PERPETUAL AND PERIODIC INVENTORY METHODS

Key Topics to Know

Perpetual Inventory Method

- Perpetual inventory method records all inventory-related transactions in one account, Merchandise Inventory
- Perpetual inventory method records cost of goods sold each time a sales transaction occurs.
- Merchandise inventory account always shows the current balance of inventory on hand

Periodic Inventory Method

- Periodic inventory method records each type of inventory-related transaction in a separate account.
- Periodic inventory method records cost of goods sold only at the end of the accounting period, based on a physical inventory
- Merchandise inventory account always shows the balance of inventory on hand at the beginning of the current period. Only at the end of the period when all of the purchases, purchase discounts, freight-in, purchase returns and cost of goods sold accounts are closed into merchandise inventory will the balance at the end of the period be created
- End of period entry would be:

Purchase discounts		xxx	
Purchase returns		xxx	
	Purchases		xxx
	Freight-in		xxx
Cost of goods sold		xxx	
Merchandise inventory *(If MI increased)*		xxx	
OR			
	Merchandise inventory *(If MI decreased)*		xxx

Physical inventory

- Required of all companies with inventory, regardless of the inventory method used
- Verifies the balance in the general ledger for perpetual inventory method.
- Determines the balance in the merchandise inventory account and is used to calculate cost of goods sold under periodic inventory
- Helps to determine any missing inventory and/or accounting errors in the inventory account

Practice Problems

Problem #1 - Purchase related transactions

K Company purchased $5,800 of merchandise on credit, with terms 1/10, n/30, FOB shipping point. The shipping cost of $150 was paid upon receipt of the goods. $100 of merchandise was returned prior to paying for the goods.

Required: If K Company uses a perpetual inventory system:

a) What is the journal entry recorded for the purchase?
b) What is the journal entry recorded for the shipping cost?
c) What is the journal entry recorded for the return?

If K Company uses a periodic inventory system:

d) What is the journal entry recorded for the purchase?
e) What is the journal entry recorded for the shipping cost?
f) What is the journal entry recorded for the return?

Problem #2 - Sale related transactions

K Company sold inventory costing $1,400 of on credit, with terms 2/10, n/30, FOB destination. The shipping cost of $100 was paid upon shipment of the goods. The buyer returned $250 of merchandise prior to paying for the goods.

Required: If K Company uses a perpetual inventory system:

a) What is the journal entry recorded for the sale?
b) What is the journal entry recorded for the shipping cost?
c) What is the journal entry recorded for the return?

If K Company uses a periodic inventory system:

d) What is the journal entry recorded for the sale?
e) What is the journal entry recorded for the shipping cost?
f) What is the journal entry recorded for the return?

Problem #3 – Inventory terms and Concepts

Terms:

1. Inventory
2. Purchase Discount
3. Purchase Returns and Allowances
4. Sales Discount
5. Sales Returns & Allowances
6. Shrinkage

Definitions:

A. The sum of beginning inventory and purchases for the period.
B. The cost of inventory lost to theft, fraud, and error.
C. A reduction in the cost of inventory purchases associated with unsatisfactory goods.
D. A cash discount received for prompt payment of a purchase on account.
E. Refunds and price reductions given to customers after goods have been sold and found unsatisfactory.
F. Assets acquired for resale to customers.
G. A sales price reduction given to customers for prompt payment of their account balance.
H. Presents important subtotals, such as gross profit, to help distinguish core operating results from other, less significant items that affect net income.
I. Net sales minus cost of goods sold. It is a subtotal, not an account.
J. A ratio indicating the percentage of profit earned on each dollar of sales, after considering the cost of products sold.

Required: Choose the appropriate letter to match the term and the definition. There are more definitions than terms.

Problem #4 – Determining Balance in Inventory Account

S Company uses the perpetual inventory system. It engaged in the following transactions during last year:

- Started the business by issuing $42,000 of common stock for cash.
- The company paid cash to purchase $26,400 of inventory.
- The company sold inventory that cost $16,000 for $30,600 cash.
- Operating expenses incurred and paid during the year, $14,000.

S Company engaged in the following transactions during this year:

- The company paid cash to purchase $35,200 of inventory.
- The company sold inventory that cost $32,800 for $57,000 cash.
- Operating expenses incurred and paid during the year, $18,000.

Required:

a) Determine the balance in the inventory account shown at December 31 of this year

b) Would the balance in merchandise inventory be any different if S Company used the periodic inventory system?

Multiple Choice Questions

1. Which of the following would not tend to make a manufacturer choose a perpetual inventory system?
   a) Management wants information about quantities of specific products.
   b) A low volume of sales transactions and a computerized accounting system.
   c) A high volume of sales transactions and a manual accounting system.
   d) Items in inventory with high per unit costs.

2. In a periodic inventory system, one entry usually is made to record each sales transaction. The purposes of this entry are best described as follows:
   a) The entry recognizes the sales revenue
   b) The entry records the reduction of inventory
   c) The entry records the cost of goods sold
   d) The entry updates the subsidiary ledger.

3. The cost of delivering merchandise to the customer for sales made FOB destination is:
   a) Part of cost of goods sold.
   b) Used in the calculation of net sales.
   c) An operating expense.
   d) A reduction of gross profit.

4. In a perpetual inventory system, two entries are normally made to record each sales transaction. The purpose of these entries is best described as follows:
   a) One entry recognizes the sales revenue and the other recognizes the cost of goods sold.
   b) One entry records the purchase of merchandise and the other records the sale.
   c) One entry records the cost of goods sold and the other reduces the balance in the Inventory account.
   d) One entry updates the subsidiary ledger and the other updates the general ledger.

5. Which of the following accounts is used in a periodic inventory system to record the cost of freight to transport purchased merchandise?
   a) Merchandise inventory
   b) Miscellaneous expense
   c) Purchases
   d) Transportation-in

6. Which of the following accounts is used in a perpetual inventory system to record the cost of freight to transport purchased merchandise?
   a) Merchandise inventory
   b) Miscellaneous expense
   c) Purchases
   d) Transportation-in

The next 2 questions refer to the following information.
On September 12, J Company purchased merchandise in the amount of $5,800 from V Company on credit with terms of 2/10, n/30. J Company receives a $800 allowance on September 15 and pays the balance of the invoice on September 28.

7. If J company uses the perpetual inventory method, the credit in the September 15 entry would be:
   a) Purchase returns and allowances
   b) Merchandise Inventory
   c) Purchase discounts
   d) Cash

8. If J company uses the periodic inventory method, the credit in the September 15 entry would be:
   a) Purchase returns and allowances
   b) Merchandise Inventory
   c) Purchase discounts
   d) Cash

9. If J company uses the perpetual inventory method, the cost of goods sold recorded when the remaining inventory was sold would be:
   a) $5,800
   b) $0
   c) $5,000
   d) $6,400

10. If J company uses the periodic inventory method, the cost of goods sold recorded when the remaining inventory was sold would be:
   a) $5,800
   b) $0
   c) $5,000
   d) $6,400

Solutions to Practice Problems

Problem #1 - Purchase related transactions

a)	Merchandise Inventory	5,800	
	Accounts payable		5,800
b)	Merchandise Inventory	150	
	Cash		150
c)	Accounts payable	100	
	Merchandise Inventory		100
d)	Purchases	5,800	
	Accounts payable		5,800
e)	Transportation-in	150	
	Cash		150
f)	Accounts payable	100	
	Purchase returns and allowances		100

Problem #2 - Sale related transactions

a)	Cost of Goods Sold	1,400	
	Merchandise Inventory		1,400
b)	Transportation Out	100	
	Cash		100
c)	Merchandise Inventory	250	
	Cost of Goods Sold		250
d)	No entry made		
e)	Transportation-in	100	
	Cash		100
f)	No entry made		

Problem #3 – Inventory terms and Concepts

1.	F
2.	D
3.	C
4.	G
5.	E
6.	B

Problem #4 – Determining Balance in Inventory Account

a) \$26,400 Purchase - \$16,000 COGS + \$35,200 Purchase - \$32,800 COGS = \$12,800

b) No, the balance would be exactly the same.

Solutions to Multiple Choice Questions

1.	C
2.	A
3.	C
4.	A
5.	D
6.	A
7.	B
8.	A
9.	C
10.	B