**SECTOR: BUSINESS SERVICES**

**SUB-SECTOR: BUSINESS SERVICES**

**RTQF LEVEL 4**

## BUSSM401 STOCK MANAGEMENT

## L.U.1 IDENTIFY STOCK OF GOODS

1.1. List goods in the stock according to market demand

1.2. Categorize goods in line with goods available

1.3. Select the needed goods by customer in line with the markets requirements

## L.U.2 DETERMINE THE SIZE OF STOCK

2.1. Design the right size of the stock for goods identified.

2.2 Ensure convenient availability of stock as per the standards.

2.3. Recommend the stock size in accordance with the business budget and market requirements

## L.U.3 CALCULATE COST OF HANDLING STOCK

3.1 Determine charges according to the accounting principles
3.2 Proper calculations of the margin cost of handling the stock to the accepted accounting principles .
3.3 Proper evaluation of the stock in accordance with stock management practices .

## 1.1: LIST GOODS IN THE STOCK ACCORDING TO MARKET DEMAND

### 1.1.1 DEFINITION OF

a) MARKET DEMAND

- Market demand is the total amount of goods and services that all consumers are willing and able to purchase at a specific price in a marketplace. In other words, it represents how much consumers can and will buy from suppliers at a given price level in a market.

- **Market Demand:** Economic demand means the number of services and goods purchasers are able and willing to buy during a period.

- **Market demand** is the sum of the individual demand for a product from buyers in the market. If more buyers enter the market and they have the ability to pay for items on sale, then market demand at each price level will rise.

b) STOCK OF GOODS

- A set of items owned by a firm and held for sale or for processing before being sold, as part of a firm's ordinary operations.
- **Stock** refers to the goods on hand which is to be sold to customers. In that situation, stock means inventory.

## 1.1.2 INTRODUCTION TO STOCK MANAGEMENT PRACTICES

- ***Store – keeping***

This refers to the keeping the store of material and keeping the stores records. The store department is responsible for receiving materials and holding them until they are required for production or construction or sale. The stores records provide information regarding the **receipts, issues** and **stock balances** of materials.

*b) Types of stores*

- Centralized stores
- Decentralized stores
- Imprest stores

***Material coding***

*Meaning*

Material coding can be defined as 'a system of symbols designed to be applied to a classified set of items to give a brief accurate reference facilitating entry, collation and analysis.'

*The purpose of coding*

1. To avoid ambiguity in description
2. To minimize length in description

### ❖ *Store records*

***Meaning;*** Store records refer to documents which give information regarding the movement of stock.

These include records kept both for accountants and costing purposes.

These are individual accounts for each item of stock on which are recorded all receipts and issues of that particular material and the thus the balance at hand. Two important documents are used .T

hese are **stores ledger and bin cards.** The stores ledger is similar to a financial ledger. It shows the quantities and monetary values of all stock items. A bin card is a card kept where the relevant stock item is stored. Goods or materials are stored in a drawers, shelves or racks. Then a bin cad for each item is kept to show the details of all receipts, issues and stock in hand.

***1. Format of Stores Ledger card***

Fair Construction

Stores Ledger Account

Mat: Description ………………………. Material code ………………

Max: Stock level ……………………….. Re-order level ………………

Min: Stock level………………………….Re-order quantity …………

| Date | Receipts | | | | Issues | | | | Balance | |
|---|---|---|---|---|---|---|---|---|---|---|
| | GRN No | Qty | Price | Value | MRN No | Qty | Price | Value | Units | Value |
| | | | | | | | | | | |

***2.Bin card format***

Fair Construction

<u>Stores Ledger Account</u>

Mat: Description ……………………….  Material code ………………

Max: Stock level ……………………….. Re-order level ………………

Min: Stock level…………………………Re- order Quantity …………

| Date | Receipts | | Issues | | Balance | Remarks | |
|---|---|---|---|---|---|---|---|
| | GRN No | Qty | MRN No | Qty | Units | | |
| | | | | | | | |

***Stock / inventory control***

- *Meaning*: Stock /inventory control means making sure that the organization has the <u>right quantity</u> of stocks or inventories, in the <u>right place</u> and at <u>the right time.</u>

- *Types of inventories / Stocks*

<u>Raw materials:</u> These are goods which are not yet committed to production process, but have been received by the business. They are used to produce outputs

<u>Work in progress:</u> These are goods which are still in the production process and are yet to be completed.

<u>Finished goods:</u> These are the goods, which have completed production and have not been sold or used.

Office supplies: These are materials which are used to support the production process.

E.g. stationary, cleaning materials,…

❖ *Stock levels*

Stock levels should not be too high or too low for them to be beneficial to the firm.

Foctors affecting stock levels

- **The availability of materials**: if materials are easily got throughout the year, the stock level should be low and vice-versa.
- **Lead time**: This is the period between the date of order of materials and the date of delivery. If the lead time is, then the stock has to be maintained at higher levels and vice-versa.
- **Stock holding cost**: This is the cost of keeping materials in stores. If the cost of keeping stocks is too high stock, the stock level must be low and vice-versa.
- **Consumption**: If any item of material is consumed in greater quantity, then it must be maintained at higher levels and vice-versa.
- **Trade discount**: If suppliers offer high discounts for large quantities and these discounts are greater than the stockholding cost, then stock level must be maintained at higher level.

**Durability**: The stock level of durable goods can be maintained at higher level but perishable goods like fruits, fish, could be kept at lower level.

Setting stock levels

Some stock levels are set up by an enterprise as a policy matter.

These are the following:

**Maximum stock level**

The maximum stock level is the level beyond which stocks should not be allowed to rise. It is desirable that the level should be as low as possible but it must be adequate according to the requirements of the enterprise.

**Minimum stock level**

This is the level bellow which stocks should not be allowed to fall. If stock falls below this level, then there is possibility of production stoppages due to lack of materials. This level is also called as **buffer stock**.

**Re-order level**

This is the point at which purchase order must be sent to the supplier for the supply of more material. This level is higher than minimum stock level but lower than the maximum stock level.

As organizations strive to achieve efficiency, they should be able to understand their

Re-Order Levels (ROL) which enables them know when to order and when not to order.

**Re-order quantity**

This is the quantity for which a purchase order is placed. This quantity depends upon the factors discussed above.

**Average Stock Level:** This is the average of maximum and minimum stock level.

**Lead time:** For explanations refer in the above.

**Working Capital:** That is the amount of money used to buy a stock for a given business or meet routine operating needs of the business.

<u>Formulae of stock levels</u>

1. Re-order level = Max: C x Max: RP

2. Minimum stock level = RL-(NC x NRP)

3. Maximum stock level = Min: SL+ RQ + (Min: C x Min: RP)

4. Re-order quantity = Max: SL – Min: SL – (Min: C x Min: RP)

Where:

Max: C = Maximum consumption (usage)

Min: C = Minimum consumption

NC = Normal consumption

i.e. Average consumption = <u>Max stock level+ Min Stock level</u>

Max: RP = Maximum Re-order Period

Min: RP = Minimum Re-order Period

NRP = Normal Re- order period

RQ = Re –order Quantity

Min: SL = Minimum stock level

Max: SL = Maximum stock level

**Example 1:**

The following information is provided for material PL3600. Maximum consumption: 6,000 units per week.

Minimum consumption: 4,000 units per week

Re-order period or lead time: 4- 6 weeks

Re-order quantity: 30,000 units

You are required to calculate:

a) Re-order level

b) Minimum stock level

c) Maximum stock level

d) Average stock level

**Answer:**

a) Re-order level = Max: Cx Max:RP

= 6,000 x 6 = 36,000 units

b) Minimum stock level =RL-(NCxNRP)

= 36,000-(5 000 X5)

= 11 000 units

Where NC = $\frac{6{,}000 + 4{,}000}{2}$ =

$\frac{10,000}{2} = 5,000$ and $NRP = \frac{4+6}{2} = 5$ weeks

c) Maximum stock level = Min: SL + RQ + (Min:C x MinRP)

= 11,000 + 30, 000 +4,000x4

= 41,000+ 16,000 = 57,000

d) Average stock level $= \frac{\text{Max: SL + Min: SL}}{2}$

$= \frac{57,000 + 11,000}{2} = 34000$

**Example 2**

From the following information about product WO200, find out the re-order quantity:

Minimum consumption 2,000 units per week

Minimum re-order period 4 weeks

Minimum stock level 3,000 units

Maximum stock level 12,000 units.

**Answer:** Re-order quantity = Max: SL – Min: SL-(Min:Cx Min:RP)

= 12,000-3000-(2,000x4)

= 12,000-11,000

= 1,000 units

**Economic order quantity (EOQ)**

This is the quantity at which cost of having stocks is minimized.

The costs of having stock can be divided into two parts:

a) ***Holding costs*** which comprise:

- Warehousing
- Cost of capital tied up
- Deterioration

- Obsolescence or out of fashion

- Insurance

***b) Ordering costs*** which comprise:

- Clerical costs

The formula of finding economic order quantity (E.O.Q) is given by

E.O.Q. = $\sqrt{2cd}$ / ip

Where c = Delivery cost per batch

d= Annual demand for product

p= cost price per item

i = stock holding cost per annum (Expressed as a fraction of stock value)

**Example:** A company has an annual demand for material "P" of 25,000 tons per annum.

The cost price per ton is 2000 $ and stock holding cost 25% per annum for the stock value. Delivery cost per batch is 400$. Calculate the economic order quantity and number of deliveries.

**Solution:** Economic Order Quantity (EOQ) = $\frac{\sqrt{2cd}}{ip} = \frac{\sqrt{2(400)(25{,}000)}}{25\ \%\ \text{of}\ 2000}$

$\frac{\sqrt{2000000}}{50}$ = **200** units

Number of deliveries = $\frac{25{,}000}{200}$ = **125**

## 1.2: CATEGORIZE GOODS IN LINE WITH GOODS AVAILABLE

### 1.2.1 TYPES OF GOODS

**a) Perishable goods**

- Are goods such as food products that must be used within a short period of time.
- Perishable foods are foods like fresh meat, seafood, and ripe fruits.

**b) non- perishable**

non-perishable are items that do not spoil or decay.... for example; canned goods, all pasta types, sugar, beans, flour, curls (and chips if air-sealed), spices are nonperishable as well.

## DETERMINE GOODS AVAILABLE

In accounting terms, "goods available for sale" includes all items that have been transformed from raw materials to finished goods.

**Use a simple formula to determine your goods available for sale**

**Opening stock (inventory) of finished good**

**Add finished goods from work in process**

**Add Purchases (inventory) of finished goods**

**Subtract the number of units sold**

**= (inventory) of finished good *available for sale.***

## WAYS TO CATEGORIZE GOODS

1. **Fast consumed goods**: **Fast-moving consumer goods** (FMCG) or **consumer** packaged **goods** (CPG) are **products** that are sold **quickly** and at relatively low cost. **Examples** include non-durable **goods** such as packaged foods, beverages, toiletries, over-the-counter drugs and many other consumables.
2. One-time-use products (e.g. packages)
3. Repeatedly-used –products

## 1.3 SELECT THE NEEDED GOODS BY CUSTOMER IN LINE WITH THE MARKETS REQUIREMENTS

### 1.3 1 DETERMINATION OF MARKET REQUIREMENTS

**Definition of market demand:** is the total demand of a commodity by all households in the market of commodity.

**THE FOLLOWING FACTORS DETERMINE MARKET DEMAND FOR A COMMODITY:**

1. **Tastes and Preferences of the Consumers:**
   An important factor which determines the demand for a good is the tastes and preferences of the consumers for it. A good for which consumers' tastes and preferences are greater, its demand would be large and its demand curve will therefore lie at a higher level. People's tastes and preferences for various goods often change and as a result there is change in demand for them.

2. **Income of the People:**
   The demand for goods also depends upon the incomes of the people. The greater the incomes of the people, the greater will be their demand for goods. The greater income means the greater purchasing

power. Therefore, when incomes of the people increase, they can afford to buy more. It is because of this reason that increase in income has a positive effect on the demand for a good.

3. **Population size:**
   If population increases, quantity demanded increases and when population reduces, quantity demanded reduces.
4. **Changes in prices of related goods**
   The demand for also affected by the prices other goods, especially those which are related to its substitutes or complements.
5. **Consumers' expectation with regard to future prices**
   Another factor which influences the demand for goods is consumers' expectations with regard to future prices of the goods. If due to some reason, consumers expect that in the near future prices of the goods would rise, then in the present they would demand greater quantities of the goods so that in the future they should not have to pay higher prices. Similarly, when the consumers expect that in the future the prices of goods will fall, then in the present they will postpone a part of the consumption of goods with the result that their present demand for goods will decrease.
6. **Advertisement Expenditure:**
   Advertisement expenditure made by a firm to promote the sales of its product is an important factor determining demand for a product, especially of the product of the firm which gives advertisements. The purpose of advertisement is to influence the consumers in favour of a product. Advertisements are given in various media such as newspapers, radio, and television. Advertisements for goods are repeated several times so that consumers are convinced about their superior quality. When advertisements prove successful they cause an increase in the demand for the product.

### 1.3.2 IDENTIFICATION OF NEEDED GOODS

**Identifying customer needs**

Before you start promoting your business you need to know what your customers want and why. Good customer research helps you work out how to convince your customers that they need your products and services.

**Identify your customers**

The first step of customer research is identifying your customers. Your market research should help you understand your potential customers. Further customer research can help you develop a more detailed picture of them and understand how to target them. It will also highlight key characteristics your customers share, such as:

- gender
- age
- occupation
- disposable income

- residential location
- recreational activities.

1.3.3 SELECTION CRITERIA

A number of criteria are considered during the identification, review and selection of a new product :

- Quality
- Safety
- Cost effectiveness
- Physician preference
- Environmental impact
- Diversity

## L.U.2 DETERMINE THE SIZE OF STOCK

2.1: DESIGN THE RIGHT SIZE OF THE STOCK FOR GOODS IDENTIFIED

### LAYOUT

Is an arrangement or plan:

### 2.1.1 STOCK LAYOUT

Is an arrangement of all goods in store or warehouse?

### 2.1.2 ADVANTAGES OF MAINTAINING THE RIGHT SIZE OF STOCK

1. **Increases productivity and efficiency**

   Stock management devices such as bar-code scanners and stock management software can help drastically improve your efficiency and productivity. These tools will help eliminate manual processes so your employees can focus on other, more important areas of the business.

**2. Creates a more organised warehouse**

A good stock management strategy supports an organised warehouse. If your warehouse is not organised properly, you will have a hard time managing your inventory. Many companies choose to optimise their warehouses by placing the best selling products together and in easily accessible places in the warehouse. This, in turn, helps to speed up the order fulfillment process and keeps customers happy.

**3. Helps save time and money**

Inventory management can have time and monetary benefits. By keeping track of which products you have in stock and ordered, you can save yourself the effort of having to do an additional stock take to ensure your records are accurate. A good stock management strategy also helps you save money that could otherwise be wasted on slow-moving products.

**4. Improves accuracy of inventory orders**

Good stock management also helps you calculate exactly how much inventory you need to have on-hand at any time. This helps prevent product shortages and allows you to keep just enough inventory without having a surplus of stock in the warehouse.

**5. Keeps customers coming back for more**

It's a fact that good stock management leads to returning customers. If you want your hard-earned customers to come back for your products and services, you need to be able to meet customer demand quickly and efficiently. In this way, stock management helps you meet demand by giving you the tools to have the right products as soon as your customers require them.

### 2.1.3FACTORS TO DETERMINE THE RIGHT SIZE OF THE STOCK

*Demand
*Storage capacity
*Storage cost

## 2. 2 ENSURE CONVENIENT AVAILABILITY OF STOCK AS PER THE STANDARDS.

### WAYS TO STOCK GOODS CONVENIENTLY

1) **Boxes** : to allow maximum space utilization, use boxes of same size, marked with contents & sealed with packing tape)

2) **Packing** : be sure to fill every available space)

3) **Lay out** : stack the heaviest items that will not be needed at the bottom, try to leave a gap between your goods & walls.

4) **<u>Accessibility</u>** :place goods in arrangement of how often they are needed so that they can be easily accessed

5) **<u>Necessity</u>** :keep in stock the needed goods .

**2.3: <u>RECOMMEND THE STOCK SIZE IN ACCORDANCE WITHTHE BUSINESS BUDGET AND MARKET REQUIREMENTS</u>**

## 3.1: <u>DETERMINE CHARGES ACCORDING TO THE ACCOUNTING</u>

### 3.1.1. <u>DEFINITION OF ACCOUNTING</u>

ACCOUNTING involves the systematic process of recording, summarizing, analyzing, and reporting financial information, including the profit and loss for a given time period and a company's assets and liabilities. Part of the process of accounting includes reporting financial information to third parties, such as tax collectors. Accounting is one of the core departments at any organization, as businesses rely on financial information to make decisions and develop strategies, and it is carried out by accountants and bookkeepers. It could also be part of a larger finance department.

**Accounting** is the activity of <u>keeping</u> <u>detailed</u> <u>records</u> of the amounts of money a business or person <u>receives</u> and <u>spends</u>.

**Accounting** is the activity of keeping financial records.

The purpose of **accounting** is to provide records of all financial transactions, so that the financial position of a business can be determined.

### 3.1.2 <u>OUTLINE THE BASIC ACCOUNTING PRINCIPLES</u>

.
The following is a list of the ten main accounting principles and guidelines together with a highly condensed explanation of each.

**1. Economic Entity Assumption**

The accountant keeps all of the *business* transactions of a sole proprietorship separate from the business owner's *personal* transactions. For *legal* purposes, a sole proprietorship and its owner are considered to be one entity, but for accounting purposes they are considered to be two separate entities.

**2. Monetary Unit Assumption**

Economic activity is measured in U.S. dollars, and only transactions that can be expressed in U.S. dollars are recorded.

Because of this basic accounting principle, it is assumed that the dollar's purchasing power has not changed over time. As a result accountants ignore the effect of inflation on recorded amounts. For example, dollars from a 1960 transaction are combined (or shown) with dollars from a 2017 transaction.

**3. Time Period Assumption**

This accounting principle assumes that it is possible to report the complex and ongoing activities of a business in relatively short, distinct time intervals such as the five months ended May 31, 2017, or the 5 weeks ended May 1, 2017

**4. Cost Principle**

From an accountant's point of view, the term "cost" refers to the amount spent when an item was *originally* obtained, whether that purchase happened last year or thirty years ago. For this reason, the amounts shown on financial statements are referred to as *historical* cost amounts.

**5. Full Disclosure Principle**

If certain information is important to an investor or lender using the financial statements, that information should be disclosed within the statement or in the notes to the statement. It is because of this basic accounting principle that numerous pages of "footnotes" are often attached to financial statements..

**6. Going Concern Principle**

This accounting principle assumes that a company will continue to exist long enough to carry out its objectives and commitments and will not liquidate in the foreseeable future. If the company's financial situation is such that the accountant believes the company will *not* be able to continue on, the accountant is required to disclose this assessment.

The going concern principle allows the company to defer some of its prepaid expenses until future accounting periods.

**7. Matching Principle**

This accounting principle requires companies to use the accrual basis of accounting. The matching principle requires that expenses be matched with revenues. For example, sales commissions expense should be reported in the period when the sales were made (and not reported in the period when the commissions were paid). Wages to employees are reported as an expense in the week when the employees worked and not in the week

when the employees are paid. If a company agrees to give its employees 1% of its 2017 revenues as a bonus on January 15, 2018, the company should report the bonus as an expense in 2017 and the amount unpaid at December 31, 2017 as a liability. (The expense is occurring as the sales are occurring.)
Because we cannot measure the future economic benefit of things such as advertisements (and thereby we cannot match the ad expense with related future revenues), the accountant charges the ad amount to expense in the period that the ad is run.

**8. Revenue Recognition Principle**

Under the accrual basis of accounting (as opposed to the cash basis of accounting), revenues are recognized as soon as a product has been sold or a service has been performed, regardless of when the money is actually received. Under this basic accounting principle, a company could earn and report $20,000 of revenue in its first month of operation but receive $0 in actual cash in that month.
For example, if ABC Consulting completes its service at an agreed price of $1,000, ABC should recognize $1,000 of revenue as soon as its work is done—it does not matter whether the client pays the $1,000 immediately or in 30 days. Do not confuse *revenue* with a cash receipt.

**9. Materiality**

Because of this basic accounting principle or guideline, an accountant might be allowed to violate another accounting principle if an amount is insignificant. Professional judgment is needed to decide whether an amount is insignificant or immaterial.

An example of an obviously immaterial item is the purchase of a $150 printer by a highly profitable multi-million dollar company. Because the printer will be used for five years, the *matching* principle directs the accountant to expense the cost over the five-year period. The **materiality** guideline allows this company to violate the matching principle and to expense the entire cost of $150 in the year it is purchased. The justification is that no one would consider it misleading if $150 is expensed in the first year instead of $30 being expensed in each of the five years that it is used.
Because of materiality, financial statements usually show amounts rounded to the nearest dollar, to the nearest thousand, or to the nearest million dollars depending on the size of the company.

**10. Conservatism**

If a situation arises where there are two acceptable alternatives for reporting an item, conservatism directs the accountant to choose the alternative that will result in less net income and/or less asset amount. Conservatism helps the accountant to "break a tie." It does not direct accountants to be conservative. Accountants are expected to be unbiased and objective.

The basic accounting principle of conservatism leads accountants to anticipate or disclose losses, but it does not allow a similar action for gains. For example, *potential* losses from lawsuits will be reported on the financial statements or in the notes, but *potential* gains will not be reported. Also, an accountant may write inventory *down* to an amount that is lower than the original cost, but will not write inventory *up* to an amount higher than the original cost.

### 3.1 3. DETERMINATION OF CHARGES INCURRED DURING STOCK HANDLING.

- Cost of storage space
- Cost of storage services (IT Equipment, technical assistance services, security,)
- Cost of storage risks (damages caused by product movement, deterioration during the storage period)
- Cost of capital: Cost of capital refers to the opportunity cost of making a specific investment. It is therate of return that could have been earned by putting the same money into a different investment with equal risk. Thus, the cost of capital is the rate of return required to persuade the investor to make a given investment.

## 3.2: CALCULATE THE MARGIN COST OF HANDLING THE STOCK TO THE ACCEPTED ACCOUNTING PRINCIPLES

### 3.2.1 DEFINITION OF MARGIN COST

- **A marginal cost** is the variable cost incurred as a result of under taking a specific activity. In other words, all direct costs are called as marginal cost.

To an economist, the marginal cost is the addition in total cost due to last unit of output.

To an accountant, the marginal cost is the variable cost a specific number of units of any product.

- **Marginal cost** represents the incremental costs incurred when producing additional units of a good or service. It is calculated by taking the total change in costs of producing more goods and dividing that by the change in the quantity of good produced.

**FORMULA**

**Marginal cost = Direct material cost+ Direct labour cost + Direct expenses + Variable overheads**

**Marginal Cost = (Change in Costs) / (Change in Quantity)**

### 3.2.2 METHODS TO CALCULATE MARGIN COST

**Marginal cost = Direct material + Direct labour + Direct expenses + Variable overheads .**

**Contribution = Sales – Marginal cost.**

Marginal cost is also called as direct costing or contribution approach.

In marginal costing, all costs are divided into two parts: Variable cost and fixed cost.

**Total Cost (TC) = Variable Cost (VC) + Fixed Cost (FC)**

**Or**

**Total Cost (TC) = Marginal Cost (MC) + Fixed Cost (FC)**

The sales can be expressed as under: **Sales (S) = Total Cost (TC) + Profit (P)**

**Or**

**Sales (S) = Marginal Cost (MC) + Fixed Cost (FC) + Profit (P)**

**Sales (S) – Marginal Cost (MC) = Fixed Cost (FC) + Profit (P)**

**Contribution (C) = Fixed Cost (FC) + Profit (P)**

**Contribution (C) – Fixed Cost (FC) = Profit (P)**

## CONTRIBUTION MARGIN

**Contribution margin can be defined as the amount of sales revenue remain after deducting all variable costs from sales.**

**Contribution is the difference between sales and marginal (variable) cost.**

**Formula**

**CONTRIBUTIONMARGIN (CM)=SALES REVENUE –VARIABLE COST or marginal cost**
**CONTRIBUTIONMARGIN =FIXED COST +PROFIT**
**CONTRIBUTIONMARGIN PER UNIT=SELLING PRICE /UNIT-VARIABLE COST/UNIT**

**I**t is better to underline that ,if the contribution is greater than fixed expenses ,the business earns a profit and if **contribution margin is** lower than fixed cost ,the business incurs a loss.

**Example**: A manufacturing company produced and sold 10 000 units during the month of April.

The following additional information was also provided:

Direct material:................................. ..Rwf 8 per unit

Direct Labour : ....................................Rwf 4 per unit

Variable Overheads :............................................

.Rwf 2 per unit

Fixed overheads for month of April: Rwf 36 000

Selling price per unit:...........................Rwf 20

Prepare a statement showing the marginal cost and the profit or loss for the month of April and

**Answer:**

**Marginal Cost Statement**

| | Units | Selling price (Rwf) | Value (Rwf) | |
|---|---|---|---|---|
| Sales | 10 000 | 20 | | 200 000 |
| Less: Marginal Costs | | | | |
| Direct Material | 10 000 | (8) | 80 000 | |
| Direct Labour | 10 000 | (4) | 40 000 | |
| Variable Overheads | 10 000 | (2) | 20 000 | (140 000) |
| ***Contribution*** | | ***6*** | | ***60 000*** |
| Less: Fixed Overheads | | | | (36 000) |
| ***Profit*** | | | | ***24 000*** |

## 3.3DEFINITION OF STOCK MANAGEMENT

**3.3.1 STOCK MANAGEMENT** refers to keeping goods in the stores, control them and distribute them to the departments when they are needed for used by those different departments

**Stock management** is the practice of ordering, storing, tracking and controlling inventory.

***Stock / inventory control***

## 3.3 DEFINITION OF STOCK EVALUATION

***Stock / inventory control***

Stock /inventory control means making sure that the organization has the right quantity of stocks or inventories, in the right place and at the right time.

### STOCK EVALUATION METHODS

When the materials are issued by the storekeeper, they are valued in order to determine the material cost of different jobs or products.

There are many methods of valuing material issues.

Some important methods of valuing material issues are as under:

**First In First Out (FIFO); Last In First Out (LIFO); Weighted Average**

### EXAMPLES

1) May 2, Received 500 units at 20Rwf each

May 8, Received 300 units at 22Rwf each

May 10, Issued 400 units

May 15, Issued 200 units

May 20, Received 600 units at 25Rwf each

May 25, Issued 300 units

May 27, Received 200 units at 26Rwf each

May 30, Issues 100 units. Standard price for each unit for the month of May is 24Rwf

Market price of this material on June 3, is 27Rwf per unit and 400 units were purchased on that day.

**+ First In First Out (FIFO)**

This method assumes that the goods issued are those which have been longest on hand and that those remaining in stock represent the latest purchases or production.

The stock whose cost is to be carried forward were acquired most recently.

***Advantages***: This method is more simple, realistic and gives fair valuation of goods

***Disadvantage***: This method is that it does not reflect the current economic values in the presence of big price fluctuations.

**STORE LEDGER CARD(FIFO METHOD)**

| **DATE** | **RECEIPT (IN)** | | | **ISSUED (OUT)** | | | **BALANCE** | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Qty** | **P.U** | **TOTAL** | **Qty** | **P.U** | **TOTAL** | **Qty** | **P.U** | **TOTAL** |
| **May 2 Received** | **500** | **20** | **10 000** | | | | **500** | **20** | **10 000** |
| **8 Received** | **300** | **22** | **6 600** | **--------** | **-----** | **------------** | **500**<br>**<u>300</u>**<br>**800** | **20**<br>**22** | **10 000**<br>**<u>6 600</u>**<br>**16 600** |
| **10 Issued** | **-------** | **-------** | **----------** | **400** | **20** | **8 000** | **100**<br>**<u>300</u>**<br>**400** | **20**<br>**22** | **2 000**<br>**<u>6 600</u>**<br>**8 600** |
| **15 Issued** | | | | **100**<br>**<u>100</u>**<br>**200** | **20**<br>**22** | **2 000**<br>**<u>2 200</u>**<br>**4 200** | **200** | **22** | **4 400** |
| **20 Received** | **600** | **25** | **15 000** | | | | **200**<br>**<u>600</u>**<br>**800** | **22**<br>**25** | **4 400**<br>**<u>15 000</u>**<br>**19 400** |
| **25 Issued** | **----------** | **----------** | **----------** | **200**<br>**<u>100</u>**<br>**300** | **22**<br>**25** | **4 400**<br>**<u>2 500</u>**<br>**6 900** | **500** | **25** | **12 500** |
| **27 Received** | **200** | **26** | 5 200 | | | | **500** | **25** | **12 500** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **<u>200</u>**<br>**700** | **26** | **<u>5 200</u>**<br>**17 700** |
| **30 Issued** | | | | 100 | **25** | **2 500** | **400**<br>**<u>200</u>**<br>**600** | **25**<br>**26** | **10 000**<br>**<u>5 200</u>**<br>**15 200** |

***<u>Advantages</u>***: This method reflects the current economic value of goods

***<u>Disadvantage</u>***: This method is not realistic and gives fair valuation of goods that the stock left in the storeis valued at those prices which were paid first and these prices are sometimes far below current market price.

### ii) <u>STORE LEDGER CARD (LIFO METHOD</u>)

| **DATE** | **RECEIPT (IN)** | | | **ISSUED (OUT)** | | | **BALANCE** | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Qty** | **P.U** | **TOTAL** | **Q**<br>**Qty** | **P.U** | **TOTAL** | **Q**<br>**Qty** | **P.U** | **TOTAL** |
| **May 2 Received** | **500** | **20** | **10 000** | | | | **500** | **20** | **10 000** |
| **8 Received** | **300** | **22** | **6 600** | **--------** | **-------** | **------------** | **500**<br>**<u>300</u>**<br>**800** | **20**<br>**22** | **10 000**<br>**<u>6 600</u>**<br>**16 600** |
| **10 Issued** | **-------** | **-------** | **----------** | **300**<br>**<u>100</u>**<br>**400** | **22**<br>**20** | **8 800**<br>**<u>2 000</u>**<br>**10 800** | **400** | **20** | **8 000** |
| **15 Issued** | | | | **200** | **20** | **4 000** | **200** | **20** | **4 000** |
| **20 Received** | **600** | **25** | **15 000** | | | | **200**<br>**<u>600</u>**<br>**800** | **20**<br>**25** | **4 000**<br>**<u>15 000</u>**<br>**19 000** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **25 Issued** | **----------** | **----------** | **----------** | **300** | **25** | **7 500** | **200**<br>**<u>300</u>**<br>**500** | **20**<br>**25** | **4 000**<br>**<u>7 500</u>**<br>**11 500** |
| **27 Received** | **200** | **26** | 5 200 | | | | **200**<br>**300**<br>**<u>200</u>**<br>**700** | **20**<br>**25**<br>**26** | **4 000**<br>**7 500**<br>**<u>5 200</u>**<br>**16 700** |
| **30 Issued** | | | | **100** | **26** | **2 600** | **200**<br>**300**<br>**<u>100</u>**<br>**600** | **20**<br>**25**<br>**26** | **4 000**<br>**7 500**<br>**<u>2 600</u>**<br>**14 100** |

### iii) <u>WEIGHTED AVERAGE</u>

Weighted Average means weighted average price. Under this method, the total value of goods in stock is divided by the number of units of stock.

The resultant figure is weighted average price.

This method is simple and logical but it is not close to current value of goods.

### STORE LEDGER CARD (<u>WEIGHTED AVERAGE)</u>

| **DATE** | **RECEIPT (IN)** | | | **ISSUED (OUT)** | | | **BALANCE** | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Qty** | **P.U** | **TOTAL** | **Qty** | **P.U** | **TOTAL** | **Qty** | **P.U** | **TOTAL** |
| **May 2 Received** | **500** | **20** | **10 000** | | | | **500** | **20** | **10 000** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **8 Received** | **300** | **22** | **6 600** | **--------** | **-------** | **------------** | **800** | **20.75** | **16 600** |
| **10 Issued** | **------** | **-------** | **----------** | **400** | **20.75** | **8 300** | **400** | **20.75** | **8 300** |
| **15 Issued** | | | | **200** | **20.75** | **4 150** | **200** | **20.75** | **4 150** |
| **20 Received** | **600** | **25** | **15 000** | | | | **800** | **23.9375** | **19 150** |
| **25 Issued** | **---------** | **----------** | **----------** | **300** | **23.9375** | **7 181** | **500** | **23.9375** | **11 968.75** |
| **27 Received** | **200** | **26** | 5 200 | | | | **700** | **24.5267** | **17 168.75** |
| **30 Issued** | | | | **100** | **24.5267** | **2 452.67** | **600** | | **14 716.02** |

The resultant figure is the price per unit which is charged to value the material issues during that period.