

FINANCIAL OTABIL

BUSINESS MATHEMATICS ASSIGNMENT 2

MELCOM SUPERMARKET

Staff Salary = GHc 700.00

Staff Quota = GHc 8500.00

Personal Commission rate = 4.25% for sales up to GHc 40,000.00

Bonus = GHc 1,200 for sales above GHc 47,500

Store Quota = GHc 70,000.00

Store returns = GHc 15,000

Override rate = 2.75%

(I)

Sales = GHc 18,500

Commission Amount = Sales – Quota

$$= \text{GHc } 18,500 - \text{GHc } 8,500$$

$$= \text{GHc } 10,000.00$$

Therefore, the personal commission amount is GHc 10,000.00

(II)

Personal Sales = GHc 17,000.00

Quota = GHc 8,500

Commission = Commission Amount x Rate of commission

But,

Commission Amount = Sales – Quota

$$= \text{GHc } 17,000 - \text{GHc } 8,500$$

$$= \text{GHc } 8,500$$

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$$\begin{aligned}\text{Commission} &= \text{GHc } 8,500 \times 0.0425 \\ &= \text{GHc } 361.25\end{aligned}$$

Therefore, personal commission is GHc 361.25

(III)

$$\text{Sales} = \text{GHc } 24,500.00$$

$$\text{Draws} = \text{GHc } 350.00$$

$$\text{Net earnings} = \text{Salary} + \text{Commission} - \text{Draws}$$

$$\text{Commission} = \text{Commission Amount} \times \text{Rate of Commission}$$

$$\text{Commission Amount} = \text{Sales} - \text{Quota}$$

$$= \text{GHc } 24,500 - \text{GHc } 8,500$$

$$= \text{GHc } 16,000.00$$

$$\text{Commission} = \text{GHc } 16,000 \times 0.0425$$

$$= \text{GHc } 680.00$$

$$\text{Net Earnings} = \text{GHc } 700 + \text{GHc } 680 - \text{GHc } 350$$

$$= \text{GHc } 1,030.00$$

Therefore, the net earnings will be GHc 1,030.00

(IV)

$$\text{Store Sales} = \text{GHc } 112,550.00$$

$$\text{Store Commission amount} = \text{Store Sales} - \text{Store Quota} - \text{Store Returns}$$

$$= \text{GHc } 112,550 - \text{GHc } 70,000 - \text{GHc } 15,000$$

$$= \text{GHc } 27,550.00$$

Therefore, the commission amount is GHc 27,550.00

(V)

$$\text{Store Sales} = \text{GHc } 130,500$$

$$\text{O.C} = \text{Override Commission amount} \times \text{Override rate}$$

$$\text{O.C.A} = \text{Store Sales} - \text{Store Quota} - \text{Store Returns}$$

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$$= \text{GHc } 130,500 - \text{Ghc } 70,000 - \text{GHc } 15,000$$

$$= \text{GHc } 45,500.00$$

$$\text{O.C} = \text{GHc } 45,500 \times 0.0275$$

$$= \text{GHc } 1,251.25$$

Therefore, Humaira made GHc 1,251.25 override for that period.

(VI)

$$\text{Salary} = \text{GHc } 1,200$$

$$\text{Net earnings} = \text{Salary} + \text{Override Commission}$$

$$= \text{GHc } 1,200 + \text{GHc } 1,251.25$$

$$= \text{GHc } 2,451.25$$

Therefore, Humaira's take home is GHc 2,451.25

(VII)

$$\text{Personal Sales} = \text{GHc } 55,500.00$$

$$\text{Personal Returns} = \text{GHc } 4,000.00$$

$$\text{C.A} = \text{Sales} - \text{Quota} - \text{Returns}$$

$$= \text{GHc } 55,500 - \text{GHc } 8,500 - \text{GHc } 4,000$$

$$= \text{GHc } 43,000.00$$

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

$$= \text{GHc } 43,000 \times 0.0425$$

$$= \text{GHc } 1,827.50$$

$$\text{Gross earning} = \text{Salary} + \text{Commission} + \text{Bonus}$$

$$= \text{GHc } 700 + \text{GHc } 1,827.50 + \text{GHc } 1,200$$

$$= \text{GHc } 3,727.50$$

Muntaka qualifies for a bonus because, his net sales is GHc 51,500.00 (i.e 55,500 – 4000). Therefore,

Muntaka's gross earning is GHc 3,727.50

(VIII)

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Personal Sales = GHc 35,000.00

Store Sales = GHc 136,550.00

Salary = GHc 1,200

Total earnings = Salary + Commission + override

Personal Commission = Commission Amount x Rate of Commission

C.A = Sales – Quota

= GHc 35,000 – GHc 8,500

= GHc 26,500.00

Commission = GHc 26,500 x 0.0425

= GHc 1,126.25

O.C = O.C.A x O.R

O.C.A = Store Sales – Store Quota – Store Returns

= GHc 136,500 – GHc 70,000 – GHc 15,000

= GHc 51,500 x 0.0275

= GHc 1,416.25

Total earnings = GHc 1,200 + GHc 1,126.25 + GHc 1,416.25

= GHc 3742.50

Therefore, the supervisor's total earnings is GHc 3,742.50

(IX)

Store Sales = GHc 100,000.00

Store Returns = GHc 25,000.00

O.C.A = Store Sales – Store Quota – Store Returns

= 100,000 – 70,000 – 25,000

GHc 5,000

O.C = O.C.A x Rate

= GHc 5,000 x 0.0275

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= GHc 137.50

Therefore, the override of the supervisor is GHc 137.50

(X)

A Staff has to make a sale of at least GHc 47,500.01 in order to earn a bonus.

NOTE:

C.A means Commission Amount

O.C means Override Commission

O.C.A means Override Commission Amount

O. R means Override Rate

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