

# FINANCIAL OTABIL

## BUSINESS MATHEMATICS ASSIGNMENT 1

### MISTEL SHOPPING MALL

Sales Staff rate = 4.5% or 0.045  
Common Quota = GHc 15,000 – GHc 50,000  
Extra rate = 3% ( for sales above GHc 50,000)  
Supervisor's rate = 2.5%  
Override rate = 3.5%  
Senior Supervisor's rate = 3% on commission  
5% on override  
Store Sales = GHc 168,784.50  
Store returns = GHc 16,780.00  
Store Quota = GHc 30,000.00

### 1.PERSONAL COMMISSION OF EACH STAFF

#### **ISSIFU OPOKU;**

**Commission** = Commission Amount x Rate of commission

But,

**Commission Amount** = Sales – Quota  
= GHc 42,565 – GHc 15,000  
= GHc 27,565.00

**Commission** = GHc 27,565 x 0.045  
= GHc 1240.432

**Therefore,** Issifu Opoku's personal commission is GHc 1,240.43

#### **YAW MENSAH**

Personal Sales = GHc 23,700

**Commission** = Commission Amount x Rate of commission

But,

**C.A** = Sales – Quota  
= GHc 23,700 – GHc 15,000  
= GHc 8,700.00

**Commission** = GHc 8,700 x 0.045  
= GHc 391.50

**Therefore,** Yaw Mensah's personal commission is GHc 391.50

# FINANCIAL OTABIL

## KWARTZIKOR ADZO

Personal Sales = GHc 48,200.00

Returns = GHc 1230.15

**Commission** = C. A x Rate of commission

But,

$$\begin{aligned} C. A &= \text{Sales} - \text{Quota} - \text{Returns} \\ &= 48,200 - 15,000 - 1230.15 \\ &= \text{GHc } 31,969.85 \times 0.045 \end{aligned}$$

**Commission** = GHc 1,438.64

**Therefore**, Kwartzikor Adzo's personal commission is GHc 1,438.64

## HARUNA ADIZA

Personal Sales = GHc 45,155.00

Returns = GHc 1,172.10

**Commission** = C.A x Rate of Commission

But,

$$\begin{aligned} C.A &= \text{Sales} - \text{Quota} - \text{Returns} \\ &= 45,155 - 15,000 - 1172.10 \\ &= \text{GHc } 28,982.90 \times 0.045 \\ &= \text{GHc } 1,304.23 \end{aligned}$$

**Therefore**, Haruna Adiza's personal commission is GHc 1,304.23

## (II). GROSS EARNINGS OF THE SUPERVISORS

### AGYEMAN SELINA (SUPERVISOR)

Personal Sales = GHc 82,000

Returns = GHc 28,775.40

Basic Salary = GHc 485.75

**GROSS EARNINGS** = *Basic Salary* + *Commission* + *Override*

**Commission** = C.A x Rate of Commission

$$\begin{aligned} \text{But, } C.A &= \text{Sales} - \text{Quota} - \text{Returns} \\ &= 82,000 - 15,000 - 28,775.40 \\ &= \text{GHc } 38,224.60 \end{aligned}$$

**Commission** = GHc 38,224.60 x 0.025  
= GHc 955.62

### OVERRIDE

**Store override** = Override Commission Amount x Override Rate

## FINANCIAL OTABIL

$$\begin{aligned} O.C.A &= \text{Store Sales} - \text{Store Quota} - \text{Store Returns} \\ &= \text{GHc } 168,784.50 - \text{GHc } 30,000 - \text{GHc } 16,780 \\ &= \text{GHc } 122,004.50 \times 0.035 \\ &= \text{GHc } 4,270.16 \end{aligned}$$

$$\begin{aligned} \text{GROSS EARNINGS} &= \text{GHc } 485.75 + \text{GHc } 955.62 + \text{GHc } 4270.16 \\ &= \text{GHc } 5,711.53 \end{aligned}$$

Therefore, Agyeman Selina's gross earning is GHc 5,711.53

### MOHAMMED SEIDU (SENIOR SUPERVISOR)

$$\text{Personal Sales} = \text{GHc } 56,700$$

$$\text{Returns} = \text{GHc } 12,000.20$$

$$\text{Basic Salary} = \text{GHc } 550.25$$

$$\text{GROSS EARNINGS} = \text{Basic salary} + \text{Commission} + \text{Override}$$

$$\text{Commission} = C.A \times \text{Rate of Commission}$$

But,

$$\begin{aligned} C.A &= \text{Sales} - \text{Quota} - \text{Returns} \\ &= 56,700 - 15,000 - 12,000.20 \\ &= \text{GHc } 29,699.80 \end{aligned}$$

$$\begin{aligned} \text{Commission} &= \text{GHc } 29,699.80 \times 0.03 \\ &= \text{GHc } 890.99 \end{aligned}$$

### OVERRIDE

$$\text{Store Override} = \text{Override Commission Amount} \times \text{Override Rate}$$

$$\begin{aligned} O.C.A &= \text{Store Sales} - \text{Store Quota} - \text{Store Returns} \\ &= \text{GHc } 168,784.50 - \text{GHc } 30,000 - \text{GHc } 16,780 \\ &= \text{GHc } 122,004.50 \times 0.05 \\ &= \text{GHc } 6,100.23 \end{aligned}$$

$$\begin{aligned} \text{GROSS EARNINGS} &= \text{GHc } 550.25 + \text{GHc } 890.99 + \text{GHc } 6,100.23 \\ &= \text{GHc } 7,541.47 \end{aligned}$$

Therefore, Mohammed Seidu's gross earning is GHc 7541.47

### NOTES:

- C. A means Commission Amount
- O.C.A means Override Commission Amount

In (II), the question asked us to find the gross earning and not the total earning, so Agyeman Selina's draws will not be used in this case.

POWERED BY: FINANCIAL OTABIL