2007.

   Required:
   Compute the margin of safety ratio for 2007.

10. Mae Lee owns a small retail store in Cairo, Georgia. The following summary information regarding expectations for the month of January is provided: As of December 31 there is $500 in the bank and the balance in the accounts receivable account is $2,500. Budgeted cash and credit sales for January are $3,000 and $2,000, respectively. Ninety percent of credit sales are collected in the month of sale and the remainder is collected in the following month. Mae’s suppliers do not extend credit. Cash payments for January are expected to be $12,000. Mae has a line of credit that enables the store to borrow funds on demand. However, funds must be borrowed on the first day of the month and interest paid in cash on the last day of the month. Mae desires to maintain a $500 cash balance before consideration is given to the payment of interest. Mae’s bank charges annual interest of 12% per year.

   Required:
   Compute the amount of funds that need to be borrowed.

11. Walsh Company manufactures a single product that has a standard materials cost of $20 (4 units of raw materials at $5 per unit), standard direct labor cost of $9 (1 hour per unit), and standard variable overhead cost of $4 (based on direct labor-hours). Fixed overhead is budgeted at $17,000 per month. The following data pertain to operations for May of this year:

   Raw materials purchased 6,200 units costing $31,620
   Raw materials used in production of 1,500 units of finished product 6,200 units of raw materials
   Direct labor used 1,500 hours costing $15,000
   Variable overhead costs incurred $5,960
   Fixed overhead costs incurred $17,500

   Required:
   Compute the following variances, indicating whether each is favorable (F) or unfavorable (U).
   (1) Materials quantity variance
   (2) Labor rate variance
   (3) Variable overhead efficiency variance