INVENTORY SYSTEMS (LIVE)  
30 APRIL 2015

Section A: Summary Content Notes

Stock Systems

- Remember that there are two stock systems generally in use – the periodic system and the perpetual system.
- You will need to know both of these systems as they can appear in questions on financial statements.
- The perpetual system is the system you have been using since Grade 10, where you record the cost of sales after every sale.
- The periodic system works out the cost of sales at the end of every period (that is why it is called periodic) using a formula.

Advantages of the perpetual stock system

- You always know exactly how much stock you should have on hand.
- Stock losses are easier to detect in the perpetual system than in the periodic system.
- It is more accurate and realistic as cost of sales are recorded every single day.

Advantage of the periodic stock system

- It is much cheaper and easier to implement than the perpetual system – you don’t need scanners and you don’t need to record cost of sales after every sale.

<table>
<thead>
<tr>
<th>PERIODIC INVENTORY</th>
<th>PERPETUAL INVENTORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADING ACCOUNT (F1)</td>
<td>TRADING ACCOUNT (F1)</td>
</tr>
<tr>
<td>+Opening stock 10 000</td>
<td>- Closing stock 15 000</td>
</tr>
<tr>
<td>+Purchases 100 000</td>
<td>-Sales (net) 200 000</td>
</tr>
<tr>
<td>+Carriage on Purchases 18 000</td>
<td></td>
</tr>
<tr>
<td>+Custom duties 12 000</td>
<td></td>
</tr>
<tr>
<td>Profit and loss (gross profit) 75 000</td>
<td></td>
</tr>
<tr>
<td>215 000</td>
<td>215 000</td>
</tr>
</tbody>
</table>

(closing stock +sales) - (opening stock+ purchases + carriage on purchases + custom duties) = gross profit

(15 000 + 200 0000) – (10 000 + 100 000 + 18 000 + 12 000) = 75 000

Cost of sales 125 000 |
Profit and loss (gross profit) 75 000 |
Sales 200 000 |
Sales(net) minus cost of sales = Gross profit 200 000 - 125 000 = 75 000
Stock Validation/Valuation

The proper valuation of stock is very important as it influences the financial statements, and also because the investment in stock normally constitutes a large percentage of total assets.

Methods of Determining Stock Value

When adopting a method to determine the cost price of the stock still on hand, the wisest choice would be that method which can facilitate the most realistic determination of profits for any specific business.

The four methods most generally used to determine cost price of stock on hand at the end of the financial period are:

- Specific identification method
- Weighted average method
- First-in-first-out method (FIFO)

Specific Identification Method

In addition to the FIFO and Weighted Average methods of valuing stock, CAPS stipulates the specific identification method. This should not create any problems for learners as it is a method that would have been utilised at Grade 8-10 levels where the specific cost price of an article is provided either in Rand terms or in code form.

Weighted Average

The weighted average method does not take quantities into account but average price into account. With the receipt of goods the average cost of each item is recalculated or calculated at the end of the financial year.

FIFO

Sale of goods is based on First in, first out basis, i.e. goods bought first are the first to be issued for sale. (SECRET BOTTOM UP!!)

Section B: Exercises

Question 1

INVENTORY VALUATION AND INTERNAL CONTROL

(35 marks; 20 minutes)

Jankjies Electronics sells LCD flat-screen television sets. The business is owned by Jane Jankjies. As she has other businesses to run, she cannot be at the shop very often. She employs Marlan Miller to run the shop for her. The business uses the periodic inventory system and the first-in-first-out (FIFO) method to value the stock. The financial year-end is 28 February 2015.

REQUIRED:

1.1 Calculate the value of the closing stock of 145 television sets on 28 February 2015 using the FIFO method. (7)

1.2 Calculate the following:

• Cost of sales (6)

• Average mark-up % achieved for the year (4)

1.3 Refer to Information D.

Provide a calculation to prove whether the information given by the cleaner is true or not. (6)
1.4 Jane is concerned that the final stock of 145 television sets is not appropriate for her business. Provide a calculation or figures to support her opinion, and explain. (4)

1.5 Jane has adjusted the selling prices during the year to attract new customers. Comment on whether or not this strategy has benefited the business. Provide figures to support your answer. (4)

1.6 Provide TWO points to assist Jane in improving internal control in her business. (4)

INFORMATION:

A. Stock balances:

<table>
<thead>
<tr>
<th></th>
<th>NUMBER OF UNITS</th>
<th>UNIT PRICE (including carriage)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 March 2014</td>
<td>70</td>
<td>5 500</td>
<td>385 000</td>
</tr>
<tr>
<td>28 February 2015</td>
<td>145</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>

B. Purchases of television sets during the financial year ended 28 February 2015:

<table>
<thead>
<tr>
<th></th>
<th>NUMBER OF UNITS</th>
<th>UNIT PRICE</th>
<th>CARRIAGE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2014</td>
<td>150</td>
<td>R5 000</td>
<td>R18 750</td>
<td>R768 750</td>
</tr>
<tr>
<td>August 2014</td>
<td>120</td>
<td>R4 750</td>
<td>R15 000</td>
<td>R585 000</td>
</tr>
<tr>
<td>December 2014</td>
<td>90</td>
<td>R4 450</td>
<td>R11 250</td>
<td>R411 750</td>
</tr>
<tr>
<td>TOTAL 2014</td>
<td>360</td>
<td>R45 000</td>
<td>R1 765 500</td>
<td></td>
</tr>
</tbody>
</table>

C. Returns to suppliers:

Three television sets from the August 2014 purchases were damaged. The television sets were returned to the suppliers. The suppliers also reversed the carriage on these items.

D. Possible theft of television sets:

Jane has been informed by a cleaner that he suspects Marlan of giving away television sets to his family members and friends.

E. Sales for the year were as follows:

<table>
<thead>
<tr>
<th></th>
<th>Selling price</th>
<th>Quantity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>March to July 2014</td>
<td>R9 100</td>
<td>80 units</td>
<td>R728 000</td>
</tr>
<tr>
<td>August to November 2014</td>
<td>R9 800</td>
<td>30 units</td>
<td>R294 000</td>
</tr>
<tr>
<td>December 2014</td>
<td>R7 500</td>
<td>150 units</td>
<td>R1 125 000</td>
</tr>
<tr>
<td>January to February 2015</td>
<td>R9 800</td>
<td>16 units</td>
<td>R156 800</td>
</tr>
<tr>
<td></td>
<td></td>
<td>276 units</td>
<td>R2 303 800</td>
</tr>
</tbody>
</table>
# Answer Sheets

## Question 1

<table>
<thead>
<tr>
<th>1.1</th>
<th>Calculate the value of the closing stock of 145 television sets on 28 February 2015 using the FIFO method.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>Calculate the cost of sales.</td>
</tr>
<tr>
<td>1.3</td>
<td>Provide a calculation to prove whether the information given by the cleaner is true or not.</td>
</tr>
</tbody>
</table>

- **1.1** 7
- **1.2** 6
- **1.3** 6
1.4 Jane is concerned that the final stock of 145 television sets is not appropriate for her business. Provide a calculation or figures to support her opinion and explain.

**Calculation/Figures:**

**Explanation:**

1.5 Comment on whether or not Jane’s strategy of adjusting the selling prices has benefitted the business. Provide figures to support your answer.

1.6 Provide TWO points to assist Jane in improving internal control in her business.

**Section C: Solutions**

**Question 1**

1.1 Calculate the value of the closing stock of 145 television sets on 28 February 2015 using the FIFO method.

\[
\text{R}411\,750 + (55 \times \text{R}4\,875) \\
= \text{R}679\,875 \quad \text{one part correct}
\]
### 1.2 Calculate the cost of sales.

\[
\text{R385 000} + \text{R1 765 500} - \text{R14 625} - \text{R679 875} = \text{R1 456 000}
\]

- See 2.1.1 one part correct

OR

\[
\text{R385 000} + \text{R1 765 500} - \text{R14 250} - \text{R370} - \text{R679 875} = \text{R1 456 000}
\]

One mark one mark

OR

\[
\text{R385 000} + \text{768 750} + \text{273 000} + \text{29 250} = \text{R1 456 000}
\]

One mark one mark two marks one mark one method

### 1.3 Provide a calculation to prove whether the information given by the cleaner is true or not.

\[
70 + 360 - 3 - 276 = 151
\]

On hand = 145 ✓

Missing = 6 ✓ one part correct

### 1.4 Jane is concerned that the final stock of 145 television sets is not appropriate for her business. Provide a calculation or figures to support her opinion and explain.

**Calculation/Figures:**

Any valid figures: ✓✓ Also accept stock turnover rate

\[
\begin{align*}
145 \times \frac{365}{276} &= 192 \text{ days} \\
145 \times \frac{12}{276} &= 6.3 \text{ months}
\end{align*}
\]

OR

\[
\begin{align*}
679 875 \times \frac{365}{1} &= 170 \text{ days} \\
\frac{1 456 000}{1} &=
\end{align*}
\]

**Explanation:** ✓✓

Not appropriate as stock will last at least 6 months
1.5 Comment on whether or not Jane’s strategy of adjusting the selling prices has benefitted the business. Provide figures to support your answer.

Excellent answer = 4 marks; Good = 3; Average = 2; Poor = 1; Incorrect = 0

Expected response: ✓✓✓✓

The strategy was successful in December but Jane then increased the selling price significantly in January. She has not reduced the selling prices when cost prices decreased. Her competitors will probably decrease prices when possible to increase their market share.

1.6 Provide TWO points to assist Jane in improving internal control in her business.

Any TWO points ✓✓ ✓✓

Possible responses:
- Regular stock counts to check that no stock goes missing.
- Division of duties to check that all sales are recorded properly and that stock purchased is properly secured.
- Reconsider pricing policy to reduce stock to acceptable levels.