Multiple Choice Questions

1. What is the primary difference between a static budget and a flexible budget?
   a) The static budget contains only fixed costs, while the flexible budget contains only variable costs.
   b) The static budget is adjusted for different activity levels, while a flexible budget is prepared for a single level of activity.
   c) The static budget is prepared for a single level of activity, while a flexible budget is adjusted for different activity levels.
   d) Both the static budget and the flexible budget are adjusted for different activity levels.

2. M Company prepared a static budget of 50,000 direct labor hours, with estimated overhead costs of $250,000 for variable overhead and $60,000 for fixed overhead. Trepid then prepared a flexible budget at 38,000 labor hours. How much is total overhead costs at this level of activity?
   a) $190,000
   b) $247,000
   c) $250,000
   d) $260,000

3. W Company uses flexible budgets. At normal capacity of 10,000 units, budgeted manufacturing overhead is: $50,000 variable and $135,000 fixed. If W Company had actual overhead costs of $187,500 for 11,000 units produced, what is the difference between actual and flexible budget costs?
   a) $2,500 unfavorable
   b) $2,500 favorable
   c) $4,500 unfavorable
   d) $6,000 favorable

4. A profit center is responsible for which activities?
   a) Costs only
   b) Costs and the revenue generated by those costs
   c) Costs and any revenue generated by the company
   d) Costs, revenue, and assets purchased for revenue generation

5. Decentralization means
   a) Control of operations is delegated to many managers throughout the organization.
   b) Control of operations is delegated to top management.
   c) Control of operations is delegated for controlling variable costs.
   d) Control of operations is delegated for controlling fixed costs.

6. A responsibility report show the following information
   a) Sales- variable costs- fixed costs= net income.
   b) Sales- controllable variable costs- fixed costs= controllable margin.
   c) Sales- variable costs- controllable fixed costs= controllable margin.
   d) Sales- controllable variable costs- controllable fixed costs= net income.
7. Arbor Co. has a controllable margin of $120,000 on revenues of $800,000. Average invested assets were $600,000. Arbor requires a 15% minimum rate of return. What is the ROI?
   a) 8%
   b) 10%
   c) 12%
   d) 20%

8. Arbor Co. has a controllable margin of $120,000 on revenues of $800,000. Average invested assets were $600,000. Arbor requires a 15% minimum rate of return. What is the residual income?
   a) $0
   b) $30,000
   c) $40,000
   d) $200,000

9. Which of the following will not improve ROI?
   a) Increasing sales
   b) Increasing average operating assets
   c) Increasing Controllable margin
   d) Decreasing Costs

10. Reviews that are based primarily on the differences between actual results and planned objectives is called:
    a) Behavior principles
    b) Management by exception
    c) materiality
    d) responsibility accounting
Practice Problems

Practice Problem #1

A partially completed flexible overhead budget for S Company is shown below:

<table>
<thead>
<tr>
<th>Activity Level in Units</th>
<th>Cost Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,000</td>
<td>12,000</td>
</tr>
<tr>
<td>16,000</td>
<td></td>
</tr>
</tbody>
</table>

Variable overhead:
- Supplies: $108,000
- Utilities: $60,000
- Repairs: $24,000
- Total variable overhead: $192,000

Fixed overhead:
- Depreciation: $15,000
- Salaries: $96,000
- Rent: $44,000
- Total fixed overhead: $155,000
- Total overhead: $347,000

Required: Fill in the missing data.

Practice Problem #2:

J Company’s has provided the following information regarding June’s results.

<table>
<thead>
<tr>
<th>Revenue and Cost</th>
<th>Formula</th>
<th>Actual Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion costs</td>
<td>$3.25/unit</td>
<td>7,000</td>
</tr>
<tr>
<td>Salaries</td>
<td>$8,000</td>
<td>7,600</td>
</tr>
<tr>
<td>Utilities</td>
<td>$600 + $0.50/unit</td>
<td>1,550</td>
</tr>
<tr>
<td>Rent</td>
<td>$5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$800 + $0.80/unit</td>
<td>2,500</td>
</tr>
</tbody>
</table>

Required:

a) Prepare the company’s flexible budget assuming that 2,000 units were manufactured.

b) Assume that 2,100 units were actually manufactured. Prepare the flexible budget for this level of activity. Determine Favorable or Unfavorable Differences

Practice Problem #3

T Company recently prepared a manufacturing cost budget for an output of 50,000 units for one of their cost centers, as follows:
Direct materials $100,000
Direct labor 50,000
Controllable variable overhead 75,000
Noncontrollable overhead 100,000

Actual units produced amounted to 60,000. Actual costs incurred were direct materials, $110,000; direct labor, $60,500; controllable overhead, $85,000; and noncontrollable overhead, $97,000.

Required: If T Company evaluated performance by the use of a flexible budget, prepare a responsibility report showing the differences.

Practice Problem #4

The H Company manufactures basketballs. Last year’s sales were $700,000, controllable margin was $100,000, and average operating assets were $800,000.

Required: a) If next year’s sales are unchanged and expenses and average operating assets are reduced by 10%, compute current year and next year’s ROI.
   b) If the minimum required rate of return is 6%, what will be the residual income in the current year and next year?

Solutions

1. C
2. C
3. B
4. B
5. A
6. C
7. D
8. B
9. B
10. B
Solution #1

<table>
<thead>
<tr>
<th>Variable overhead:</th>
<th>Cost Formula</th>
<th>Activity Level in Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplies</td>
<td>$9.00</td>
<td>8,000</td>
</tr>
<tr>
<td>Utilities</td>
<td>$5.00</td>
<td>40,000</td>
</tr>
<tr>
<td>Repairs</td>
<td>$2.00</td>
<td>16,000</td>
</tr>
<tr>
<td><strong>Total variable overhead</strong></td>
<td><strong>$128,000</strong></td>
<td><strong>$192,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fixed overhead:</th>
<th></th>
<th>8,000</th>
<th>12,000</th>
<th>16,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation</td>
<td>$15,000</td>
<td>$15,000</td>
<td>$15,000</td>
<td></td>
</tr>
<tr>
<td>Salaries</td>
<td>96,000</td>
<td>96,000</td>
<td>96,000</td>
<td></td>
</tr>
<tr>
<td>Rent</td>
<td>44,000</td>
<td>44,000</td>
<td>44,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total fixed overhead</strong></td>
<td><strong>$155,000</strong></td>
<td><strong>$155,000</strong></td>
<td><strong>$155,000</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total overhead</strong></td>
<td><strong>$283,000</strong></td>
<td><strong>$347,000</strong></td>
<td><strong>$411,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

Variable overhead cost formula = variable overhead cost / activity level
Fixed overhead costs do not change as the level of activity changes.

Solution #2

<table>
<thead>
<tr>
<th>Flexible Budget</th>
<th>Actual</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budgeted number of units sold</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Expenses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conversion costs</td>
<td>$3.25/unit</td>
<td>6,500</td>
</tr>
<tr>
<td>Salaries</td>
<td>$8,000</td>
<td>8,000</td>
</tr>
<tr>
<td>Utilities</td>
<td>$.50/unit+$600</td>
<td>1,600</td>
</tr>
<tr>
<td>Rent</td>
<td>$5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$.80/unit+$800</td>
<td>2,400</td>
</tr>
<tr>
<td><strong>Total costs</strong></td>
<td><strong>$23,500</strong></td>
<td><strong>$23,650</strong></td>
</tr>
</tbody>
</table>
**Solution #3**

<table>
<thead>
<tr>
<th>Cost Formula based on 50,000 units</th>
<th>Flexible Budget based on 60,000 units</th>
<th>Actual</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controllable Costs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct materials</td>
<td>$2.00</td>
<td>$120,000</td>
<td>$110,000</td>
</tr>
<tr>
<td>Direct labor</td>
<td>$1.00</td>
<td>60,000</td>
<td>60,500</td>
</tr>
<tr>
<td>Controllable overhead</td>
<td>$1.50</td>
<td>90,000</td>
<td>85,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>$270,000</td>
<td>$255,500</td>
</tr>
</tbody>
</table>

**Solution #4**

**ROI:**
- **Controllable Margin:** $100,000
- **Average operating assets:** 800,000
  = 12.5%

**ROI:**
- **Controllable Margin:** $100,000
- **Average operating assets:** 800,000
  \(800,000 - 80,000 = 720,000\)
  = 22.2%

**Change in Income:**
- **Sales:** $700,000
- **Controllable Margin:** $100,000
- **Expenses:** $600,000
  Decrease %: 10%
  Decrease in expenses: $60,000
  = Increase in Controllable Margin

**a)**
- **Residual Income:**
  - **Average operating assets:** $800,000
  - **$720,000**
  - **Minimum rate of return:** 6%
  - **Minimum required income:** $48,000
  - **$43,200**
  - **Controllable Margin:** $100,000
  - **$160,000**
  - **Residual Income:** $52,000
  - **$116,800**