

FORMULAE FOR BUSINESS CALCULATIONS IN ENTREPRENEURSHIP EDUCATION

ACCOUNTING AND COMMERCE

POINTS TO NOTE:

- Always show the units where they are relevant.
- State the formula first.
- Substitute the formula with relevant items
- Substitute the items with their respective figures
- Show the calculations step by step
- Arrive at the answer at the bottom
- Underline the answer with Double lines below
- At all stages, keep Equal signs at the same level
- Never abbreviate anything except for percentage (%)

FORMULAE USED IN FINAL ACCOUNTS

1. NET PURCHASES: Purchases – Returns outwards (Returns on
Purchases/Purchase Returns)

 Shs -
 Shs = -----

Or From cost of sales:
 Net purchases = Cost of Sales + Closing Stock – Opening Stock
 Shs =
 Shs = -----
 NET SALES = Sales - Returns Inwards (Sales Returns/Returns on Sales)

From cost of sales:

$$\begin{aligned} \text{Net sales} &= \text{Cost of sales} + \text{Gross profit} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

Cost of goods available for sale:

$$\begin{aligned} &= \text{Opening stock} + \text{Net purchases} + (\text{Wages} + \text{Carriage} \\ &\quad \text{Inwards/carriage on purchase if any}) \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

$$\begin{aligned} \text{Cost of sales:} &= \text{Cost of goods available for sale} - \text{Closing stock} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

$$\begin{aligned} \text{Cost of sales} &= \text{Rate of turnover} \times \text{Average stock} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

$$\begin{aligned} \text{Gross profit} &= \text{Net sales} - \text{Cost of sales} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

9). (i). Turnover (Total sales) = Cost of sales + Gross profit

$$\begin{aligned} \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

(ii). From Mark up.

$$\begin{aligned} \text{Turn over} &= \text{Mark up} \times \text{Cost of sales} \\ &\quad (\text{Te \%} \times \text{cost of sales}) \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

10). Expenses = Gross profit – Net profit

$$\begin{aligned} \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

OR Sometimes as % of Gross profit:

$$\begin{aligned} &= \quad \% \times \text{Gross profit} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

BALANCE SHEET EQUATION

Capital

Liabilities

Assets are the main items

$$\begin{aligned} \text{Net} &= \text{Capital} + \text{Liabilities} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

1. Working capital.

Capital needed for daily running of the business.

$$\begin{aligned} \text{Working capital} &= \text{Total Current Assets} - \text{Total Current liabilities} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

Capital Employed

Amount of capital tied up in Assets of the business

$$\begin{aligned} \text{Capital employed} &= \text{Total Fixed Assets} + \text{Working Capital} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

Capital owned:

The amount of the business owes to its owner(s). Also called Owners' Equity.

$$\begin{aligned} \text{Capital owned} &= \text{Total Assets} - \text{Total Liabilities} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

$$\begin{aligned} \text{Gross profit} &= \text{Net profit} + \text{Expenses} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

$$\begin{aligned} \text{Or} \quad \text{Gross profit} &= \text{Selling price} - \text{Cost price} \\ &= (\text{Net sales} - \text{Purchases}) \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

$$\begin{aligned} \text{Or} \quad \text{Gross profit from Mark up} &= \text{Mark up} \times \text{Cost of sales} \\ &= (\% \times \text{cost of sales}) \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

$$\begin{aligned} \text{Or} \quad \text{Gross profit} &= \% \text{ given} \times \text{Net Sales (Sales)} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

$$\begin{aligned} \text{Or} \quad \text{Gross profit from the margins:} \\ \text{Gross profit} &= \text{Margin} \times \text{Net Sales (Sales)} \\ &= (\% \times \text{Net Sales}) \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

$$\begin{aligned} \text{Net profit} &= \text{Gross profit} - \text{Total Revenue expenses or just expenses} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

$$\begin{aligned} \text{Net profit from a percentage of sales} \\ \text{Net profit} &= \% \times \text{Net Sales (Sales)} \\ \text{Shs} &= \\ \text{Shs} &= \text{-----} \end{aligned}$$

Net loss = Gross profit – Total Revenue expenses
(occurs when expenses are greater than the gross profit)

Shs =

Shs = -----

Average stock = $\frac{\text{Opening stock} + \text{Closing stock}}{2}$

Shs =

Shs = -----

Fixed capital

Capital tied up in Fixed Assets.

Fixed capital = Total value of Fixed Assets

Shs =

Shs = -----

Please Note: If the values for Depreciation or provision for depreciation are given, they must be deducted from the value of the Asset(s) to obtain the Net value(s) of the Asset(s).

5. Trading capital: Fixed assets + Current Assets

Shs =

Shs = -----

6 Circulating/Circulatory/Liquid/Floating Capital = Total Business Assets – Fixed Assets

Shs =

Shs = -----

1. Borrowed capital = Long term liabilities

Shs =

Shs = -----

ACCOUNTING RATIOS

$$\text{Net profit ratio} = \left(\frac{\text{Net profit}}{\text{Net Sales (sales)}} \times 100 \right) \%$$

=

$$= \frac{\%}{\underline{\underline{\hspace{2cm}}}}$$

$$\text{Margin} = \left(\frac{\text{Gross profit}}{\text{Net sales (sales)}} \times 100 \right) \%$$

=

$$= \frac{\%}{\underline{\underline{\hspace{2cm}}}}$$

$$\text{Mark up} = \left(\frac{\text{Gross profit}}{\text{Cost of sales}} \times 100 \right) \%$$

=

$$= \frac{\%}{\underline{\underline{\hspace{2cm}}}}$$

$$\text{Rate of return on capital} = \left(\frac{\text{Net profit}}{\text{Capital Employed}} \times 100 \right) \%$$

=

$$= \frac{\%}{\underline{\underline{\hspace{2cm}}}} \text{ or Ne times if \% is not used.}$$

$$\text{Rate of stock turn over} = \frac{\text{Cost of sales}}{\text{Average stock}}$$

=

$$= \frac{\text{Times}}{\underline{\underline{\hspace{2cm}}}}$$

6. Current ratio = $\frac{\text{current assets}}{\text{Current liabilities}}$

=

= -----

Normal ratio should be 2:1

7 Quick Acid ratio = $\frac{\text{current assets} - \text{closing stock}}{\hspace{2cm}}$

Current liabilities

=

=

Recommended ratio is 1

2. Ratio of creditors to purchases = $\frac{\text{creditors}}{\text{Net purchases}}$ x 100

=

= $\frac{\%}{\underline{\underline{\hspace{2cm}}}}$

3. Period of credit given (Number of days taken to collect debts from debtors)

= $\frac{\text{Debtors}}{\text{Credit sales}}$ x 365

=

= $\frac{\text{Days}}{\underline{\underline{\hspace{2cm}}}}$

4. Period of credit obtained (Number of days the business should take to pay creditors)

= $\frac{\text{Creditors}}{\text{Credit purchases}}$ x 365

=

= $\frac{\text{Days}}{\underline{\underline{\hspace{2cm}}}}$

END