Process Costing

Problem 27
Process costing, one department, WAvg, FIFO

Canadian Broom Hockey manufactures one product by a continuous process. There are two types of raw materials added at different times of the production process, one type of direct labor, and manufacturing overhead costs. Material A is added at the beginning of the process, Material B is added at the 70% point of the process, direct labor cost is incurred uniformly throughout the process, and manufacturing overhead is applied on the basis of direct labor cost.

From the prior period into the start of the current period, Canadian Broom Hockey carried over 4,000 units, 40% complete on average. During the period, Canadian Broom Hockey started 147,300 units. By the end of the period, 141,000 good units were completed and transferred to finished goods. 2,816 units (100% complete with respect to all costs) were spoiled, with half being considered normal spoilage. The ending inventory of work in process inventory consisted of 7,484 units, 80% complete on average.

Canadian Broom Hockey has the following costs to account for:

<table>
<thead>
<tr>
<th></th>
<th>Material A</th>
<th>Material B</th>
<th>Direct Labor</th>
<th>MOH</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BWIP</td>
<td>13,625</td>
<td>0</td>
<td>46,000</td>
<td>84,000</td>
<td>143,625</td>
</tr>
<tr>
<td>Current period</td>
<td>510,000</td>
<td>4,281,927</td>
<td>1,500,000</td>
<td>3,280,432</td>
<td>9,572,359</td>
</tr>
<tr>
<td>Total</td>
<td>523,625</td>
<td>4,281,927</td>
<td>1,546,000</td>
<td>3,364,432</td>
<td>9,715,984</td>
</tr>
</tbody>
</table>

Required:

(1) Applying the weighted average method of process costing, (1) prepare a table of equivalent units for all cost patterns, (2) compute cost per equivalent unit for all types of cost, and (3) prepare a process costing report that details how the cost of goods manufactured, abnormal spoilage and ending WIP are computed.

(2) Now apply the FIFO method of process costing, and (1) prepare a table of equivalent units for all cost patterns, (2) compute cost per equivalent unit for all types of cost, and (3) prepare a process costing report that details how the cost of goods manufactured, abnormal spoilage and ending WIP are computed.
Problem 28
Process costing, one department, WAvg, FIFO

Canadian Broom Hockey manufactures one product by a continuous process. There are two types of raw materials added at different times of the production process, one type of direct labor, and manufacturing overhead costs. Material A is added at the beginning of the process, Material B is added at the 50% point of the process, direct labor cost is incurred uniformly throughout the process, and manufacturing overhead is applied on the basis of direct labor cost.

From the prior period into the start of the current period, Canadian Broom Hockey carried over 12,000 units, 30% complete on average. During the period, Canadian Broom Hockey started 78,000 units. By the end of the period, 71,000 good units were completed and transferred to finished goods. Normal spoilage consisted of 2,000 units withdrawn from production when 25% complete and 1,000 units withdrawn from production with 90% complete. Abnormal spoilage consists of 2,500 units withdrawn from production when 60% complete. The ending inventory of work in process inventory consisted of 13,500 units, 40% complete on average.

The cost sheet for CBH shows that the units in production from the prior period carried over costs of $193,250 for material A, $0 for material B, $65,295 for labor and $259,632 for manufacturing overhead.

During the current period, material A costs were $1,564,294, material B costs were $621,938, labor costs were $728,357 and conversion costs added were $2,149,998.

**Required:**

1. Applying the weighted average method of process costing, prepare (1) a schedule analyzing the physical flow, (2) a table of equivalent units for all cost patterns, (3) a chart listing total costs to account for, (4) a computation of cost per equivalent unit for all types of cost, and (5) a process costing report that details how the cost of goods manufactured, abnormal spoilage and ending WIP are computed.

2. Now apply the FIFO method of process costing, prepare (1) a schedule analyzing the physical flow, (2) a table of equivalent units for all cost patterns, (3) a chart listing total costs to account for, (4) a computation of cost per equivalent unit for all types of cost, and (5) a process costing report that details how the cost of goods manufactured, abnormal spoilage and ending WIP are computed.
**Problem 29**  
**Process costing, 2nd of two departments, FIFO**

**Question 1**  
Kerns Company manufactures its one product (jidgets) by a process that requires two departments. The production starts in department A and is completed in department B. Raw materials are added at the start of production in department A. Finishing parts (materials) are added at various points in department B. Conversion costs are incurred proportionally throughout the production process in each department.

On April 1, department A had 40,000 units in production. During April, department A started 300,000 additional units. By the end of April, 315,000 good units were completed and transferred over to department B.

On April 1, department B had 25,000 units in production (previously transferred in from department A). These 25,000 units were 70% complete with respect to finishing parts and 50% complete with respect to conversion. During April, units were transferred from department A to department B. By the end of April, a total of 302,000 good units were completed and moved to a warehouse for finished goods. 7,000 units started during April were spoiled (within the bound of normal spoilage) and discarded. The inspection took place after all finishing parts were added and with 80% of conversion completed. 3,000 units started in April were wrecked in a freak accident when they were 40% complete with respect to finishing parts and 30% complete with respect to conversion. [Hint: the 10,000 total spoiled units are not included in the 302,000 good units.] The 28,000 units in ending work in process at the end of April are 100% complete with respect to transferred in costs, 52% complete with respect to finishing parts and 37% complete with respect to conversion.

The cost sheet for department B shows that the 25,000 units in production on April 1 carried over costs of $1,256,000 for transferred in units, $172,000 for materials, and $822,000 in conversion costs. During April, transferred in costs were $6,250,000, the cost of finishing parts added were $430,000, and conversion costs added were $2,500,000.

Kerns uses the FIFO method for department B. For department B, prepare a detailed computation of (1) the costs of goods completed and transferred out, (2) abnormal spoilage and (3) the cost of ending work in process. Be sure to clearly label your answers.

You may use the extra sheets of paper provided by the professor for your solution.
Beaverson Company manufactures its one product (jidgets) by a process that requires two departments. The production starts in department A and is completed in department B. Raw materials are added at the start of production in department A. Finishing parts (materials) are added at various points in department B. Conversion costs are incurred proportionally throughout the production process in each department.

On April 1, department B had 14,000 units in production (previously transferred in from department A). These 14,000 units were 80% complete with respect to finishing parts and 60% complete with respect to conversion. During April, 226,000 units were transferred from department A to department B. By the end of April, a total of 218,000 good units were completed and moved to a warehouse for finished goods. 3,000 units started during April were spoiled (within the bound of normal spoilage) and discarded. The inspection took place after all finishing parts were added and with 90% of conversion completed. 1,000 units started in April were wrecked in a freak accident when they were 60% complete with respect to finishing parts and 25% complete with respect to conversion. The units in ending work in process at the end of April are 100% complete with respect to transferred in costs, 90% complete with respect to finishing parts and 70% complete with respect to conversion.

The cost sheet for department B shows that the 14,000 units in production on April 1 carried over costs of $182,000 for transferred in units, $84,000 for materials, and $13,216 in conversion costs. During April, transferred in costs were $3,291,800, finishing parts added cost $2,012,400, and conversion costs added were $517,500.

Required:

1) Assume Beaverson uses the FIFO method of process costing for department B, and (1) prepare a table of equivalent units for all cost patterns, (2) compute cost per equivalent unit for all types of cost, and (3) prepare a process costing report that details how the cost of goods manufactured, abnormal spoilage and ending WIP are computed.

2) Assume Beaverson uses the weighted average method of process costing for department B, and (1) prepare a table of equivalent units for all cost patterns, (2) compute cost per equivalent unit for all types of cost, and (3) prepare a process costing report that details how the cost of goods manufactured, abnormal spoilage and ending WIP are computed.
Problem 31
Process costing, 2nd of two departments, FIFO, WAvg

Garmenn Company manufactures its one product (jidgets) by a process that requires two departments. The production starts in department A and is completed in department B. Raw materials are added at the start of production in department A. Finishing parts (materials) are added at various points in department B. Conversion costs are incurred proportionally throughout the production process in each department.

On September 1, department B had 21,000 units in production (previously transferred in from department A). These 21,000 units were 40% complete with respect to finishing parts and 35% complete with respect to conversion. During September, 312,000 units were transferred from department A to department B. By the end of September, a total of 311,700 good units were completed and moved to a warehouse for finished goods. 2,830 units started during September were spoiled (within the bounds of normal spoilage) and discarded. The inspection took place after all finishing parts were added and with 76% of conversion completed. 1,470 units started in September were wrecked in a freak accident when they were 41% complete with respect to finishing parts and 39% complete with respect to conversion. The 17,000 units in ending work in process at the end of September are 100% complete with respect to transferred in costs, 70% complete with respect to finishing parts and 62% complete with respect to conversion.

The cost sheet for department B shows that the 21,000 units in production on September 1 carried over costs of $87,250 for transferred in units, $76,000 for materials, and $112,216 in conversion costs. During September, transferred in costs were $1,871,384, finishing parts added cost $2,890,400, and conversion costs added were $3,521,799.

Required:

(1) Assume Garmenn uses the FIFO method of process costing for department B, and (1) prepare a table of equivalent units for all cost patterns, (2) compute cost per equivalent unit for all types of cost, and (3) prepare a process costing report that details how the cost of goods manufactured, abnormal spoilage and ending WIP are computed.

(2) Assume Garmenn uses the weighted average method of process costing for department B, and (1) prepare a table of equivalent units for all cost patterns, (2) compute cost per equivalent unit for all types of cost, and (3) prepare a process costing report that details how the cost of goods manufactured, abnormal spoilage and ending WIP are computed.
Kerns Company manufactures its one product (jidgets) by a continuous process. Raw material A is added at the start of production. Finishing parts (material B) are added at various points in department B. Conversion costs are incurred proportionally throughout the production process in each department.

On April 1, there were 25,000 units in production, 45% complete with respect to finishing parts and 28% complete with respect to conversion costs. During April, 315,000 good units were completed and transferred to finished goods inventory.

7,000 units started during April were spoiled (within the bound of normal spoilage) and discarded. The inspection took place after 70% finishing parts were added and with 60% of conversion completed. 2,000 units started in April were wrecked in a freak accident when they were 80% complete with respect to finishing parts and 80% complete with respect to conversion. The 13,000 units in ending work in process at the end of April are 100% complete with respect to raw materials, 25% complete with respect to finishing parts and 20% complete with respect to conversion.

The cost sheet shows that the 25,000 units in production on April 1 carried over costs of $175,000 for raw materials, $29,000 for finishing parts, and $195,000 in conversion costs. During April, transferred in costs were $2,000,000, the cost of finishing parts added were $350,000, and conversion costs added were $2,400,000.

Kerns uses the weighted average method of process costing. Prepare a detailed computation of (1) the costs of goods completed and transferred out, (2) abnormal spoilage and (3) the cost of ending work in process. Be sure to clearly label your answers.

[If you want additional practice, then work this problem a second time using FIFO process costing.]