## Multiple Choice Questions

1. In order to compute equivalent units of production using the Weighted Average method of process costing, the following equation should be used:
a) Equivalent units of beginning work in process + units completed and transferred out
b) Equivalent units of beginning work in process + equivalent units of ending work in process
c) Units completed and transferred out + equivalent units of ending work in process
d) Units completed and transferred out + equivalent units of beginning work in process
2. If beginning work in process is 2,000 units, ending work in process is 1,000 units, and the units accounted for equals 5,000 units, what are the units completed and transferred out?
a) 7,000
b) 6,000
c) 4,000
d) 2,000
3. S Company had the following department information about physical units and percentage of completion:

| Work in process, May $1(60 \%)$ | $\frac{\text { Physical Units }}{}$ |
| :--- | :---: |
| Completed and transferred out | 90,000 |
| Work in process, May $31(40 \%)$ | 30,000 |

If materials are $100 \%$ complete at the beginning of the production process, what is the total number of equivalent units for materials during May?
a) 66,000
b) 120,000
c) 156,000
d) 102,000
4. S Company had the following department information about physical units and percentage of completion:

Work in process, May 1 (60\%)

> | Physical Units |
| :---: |
| 36,000 |
| 90,000 |
| 30,000 |

Completed and transferred out
Work in process, May 31 (40\%)
If materials are $100 \%$ complete at the beginning of the production process, what is the total number of equivalent units for conversion during May?
a) 66,000
b) 120,000
c) 156,000
d) 102,000
5. One characteristic of products that are mass-produced in a continuous production process is that
a) The products are identical or very similar in nature.
b) They are grouped in batches.
c) They are produced at the time an order is received.
d) Their costs are accumulated on job cost sheets.
6. Conversion costs are the sum of:
a) Direct materials costs and direct labor costs
b) Indirect materials costs and indirect labor costs
c) Direct materials costs and overhead costs
d) Direct labor costs and overhead costs

The next 3 questions refer to the following information.
In the month of June, department X had 10,000 units in beginning work in process that were $70 \%$ complete. During June, 40,000 units were completed and transferred into production from another department. At the end of June, there were 5,000 units in ending work in process that were $40 \%$ complete. Materials are added at the beginning of the process, while conversion costs are incurred uniformly throughout the process. The total cost for materials was $\$ 450,000$ and conversion was $\$ 400,000$.
7. What was the unit materials costs in June?
a) $\$ 8.18$
b) $\$ 9.00$
c) $\$ 10.00$
d) $\$ 10.71$
8. What was the unit conversion cost in June?
a) $\$ 7.27$
b) $\$ 7.69$
c) $\$ 8.88$
d) $\$ 9.52$
9. What was the total manufacturing cost per unit?
a) $\$ 19.52$
b) $\$ 17.69$
c) $\$ 17.97$
d) $\$ 18.88$
10. A production cost report
a) Used to record the costs chargeable to a specific job
b) Shows only cost data for a production department
c) Provides a basis for evaluating the productivity of a department
d) Combines process cost and job order costing systems costs
11. Which is not a similarity between job order costing and process costing?
a) Methods of assigned costs
b) Tracking of direct materials, direct labor and manufacturing overhead
c) Accumulating journal entries
d) Flow of costs
12. The journal entry that assigns raw materials costs in a process costing system includes
a) Debit to raw materials
b) Credit to raw materials
c) Debit to Accounts Payable
d) Credit to Work in Process
13. Calculating equivalent units in a weighted average method:
a) The beginning inventory percentage complete is used only for conversion costs
b) The beginning inventory percentage complete is used for both material and conversion costs
c) The beginning inventory amount is not accounted for
d) The beginning inventory amount is used in total
14. B Company has the following production information available for June:

Total materials costs
Equivalent units of materials
Total conversion costs
Equivalent units of conversion costs
\$ 80,000
10,000
\$120,000
20,000

What is the total manufacturing cost per unit?
a) $\$ 14.00$
b) $\$ 6.67$
c) $\$ 6.00$
d) $\$ 8.00$
15. In a process costing system, manufacturing overhead is assigned to work in process by
a) Department based on actual overhead costs incurred
b) Department based on predetermined overhead rates
c) Job based on actual overhead costs incurred
d) Job based on predetermined overhead rates

## Problems

## Practice Problem \#1

M Company must transfer the costs of completed gallons of house paint from the Mixing Department to the Finishing Department at month end. The amount being transferred is $\$ 2,136,750$.

$$
\text { Required: } \quad \text { Prepare journal entry to record this transaction }
$$

## Practice Problem \#2

The finishing department had 5,000 incomplete units in its beginning Work-in-Process Inventory which were $100 \%$ complete as to materials and $30 \%$ complete as to conversion costs. 15,000 units were received from the previous department. The ending Work-in-Process Inventory consisted of 2,000 units that were $50 \%$ complete as to materials and $30 \%$ complete as to conversion costs. The Finishing Department uses weighted average process costing.

Required: a) How many units were completed and transferred-out during the period?
b) What are the equivalent units of production for the materials costs during the period?
c) What are the equivalent units of production for the conversion costs during the period?

## Practice Problem \#3

M Corporation uses the Weighted Average method in its process costing system. Operating data for the Casting Department for the month of September appear below:

| Beginning work in process inventory | Units | \% Complete <br> Conversion Cost |
| :--- | ---: | ---: |
| Transferred in from prior department | 15,000 | $20 \%$ |
| Ending work in process inventory | 89,000 |  |
| 24,000 | $90 \%$ |  |

Materials are $100 \%$ as the beginning of production. The beginning work-in-process materials cost were $\$ 10,100$. An additional cost of $\$ 424,620$ were added during the month. According to the company's records, the conversion cost in beginning work-in-process inventory was $\$ 15,660$ at the beginning of September. Additional conversion costs of $\$ 526,884$ were incurred in the department during the month.

Required: a) What would be the cost per equivalent unit for material and conversion costs?
b) What is the amount of cost assigned to completed and transferred out?
c) What is the amount of cost assigned to ending inventory? Hint: make sure total costs reconcile.

## Solutions

| 1. | C |
| :--- | :--- |
| 2. | C |
| 3. | B |
| 4. | D |
| 5. | A |
| 6. | D |
| 7. | C |
| 8. | D |
| 9. | A |
| 10. | C |
| 11. | A |
| 12. | B |
| 13. | C |
| 14. | A |
| 15. | B |

## Solution \#1

| Work in Process - Finishing |
| :---: |
| Work in Process - Mixing |$\quad 2,136,750 \quad 2,136,750$

Solution \#2

|  | Physical |  |  |
| :---: | :---: | :---: | :---: |
|  | Units |  |  |
| Beginning balance | 5,000 |  |  |
| + Started into production | 15,000 |  |  |
| $=$ Units to be Accounted For | 20,000 |  |  |
|  |  | Materials | Conversion |
| Completed and Transferred Out: | 18,000* | 18,000 | 18,000 |
| + Ending balance | 2,000 | 1,000 | 600 |
| $=$ Units Accounted For | 20,000 | b) 19,000 | c) 18,600 |
|  |  |  |  |

- a) $20,000-2,000=18,000$

| Beginning balance <br> + Started into production <br> $=$ Units to be Accounted For | $\begin{array}{r}\text { Physical } \\ \hline \underline{\text { Units }} \\ 15,000 \\ 89,000 \\ 104,000 \\ \hline\end{array}$ |  |  |
| :---: | :---: | :---: | :---: |
|  |  | Materials | Conversion |
| Completed and Transferred Out: <br> + Ending balance <br> $=$ Units Accounted For | 80,000 | 80,000 | 80,000 |
|  | 24,000 | 24,000 | 21,600 |
|  | 104,000 | 104,000 | 101,600 |
| Beginning balance <br> + Started into production <br> $=$ Costs to be Accounted For | Total |  |  |
|  | \$25,760 | \$10,100 | \$15,660 |
|  | 951,504 | 424,620 | 526,884 |
|  | \$977,264 | 434,720 | \$542,544 |
| Cost per equivalent unit Costs added during the period Equivalent units |  | 434,720/ | 542,544/101,600 |
|  |  | 104,000 |  |
|  |  | \$4.18 | \$5.34 |
| Total Manufacturing cost per unit= $4.18+5.34=9.52$ |  |  |  |
| Completed and Transferred Out 80,000*\$9.52 |  |  | b) $\$ 761,600$ |
| + Ending balanceMaterial $24,000 * 4.18$ |  |  |  |
|  | 100,320 |  |  |
| Conversion 21,600*5.34 <br> = Costs Accounted For | 115,344 |  | c) 215,664 |
|  |  |  | \$977,264 |

