

|                                 |   |
|---------------------------------|---|
| <b>ACCOUNTING</b>               | <b>Lesson: Notes, Tasks and solutions</b> |
| <b>Inventory Control System</b> |   |

### Learning Outcome 3: Managing Resources

11.3.4 Record transactions in the subsidiary journals and ledgers, utilising the periodic inventory system and compare it to the perpetual inventory system

#### What is Periodic Inventory system?

A **periodic inventory system** is a method of finding the value of merchandise at periodic intervals by taking a physical count of the stock. It provides inventory and cost of goods sold data only when inventory is counted (for example, at year end).

- Inventory purchase or sale is recorded in "Purchases" account.
- There is no continuous recording of trading stock movement. Trading Stock account is updated on a periodic basis, at the end of each accounting period (e.g., monthly, quarterly).
- It is not possible to ascertain from the books/inventory accounts, what the stock on hand should be.
- Costs of materials used and costs of goods sold cannot be calculated until stock at the end, determined by physical count, are subtracted from the sum of opening stock and purchases.
- The stock on hand is counted periodically, usually at the end of the accounting period.

#### Example 1:

On May 1, 2006: Purchased 1000 units of goods at R30 per unit. On May 6, 2006: Sold 200 units of goods at R50 per unit on credit. Record the transaction in the subsidiary journal and post to the purchases, sales, debtors and creditors accounts.

#### Periodic inventory system

|          |                   | Debit  | Credit |
|----------|-------------------|--------|--------|
| 1/5/2006 | Purchases         | 30 000 |        |
|          | Creditors Control |        | 30 000 |

\* Under periodic inventory system, all purchases during the accounting period are recorded in the "Purchases" account.

|          |                 | Debit  | Credit |
|----------|-----------------|--------|--------|
| 6/5/2006 | Debtors Control | 10 000 |        |
|          | Sales           |        | 10 000 |

\* Under periodic inventory system, the following journal entry is recorded at the end of accounting period.

|         |               |        |        |
|---------|---------------|--------|--------|
| 31/5/06 | Trading stock | 24 000 |        |
|         | Purchases     |        | 24 000 |

Quantity of merchandise on hand: = 1,000 units purchased - 200 units sold = 800 units left

Cost of merchandise on hand: = 800 units x R30 per unit cost = R24 000

|         |                    |       |       |
|---------|--------------------|-------|-------|
| 31/5/06 | Cost of goods sold | 6 000 |       |
|         | Purchases          |       | 6 000 |

Note: The **periodic inventory adjustment** at the end of the period adjusts inventory to the physical count, closes out any purchase accounts, and runs any difference through cost of goods sold.

**Cost of goods sold:** = Total purchases - stock at the end  
= 1,000 units x R30 per unit cost - 800 units x R30 per unit cost  
= R30 000 - R24 000 = R6 000

#### Stock on hand at the end and Cost of goods of sold:

**Stock at the end:** = Beginning stock + Purchases during the period - Cost of goods sold  
= R0 + R30 000 - R6 000 = R24 000

**Cost of goods sold:** = Beginning stock + Purchases during the period - Ending stock  
= R0 + R30 000 - R24 000 = R6 000

## POSTING TO THE LEDGER

| Dr     |                   | Purchases Account |        |  |  | Cr |  |
|--------|-------------------|-------------------|--------|--|--|----|--|
| 1/5/06 | Creditors control | CJ                | 30 000 |  |  |    |  |
|        |                   |                   |        |  |  |    |  |

| Dr |  | Creditors Control account |  |        |           | Cr |        |
|----|--|---------------------------|--|--------|-----------|----|--------|
|    |  |                           |  | 1/5/06 | Purchases | GJ | 30 000 |
|    |  |                           |  |        |           |    |        |

| Dr     |       | Debtors Control Account |        |  |  | Cr |  |
|--------|-------|-------------------------|--------|--|--|----|--|
| 6/5/06 | Sales | GJ                      | 10 000 |  |  |    |  |
|        |       |                         |        |  |  |    |  |

| Dr      |                 | Sales Account |        |        |                 | Cr |        |
|---------|-----------------|---------------|--------|--------|-----------------|----|--------|
| 31/5/06 | Trading Account |               | 10 000 | 6/5/06 | Debtors Control | DJ | 10 000 |
|         |                 |               |        |        |                 |    |        |

### Advantages

- This system is not costly and less work.

### Disadvantages

- Profit or loss is determined only at the end of period.
- Stock loss/gain is only noticed at the end of year when the physical count of the inventory is taken.
- Lacks readily available inventory data
- Sales revenues is booked when a sale is made, but not cost of goods sold
- Records documenting quantity and per unit cost of individual inventory items are not maintained
- Stock on hand is determined via a physical count, and then cost of goods sold is worked out.

### TASK

1. On June 5, 2006: Purchased 600 units of merchandise at R35 per unit. On June 16, 2006: sold 400 units of merchandise at R55 per unit on credit.

Required: Use periodic inventory system to record the above transaction in the subsidiary journal and post to the **purchases, sales, creditors and debtors ledger** accounts.

## SUMMARY: COMPARISON BETWEEN PERPETUAL AND PERIODIC INVENTORY SYSTEMS

### Entries in the general ledger when the two systems are used

| NO | TRANSACTION   | PERPETUAL INVENTORY SYSTEM |                         | PERIODIC INVENTORY SYSTEM |                        |
|----|---|----------------------------|-------------------------|---------------------------|------------------------|
|    |   | Debit                      | Credit                  | Debit                     | Credit                 |
| 1  | Credit purchases of merchandise                         | Trading stock              | Creditors control       | Purchases                 | Creditors control      |
| 2  | Merchandise purchases by cheque                         | Trading stock              | Credit Bank             | Purchases                 | Credit Bank            |
| 3  | Merchandise returned to suppliers /purchases returns    | Creditors control          | Trading stock           | Creditors control         | Creditors allowances   |
| 4  | Carriage on purchases – merchandise for credit/for cash | Trading stock              | Bank/ creditors control | Carriage on purchases     | Bank/creditors control |
| 5  | Merchandise withdrawn for personal use                  | Drawings                   | Trading stock           | Drawings                  | Purchases              |
| 6  | Credit sales of merchandise                             | Debtors control            | Sales                   | Debtors control           | Sales                  |
|    |   | Cost of sales              | Trading stock           | No entry                  | No entry               |
| 7  | Merchandise returned by                                 | Debtors                    | Debtors control         | Debtors                   | Debtors control        |

|  |                         |               |               |            |  |
|--|-------------------------|---------------|---------------|------------|--|
|  | customers/sales returns | allowances    |               | allowances |  |
|  |                         | Trading stock | Cost of sales |            |  |

**COMPLETED THE TASK? SOLUTION**

**TASK:**

On June 5, 2006: Purchased 600 units of merchandise at R35 per unit. On June 16, 2006: Sold 400 units of merchandise at R55 per unit on credit.

**Periodic inventory system**

|          |                   | Debit  | Credit |
|----------|-------------------|--------|--------|
| 5/6/2006 | Purchases         | 21 000 |        |
|          | Creditors Control |        | 21 000 |

\* Under periodic inventory system, all purchases during the accounting period are recorded in the "Purchases" account.

|           |                 | Debit  | Credit |
|-----------|-----------------|--------|--------|
| 16/6/2006 | Debtors Control | 22 000 |        |
|           | Sales           |        | 22 000 |

\* Under periodic inventory system, the following journal entry is recorded at the end of accounting period.

|         |               |       |       |
|---------|---------------|-------|-------|
| 30/6/06 | Trading stock | 7 000 |       |
|         | Purchases     |       | 7 000 |

Quantity of merchandise on hand: = 600 units purchased - 400 units sold = 200 units left

Cost of merchandise on hand: = 200 units x R35 per unit cost = R7 000

|         |                    |        |        |
|---------|--------------------|--------|--------|
| 30/6/06 | Cost of goods sold | 14 000 |        |
|         | Purchases          |        | 14 000 |

Note: The periodic inventory adjustment at the end of the period adjusts inventory to the physical count, closes out any purchase accounts, and runs any difference through cost of goods sold.

**Cost of goods sold:** = Total purchases - stock at the end  
= 600 units x R35 per unit cost - 200 units x R35 per unit cost  
= R21 000 - R14 000 = R7 000

**Stock on hand at the end and Cost of goods of sold:**

**Stock at the end:** = Beginning stock + Purchases during the period - Cost of goods sold  
= R0 + R21 000 - R7 000 = R14 000

**Cost of goods sold:** = Beginning stock + Purchases during the period - Ending stock  
= R0 + R21 000 - R14 000 = R7 000

**POSTING TO THE LEDGER**

| Dr     |                   | Purchases Account |        |  |  | Cr |  |
|--------|-------------------|-------------------|--------|--|--|----|--|
| 1/5/06 | Creditors control | CJ                | 21 000 |  |  |    |  |
|        |                   |                   |        |  |  |    |  |

| Dr |  | Creditors Control account |  |        |           | Cr |        |
|----|--|---------------------------|--|--------|-----------|----|--------|
|    |  |                           |  | 1/5/06 | Purchases | GJ | 21 000 |
|    |  |                           |  |        |           |    |        |

| Dr     |       | Debtors Control Account |        |  |  | Cr |  |
|--------|-------|-------------------------|--------|--|--|----|--|
| 6/5/06 | Sales | GJ                      | 22 000 |  |  |    |  |
|        |       |                         |        |  |  |    |  |

| Dr |  | Sales Account |  |        |                 | Cr |        |
|----|--|---------------|--|--------|-----------------|----|--------|
|    |  |               |  | 6/5/06 | Debtors Control | DJ | 22 000 |
|    |  |               |  |        |                 |    |        |