102) Given the following products or services, identify which costing system would be more appropriate, job costing or process costing.

   paint  surgical operation  custom kitchen cabinets  cellular telephones  cereal  airplanes  soft drinks  office buildings  custom swimming pools  personal computers

105) Classify the following costs as direct, indirect, or neither:

   a) indirect  indirect labor incurred
   b) indirect  factory equipment depreciation
   c) indirect  indirect materials used
   d) neither  office equipment depreciation
   e) direct  direct materials used
   f) neither  insurance expired on administrative facilities
   g) direct  direct labor incurred
   h) neither  administrative office salaries
   i) neither  salespersons' salaries
   j) indirect  utilities on factory building
   k) neither  utilities on administrative facilities
   l) indirect  plant manager's salary

110) The following information was gathered for the Kidman Company for the year ended December 31, 20X8.

| Estimated direct labor hours | 32,500 |
| Actual direct labor hours   | 35,000 |
| Estimated manufacturing overhead | $650,000 |
| Actual manufacturing overhead | $688,000 |

Compute:

a) Predetermined manufacturing overhead rate
b) Manufacturing overhead allocated
c) Amount of over/underallocated overhead

Answer: a) $650,000 / 32,500 = $20 per direct labor hour
b) 35,000 X $20 = $700,000
c) $700,000 - $688,000 = $12,000 overallocated

Diff: 2 Var: 50+ Page Ref: 810
115. Ultimate Jelly Company manufactures two different types of jelly, one with sugar (Jelly) and one without sugar (Simply Jelly). The following information is available for the two products:

<table>
<thead>
<tr>
<th></th>
<th>Jelly</th>
<th>Simply Jelly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sale price per unit</td>
<td>$5</td>
<td>$7</td>
</tr>
<tr>
<td>Variable expenses per unit</td>
<td>$3</td>
<td>$6</td>
</tr>
</tbody>
</table>

Total fixed expenses are estimated at $381,500. One jar of Jelly is sold for every 1 1/2 jars of Simply Jelly.

a) Determine the breakeven sales in units of both products.

b) Compute the target sales in dollars if Ultimate Jelly wants to earn $70,000 in operating income.

\[
\begin{align*}
\text{a) } & \quad 5 - 3 = 2 \times 1 = 2 \\
& \quad 7 - 6 = 1 \times 1.5 = 1.50 \\
& \quad 2 + 1.50 = 3.50 \\
& \quad 381,500 / 3.50 = 109,000 \text{ sets} \\
& \quad 109,000 \times 1 = 109,000 \text{ units of Jelly} \\
& \quad 109,000 \times 1.5 = 163,500 \text{ units of Simply Jelly} \\
\end{align*}
\]

\[
\begin{align*}
\text{b) } & \quad 381,500 + 700,000 = 451,500 / 3.50 = 129,000 \text{ sets} \\
& \quad 129,000 \times 1 \times 5 = 645,000 \text{ Jelly} \\
& \quad 129,000 \times 1.5 \times 7 = 1,354,500 \text{ Simply Jelly} \\
& \quad 645,000 + 1,354,500 = 1,999,500 \\
\end{align*}
\]

17. Buff Co. is considering replacing an old machine with a new machine. Which of the following items is economically relevant to Buff's decision? (Ignore income tax considerations.)

<table>
<thead>
<tr>
<th>Carrying Amount of Old Machine</th>
<th>Disposal Value of New Machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Yes</td>
<td>No</td>
</tr>
<tr>
<td>B. No</td>
<td>Yes</td>
</tr>
<tr>
<td>C. No</td>
<td>No</td>
</tr>
<tr>
<td>D. Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

7. The fixed portion of the semivariable cost of electricity for a manufacturing plant is a

<table>
<thead>
<tr>
<th>Period cost</th>
<th>Product cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Yes</td>
<td>No</td>
</tr>
<tr>
<td>b. Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>d. No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

11. Pole Co. is investing in a machine with a 3-year life. The machine is expected to reduce annual cash operating costs by $30,000 in each of the first 2 years and by $20,000 in year 3. Present values of an annuity of $1 at 14% are:

\[
\begin{align*}
\text{Period 1} & \quad 0.88 \times 30,000 = 26,400 \\
\text{Period 2} & \quad 1.65 \times 20,000 = 23,000 \\
\text{Period 3} & \quad 2.32 \times 20,000 = 24,640 \\
\end{align*}
\]

Using a 14% cost of capital, what is the present value of these future savings?

a. $59,600
b. $60,800
\[\text{c. } \quad $62,900\]
d. $69,500

The correct answer is (B). (CPA 592 T-56)

REQUIRED: The relevant costs.

DISCUSSION: In a make-or-buy or replacement decision, the manager considers only the costs relevant to the investment decision. The key variable is relevant costs, not total costs. Past costs, including book value of old equipment, are irrelevant because they are sunk costs. However, opportunity costs, disposal values of new equipment, and the fair market value of an old machine are all economically relevant costs.

Answers (A), (C), and (D) are incorrect because the carrying amount of an old machine is a past (sunk) cost while the disposal value of the new machine is an economically relevant cost.
108) Calculate the unknowns for the following situations based on the data below. All situations are independent of each other.

<table>
<thead>
<tr>
<th>Total fixed costs</th>
<th>$115,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit selling price</td>
<td>$50</td>
</tr>
<tr>
<td>Unit variable cost</td>
<td>$30</td>
</tr>
</tbody>
</table>

a) Calculate the following:
   1) break even point in units
   2) break even point in dollar sales

b) Assume the unit selling price increases by 5%. Other data is unchanged. Calculate the break even point in units.

a) 1) \( \frac{115,000}{20} = 5750 \) units
   2) \( \frac{115,000}{40} = 2875 \) units

b) \( 50 \times 1.05 = 52.50 \)
   \( 52.50 - 30 = 22.50 \)
   \( \frac{115,000}{22.50} = 5111 \) units (rounded)

103) Dynamic Enterprises produces and sells a part used in the production of automobiles. The unit costs associated with this part are as follows:

- Direct materials: $0.15
- Direct labor: $0.30
- Variable manufacturing overhead: $0.25
- Fixed manufacturing overhead: $0.10
- Total cost: $0.80

Jupiter Company has approached Dynamic Enterprises with an offer to purchase 20,000 units of this part at a price of $0.75. Accepting this special sales order will put idle manufacturing capacity to use and will not affect regular sales. Total fixed costs will not change.

Determine whether or not the special order should be accepted.

Variable manufacturing expenses per unit:
$0.15 + $0.30 + $0.25 = $0.70

$0.75 - $0.70 = $0.05/unit x 20,000 units = $1000 increase in operating income

Points to consider:
Total fixed costs will not change
Idle capacity exists
No affect on regular sales

Dynamic Enterprises should accept the offer as this would increase operating income by $1000.
Curtis Industries is considering the purchase of a new machine. It will cost $80,000, last for 8 years, and have no residual value. If purchased, the machine is expected to increase revenues by $90,667 per year, with $73,667 per year in additional cash outlays required to operate the machine. The company uses the straight-line method of depreciation and desires a 12% minimum rate of return.

The present value of $1 due eight years from now:

<table>
<thead>
<tr>
<th>Discount Rate</th>
<th>Present Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>8%</td>
<td>0.540</td>
</tr>
<tr>
<td>10%</td>
<td>0.467</td>
</tr>
<tr>
<td>12%</td>
<td>0.404</td>
</tr>
<tr>
<td>14%</td>
<td>0.351</td>
</tr>
</tbody>
</table>

The present value of $1 per year due at the end of each of eight years:

<table>
<thead>
<tr>
<th>Discount Rate</th>
<th>Present Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>8%</td>
<td>5.747</td>
</tr>
<tr>
<td>10%</td>
<td>5.335</td>
</tr>
<tr>
<td>12%</td>
<td>4.968</td>
</tr>
<tr>
<td>14%</td>
<td>4.639</td>
</tr>
</tbody>
</table>

a) Determine the internal rate of return of this investment.
b) Does this rate of return indicate that the machine should be purchased?

Answer: a) expected annual net cash inflows:

$90,667 - $73,667 = $17,000

$90,667 / $17,000 = 5.333 which is closest to 10%

Therefore, the internal rate of return is approximately 10%.

b) No, the machine should not be purchased since the company’s minimum desired rate of return is 12%.

Diff: 2 Var: 11 Page Ref: 1101, 1112
Objective: L.O. 26-4

EXPLAIN HOW PROPERTY TAX IS COMPUTED IN CALIFORNIA. (5 POINTS)

- SET AT 1975 VALUE + 2% YEAR INCREASE
- REASSESS AT SALE
- RATE CAN BE INHERITED
- VALUED AT 1/3 OF FAIR MARKET VALUE

BRIEFLY EXPLAIN ZERO BASE BUDGETING.

- WAY OF SETTING PRIORITIES
- EVALUATES ALTERNATE APPROACHES TO ACHIEVE SIMILAR RESULTS
- PRODUCES ALTERNATE LEVEL OF FUNDING