## Test Bank for Principles of Cost Accounting 17th Edition Vanderbeck Mitchell 13050874029781305087408

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FOR
Principles of Cost Accounting

> 17th Edition
> By Vanderbeck
> ISBN13-9781305087408

## CHAPTER 2: ACCOUNTING FOR MATERIALS

1. An effective cost control system should include:
a. An established plan of objectives and goals to be achieved.
b. Regular reports showing the difference between goals and actual performance.
c. Specific assignment of duties and responsibilities.
d. All of these are correct.

| ANSWER: | d |
| :---: | :---: |
| RATIONALE: | An effective cost control system should include an established plan of goals and objectives, reports comparing budgeted goals to actual performance, and assignment of specific duties and responsibilities to operating personnel. |
| POINTS: | 1 |
| DIFFICULTY: | Easy |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.1- Introduction |
| ACCREDITING STANDARDS: | AACSB Analytic <br> ACCT.AICPA.FN. 03 - Measurement <br> BUSPROG. 03 - Analytic <br> IMA-Internal Controls |
| OTHER: | Bloom's: Remembering |
| 2. To effectively control materi <br> a. Limited access. <br> b. Combination of duties. <br> c. Safety stock. <br> d. None of these are correct. | als, a business must maintain: |
| ANSWER: | a |
| RATIONALE: | To control materials a business must maintain limited access, segregation of duties, and accuracy in recording. |
| POINTS: | 1 ( ${ }^{\text {a }}$ |
| DIFFICULTY: | Moderate |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.9-LO1: Recognize the two basic aspects of materials control |
| ACCREDITING STANDARDS: | AACSB Analytic <br> ACCT.AICPA.FN. 03 - Measurement <br> BUSPROG. 03 - Analytic <br> IMA-Internal Controls |
| TOPICS: | Materials Control |
| OTHER: | Bloom's: Remembering |

3. Janet is the purchasing agent at Frameco Manufacturing. Her duties include vendor selection and ordering materials. Due to a recent economic downturn and resulting cut backs, Janet has been assigned the additional duty of preparing receiving reports after comparing the goods received to the purchase order. This is an example of:
a. unlimited access to materials.
b. independence of assigned functions.
c. misappropriation of assets.
d. a lack of segregation of duties.

| ANSWER: | d |
| :--- | :--- |
| RATIONALE: | Because Janet's job as a purchasing agent involves preparing the purchase orders and she <br> is also comparing items received to the purchase orders, there is a lack of segregation of <br> duties. This increases the potential for the misappropriation of assets, but |

## CHAPTER 2: ACCOUNTING FOR MATERIALS

|  | there is not enough information given to determine that a misappropriation has indeed occurred. |
| :---: | :---: |
| POINTS: | 1 |
| DIFFICULTY: | Challenging |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.9-LO1: Recognize the two basic aspects of materials control |
| ACCREDITING STANDARDS | AACSB Reflective Thinking ACCT.AICPA.FN. 03 - Measurement BUSPROG. 06 - Reflective Thinking IMA-Internal Controls |
| TOPICS: | Materials Control |
| OTHER: | Bloom's: Analyzing |
| 4. Marley Company hired a cons inventory levels are excessive and consequences was not cited in th <br> a. Possible other uses for w <br> b. Production stoppages due <br> c. Higher property taxes an <br> d. Large quantities of obsol | sultant to help improve its operations. The consultant's report stated that Marley's nd cited several negative consequences to Marley as a result. Which of the following he report? <br> orking capital now tied up in inventory <br> e to parts not being available <br> d insurance costs <br> ete materials |
| ANSWER: | b |
| RATIONALE: | It is important to maintain inventories of sufficient size and variety to meet production needs. However, if Marley's inventories are excessive, it is likely that parts are available for production, but the excess inventory is resulting in higher costs related to holding those items such as property taxes and insurance and potential losses from obsolescence or deterioration. Funds invested in inventories could be used for other purposes. |
| POINTS: | 1 |
| DIFFICULTY: | Moderate |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.9-LO1: Recognize the two basic aspects of materials control |
| ACCREDITING STANDARDS: | AACSB Reflective Thinking <br> ACCT.AICPA.BB. 07 - Critical Thinking <br> BUSPROG. 06 - Reflective Thinking <br> IMA-Strategic Planning |
| TOPICS: | Materials Control |
| OTHER: | Bloom's: Analyzing |

5. The data used to calculate the order point include all of the following except:
a. the costs of placing an order.
b. the rate at which the material will be used.
c. the estimated time interval between the placement and receipt of an order.
d. the estimated minimum level of inventory needed to protect against stockouts.

## ANSWER: a

RATIONALE: $\quad$ Calculating an order point is based on usage, lead time and safety stock. The cost of placing an order is used in determining the economic order quantity.
POINTS:
DIFFICULTY: Moderate
LEARNING OBJECTIVES:
PRIN.EDWA.16.9-LO1: Recognize the two basic aspects of materials control

## CHAPTER 2: ACCOUNTING FOR MATERIALS

ACCREDITING STANDARDS: AACSB Reflective Thinking<br>ACCT.AICPA.FN. 03 - Measurement<br>BUSPROG. 06 - Reflective Thinking<br>IMA-Strategic Planning<br>TOPICS:<br>Materials Control<br>OTHER:<br>Bloom's: Remembering

6. Murphy Company uses 3,000 yards of material each day to make hats. It usually takes five days from the time Murphy orders the material to when it is received. If Murphy's desired safety stock is 6,000 yards, what is Murphy's order point?
a. 6,000 yards
b. 12,000 yards
c. 15,000 yards
d. 21,000 yards

| ANSWER: | d | 15,000 |
| :--- | :--- | :---: |
| RATIONALE: | 3,000 (daily usage) x 5 (lead time) | $\underline{6,000}$ |
|  | Safety stock |  |
|  | Order point | $\underline{21,000}$ |
| POINTS: | 1 |  |
| DIFFICULTY: | Moderate |  |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.9 - LO1: Recognize the two basic aspects of materials control |  |
| ACCREDITING STANDARDS: | AACSB Analytic |  |
|  | ACCT.AICPA.FN.03 - Measurement |  |
|  | BUSPROG.03 - Analytic |  |
|  | IMA-Strategic Planning |  |
| TOPICS: | Materials Control |  |
| OTHER: | Bloom's: Applying |  |

7. What is the objective of the economic order quantity (EOQ) model for inventory?
a. To minimize order costs or carrying costs, whichever are higher
b. To minimize order costs or carrying costs and maximize the rate of inventory turnover
c. To minimize the total order costs and carrying costs over a period of time
d. To order sufficient quantity to economically meet the next period's demand

ANSWER:c
RATIONALE: If the demand for the product can be determined because it is predictable, the essence of any EOQ model for inventory is to minimize the total order costs and also minimize the total carrying costs.

POINTS:
DIFFICULTY:
LEARNING OBJECTIVES: PRIN.EDWA.16.9-LO1: Recognize the two basic aspects of materials control
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Strategic Planning
TOPICS:
OTHER:

Materials Control
Bloom's: Remembering
8. Order costs would include all of the following except:

## CHAPTER 2: ACCOUNTING FOR MATERIALS

a. Receiving clerk's wages.
b. Storeroom keeper's wages.
c. Purchasing department's telephone bill.
d. Transportation in.

| ANSWER: | b |
| :---: | :---: |
| RATIONALE: | Costs related to the purchase and receipt of materials are considered order cost costs related to the storage and maintenance of materials are considered storag The storeroom keeper's wages would be a storage cost. |
| POINTS: | 1 |
| DIFFICULTY: | Moderate |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.9-LO1: Recognize the two basic aspects of materials control |
| ACCREDITING STANDARDS: | AACSB Analytic <br> ACCT.AICPA.FN. 03 - Measurement BUSPROG. 03 - Analytic IMA-Strategic Planning |
| TOPICS: | Materials Control |
| OTHER: | Bloom's: Understanding |
| 9. Expected annual usage of a p invoice cost of each unit is $\$ 145$, <br> a. $\$ 12,000$. <br> b. $\$ 17,400$. <br> c. $\$ 12,600$. <br> d. $\$ 800,000$. | articular raw material is $1,200,000$ units, and standard order size is 10,000 units. , and the cost to place one purchase order is $\$ 105$. The estimated annual order co |
| ANSWER: | c |
| RATIONALE: | $\begin{aligned} & \text { Annual order cost }=\text { Number of orders } \times \text { Per order cost } \\ & =\quad \frac{1,200,000 \text { units }}{10,000 \text { units }} \times \$ 105 \\ & =\quad 120 \text { orders } \times \$ 105 \\ & =\$ 12,600 \end{aligned}$ |
| POINTS: | 1 |
| DIFFICULTY: | Challenging |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.9-LO1: Recognize the two basic aspects of materials control |
| ACCREDITING STANDARDS: | AACSB Analytic <br> ACCT.AICPA.FN. 03 - Measurement <br> BUSPROG. 03 - Analytic <br> IMA-Strategic Planning |
| TOPICS: | Materials Control |
| OTHER: | Bloom's: Applying |

10. Carrying costs would include all of the following except:
a. Warehouse rent.
b. Inspection employees' wages.
c. Losses due to obsolescence.
d. Property taxes.

ANSWER:

## CHAPTER 2: ACCOUNTING FOR MATERIALS

| RATIONALE: | Costs related to the purchase and receipt of materials are considered order costs while costs related to the storage and maintenance of inventory are considered storage costs. Inspection would typically happen upon receipt of goods making this an order cost. |
| :---: | :---: |
| POINTS: | 1 ( |
| DIFFICULTY: | Moderate |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.9-LO1: Recognize the two basic aspects of materials control |
| ACCREDITING STANDARDS: | AACSB Analytic <br> ACCT.AICPA.FN. 03 - Measurement BUSPROG. 03 - Analytic IMA-Strategic Planning |
| TOPICS: | Materials Control |
| OTHER: | Bloom's: Understanding |

11. The following data refer to various annual costs relating to the inventory of a single-product company that requires 10,000 units per year:

12. The following data pertains to Western Company's materials inventory:

## CHAPTER 2: ACCOUNTING FOR MATERIALS

Number of pounds required annually $\quad 16,000$
Cost of placing an order \$20
Annual carrying cost per pound of material \$4
What is Western Company's EOQ?
a. 4,000 pounds
b. 800 pounds
c. 400 pounds
d. 200 pounds

ANSWER:
RATIONALE:
POINTS:
c

## 1

DIFFICULTY:
LEARNING OBJECTIVES:
ACCREDITING STANDARDS: AACSB Analytic ACCT.AICPA.FN. 03 - Measurement BUSPROG. 03 - Analytic
IMA-Strategic Planning
TOPICS:
OTHER:

Materials Control
Bloom's: Applying
13. Expected annual usage of a particular raw material is 180,000 units, and standard order size is 12,000 units. The invoice cost of each unit is $\$ 300$, and the cost to place one purchase order is $\$ 80$. Assuming the company does not maintain safety stock, the average inventory is:
a. 10,000 units.
b. 7,500 units.
c. 15,000 units.
d. 6,000 units.

ANSWER: d
$\begin{aligned} \text { RATIONALE: } \quad \text { Average inventory } & =\frac{12,000}{2} \quad \text { (standard-size order) } \\ & =6,000 \mathrm{units}\end{aligned}$
POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.9-LO1: Recognize the two basic aspects of materials control
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Strategic Planning
TOPICS:
Materials Control
OTHER:
Bloom's: Applying
14. Arwen Company has correctly computed its economic order quantity at 500 units; however, management feels it would rather order in quantities of 600 units. How should Arwen's total annual order cost and total annual carrying cost for an order quantity of 600 units compare to the respective amounts for an order quantity of 500 units?

## CHAPTER 2: ACCOUNTING FOR MATERIALS

a. Higher total order cost and lower total carrying cost
b. Lower total order cost and higher total carrying cost

## CHAPTER 2: ACCOUNTING FOR MATERIALS

c. Higher total order cost and higher total carrying cost
d. Lower total order cost and lower total carrying cost

| ANSWER: | b |
| :--- | :--- |
| RATIONALE: | If orders were placed for 600 units instead of EOQ of 500 units, fewer purchase orders <br> would have to be placed to acquire the total units required for production, thereby <br> reducing the total order cost. However, due to the larger number of units ordered each <br> time, the number of units stored would be greater and a higher total carrying cost would <br> result. |
| POINTS: | 1 |
| DIFFICULTY: | Challenging |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.9 - LO1: Recognize the two basic aspects of materials control |
| ACCREDITING STANDARDS: | AACSB Reflective Thinking <br>  <br> ACCT.AICPA.FN.03 - Measurement |
|  | BUSPROG.06 - Reflective Thinking |
| IMA-Strategic Planning |  |

15. The personnel involved in the physical control of materials includes all of the following except the:
a. Purchasing agent.
b. Receiving clerk.
c. Cost accountant.
d. Production department supervisor.

| ANSWER: | c |
| :--- | :--- |
| RATIONALE: | The cost accountant has the responsibility for the accounting records pertaining to <br> inventory valuation but not for the physical materials. |
| POINTS: | 1 |

ACCREDITING STANDARDS: AACSB Reflective Thinking
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 06 - Reflective Thinking
IMA-Internal Controls
TOPICS:
Materials Control Procedures
OTHER:
Bloom's: Understanding
16. The employee who is responsible for preparing purchase requisitions is most likely the:
a. Storeroom keeper.
b. Purchasing agent.
c. Production supervisor.
d. Receiving clerk.

ANSWER: a
RATIONALE: The storeroom keeper is usually the employer responsible for preparing purchase requisitions when the stock is running low to notify the purchasing agent that the inventory needs to be replenished.
POINTS: DIFFICULTY:

## CHAPTER 2: ACCOUNTING FOR MATERIALS

## 1

Moderate

## CHAPTER 2: ACCOUNTING FOR MATERIALS

LEARNING OBJECTIVES: PRIN.EDWA.16.10-LO2: Specify internal control procedures for materials
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Internal Controls
TOPICS: Materials Control Procedures
OTHER:
Bloom's: Remembering
17. Sam Jones works at Seeker, Inc. Sam's duties include identifying where materials can be obtained most economically, placing orders and verifying invoices and approving them for payment. Sam is a(n):
a. receiving clerk.
b. accounts payable clerk.
c. purchasing agent.
d. production supervisor.

ANSWER:
RATIONALE: c
Rationale:
duties described are those of a purchasing agent. The receiving clerk counts and identifies materials received and prepares a receiving report. The accounts payable clerk is responsible for issuing payment to vendors. The production supervisor is responsible for preparing materials requisitions for materials needed for production.

## POINTS:

DIFFICULTY:
LEARNING OBJECTIVES:
ACCREDITING STANDARDS: AACSB Reflective Thinking
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 06 - Reflective Thinking
IMA-Cost Management
TOPICS:
OTHER:

Materials Control Procedures
Bloom's: Remembering
18. The form used to notify the purchasing agent that additional materials are needed is known as a:
a. Purchase order.
b. Vendor's invoice.
c. Receiving report.
d. Purchase requisition.

| ANSWER: | d |
| :---: | :---: |
| RATIONALE: | The storeroom keeper prepares a purchase requisition to notify the purchasing agent that additional materials are needed. |
| POINTS: | 1 |
| DIFFICULTY: | Easy |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.10-LO2: Specify internal control procedures for materials |
| ACCREDITING STANDARDS: | AACSB Analytic <br> ACCT.AICPA.FN. 03 - Measurement <br> BUSPROG. 03 - Analytic <br> IMA-Cost Management |
| TOPICS: | Materials Control Procedures |
| OTHER: | Bloom's: Remembering |

## CHAPTER 2: ACCOUNTING FOR MATERIALS

19. The form prepared by the purchasing agent and sent to the vendor to obtain materials is known as a:
a. Materials requisition.
b. Purchase requisition.
c. Purchase order.
d. Vendor's invoice.

ANSWER:
RATIONALE: c

## POINTS:

DIFFICULTY:
LEARNING OBJECTIVES:

## ACCREDITING STANDARDS:

TOPICS:
OTHER:

PRIN.EDWA.16.10-LO2: Specify internal control procedures for materials
AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management

## c

The purchase order is prepared by the purchasing agent and sent to the vendor to order materials.
1
Easy

Materials Control Procedures
Bloom's: Remembering
20. A receiving report would include all of the following information except:
a. What the shipment contained.
b. The purchase order number.
c. The customer.
d. The date the materials were received.

| ANSWER: | c |
| :--- | :--- |
| RATIONALE: | It is unlikely the receiving report would contain the customer name; however, a listing <br> of what the shipment contained, the purchase order number and the date of the receipt <br> would be necessary information used in matching the receiving report to the vendor's <br> invoice and the purchase order. |
| POINTS: | 1 |

21. Listed below are steps of purchasing and receiving materials:
22. The receiving clerk prepares a receiving report.
23. Purchase requisitions are prepared to notify the purchasing agent that additional materials are needed.
24. The purchase of merchandise is recorded by the accounting department.
25. The purchasing agent completes a purchase order.

In which order would these events typically happen?

$$
\text { a. } 4,2,3,1
$$

## CHAPTER 2: ACCOUNTING FOR MATERIALS

b. $2,4,3,1$
c. $2,4,1,3$
d. $4,2,1,3$

| ANSWER: | c |
| :--- | :--- |
| RATIONALE: | The storeroom keeper will prepare a purchase requisition to notify the purchasing agent <br> that additional materials are needed. The purchasing agent will then complete a purchase <br> order and send it to the vendor. When the goods are received, the receiving clerk will <br> prepare a receiving report which is compared to the vendor's invoice and the purchase <br> order. At that time, the accounting department will record the purchase of the inventory <br> items in the general ledger. |
| POINTS: | 1 |

22. Listed below are steps of procuring materials for production:
23. The receiving clerk checks the quantity and quality of incoming materials.
24. The purchasing agent issue the purchase order to the vendor.
25. The production floor supervisor issues a materials requisition.
26. The storeroom clerk issues a purchase requisition.

In which order would these events typically happen?
a. $3,2,4,1$
b. $3,4,2,1$
c. $2,1,3,4$
d. $4,2,1,3$

ANSWER: d
RATIONALE: The storeroom keeper will prepare a purchase requisition to notify the purchasing agent that additional materials are needed. The purchasing agent will then complete a purchase order and send it to the vendor. When the goods are received, the receiving clerk will prepare a receiving report which is compared to the vendor's invoice and the purchase order. The production floor supervisor will issue a materials requisition to obtain inventory from the storeroom.
POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.10-LO2: Specify internal control procedures for materials
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS: Materials Control Procedures
OTHER: Bloom's: Understanding

## CHAPTER 2: ACCOUNTING FOR MATERIALS

23. The duties of the purchasing agent would include all of the following except:
a. Placing purchase orders.
b. Counting and identifying materials received.
c. Compiling information that identifies vendors and prices.
d. Verifying invoices and approving them for payment.

| ANSWER: | b |
| :--- | :--- |
| RATIONALE: | The receiving clerk is responsible for counting and identifying the materials received. |
| POINTS: | 1 |
| DIFFICULTY: | Moderate |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.10 - LO2: Specify internal control procedures for materials |
| ACCREDITING STANDARDS: | AACSB Analytic |
|  | ACCT.AICPA.FN.03 - Measurement |
|  | BUSPROG.03-Analytic |
|  | IMA-Cost Management |
| TOPICS: | Materials Control Procedures |
| OTHER: | Bloom's: Understanding |

## 24. The form that serves as authorization to withdraw materials from the storeroom is known as the:

a. Materials requisition.
b. Purchase order.
c. Purchase requisition.
d. Returned materials report.
ANSWER: a

POINTS: 1
DIFFICULTY: Easy
LEARNING OBJECTIVES: PRIN.EDWA.16.10-LO2: Specify internal control procedures for materials
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Internal Controls
TOPICS:
Materials Control Procedures
OTHER:
Bloom's: Remembering
25. If a company receives a larger quantity of goods than had been ordered and keeps the excess for future use, a(n) $\qquad$ is prepared to notify the vendor of the amount of increase to accounts payable in the invoice.
a. credit memorandum
b. return shipping order
c. debit memorandum
d. additional purchase order

ANSWER:
RATIONALE:
a
A Debit or credit memorandum may be issued when the shipment of materials does not match the purchase order and the invoice. In this case, since more materials than ordered and billed were received, the company would issue a credit memorandum to increase accounts payable.

## CHAPTER 2: ACCOUNTING FOR MATERIALS

| POINTS: | 1 |
| :--- | :--- |
| DIFFICULTY: | Moderate |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.10 - LO2: Specify internal control procedures for materials |
| ACCREDITING STANDARDS: | AACSB Analytic |
|  | ACCT.AICPA.FN.03 - Measurement |
|  | BUSPROG.03 - Analytic |
|  | IMA-Cost Management |
| TOPICS: | Materials Control Procedures |
| OTHER: | Bloom's: Understanding |

26. The Egbert Company uses an industrial chemical, XRG, in a manufacturing process. Information as to balances on hand, purchases, and requisitions of XRG is given in the following table.

| Date |  | Transaction | Number of Kilograms | Price per <br> Kilogram | $\frac{\text { Balance of }}{\text { Kilograms }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. 1 | Beginning | balance | 1,000 | \$2.10 | 1,000 |
| Jan. 24 | Purchased |  | 2,500 | \$2.25 | 3,500 |
| Feb. 8 | Issued |  | 700 |  | 2,800 |
| Mar. 16 | Issued |  | 1,200 |  | 1,600 |
| Jun. 11 | Purchased |  | 1,500 | \$2.75 | 3,100 |
| Aug. 18 | Issued |  | 800 |  | 2,300 |
| Sep. 6 | Issued |  | 1,600 |  | 700 |
| Oct. 15 | Purchased |  | 2,000 | \$2.80 | 2,700 |
| Dec. 29 | Issued |  | 600 |  | 2,100 |

If a perpetual inventory record of XRG is maintained on a FIFO basis, the March 16 issue will consist of:
a. 300 kilograms @ $\$ 2.10$ and 900 kilograms @ $\$ 2.25$.
b. 1,000 kilograms @ \$2.10 and 200 kilograms @ $\$ 2.25$.
c. 1,200 kilograms @ \$2.25.
d. 700 kilograms @ \$2.10 and 500 kilograms @ \$2.25.

ANSWER:
RATIONALE:

POINTS:
DIFFICULTY:
LEARNING OBJECTIVES:
a
On a FIFO basis, 300 of the kilograms issued on March 16 would have been assigned a cost of $\$ 2.00$, and the remaining 900 kilograms issued on that date would have been assigned a cost of $\$ 2.25$, as follows:

|  | Number of <br> Kilograms | Price <br> perKilogram | Kilograms <br> issued on <br> February 8 | Kilograms <br> issued on <br> March 16 |
| :--- | :--- | :--- | :--- | :--- |
| Beginning <br> Balance | 1,000 | $\$ 2.00$ | 700 | 300 |
| Jan. 24 Purchase | 2,500 | $\$ 2.25$ |  | 900 |

## ACCREDITING STANDARDS: AACSB Analytic

ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS:
Accounting for Materials

## CHAPTER 2: ACCOUNTING FOR MATERIALS

OTHER:
Bloom's: Applying
27. The Beaches Company uses metal grates when assembling appliances. Information as to balances on hand, purchases, and requisitions of the grates is given in the following table.

| Date |  | Transaction | $\frac{\text { Number of }}{\text { Units }}$ | Unit Price | $\frac{\text { Balance of }}{\text { Units }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. 1 | Beginning | balance | 150 | \$2.80 | 150 |
| Jan. 24 | Purchased |  | 450 | \$3.10 | 600 |
| Feb. 8 | Issued |  | 120 |  | 480 |
| Mar. 16 | Issued |  | 210 |  | 270 |
| Jun. 11 | Purchased |  | 225 | \$3.34 | 495 |
| Aug. 18 | Issued |  | 195 |  | 300 |
| Sep. 6 | Issued |  | 165 |  | 135 |
| Oct. 15 | Purchased |  | 225 | \$3.40 | 360 |
| Dec. 29 | Issued |  | 210 |  | 150 |

If a perpetual inventory record of the metal grates is maintained on a FIFO basis, the September 6 issue will consist of:
a. 15 units @ $\$ 2.80$, 120 units @ $\$ 3.10$ and 30 units @ $\$ 3.34$.
b. 75 units @ $\$ 2.80$ and 90 units @ $\$ 3.10$.
c. 165 units @ \$3.10.
d. 75 units @ \$3.10 and 90 units @ \$3.34.

## ANSWER:

RATIONALE:
d
On a FIFO basis, 75 of the grates issued on September 6 would have been assigned a cost of $\$ 3.10$ per unit and the remaining 90 grates issued on that date would have been assigned a cost of $\$ 3.24$ per unit as follows:

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of | Unit | Units issued oni | Units ssued on | Units issued | Units issued |
|  | Units | Price | Feb. 8 | Mar. 16 | on Aug. | $\begin{gathered} \text { on } \\ \text { Sep. } 6 \\ \hline \end{gathered}$ |
| Beginning Balance | 150 | \$2.80 | 120 | 30 |  |  |
| Jan. 24 Purchase | 450 | \$3.10 |  | 180 | 195 | 75 |
| Jun. 11 Purchase | 225 | \$3.24 |  |  |  | 90 |

POINTS:
DIFFICULTY:
LEARNING OBJECTIVES:

Moderate
PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS:
Accounting for Materials
Bloom's: Applying
28. The Bisset Corporation uses Raw Material A in a manufacturing process. Information as to balances on hand, purchases, and requisitions of Raw Material A is given in the following table.

## CHAPTER 2: ACCOUNTING FOR MATERIALS

Raw Material A

| Date |  | Number of |  |  | Balance of |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | nambaciun | Units | vimi rime | Units |
| Jan. 1 | Beginning | balance | 100 | \$1.40 | 100 |
| Jan. 24 | Purchased |  | 300 | \$1.55 | 400 |
| Feb. 8 | Issued |  | 80 |  | 320 |
| Mar. 16 | Issued |  | 140 |  | 180 |
| Jun. 11 | Purchased |  | 150 | \$1.62 | 330 |
| Aug. 18 | Issued |  | 130 |  | 200 |
| Sep. 6 | Issued |  | 110 |  | 90 |
| Oct. 15 | Purchased |  | 150 | \$1.70 | 240 |
| Dec. 29 | Issued |  | 140 |  | 100 |

If a perpetual inventory record of Raw Material A is maintained on a FIFO basis, 200 units on hand on August 18 will consist of:
a. 100 units @ \$1.40, 80 units @ \$1.55 and 20 units @ \$1.62.
b. 100 units @ $\$ 1.55$ and 100 units @ $\$ 1.62$.
c. 150 units @ $\$ 1.62$ and 50 units @ \$1.55.
d. 200 units @ \$1.55.

ANSWER:

29. The Benchley Company uses metal grates when assembling appliances. Information as to balances on hand, purchases, and requisitions of the grates is given in the following table.

## CHAPTER 2: ACCOUNTING FOR MATERIALS

| Date | Units |  | Units |  |
| :--- | :--- | ---: | :--- | :--- |
| Jan. 1 | Beginning balance | 150 | $\$ 2.80$ | 150 |
| Jan. 24 | Purchased | 450 | $\$ 3.10$ | 600 |
| Feb. 8 | Issued | 120 |  | 480 |
| Mar. 16 | Issued | 210 |  | 270 |
| Jun. 11 | Purchased | 225 | $\$ 3.24$ | 495 |
| Aug. 18 | Issued | 195 |  | 300 |
| Sep. 6 | Issued | 165 |  | 135 |
| Oct. 15 | Purchased | 225 | $\$ 3.50$ | 360 |
| Dec. 29 | Issued | 210 |  | 150 |

If a perpetual inventory record of the metal grates is maintained on a FIFO basis, what costs are assigned to the 150 units in ending inventory?
a. 150 units @ $\$ 3.50$
b. 15 units @ \$3.50 and 135 units @ \$3.24.
c. 150 units @ $\$ 2.80$.
d. 15 units @ \$3.50 and 135 units @ \$2.80.

ANSWER:
a
RATIONALE: On a FIFO basis, the ending inventory consists of the most recently purchased items.
POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Reflective Thinking ACCT.AICPA.FN. 03 - Measurement BUSPROG. 06 - Reflective Thinking IMA-Cost Management

## TOPICS: Accounting for Materials

OTHER: Bloom's: Applying
30. The inventory method which results in the prices paid for earliest purchases assigned to cost of goods sold is:
a. First-in, first-out.
b. Last-in, first-out.
c. Last-in, last-out.
d. Moving average.

ANSWER: a
RATIONALE: $\quad$ First-in, first-out (FIFO) results in the oldest costs being assigned to cost of goods sold.
POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Reflective Thinking
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 06 - Reflective Thinking
IMA-Cost Management
TOPICS:
Accounting for Materials
OTHER:
Bloom's: Remembering

## CHAPTER 2: ACCOUNTING FOR MATERIALS

31. The inventory method which results in the most recent costs being assigned to inventory on hand at the end of the period is:
a. First-in, first-out.
b. Last-in, first-out.
c. Last-in, last-out.
d. Moving average.

ANSWER:
RATIONALE: $\quad$ First-in, first-out (FIFO) results in the most recent costs being assigned to ending inventory because the oldest costs are assigned to issues first.
POINTS: 1

DIFFICULTY:
LEARNING OBJECTIVES:
Moderate
PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Reflective Thinking
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 06 - Reflective Thinking
IMA-Cost Management
TOPICS: Accounting for Materials
OTHER:

Bloom's: Understanding
32. Filmac, Inc. uses speakers when assembling computers. Information as to balances on hand, purchases, and requisitions of speakers is given in the following table.


If a perpetual inventory record of speakers is maintained on a LIFO basis, the March 8 issue will consist of:
a. 20 units @ $\$ 15.00$ and 50 units @ $\$ 16.00$.
b. 70 units @ $\$ 15.00$.
c. 50 units @ $\$ 16.00$ and 20 units @ $\$ 15.00$.
d. 70 units @ \$16.00.

| ANSWER: | c |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RATIONALE: | On a LIFO basis, 50 units issued on March 8 would have been assigned a cost of $\$ 16.00$, and 20 units would have been assigned a cost of $\$ 14.00$ as follows: |  |  |  |  |
|  |  | Number of Units$\qquad$ |  | Units issued on February | Units issued on March 8 |
|  | Beginning Balance | 200 | \$14.00 | - | 20 |
|  | Jan. 15 Purchase | 100 | \$16.00 | 50 | 50 |
| POINTS: |  |  |  |  |  |

POINTS:

## CHAPTER 2: ACCOUNTING FOR MATERIALS

DIFFICULTY: Moderate
LEARNING OBJECTIVES:
PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 04 - Reporting
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS:
Accounting for Materials
OTHER:
Bloom's: Applying
33. The Bisset Corporation uses Raw Material A in a manufacturing process. Information as to balances on hand, purchases, and requisitions of Raw Material A is given in the following table.

Raw Material A

| Date |  | Number of |  |  | Balance of |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Hallsacuon | Units | Ulli rilue | Units |
| Jan. 1 | Beginning | balance | 100 | \$1.40 | 100 |
| Jan. 24 | Purchased |  | 300 | \$1.55 | 400 |
| Feb. 8 | Issued |  | 80 |  | 320 |
| Mar. 16 | Issued |  | 140 |  | 180 |
| Jun. 11 | Purchased |  | 150 | \$1.62 | 330 |
| Aug. 18 | Issued |  | 130 |  | 200 |
| Sep. 6 | Issued |  | 110 |  | 90 |
| Oct. 15 | Purchased |  | 150 | \$1.70 | 240 |
| Dec. 29 | Issued |  | 140 |  | 100 |

If a perpetual inventory record of Raw Material A is maintained on a LIFO basis, the September 6 issue will consist of:
a. 80 units @ $\$ 1.55$, 20 units @ $\$ 1.62$ and 10 units @ $\$ 1.40$.
b. 110 units @ $\$ 1.55$.
c. 50 units @ 1.55 and 60 units @ 1.62.
d. 20 units @ $\$ 1.62$ and 90 units @ $\$ 1.55$.

ANSWER:
RATIONALE:
a
On a LIFO basis, 20 of the units issued on September 6 would have been assigned a cost of $\$ 1.62$ per unit, 80 of the units issued would have been assigned a cost of $\$ 1.55$ per unit and the remaining 10 units issued on that date would have been assigned a cost of $\$ 1.40$ per unit.
$\left.\left.\begin{array}{ccccccc}\begin{array}{c}\text { Number of } \\ \text { Units }\end{array} & \underline{\text { Unit }}\end{array} \begin{array}{ccccc}\text { Units } \\ \text { issued onissued on onAug. }\end{array} \quad \begin{array}{c}\text { Units } \\ \text { issued }\end{array}\right] \begin{array}{c}\text { Units } \\ \text { issued }\end{array}\right]$

| Beginning <br> Balance | 100 | $\$ 1.40$ |  |  | 10 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Jan. 24 <br> Purchase <br> Jun. 11 <br> Purchase | 300 | $\$ 1.55$ | 80 | 140 |  |

## POINTS:

1
DdengagdLberditig Testing, Powered byMoodlariate

## CHAPTER 2: ACCOUNTING FOR MATERIALS

LEARNING OBJECTIVES: PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 04 - Reporting
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS: Accounting for Materials
OTHER:
Bloom's: Applying
34. Wiggins, Inc. uses sulfuric acid in a manufacturing process. Information as to balances on hand, purchases, and requisitions of acid is given in the following table.

| Date |  | $\underline{\text { Transaction }}$ | $\frac{\text { Number of }}{\text { Gallons }}$ | $\frac{\text { Price per }}{\text { Gallon }}$ | $\frac{\text { Balance of }}{\text { Gallons }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. 1 | Beginning | balance | 10,000 | \$. 60 | 10,000 |
| Feb. 24 | Purchased |  | 30,000 | \$. 65 | 40,000 |
| Mar. 8 | Issued |  | 8,000 |  | 32,000 |
| Apr. 16 | Issued |  | 14,000 |  | 18,000 |
| May. 11 | Purchased |  | 15,000 | \$. 72 | 33,000 |
| Jul. 18 | Issued |  | 13,000 |  | 20,000 |
| Oct. 6 | Issued |  | 11,000 |  | 9,000 |
| Nov. 15 | Purchased |  | 15,000 | \$. 78 | 24,000 |
| Nov. 29 | Issued |  | 14,000 |  | 10,000 |

If a perpetual inventory record of Raw Material A is maintained on a LIFO basis, the 20,000 units in inventory at July 18 will consist of:
a. 5,000 units @ \$.72 and 15,000 units @ \$.65.
b. 10,000 units @ \$.60 and 10,000 units @ \$.65.
c. 2,000 units @ \$.72, 8,000 units @ \$.65 and 10,000 units @ \$.60.
d. 10,000 units @ \$.50, 6,000 units @ \$. 65 and 4,000 units @ \$.72.

## ANSWER:

RATIONALE:

POINTS:
DIFFICULTY:
LEARNING OBJECTIVES:
c
On a LIFO basis, 2,000 of the gallons in inventory at July 18 would have been assigned cost per unit of $\$ .72,8,000$ of the units on hand would have been assigned a cost per unit of $\$ .65$ and the remaining 10,000 units in inventory on that date would have been assigned a unit cost of $\$ .50$ as follows:

|  | Number of Gallons | Price per <br> Gallon | Units issued onis Mar. 8 | Units sued on Apr. 16 | $\begin{gathered} \text { Units } \\ \text { issued } \\ \text { on Jul. } \\ 18 \end{gathered}$ | Units in Inventory Jul. 18 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beginning Balance | 10,000 | \$. 50 |  |  |  | 10,000 |
| Feb. 24 Purchase | 30,000 | \$. 65 | 8,000 | 14,000 |  | 8,000 |
| May 11 Purchase | 15,000 | \$. 72 |  |  | 13,000 | 2,000 |

## ACCREDITING STANDARDS: AACSB Analytic

## CHAPTER 2: ACCOUNTING FOR MATERIALS

ACCT.AICPA.FN. 04 - Reporting
BUSPROG. 03 - Analytic
IMA-Cost Management

## TOPICS:

OTHER:

Accounting for Materials
Bloom's: Applying
35. The inventory method which results in the most recent cost being assigned to cost of goods sold is:
a. First-in, first-out.
b. Last-in, first-out.
c. Last-in, last-out.
d. Moving average.

ANSWER:
RATIONALE:
POINTS:
DIFFICULTY:

ACCREDITING STANDARDS: AACSB Reflective Thinking

TOPICS:
OTHER:

LEARNING OBJECTIVES: PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger

ACCT.AICPA.FN. 04 - Reporting
BUSPROG. 06 - Reflective Thinking
IMA-Cost Management
b
Last-in, first-out (LIFO) results in the most recent costs being assigned to cost of goods sold.
1
Moderate

Accounting for Materials
Bloom's: Remembering
36. The inventory method which results in the prices paid for the earliest purchases being assigned to inventory on hand at the end of the period is:
a. First-in, first-out.
b. Last-in, first-out.
c. Last-in, last-out.
d. Moving average.

ANSWER: b
RATIONALE: Last-in, first-out (LIFO) results in the oldest costs being assigned to ending inventory because the most recent costs are assigned to issues first.
POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Reflective Thinking
ACCT.AICPA.FN. 04 - Reporting
BUSPROG. 06 - Reflective Thinking
IMA-Cost Management

## TOPICS:

Accounting for Materials
OTHER:
Bloom's: Understanding
37. The Jordan Corporation uses Raw Material A in a manufacturing process. Information as to balances on hand, purchases, and requisitions of Raw Material A is given in the following table.

## CHAPTER 2: ACCOUNTING FOR MATERIALS

Raw Material A

| Date |  | Transaction | $\frac{\text { Number of }}{\text { Units }}$ | Unit Price | $\frac{\text { Balance of }}{\underline{\text { Units }}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. 1 | Beginning | balance | 100 | \$1.45 | 100 |
| Jan. 24 | Purchased |  | 300 | \$1.55 | 400 |
| Feb. 8 | Issued |  | 80 |  | 320 |
| Mar. 16 | Issued |  | 140 |  | 180 |
| Jun. 11 | Purchased |  | 150 | \$1.62 | 330 |
| Aug. 18 | Issued |  | 130 |  | 200 |
| Sep. 6 | Issued |  | 110 |  | 90 |
| Oct. 15 | Purchased |  | 150 | \$1.70 | 240 |
| Dec. 29 | Issued |  | 140 |  | 100 |

If a perpetual inventory record of Raw Material A is maintained on a moving average basis, the 140 units issued on March 16 will have a unit cost of (round to 3 decimal places):
a. $\$ 1.525$.
b. $\$ 1.475$.
c. $\$ 1.50$.
d. $\$ 1.438$.

ANSWER: a
RATIONALE: On a moving average basis, the 140 units issued on March 16 would have a unit cost of $\$ 1.5125$ as follows:

| 1.5125 as folow: | Number of Units | Unit Price | $\underline{\text { Total Cost }}$ |
| :---: | :---: | :---: | :---: |
| Beginning Balance | 100 | \$1.45 | \$145.00 |
| Jan. 24 Purchase | 300 | \$1.55 | 465.00 |
|  | 400 |  | \$610.00 |

Average cost for both the February 8 and March 16 issue would be $\$ 1.525$ ( $\$ 610 / 400$ units).
POINTS: 1
DIFFICULTY:
Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS: Accounting for Materials
OTHER: Bloom's: Applying
38. The Kennedy Company uses throttles in its assembly of lawn mowers. Information as to balances on hand, purchases, and requisitions of throttles is given in the following table.

| Date |  |  | Number of |  | Balance of |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Hallsaction | Units | U1IIL זIILE | Units |
| Jan. 1 | Beginning | balance | 50 | \$2.50 | 50 |
| Jan. 20 | Purchased |  | 150 | \$3.00 | 200 |
| Feb. 3 | Issued |  | 40 |  | 160 |

## CHAPTER 2: ACCOUNTING FOR MATERIALS

| Mar. 25 | Issued | 70 |  | 90 |
| :--- | :--- | ---: | ---: | ---: |
| Jun. 14 | Purchased | 75 | $\$ 4.00$ | 165 |
| Aug. 27 | Issued | 65 |  | 100 |
| Sep. 16 | Issued | 55 |  | 45 |
| Oct. 7 | Purchased | 75 | $\$ 4.50$ | 120 |
| Dec. 13 | Issued | 70 |  | 50 |

If a perpetual inventory record of throttles is maintained on a moving average basis, the 165 items in inventory on June 14 will have a unit cost of (rounded to three decimal places):
a. \$3.438.
b. $\$ 3.167$.
c. $\$ 3.386$.
d. $\$ 2.875$.

39. In a period of rising prices, the use of which of the following cost flow methods would result in the highest tax liability?
a. LIFO
b. FIFO
c. Weighted average cost
d. Moving average cost

ANSWER:
RATIONALE:

POINTS:

## b

Under the FIFO method, the least recent purchases, which were the least expensive, would be considered to be the goods sold. This would result in lower cost of goods sold, thus higher gross margins which in turn would result in higher income taxes.

## CHAPTER 2: ACCOUNTING FOR MATERIALS

DIFFICULTY:
LEARNING OBJECTIVES:

Moderate
PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Reflective Thinking ACCT.AICPA.FN. 03 - Measurement BUSPROG. 06 - Reflective Thinking IMA-Cost Management

TOPICS:
OTHER:

Accounting for Materials
Bloom's: Understanding
40. In a period of rising prices, the use of which of the following cost flow methods would result in the highest cost of goods sold?
a. LIFO
b. FIFO
c. Weighted average cost
d. Moving average cost

ANSWER:
a
RATIONALE: Under the LIFO method, the most recent purchases, which were the most expensive,
POINTS:
DIFFICULTY: would be considered to be the goods sold. Thus, cost of goods sold would be higher.

Challenging
LEARNING OBJECTIVES: PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Reflective Thinking
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 06 - Reflective Thinking
IMA-Cost Management
TOPICS:
Accounting for Materials
OTHER:
Bloom's: Understanding
41. When selecting a method of inventory costing, a company must consider all of the following except:
a. federal and state income tax regulations.
b. current economic conditions.
c. the flow of materials.
d. its rate of inventory turnover.

ANSWER:
RATIONALE: $\quad$ The flow of materials does not dictate the flow of costs. Companies must consider tax regulations and current economic conditions, including the rate of inflation, particularly as they relate to LIFO. In addition, companies that turn over inventory rapidly may not be as concerned as companies that hold inventory for longer periods of time as the impact of rising prices will not be as dramatic.
POINTS: 1
DIFFICULTY:
LEARNING OBJECTIVES:

Challenging
PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger

ACCREDITING STANDARDS: AACSB Reflective Thinking
ACCT.AICPA.FN. 03 - Measurement

## CHAPTER 2: ACCOUNTING FOR MATERIALS

BUSPROG. 06 - Reflective Thinking
IMA-Cost Management

## TOPICS:

Accounting for Materials
OTHER:
Bloom's: Analyzing
42. At the end of the period, the balance in the Materials account should represent
a. the cost of materials purchased.
b. the cost of materials on hand, not yet put into production.
c. the cost of materials issued into production.
d. the cost of materials included in Work in Process and Finished Goods.

ANSWER:b
RATIONALE:

POINTS:
DIFFICULTY:
At the end of the period, the balance in the Materials account should represent the cost of materials on hand. Materials purchased increase the Materials account while materials that have been issued into production, which would be included in Work in Process, Finished Goods and Cost of Goods Sold, would have decreased the Materials account.

LEARNING OBJECTIVES:
Moderate
PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Reflective Thinking
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 06 - Reflective Thinking
IMA-Cost Management

## TOPICS:

Accounting for Materials
OTHER:
Bloom's: Understanding
43. The general ledger entry to record the purchase of materials is:
a. Debit-Purchases Received

Credit-Purchase Orders Outstanding
b. Debit-Materials

Credit-Purchase Orders Outstanding
c. Debit-Purchases Received

Credit-Accounts Payable
d. Debit-Materials

Credit-Accounts Payable
ANSWER: d

| RATIONALE: | The Materials account is debited and Accounts Payable is credited when materials are <br> purchased. Purchase orders are not recorded in the general ledger. |
| :--- | :--- |
| POINTS: | 1 |$\quad$| EIFFICULTY: | Easy |
| :--- | :--- |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the <br> general ledger |
| ACCREDITING STANDARDS: | AACSB Analytic |
|  | ACCT.AICPA.FN.04-Reporting |
|  | BUSPROG.03-Analytic |
| IMA-Cost Management |  |

## CHAPTER 2: ACCOUNTING FOR MATERIALS

OTHER:
Bloom's: Applying
44. The journal entry to record undamaged direct materials returned to the storeroom would be:
a. Debit - Materials

Credit - Finished Goods
b. Debit - Factory Overhead

Credit - Work in Process
c. Debit - Materials

Credit - Factory Overhead
d. Debit - Materials

Credit - Work in Process

| ANSWER: | d |
| :--- | :--- |
| RATIONALE: | The entry to record the return of dir <br> entry that is made when the materias |
| POINTS: | 1 |

45. If the amount of materials on hand at the end of the period is less than the control account balance, the control account balance should be decreased by the following entry:
a. Debit - Work in Process

Credit - Materials
b. Debit - Materials

Credit - Factory Overhead
c. Debit - Materials

Credit - Work in Process
d. Debit - Factory Overhead

Credit - Materials

| ANSWER: | d <br> RATIONALE: <br> If the amount of materials on hand per the physical count is less than the control account <br> balance, the balance should be decreased by a debit to a factory overhead account <br> (usually called Inventory Short and Over), because differences may be due to damage, <br> theft or errors and usually cannot be easily identified with a specific job, and a credit to <br> Materials. |
| :--- | :--- |
| POINTS: | 1 |
| DIFFICULTY: | Moderate |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the <br> general ledger |
| ACCREDITING STANDARDS: | AACSB Analytic |
|  | ACCT.AICPA.FN.04 - Reporting |
| BUSPROG.03 - Analytic |  |

## CHAPTER 2: ACCOUNTING FOR MATERIALS

IMA-Cost Management

| TOPICS: | Accounting for Materials |
| :--- | :---: |
| OTHER: | Bloom's: Applying |

46. Inventory levels for firms using JIT inventory systems compared to firms not using JIT will be:
a. Higher for both work in process and finished goods.
b. Higher for work in process and finished goods but lower for raw materials.
c. Lower for raw materials, work in process, and finished goods.
d. Higher for finished goods but lower for raw materials and work in process.

| ANSWER: | c |
| :--- | :--- |
| RATIONALE: | Manufacturers using just-in-time inventory systems will maintain lower inventory levels <br> for all three types of inventories. Materials are delivered in time to be placed in <br> production. Work in Process inventories are minimized by eliminating inventory buffers <br> between work cells and Finished Goods inventories are eliminated because items are <br> produced as customers order them. |
| POINTS: | 1 |

47. Just-in-time production techniques:
a. Require inventory buffers between work centers.
b. Were first utilized by U.S. manufacturers and later exported to Japan.
c. Produce goods for inventory with the hope that demand for these goods will then be created.
d. Require a high degree of cooperation and coordination between supplier and manufacturer.

## ANSWER:d

RATIONALE: $\quad$ A just-in-time inventory system is a "pull" inventory system ultimately driven by customer demand so goods are not produced in the hope of selling them. In addition, inventory buffers are minimized as production on units in one manufacturing cell is started only when the subsequent operation requests them. For a just-in-time inventory system to be effective, suppliers must be in close proximity to customers to enable the delivery of raw materials to coincide with production's need for them.
POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.12-LO4: Account for inventories in a just-in-time (lean production) system
ACCREDITING STANDARDS: AACSB Reflective Thinking
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 06 - Reflective Thinking
IMA-Strategic Planning
TOPICS: Just-in-Time Materials Control
OTHER: Bloom's: Remembering

## CHAPTER 2: ACCOUNTING FOR MATERIALS

48. In a JIT system, reducing throughput time is possible because:
a. there are fewer materials used in the process.
b. there are more workers involved in the process.
c. there are more supervisors, so a better job is done of directing plant activities.
d. there are fewer operations such as moving and storing inventories that do not add value to the product.

ANSWER: d
RATIONALE: In a JIT system, there are fewer operations such as moving and storing inventories that do not add value to the product.
POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.12-LO4: Account for inventories in a just-in-time (lean production) system
ACCREDITING STANDARDS: AACSB Reflective Thinking
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 06 - Reflective Thinking
IMA-Strategic Planning
TOPICS: Just-in-Time Materials Control
OTHER: Bloom's: Understanding
49. Polk, Inc. produces 3,000 hammers each day. The average number of units in work in process is 4,500 , having an average cost of $\$ 10,000$. The annual carrying costs relating to inventory are $15 \%$.

Consultants have determined that the work in process could be reduced by as much as a third by rearranging the factory floor. What is the current throughput time?
a. Eight hours
b. Sixteen hours
c. One day
d. One and one half days
ANSWER: d

RATIONALE: $\quad$ Throughput is the amount of time it takes a unit to get through the system. The average number of units in work in process is 4.500 . Dividing this number by 3,000 (daily production) yields a cirrent throughput time of 1.5 days.
POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.12-LO4: Account for inventories in a just-in-time (lean production) system
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Strategic Planning
TOPICS: Just-in-Time Materials Control
OTHER: Bloom's: Understanding
50. Harrison Industries produces 4,000 lunch boxes each day. The average number of units in work in process is 12,000 , having an average cost of $\$ 60,000$. The annual carrying costs related to inventory are $10 \%$.

Consultants have determined that the work in process could be reduced by as much as a third by rearranging the factory

## CHAPTER 2: ACCOUNTING FOR MATERIALS

floor. What would the throughput time be if Harrison implements the recommended changes?
a. Twelve hours
b. One day
c. Two days
d. Three days

ANSWER: c
RATIONALE:
Throughput is the amount of time it takes a unit to get through the system. The current throughput time is 3 days; this is computed by dividing average work in process by daily production $(12,000 / 4,000)$. If current throughput time is reduced by $1 / 3$, the new throughput time is two days.

```
POINTS: 1
```

DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.12-LO4: Account for inventories in a just-in-time (lean production) system
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Strategic Planning
TOPICS: Just-in-Time Materials Control
OTHER: Bloom's: Applying
51. Taft Company produces 5,000 pallets each day. The average number of units in work in process is 10,000 , having an average cost of $\$ 35,000$. The annual carrying costs related to inventory are $20 \%$.

Consultants have determined that the work in process could be reduced by as much as $25 \%$ by rearranging the factory floor. What would the throughput time be if Harrison implements the recommended changes?
a. Twelve hours
b. One day
c. One and one-half days
d. Two days

| ANSWER: | c |
| :---: | :---: |
| RATIONALE: | Throughput is the amount of time it takes a unit to get through the system. Units in work in process $=\underline{10,000}=2$ days $\times .25=1 / 2$ day reduction Daily production 5,000 Two days less one-half day $=$ one and one-half days |
| POINTS: | 1 |
| DIFFICULTY: | Moderate |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.12-LO4: Account for inventories in a just-in-time (lean production) system |
| ACCREDITING STANDARDS: | AACSB Analytic <br> ACCT.AICPA.FN. 03 - Measurement <br> BUSPROG. 03 - Analytic <br> IMA-Strategic Planning |
| TOPICS: | Just-in-Time Materials Control |
| OTHER: | Bloom's: Applying |

52. Harrison Industries produces 4,000 lunch boxes each day. The average number of units in work in process is 12,000, having an average cost of $\$ 60,000$. The annual carrying costs related to inventory are $10 \%$.

## CHAPTER 2: ACCOUNTING FOR MATERIALS

Consultants have determined that the work in process could be reduced by as much as a third by rearranging the factory floor. What would the reduction in annual carrying costs be if Harrison is able to implement the recommended changes?
a. $\$ 2,000$
b. $\$ 1,500$
c. $\$ 6,000$
d. $\$ 4,000$

ANSWER
RATIONALE:

## a

Carrying cost = Average work in process inventory x carrying cost percentage Existing situation - $\$ 60,000 \times 10 \%=\$ 6,000$ Inventory reduction $\$ 60,000 \times 1 / 3=\$ 20,000$ reduction New average inventory $=\$ 60,000-\$ 20,000=\$ 40,000 \times 10 \%=\$ 4,000 \$ 6,000$ - \$4,000 = \$2,000 reduction

POINTS: 1
DIFFICULTY:Challenging
LEARNING OBJECTIVES:
PRIN.EDWA.16.12-LO4: Account for inventories in a just-in-time (lean production) system
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Strategic Planning
TOPICS: Just-in-Time Materials Control
OTHER:
Bloom's: Applying
53. The accounting system used with JIT manufacturing is called:
a. Backflush costing.
b. The push system.
c. Perpetual inventory costing.
d. First-in, first-out.

| ANSWER: | a |
| :---: | :---: |
| RATIONALE: | The accounting system used with JIT is called backflush costing. |
| POINTS: | 1 |
| DIFFICULTY: | Easy |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.12-LO4: Account for inventories in a just-in-time (lean production) system |
| ACCREDITING STANDARDS: | AACSB Analytic <br> ACCT.AICPA.FN. 03 - Measurement <br> BUSPROG. 03 - Analytic <br> IMA-Cost Management |
| TOPICS: | Just-in-Time Materials Control |
| OTHER: | Bloom's: Remembering |

54. In a backflush accounting system, a single account is used for the following:
a. Work in process and finished goods inventories.
b. Finished goods inventories and cost of goods sold.
c. Factory overhead and raw materials.
d. Raw materials and work in process inventories.

ANSWER:
d

## CHAPTER 2: ACCOUNTING FOR MATERIALS

| RATIONALE: | In a backflush accounting system, a single account, Raw and In Process is used because in |
| :--- | :--- |
|  | just-in-time or JIT manufacturing, materials are delivered directly into production. |
| POINTS: | 1 |

55. In a backflush accounting system, a single account is used for the following:
a. Work in process and finished goods inventories.
b. Finished goods inventories and cost of goods sold.
c. Factory overhead and raw materials.
d. Labor and overhead.

| ANSWER: | d |
| :--- | :--- |
| RATIONALE: | In a backflush accounting system, a single account, Conversion Costs, is used because |
| labor is usually insignificant in a highly automated JIT setting. |  |
| POINTS: | 1 |
| DIFFICULTY: | Easy |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.12 - LO4: Account for inventories in a just-in-time (lean production) |
|  | system |
| ACCREDITING STANDARDS: | AACSB Analytic |
|  | ACCT.AICPA.FN.03 - Measurement |
|  | BUSPROG.03 - Analytic |
| IMA-Cost Management |  |
| TOPICS: | Just-in-Time Materials Control |
| OTHER: | Bloom's: Remembering |

56. Which of the following is not true about backflush costing?
a. Different companies may choose different trigger points.
b. Production costs are attached to products as they move through work in process.
c. A single account is used for raw and in-process materials because materials are issued to production when received from the supplier.
d. Direct labor is usually insignificant in a highly automated system, so is not cost effective to account for it separately.

| ANSWER: | b |
| :--- | :--- |
| RATIONALE: | In backflush costing, costs are not attached to products until the products are completed |
|  | and sold. |
| POINTS: | ACCREDITING STANDARDS: |

## DIFFICULTY:

LEARNING OBJECTIVES:

## CHAPTER 2: ACCOUNTING FOR MATERIALS

## 1

Moderate
PRIN.EDWA.16.12-LO4:
Account for inventories in a
just-in-time (lean production)
system
AACSB Reflective Thinking

## CHAPTER 2: ACCOUNTING FOR MATERIALS

ACCT.AICPA.FN. 03 - Measurement BUSPROG. 06 - Reflective Thinking IMA-Cost Management Just-in-Time Materials Control

TOPICS:
OTHER:
57. Under a backflush accounting system, the following entry is made when products are completed:
a. Debit-Finished Goods

Credit-Work In Process
b. Debit-Cost of Goods Sold

Credit-Raw and In Process
Credit-Conversion Costs
c. Debit-Finished Goods

Credit-Raw and In Process
Credit-Conversion Costs
d. Debit-Cost of Goods Sold

Credit-Finished Goods
ANSWER: c
RATIONALE: Finished goods are debited when goods are completed under backflush accounting, similar to other accounting systems. However, work in process is not credited, as that account does not exist under backflush accounting.
POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.12-LO4: Account for inventories in a just-in-time (lean production) system
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 04 - Reporting
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS:
Just-in-Time Materials Control
OTHER:
Bloom's: Applying
58. All of the following methods may be used to account for the revenue from scrap sales except:
a. Credit Factory Overhead, if the scrap cannot be identified with a specific job.
b. Credit Materials, if the scrap would have been able to be recycled.
c. Credit Work in Process, if the scrap is identified with a specific job.
d. Credit Scrap Revenue, which is included in the "Other Income" section of the income statement.

ANSWER:b
RATIONALE:

POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.13-LO5: Account for scrap materials, spoiled goods, and defective work
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement

## CHAPTER 2: ACCOUNTING FOR MATERIALS

BUSPROG. 03 - Analytic
IMA-Cost Management

TOPICS:
OTHER:

Scrap, Spoiled Goods and Defective Work
Bloom's: Understanding
59. Rowe Co.'s Job 401 for the manufacture of 2,200 wagons was completed during August at the unit costs presented below.

Direct materials \$24
Direct labor 18
Factory overhead $\quad \frac{14}{\$ 56}$
Final inspection of Job 401 disclosed 200 wagons that were sold to a jobber for $\$ 6,000$.
Assume that the spoilage loss is charged to all production during August. What would be the journal entry to record the spoilage?
a. Factory Overhead 11,200

Work in Process
b. Spoiled Goods Inventory 6,000
Work in Process 6,000
c. Spoiled Goods Inventory 6,000

Factory Overhead 5,200
Work in Process
d. Spoiled Goods Inventory

11,200
Factory Overhead
ANSWER: c
RATIONALE:

POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.13-LO5: Account for scrap materials, spoiled goods, and defective work
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS:
Scrap, Spoiled Goods and Defective Work
OTHER:
Bloom's: Applying
60. Rowe Co.'s Job 401 for the manufacture of 2,200 wagons was completed during August at the unit costs presented below.

## CHAPTER 2: ACCOUNTING FOR MATERIALS

Direct labor
Factory overhead

| 18 |
| ---: |
| 14 |
| $\$ 56$ |

Final inspection of Job 401 disclosed 200 spoiled wagons that were sold to a jobber for $\$ 6,000$.
Assume that the spoilage loss is attributable to the exacting specifications of Job 401 and is charged to this specific job. What would be the journal entry to record the spoilage?
a. Factory Overhead
6,000
Work in Process
6,000
b. Spoiled Goods Inventory 6,000
Work in Process 6,000
c. Spoiled Goods Inventory 6,000
Factory Overhead 5,200
Work in Process
6,000
Factory Overhead 6,000

| ANSWER: | b |
| :---: | :---: |
| RATIONALE: | When the spoilage loss is charged to the specific job on which the spoilage occurred, the market value of the spoilage is charged to Spoiled Goods Inventory and the cost of the job in work in process is reduced by the same amount. |
| POINTS: | 1 |
| DIFFICULTY: | Moderate |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.13-LO5: Account for scrap materials, spoiled goods, and defective work |
| ACCREDITING STANDARDS: | AACSB Analytic <br> ACCT.AICPA.FN. 03 - Measurement <br> BUSPROG. 03 - Analytic <br> IMA-Cost Management |
| TOPICS: | Scrap, Spoiled Goods and Defective Work |
| OTHER: | Bloom's: Applying |

61. Rowe Co.'s Job 401 for the manufacture of 2,200 wagons was completed during August at the unit costs presented below.

| Direct materials | $\$ 24$ |
| :--- | ---: |
| Direct labor | 18 |
| Factory overhead | $\underline{14}$ |
|  | $\underline{\$ 56}$ |

Final inspection of Job 401 disclosed 200 spoiled wagons that were sold to a jobber for $\$ 6,000$.
Assume that spoilage loss is attributable to the exacting specifications of Job 401 and is charged to this specific job. What would be the unit cost of the good wagons produced on Job 401?
a. $\$ 56.00$
b. $\$ 58.60$
c. $\$ 53.00$
d. $\$ 48.18$

ANSWER:
b

## CHAPTER 2: ACCOUNTING FOR MATERIALS

| RATIONALE: | When the spoilage loss is charged to the specific job on which the spoilag cost of producing the good units includes the cost of producing all units received for the spoilage: $\frac{(2,200 \times \$ 56)-}{\frac{\$ 6,000}{2,000}}=\$ 58.60$ |
| :---: | :---: |
| POINTS: | 1 |
| DIFFICULTY: | Challenging |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.13-LO5: Account for scrap materials, spoiled goods, work |
| ACCREDITING STANDARDS: | AACSB Analytic <br> ACCT.AICPA.FN. 03 - Measurement <br> BUSPROG. 03 - Analytic <br> IMA-Cost Management |
| TOPICS: | Scrap, Spoiled Goods and Defective Work |
| OTHER: | Bloom's: Applying |
| 62. During March, Hart Company incurred the following costs on Job 122 for the manufacture of 200 motor |  |
| Original cost accumulation: |  |
| Direct materials | \$2,600 |
| Direct labor | 900 |
| Factory overhead | 1,350 |
|  | \$ 4,850 |
| Direct costs of reworking 10 units: |  |
| Direct materials $\quad$ \$ 100 |  |
| Direct labor 180 |  |
| Factory overhead $\quad \underline{270}$ |  |
|  | \$ 550 |

Assume the rework costs are to be spread over all jobs that go through the production cycle. What is the journal entry needed to record the rework costs?
$\begin{array}{ccc}\text { a. Work in Process } & 550 & \\ \text { Materials } & & 100 \\ \text { Payroll } & 180\end{array}$
$\begin{array}{ll}\text { Payroll } & 180 \\ \text { Factory Overhead } & 270\end{array}$
b. Materials
100
Payroll
180
Factory Overhead 270
Work in Process 550
c. Factory Overhead
Materials
550
100
Payroll 180
Factory Overhead 270
d. Spoiled Goods Inventory 550
Work in Process 550

ANSWER: c
RATIONALE: $\quad$ When the costs of correcting defective work is to be spread over all jobs, the material, labor and factory overhead costs are charged to Factory Overhead.
POINTS:

## CHAPTER 2: ACCOUNTING FOR MATERIALS

| DIFFICULTY: | Moderate |
| :---: | :---: |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.13-LO5: Account for scrap materials, spoiled goods, work |
| ACCREDITING STANDARDS: | AACSB Analytic <br> ACCT.AICPA.FN. 03 - Measurement <br> BUSPROG. 03 - Analytic <br> IMA-Cost Management |
| TOPICS: | Scrap, Spoiled Goods and Defective Work |
| OTHER: | Bloom's: Applying |
| 63. During April, Hisch Company incurred the following costs on Job A42 for the manufacture of 400 bo |  |
| Original cost accumulation: |  |
| Direct materials | \$ 4,200 |
| Direct labor | 2,500 |
| Factory overhead | 4,500 |
|  | \$11,500 |
| Direct costs of reworking 15 units: |  |
| Direct materials | \$ 150 |
| Direct labor | 90 |
| Factory overhead | 180 |
|  | \$ 420 |

If the defects resulted from the exacting specifications of the order, what is the journal entry needed to record the rework costs?


ANSWER:
RATIONALE:

POINTS:
DIFFICULTY:
LEARNING OBJECTIVES:
a
When the costs of correcting defective work is to due to the exacting specifications of the order, the material, labor and factory overhead costs are charged to that specific job in Work in Process.

## 1

Moderate
PRIN.EDWA.16.13-LO5: Account for scrap materials, spoiled goods, and defective work

ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement

## CHAPTER 2: ACCOUNTING FOR MATERIALS

BUSPROG. 03 - Analytic
IMA-Cost Management

TOPICS:
OTHER:

Scrap, Spoiled Goods and Defective Work
Bloom's: Applying
64. During March, Hart Company incurred the following costs on Job 122 for the manufacture of 200 motors:

Original cost accumulation:

| Direct materials | \$2,600 |
| :---: | :---: |
| Direct labor | 900 |
| Factory overhead | 1,350 |
|  | \$ 4,850 |
| Direct costs of reworking 10 units: |  |
| Direct materials | \$ 100 |
| Direct labor | 180 |
| Factory overhead | 270 |
|  | \$ 550 |

The rework costs were attributable to the exacting specifications of Job 122, and the full rework costs were charged to this specific job. What is the cost per finished unit of Job 122 ?
a. $\$ 25.00$
b. $\$ 23.50$
c. $\$ 27.00$
d. $\$ 24.00$

ANSWER: c
RATIONALE:

| Original cost | $\$ 4,850$ |
| :--- | ---: |
| Rework materials | 100 |
| Rework labor | 180 |
| Rework overhead | 270 |
| Total cost | $\underline{\underline{\$ 5,400}}$ |
| Unit cost $(\$ 5,400 / 200)$ | $\underline{\$ 27}$ |

POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.13-LO5: Account for scrap materials, spoiled goods, and defective work
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS: $\quad$ Scrap, Spoiled Goods and Defective Work
OTHER:
Bloom's: Applying
65. Xander Company anticipates that usage of Component T will be 100 units daily, which equates to around 25,000 for the year. The material is expected to cost $\$ 5$ per unit. Once an order is placed with its vendor, it takes five days to receive the goods, and the cost of placing each order is $\$ 50$. As a result, Xander keeps 1,000 units on hand to avoid stockouts. The carrying cost associated with each unit is $\$ 10$.
a. Compute the order point.
b. Determine the most economical order quantity.

ANSWER:

## CHAPTER 2: ACCOUNTING FOR MATERIALS

(a) Order point $=$ Expected usage during lead time + Safety stock

$$
=\quad(100 \text { units } \times 5 \text { days })+1,000
$$

$=1,500$ units
(b)

$$
\begin{aligned}
& \mathrm{EOQ}=\sqrt{\frac{2 \times \text { Order costs } \mathrm{x} \text { Annual demand }}{\text { Annual carrying cost per unit }}} \\
& \mathrm{EOQ}=\sqrt{\frac{2 \times \$ 50 \times 25,000}{\$ 10.00}}=500 \text { units }
\end{aligned}
$$

POINTS:
DIFFICULTY:
LEARNING OBJECTIVES: 1
Moderate
PRIN.EDWA.16.9-LO1: Recognize the two basic aspects of materials control
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Strategic Planning
TOPICS:
OTHER:

Materials Control
Bloom's: Applying
66. The Reddog Company predicts that 3,200 units of material will be used during the year. The expected daily usage is 15 units, there is an expected lead time of 10 days, and there is a safety stock of 200 units. The material is expected to cost $\$ 4$ per unit. It is estimated that it will cost $\$ 25$ to place each order. The annual carrying cost is $\$ 1$ per unit.
a. Compute the order point.
b. Determine the most economical order quantity by use of the formula.
c. Compute the total cost of ordering and carrying at the EOQ point.

## ANSWER:

$$
\text { (a) } \begin{aligned}
\text { Order point } & =\text { Expected usage during lead time }+ \text { Safety stock } \\
& =(15 \text { units } \times 10 \text { days })+200 \\
& =\underline{350 \text { units }}
\end{aligned}
$$

(b)

$$
\text { Annual carrving cost }=\quad \begin{aligned}
& \text { Average inventory } \times \\
& \text { Carrying cost per unit }
\end{aligned}
$$

$$
\begin{aligned}
& \mathrm{EOQ}=\sqrt{\frac{2 \times \text { Order costs } \mathrm{x} \text { Annual demand }}{\text { Annual carrying cost per unit }}} \\
& \mathrm{EOQ}=\sqrt{\frac{2 \times \$ 25 \times 3,200}{\$ 1.00}}=400 \text { units } \\
& \text { (c) }{ }^{\text {Annual }} \text { ordering cost }=\underset{\text { Cost per order }}{\text { Number ord } \times} \\
& =\text { Cost per order } \\
& =\frac{3,200 \text { Annual usage }}{400 \mathrm{EOQ}} \times \$ 25 \\
& =8 \times \$ 25=\$ 200
\end{aligned}
$$

## CHAPTER 2: ACCOUNTING FOR MATERIALS

| Average |  |  |
| :--- | :--- | :--- |
| inventory | $=(1 / 2 \times \mathrm{EOO})$ | + |
|  | $=(1 / 2 \times 400)$ | + |

Annual

$$
\text { carrying cost }=400 \times \$ 1.00=\$ 400
$$

POINTS:
DIFFICULTY:
LEARNING OBJECTIVES: 1 Challenging
PRIN.EDWA.16.9-LO1: Recognize the two basic aspects of materials control
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Strategic Planning
TOPICS:
Materials Control
OTHER:
Bloom's: Analyzing
67. For the following materials control forms, please indicate the following:
a. who prepares the form;
b. who receives the form; and
c. the form's intended purpose.

1. Purchase Requisition
2. Materials Requisition
3. Receiving Report
4. Purchase Order
5. Debit/Credit Memo

ANSWER:

| Materials Control <br> Form | Preparer | Receiver |
| :---: | :---: | :---: |
| Purchase requisition | Storeroom keeper | Purchasing agent |
| Materials requisition | Production |  |
| department supervisorStoreroom keeper |  |  |

## CHAPTER 2: ACCOUNTING FOR MATERIALS

|  | details |
| :--- | :--- |
| Debit/Credit memo Potify vendor of |  |
| To Purchasing agent $\quad$ Vendor (supplier) | discrepancies in <br> shipments |


| POINTS: | 1 |
| :--- | :--- |
| DIFFICULTY: | Moderate |
|  |  |
| LEARNING OBJECTIVES: | PRIN.EDWA. 16.10 - LO2: Specify in |
| ACCREDITING STANDARDS: | AACSB Reflective Thinking |
|  | ACCT.AICPA.FN.03-Measurement |
|  | BUSPROG.06-Reflective Thinking |
|  | IMA-Cost Management |
| Materials Control Procedures |  |

Assuming that Lankford Company maintains perpetual inventory records, calculate the cost of the ending inventory at January 31 and the cost of the units issued in January using the FIFO method.
ANSWER:

| Received |  | Unit Price | Amount | Issued |  | Amount | Balance |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Unit |  |  | Unit |  |
| Date | Quantity |  |  | Quantity | Price |  | Quantity | Price | Amount |
| 1/1 |  |  |  |  |  |  | 190 | 30 | 5,700 |
| 1/5 | 130 | 32 | 4,160 |  |  |  | 190 | 30 |  |
|  |  |  |  |  |  |  | 130 | 32 | 9,860 |
| 1/18 |  |  |  | 190 | 30 | 5,700 |  |  |  |
|  |  |  |  | 50 | 32 | 1,600 | 80 | 32 | 2,560 |
| 1/20 | 210 | 35 | 7,350 |  |  |  | 80 | 32 |  |
|  |  |  |  |  |  |  | 210 | 35 | 7,350 |
| 1/30 |  |  |  | 70 | 32 | 2,240 | 10 | 32 |  |
|  |  |  |  |  |  |  | 210 | 35 | 7,670 |

Ending Inventory:
220 units having a total cost of 7,670 (10 units x \$32) + (210 units x\$210)
Cost of Units Issued:
310 units having a total cost of $\$ 9,540(5,700+1,600+2,240)$

POINTS:
DIFFICULTY:
LEARNING OBJECTIVES:

1
Moderate
PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger

## CHAPTER 2: ACCOUNTING FOR MATERIALS

ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 04 - Reporting
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS:
Accounting for Materials
OTHER:
Bloom's: Applying
69. The materials account of Hetzer Industries reflected the following changes during May :

Balance, May 1
Received, May 2
Issued, May 4
Received, May 27
Issued, May 31

```
180 units @ $30
60 units @ $32
80 units
100 units @ $34
150 units
```

Assuming that Hetzer maintains perpetual inventory records, calculate the cost of the ending inventory at May 31 and the cost of the units issued in May using the LIFO method. ANSWER:

| ANSWER. | Received |  | Unit |  | Issued |  |  |  | Balance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Unit |  |
|  | Date | Quantity |  |  | Price | Amount | Quantity Unit | Price | Amount | Quantity | Price | Amount |
|  | 5/1 |  |  |  |  |  |  | 180 | 30 | 5,400 |
|  | 5/2 | 60 | 32 | 1,920 |  |  |  | 180 | 30 |  |
|  |  |  |  |  |  |  |  | 60 | 32 | 7,320 |
|  | 5/4 |  |  |  | 20 | 30 | 600 |  |  |  |
|  |  |  |  |  | 60 | 32 | 1,920 | 160 | 30 | 4,800 |
|  | 5/27 | 100 | 34 | 3,400 |  |  |  | 160 | 30 |  |
|  |  |  |  |  |  |  |  | 100 | 34 | 8,200 |
|  | 5/31 |  |  |  | 50 | 30 | 1,500 |  |  |  |
|  |  |  |  |  | 100 | 34 | 3,400 | 110 | 30 | 3,300 |

Ending Inventory:
110 units having a total cost of $\$ 3,300(110 \times \$ 30)$
Cost of Units Issued:
230 units having a total cost of \$7,420 (600 + 1,920 + 1,500 + 3,400)
POINTS: 1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 04 - Reporting
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS:
Accounting for Materials
OTHER:
Bloom's: Applying
70. The materials account of the Herbert Company reflected the following changes during August:

Balance, August 1
Received, August 2
Cengage Learning Testing, Powered by Cognero

```
18 units @ $200
6 units @ $210
```

CHAPTER 2: ACCOUNTING FOR MATERIALS
Issued, August 8
8 units

## CHAPTER 2: ACCOUNTING FOR MATERIALS

Received, August $15 \quad 10$ units @ \$222
Issued, August 27
15 units
Assuming that Herbert Company maintains perpetual inventory records, calculate the cost of the ending inventory at August 31 and the cost of the units issued in August using the moving average method.
ANSWER:


Ending Inventory:
11 units having a total cost of $\$ 2,310$
Cost of Units Issued:
23 units having a total cost of $\$ 4,770(1,620+3,150)$
Unit cost calculations:
$\$ 4,860 / 24=\$ 202.50$
$\$ 5,460 / 26=\$ 210.00$
POINTS:
DIFFICULTY:
LEARNING OBJECTIVES:
1
Moderate
PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 04 - Reporting
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS:
Accounting for Materials
OTHER:
Bloom's: Applying
71. The materials account of the Flynn Company reflected the following changes during May:

Balance, May 1
Received, May 5
Issued, May 10
Received, May 15
Issued, May 25

```
500 units @ $10
300 units @ $12
400 units
200 units @ $15
300 units
```

Assuming that Flynn Company maintains perpetual inventory records, calculate the ending inventory at May 31 and the cost of the units issued in May using each of the following methods:
(a) First in, first out (FIFO)
(b) Last in, first out (LIFO)
(c) Moving average

ANSWER:
(a) FIFO:


## CHAPTER 2: ACCOUNTING FOR MATERIALS

| 5/5 | 300 | \$12 | \$3,600 |  |  |  | 500 | 10 | 8,600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 300 | 12 |  |
| 5/10 |  |  |  | 400 | \$10 | \$4,000 | 100 | 10 |  |
|  |  |  |  |  |  |  | 300 | 12 | 4,600 |
| 5/15 | 200 | 15 | 3,000 |  |  |  | 100 | 10 |  |
|  |  |  |  |  |  |  | 300 | 12 |  |
|  |  |  |  |  |  |  | 200 | 15 | 7,600 |
| 5/25 |  |  |  | 100 | 10 | 1,000 |  |  |  |
|  |  |  |  | 200 | 12 | 2,400 | 100 | 12 |  |
|  |  |  |  |  |  |  | 200 | 15 | 4,200 |

Ending Inventory: 300 units having a total cost of \$4,200 (100 units x $\$ 12$ ) + (15 units x $\$ 15$ )

Cost of Units Issued:
700 units having a total cost of $\$ 7,400(4,000+1,000+2,400)$
(b) LIFO:

| Received |  | Unit Price | Issued |  |  |  |  | Balance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Quantity |  | Amount | Quantity Unit | Price | Amount | Quantity | Unit Price | Amount |
| 5/1 |  |  |  |  |  |  | 500 | 10 | 5,000 |
| 5/5 | 300 | 12 | 3,600 |  |  |  | 500 | 10 |  |
|  |  |  |  |  |  |  | 300 | 12 | 8,600 |
| 5/10 |  |  |  | 100 | 10 | 1,000 |  |  |  |
|  |  |  |  | 300 | 12 | 3,600 | 400 | 10 | 4,000 |
| 5/15 | 200 | 15 | 3,000 |  |  |  | 400 | 10 |  |
|  |  |  |  |  |  |  | 200 | 15 | 7,000 |
| 5/25 |  |  |  | 100 | 10 | 1,000 |  |  |  |
|  |  |  |  | 200 | 15 | 3,000 | 300 | 10 | 3,000 |

Ending Inventory:
300 units having a total cost of $\$ 3,000(300 \times \$ 10)$
Cost of Units Issued:
700 units having a total cost of $\$ 8,600(1,000+3,600+1,000+3,000)$
(b) Moving Average:

| Received |  | Unit Price | Amount | Issued |  |  |  | Balance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Quantity |  |  | Quantity | Unit Price | Amount | Quantity | Unit Price | Amount |
| 5/1 |  |  |  |  |  |  | 500 | 10 | 5,000 |
| 5/5 | 300 | 12 | 3,600 |  |  |  | 800 | 10.75 | 8,600 |
| 5/10 |  |  |  | 400 | 10.75 | 4,300 | 400 | 10.75 | 4,300 |
| 5/15 | 200 | 15 | 3,000 |  |  |  | 600 | 12.17 | 7,300 |
| 5/25 |  |  |  | 300 | 12.17 | 3,650 | 300 | 12.17 | 3,650 |

Ending Inventory:
300 units having a total cost of \$3,650
Cost of Units Issued:
700 units having a total cost of $\$ 7,950(4,300+3,650)$

## CHAPTER 2: ACCOUNTING FOR MATERIALS

Unit cost calculations:

## CHAPTER 2: ACCOUNTING FOR MATERIALS

|  | $\$ 8,600 / 800=\$ 10.75$ |
| :--- | :--- |
|  | $\$ 7,300 / 600=\$ 12.16667$ |
| POINTS: | 1 |
| DIFFICULTY: | Challenging |
| LEARNING OBJECTIVES: | PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the |
|  | general ledger |
| ACCREDITING STANDARDS: | AACSB Analytic |
|  | ACCT.AICPA.FN. $04-$ Reporting |
|  | BUSPROG.03 - Analytic |
| TOPICS: | IMA-Cost Management |
| OTHER: | Accounting for Materials |
|  | Bloom's: Applying |

72. The following accounts are maintained by the Sprague Manufacturing Company in its general ledger: Materials, Work in Process, Factory Overhead, and Accounts Payable. The materials account had a debit balance of $\$ 40,000$ on November 1. A summary of material transactions for November shows:
(1) Materials purchased on account, $\$ 62,000$
(2) Direct materials issued, $\$ 58,500$
(3) Direct materials returned to storeroom, $\$ 1,200$
(4) Indirect materials issued, \$3,600
(5) Indirect materials returned to storeroom, \$550
(6) Materials on hand were $\$ 200$ less than the stores ledger balance
a. Prepare journal entries to record the materials transactions.
b. Post the journal entries to T-accounts.
c. What is the balance of the materials account on November 30?

ANSWER:

| (a) (1) | Materials | 62,000 |  |
| :---: | :---: | :---: | :---: |
|  | Accounts Payable |  | 62,000 |
| (2) | Work in Process Materials | 58,500 | 58,500 |
| (3) | Materials Work in Process | 1,200 | 1,200 |
| (4) | Factory Overhead Materials | 3,600 | 3,600 |
| (5) | Materials Factory Overhead | 550 | 550 |
| (6) | Factory Overhead Materials | 200 | 200 |

(b)

| Materials |  |  |  |  |
| :--- | ---: | :--- | ---: | ---: |
| Payable |  |  |  |  |
| Bal. | 40,000 | $(2)$ | 58,500 |  |
| (1) | 62,000 | $(4)$ | 3,600 |  |
| $(3)$ | 1,200 | $(6)$ | 200 |  |
| $(5)$ | 550 |  |  |  |

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## CHAPTER 2: ACCOUNTING FOR MATERIALS

POINTS:
DIFFICULTY:
LEARNING OBJECTIVES:
1


ACCREDITING STANDARDS:
PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS: Accounting for Materials
OTHER: Bloom's: Applying
73. The following decisions and transactions were made for the Sanders Company in May:

May 1 The production manager informed the storeroom keeper that the forecasted usage of Component X is 3,000 units. There are 1,500 units on hand, each having a unit cost of $\$ 20$. The company maintains a minimum stock of 1,000 units. The storeroom keeper notifies the purchasing agent that the company will need 2,500 units of X to meet May's production needs and maintain a minimum inventory of 1,200 units.

May 3 The purchasing agent checks with a number of vendors and orders 2,500 units of Component X. Unfortunately, the price has gone up to $\$ 25$.

May 7 The shipment of Component X is received and inspected. The units are in good condition and the company received the number of units it ordered.

May 9 The invoice covering Component X is received from the vendor and approved for payment.
May 21 The May 9 invoice is paid in full.
May 31 During the month, 2,950 units of Component X are issued to production. The company uses FIFO costing and a job order cost system.

May 31 An inventory of the storeroom is taken at the end of the day and there are 1,040 units of Component X on hand.
(a) Prepare a table to answer the following questions:
(1) What forms, if any, were used?
(2) What entry, if any, was recorded?
(b) Calculate the balance in the Materials account at May 31. ANSWER:

Date $\quad$ Form $\quad$ Account $\quad \underline{\text { Debit }}$
May 1 Purchase requisition No entry
May 3 Purchase order No entry
May 7 Receiving report No entry

## CHAPTER 2: ACCOUNTING FOR MATERIALS

| May 9 | None | Materials Accounts Payable | 62,500 |
| :---: | :---: | :---: | :---: |
| May 21 | Approved voucher | Accounts Payable * Cash | 62,500 |
| May 31 | Materials requisition | Work in Process ** Materials | 66,250 |
| May 31 | Inventory report | Factory Overhead *** Materials | 250 |
| ** FIFO Basis: |  |  |  |
| Beginnin | Inventory | 1,500 units @ \$20 | \$30,000 |
| Received |  | $\underline{2.500}$ units @ \$25 | $\underline{62.500}$ |
| Total ava | lable | 4,000 units | 92,500 |
| Issued (2, | 950 units) | $\begin{aligned} & (1,500) \text { units @ } \$ 20 \\ & (1,450) \text { units @ } \$ 25 \end{aligned}$ | $\begin{aligned} & (30,000) \\ & (36,250) \end{aligned}$ |
| Per perp | ual records @ 5/31 | 1,050 ${ }^{-}$units @ \$25 | 26,250 |
| Per phys | al inventory @ 5/31 | $\underline{1}, 040$ units |  |
| Inventory | adjustment needed | 10 units @ \$25 |  |
| $* *(1,500 \times \$ 20)+(1,450 \times \$ 25)=\$ 66,250$$* * * 10 \times \$ 25=\$ 250$ |  |  |  |
| (b) Units in inventory at May $31=1,040$ units @ \$25 $=\$ 26,000$ per above |  |  |  |

POINTS: 1
DIFFICULTY:Challenging

LEARNING OBJECTIVES:
PRIN.EDWA.16.10-LO2: Specify internal control procedures for materials
PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS: Materials Control Procedures
Accounting for Materials
OTHER:
Bloom's: Analyzing
74. The Outdoor Manufacturing Company produces sporting equipment. The company maintains a single raw materials inventory account for both direct and indirect materials. The following information came from the factory ledger accounts for December:

| Raw Materials, December 1 | 45,500 |
| :--- | ---: |
| Work in Process, December 1 | 125,000 |
| Finished Goods, December 1 | 175,000 |
| Raw materials purchases (during December) | 623,000 |
| Direct labor | 435,000 |
| Repairs and maintenance | 37,200 |
| Indirect materials | 16,700 |
| Utilities | 63,200 |

## CHAPTER 2: ACCOUNTING FOR MATERIALS

Indirect labor
38,200
Supervisors' salaries $\quad 18,300$
Raw Materials, December 31 43,600
Work in Process, December 31 135,000
Finished Goods, December $31 \quad 150,000$
Compute the cost of direct materials used during the month of December.
ANSWER:

| Raw materials inventory, December 1 | \$ 45,500 |
| :---: | :---: |
| Raw materials purchases | 623,000 |
| Total materials available | \$668,500 |
| Less: Raw materials inventory, December 31 | 43,600 |
| Raw materials used | \$ 624,900 |
| Less: Indirect materials used | 16,700 |
| Direct materials used | \$608,200 |

Instructor Note: This question relates concepts from chapter 2 to those learned in chapter 1.

POINTS: 1
DIFFICULTY: Challenging
LEARNING OBJECTIVES: PRIN.EDWA.16.11-LO3: Account for materials and relate materials accounting to the general ledger
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS: Accounting for Materials
OTHER: Bloom's: Creating
75. Skeeter Company produces 100,000 insect repellent devices each day, and the average number of units in work in process is 150,000 , with an average value of $\$ 300,000$. The average annual carrying cost percentage is $30 \%$.
a. Determine the throughput time.
b. Compute the annual carrying cost.
c. If the same daily output can be achieved while reducing the work in process by $40 \%$, determine the new throughput time.
d. Compute the annual carrying cost given the information in requirement c .

ANSWER:
a. $150,000 / 100,000=1.5$ days
b. $\$ 300,000 \times 30 \%=\$ 90,000$
c. $150,000 \times 40 \%=60,000$ unit reduction
$(150,000-60,000) / 100,000=.9$ days
d. $30 \%$ carrying cost $x((1-.4) \times \$ 90,000)=\$ 16,200$

POINTS: 1
DIFFICULTY: Challenging
LEARNING OBJECTIVES: PRIN.EDWA.16.12-LO4: Account for inventories in a just-in-time (lean production) system
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Strategic Planning
TOPICS: Just-in-Time Materials Control

## CHAPTER 2: ACCOUNTING FOR MATERIALS

OTHER:
Bloom's: Analyzing
76. Omari Assembly, Inc., which uses backflush costing, had the following transactions during the month of October :
(a) Purchased raw materials on account, $\$ 700,000$.
(b) Requisitioned raw materials to production, $\$ 700,000$.
(c) Distributed direct labor costs, $\$ 105,000$.
(d) Manufacturing overhead incurred, $\$ 215,000$. (Use Various Credits for the account in the credit part of the entry.)
(e) Completed all goods.
(f) Sold goods for $\$ 1,500,000$ on account.

Prepare journal entries to record the above transactions.
ANSWER:
$\begin{array}{ll}\text { (a) Raw and In-Process } \\ \text { Accounts Payable } & 700,000 \\ 700,000\end{array}$
(b) No entry
(c) Conversion Costs 105,000 Payroll
(d) Conversion Costs

215,000
Various Credits
1,020,000
(e) Finished Goods

Raw and In-Process
1,020,000
(f) Accounts Receivable 1,500,000 Sales 1,500,000
Cost of Goods Sold
1,020,000
Finished Goods 1,020,000
POINTS:
1
DIFFICULTY: Moderate
LEARNING OBJECTIVES: PRIN.EDWA.16.12-LO4: Account for inventories in a just-in-time (lean production) system
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS: Just-in-Time Materials Control
OTHER: Bloom's: Applying
77. Gilday Furniture Inc. produces custom furniture. Wood chips are an inevitable by-product of the cutting process, and are considered scrap. Gilday is unable to use this scrap; however, the company has an agreement to sell the scrap at market prices to a local company that processes the wood chips to make industrial fillers.

Record the entries required for scrap under each of the following conditions:
(a) The revenue received for scrap is to be treated as other income. The market value of wood chips is stable and is currently $\$ 200$ per ton. The company has seven tons on hand.

## CHAPTER 2: ACCOUNTING FOR MATERIALS

(b) The revenue received for scrap is to be treated as a reduction in manufacturing cost, but cannot be identified with a specific job. A firm price is not determinable for the scrap until it is sold. It is eventually sold for cash of $\$ 800$.
(c) The revenue received for scrap is to be treated as a reduction in manufacturing cost, and five tons of scrap are related to a special job where the company made numerous round tables. The market value of wood chips is stable and is currently $\$ 200$ per ton.

| ANSWER: |  | Scrap Materials Scrap Revenue | 1,400 | 1,400 |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Cash (or Accounts Receivable) Scrap Materials | 1,400 | 1,400 |
|  |  | Cash (or Accounts Receivable) <br> Factory Overhead | 800 | 800 |
|  |  | Scrap Materials Work in Process | 1,000 | 1,000 |
|  |  | Cash (or Accounts Receivable) Scrap Materials | 1,000 | 1,000 |
| POINTS: | 1 |  |  |  |
| DIFFICULTY: | Mod | rate |  |  |
| LEARNING OBJECTIVES: P | $\begin{aligned} & \text { PRII } \\ & \text { worl } \end{aligned}$ | EDWA.16.13-LO5: Account for | goods, | fective |
| ACCREDITING STANDARDS: | AAC <br> ACC <br> BUS <br> IMA | B Analytic <br> .AICPA.FN. 03 - Measurement ROG. 03 - Analytic Cost Management |  |  |
| TOPICS: S | Scrap | Spoiled Goods and Defective W |  |  |
| OTHER: B | Bloo | 's: Applying |  |  |

78. Moreland Corporation manufactures bells and whistles. In June, 6,000 bells were completed on Job Order No. BX46. On final inspection, 400 bells were rejected and transferred to the spoiled goods inventory to be sold at $\$ .50$ each.

Costs recorded on Job Order No. BX46 follow:
Direct materials $\quad \$ 2,400$
Direct labor $\quad 2,100$
Factory overhead 1,200
Prepare the journal entries to record the following:
a. Charges for materials, labor, and factory overhead for Job Order No. BX46
b. Cost of the spoiled work, the transfer of the cost of the good toys to Finished Goods, and the sale of the imperfect toys, if the loss on spoilage is charged to all jobs worked on during the period
c. Cost of the spoiled work, the transfer of the cost of the good bells to Finished Goods, and the sale of the imperfect ones, if the loss on spoilage is to be charged to Job Order No. BX46 only. (Round the new unit cost to the nearest whole cent, and assume part b , above, has not occurred.)
ANSWER:
(a) Work in Process 5,700

## CHAPTER 2: ACCOUNTING FOR MATERIALS


79. Kami company manufactures engine components. During the previous month, the Company manufactured 12,000 units of Component XRB for Job 3524 and incurred the following unit costs:

| Direct materials | $\$ 32.00$ |
| :--- | ---: |
| Direct labor | 9.00 |
| Factory overhead | 6.00 |

When the units were tested after production, 300 units did not meet specifications and needed further polishing work. The unit cost of correcting the defects was:

Direct labor 3.00
Factory overhead

$$
2.00
$$

a. Prepare the journal entries to record the cost to correct the defective work under each of the following scenarios:

1. If the cost of correcting the defective work is spread over all jobs that go through the production cycle

## CHAPTER 2: ACCOUNTING FOR MATERIALS

2. If the defects resulted from the exacting specifications of Job 3524
b. Under Scenario 2 above, calculate the cost per unit of Job 3524.

## ANSWER:

(a.)
(1.)Factory Overhead $((\$ 3.00+2.00) \times 300) \quad 1,500$

Payroll (direct labor) ( $\$ 3.00 \times 300$ )
Factory Overhead ( $\$ 2.00 \times 300$ )
(2.)Work in Process (Job 3524) 1,500

Payroll
Factory Overhead 600
(b.)

Number of units produced 12,000
Original cost per unit $(\$ 32.00+9.00+6.00)$ \$ 47.00
Total original cost
\$564,000
Plus cost of correcting defective work

Total cost of Job 3524
$\$ 565,500$
Cost per unit of Job 3524 (\$565,500 / 12,000)
$\$ 47.125$

POINTS:
DIFFICULTY:
LEARNING OBJECTIVES:
1
Moderate
PRIN.EDWA.16.13-LO5: Account for scrap materials, spoiled goods, and defective work
ACCREDITING STANDARDS: AACSB Analytic
ACCT.AICPA.FN. 03 - Measurement
BUSPROG. 03 - Analytic
IMA-Cost Management
TOPICS: Scrap, Spoiled Goods and Defective Work
OTHER: Bloom's: Applying


[^0]:    Accounts
    | (1) 62,000

