# RATIO ANALYSIS 

(LECTURE-6)

SEMESTER-6<br>JUHI JAISWAL

## MASTER PROBLEMS

## Problem -1

Following are incomplete Trading \& Profit and Loss A/c. and Balance Sheet.
Trading A/c.

| Particular | Rs. | Particular | Rs. |
| :--- | ---: | :--- | ---: |
| To Op. stock | $3,50,000$ | By Sales | (?) |
| To Purchase | (?) | By Closing Stock | (?) |
| To Purchase Return | 87,000 |  |  |
| To Gross Profit | $7,18,421$ |  |  |
|  | $14,96,710$ |  | $14,96,710$ |

Profit \& Loss A/c.

| Particular | Rs. | Particular | Rs. |
| :--- | ---: | :--- | ---: |
| To Office Exp. | $3,70,000$ | By Gross Profit | $7,18,421$ |
| To Int. on Deb. | 30,000 | By Commission | (?) |
| To Tax. Provision | 18,421 |  |  |
| To Net Profit | $3,50,000$ |  | (?) |

Balance Sheet

| Particular | Rs. | Particular | Rs. |
| :--- | ---: | :--- | ---: |
| Paid Up Capital | $5,00,000$ | Plant \& machinery | $7,00,000$ |
| General Reserve | (?) | Stock | (?) |
| P \& L a/c. | (?) | Debtors | (?) |
| 10\% Debenture | (?) | Bank | 62,500 |
| Current Liabilities | $6,00,000$ | Other Fixed Assets | (?) |

Find out missing items with the help of other details are as under:

1. Current Ratio was $2: 1$.
2. Closing Stock is $25 \%$ of Sales.
3. Proposed Dividend was $40 \%$ of paid up capital.
4. Gross profit Ratio was $60 \%$.
5. Amount transfer to General Reserve is same as proposed Dividend.
6. Balance of $P$ \& $L$ Account is calculated $10 \%$ of proposed dividend.
7. Commission income is $1 / 7$ of Net profit.
8. Balance of General reserve is twice the current year transfer amount.

## Solution

Trading A/c.

| Particular | Rs. | Particular | Rs. |
| :--- | ---: | :--- | ---: |
| To Op. stock | $3,50,000$ | By Sales (?) | $\mathbf{1 1 , 9 7 , 3 6 8}$ |
| To Purchase (?) | $\mathbf{3 , 4 1 , 2 8 9}$ | By Closing Stock (?) | $\mathbf{2 , 9 9 , 3 4 2}$ |
| To Purchase Return | 87,000 |  |  |
| To Gross Profit | $\mathbf{7 , 1 8 , 4 2 1}$ |  | $\mathbf{1 4 , 9 6 , 7 1 0}$ |
|  | $\mathbf{1 4 , 9 6 , 7 1 0}$ |  |  |

## Profit \& Loss A/c.

| Particular | Rs. | Particular | Rs. |
| :--- | ---: | ---: | ---: |
| To Office Exp. | $3,70,000$ | By Gross Profit | $\mathbf{7 , 1 8 , 4 2 1}$ |
| To Int. on Deb. | 30,000 | By Commission (?) | $\mathbf{5 0 , 0 0 0}$ |
| To Tax. Provision | 18,421 |  |  |
| To Net Profit | $3,50,000$ |  | $\mathbf{7 , 6 8 , 4 2 1}$ |
|  | $\mathbf{7 , 6 8 , 4 2 1}$ |  |  |

## Balance Sheet

| LIABILITIES | AMOUNT | ASSETS | AMOUNT |
| :--- | ---: | :--- | ---: |
| Paid Up Capital | $5,00,000$ | Plant \& machinery | $\mathbf{7 , 0 0 , 0 0 0}$ |
| General Reserve (?) | $\mathbf{6 , 0 0 , 0 0 0}$ | Stock (?) | $\mathbf{2 , 9 9 , 3 4 2}$ |
| P \& L a/c. (?) | $\mathbf{2 0 , 0 0 0}$ | Debtors (?) | $\mathbf{8 , 3 8 , 1 5 8}$ |
| $10 \%$ Debenture (?) | $\mathbf{3 , 0 0 , 0 0 0}$ | Bank (?) | 62,500 |
| Current Liabilities | $\mathbf{6 , 0 0 , 0 0 0}$ | Other Fixed Assets | $\mathbf{1 , 2 0 , 0 0 0}$ |
|  | $\mathbf{2 0 , 2 0 , 0 0 0}$ |  | $\mathbf{2 0 , 2 0 , 0 0 0}$ |


| 1. Gross Profit Margin $=$ | $\frac{\text { Gross profit }}{\text { Sales }}$ | X 100 |
| :---: | :---: | :---: |
|  | $60=\frac{7,18,421}{\text { Sales }}$ | X 100 |
|  | $\text { Sales }=\frac{7,18,421}{60}$ | X 100 |
|  | Sales $=11,97,368$ |  |


| 2. Closing Stock $=$ | Sales $\times \mathbf{2 5 \%}$ |
| :---: | :---: |
|  | $11,97,368 \times 25 \%$ |
|  | $\mathbf{C S}=\mathbf{2 , 9 9}, \mathbf{3 4 2}$ |


| 3. Proposed Dividend $=$ | Paid up Capital $\times 40 \%$ |
| :---: | :---: |
|  | $=5,00,000 \times 40 \%$ |
| PD $=2,00,000$ |  |


| 4. General Reserve = | GR find out as per Proposed Dividend |
| :---: | :---: |
|  | Proposed Dividend is $2,00,000$ |
|  | ```So that \\ Proposed Dividend = General \\ Reserve``` |
|  | $\mathrm{GR}=2,00,000$ |


| 5. Commission $=$ | It is $1 / 7$ part of Net Profit |
| :--- | :---: |
|  | Commission $=3,50,000 \times 1 / 7$ |
|  | Commission $=50,000$ |


| 6. Profit \& Loss Account $=\quad$ It is $10 \%$ of Proposed Dividend |  |
| :---: | :---: |
|  | P \& L A/c. $=2,00,000 \times 10 \%$ |
| $=\mathbf{2 0 , 0 0 0}$ |  |


| 7. Debenture = | Rate of Interest is $10 \%$ |
| :--- | :---: |
| Interest amount is Rs. 30,000 |  |
| So that, Debenture value is <br> $=30,000 \times 100 / 10$ |  |
|  |  |


| 8. Current Ratio $=$ | $\frac{\text { Current Assets }}{\text { Current liabilities }}$ |  |
| :---: | :---: | :---: |
|  | $2=\frac{\text { Stock + debtors + Bank Balance }}{\text { Current Liability }}$ |  |
|  | $2=\frac{2,99,342+\text { debtors }+62,500}{6,00,000}$ |  |
|  | $12,00,000=$ Debtors $+3,61,842$ |  |


| 9. Balance of General Reserve = | It is twice of current year provision for General Reserve |
| :---: | :---: |
|  | Current year provision is Rs. 2,00,000 |
|  | So that, Balance of G. R. $=2,00,000 \times 2$ |
|  | Balance of GR = 4,00,000 |
|  | Now, General Reserve $=4,00,000+2,00,000$ |
|  | GR = 6,00,000 |

## Problem -2

From the following information, prepare the Balance Sheet of ABB Ltd. Showing the details of working:

Paid up capital
Plant and Machinery
Total Sales (p.a.)
Gross Profit
Annual Credit Sales
Current Ratio
Inventory Turnover
Fixed Assets Turnover
Sales Returns
Average collection period
Bank Credit to trade credit
Cash to Inventory
Total debt to current Liabilities

Rs. 50,000
Rs. 1,25,000
Rs. 5,00,000
25\%
80\% of net sales
2
4 2
20\% of sales
73 days
2
1:15
3

## Solution

| 1. Net Sales = | Total Sales - Sales Return |
| :---: | :---: |
|  | = 5,00,000-1,00,000 |
|  | = Rs. 4,00,000 |
| 2. Credit Sales = | 80\% of Net Sales |
|  | = 4,00,000 x 80\% |
|  | = Rs. 3,20,000 |
| 3. Gross Profit = | 25\% of Net sales |
|  | = 4,00,000 $\times 25 \%$ |
|  | = Rs. 1,00,000 |
| 4. Cost of Goods Sold = | Net Sales - Gross Profit |
|  | = 4,00,000-1,00,000 |
|  | $=$ Rs. 3,00,000 |
| 5. Inventory = | Cost of Goods Sold Inventory Turnover |
|  | $=\frac{3,00,000}{4}$ |
|  | = Rs. 75,000 |
| 6. Receivable Turnover = | $\begin{aligned} & \frac{365}{73} \\ & =5 \end{aligned}$ |



| Balance Sheet |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| LIABILITIES | AMOUNT | ASSETS | AMOUNT |  |
| Paid Up Capital | 50,000 | Plant \& machinery | $1,25,000$ |  |
| Reserves \& Surplus | 78,000 | Other Fixed Assets | 75,000 |  |
| Long term Debt | $1,44,000$ | Inventory | 75,000 |  |
| Bank credit | 48,000 | Receivables | 64,000 |  |
| Trade credit | 24,000 | Cash | 5,000 |  |
|  | $\mathbf{3 , 4 4 , 0 0 0}$ |  | $3,44,000$ |  |

