

**UDHNA CITIZEN COMMERCE COLLEGE &
S.P.B. COLLEGE OF BUSINESS ADMINISTRATION &
SMT. DIWALIBEN HARJIBHAI GONDALIA COLLEGE OF BCA & IT**

(Self Financed)

(Managed by Udhna Academy Education Trust)

214, Ranchhod Nagar, Opp. Swaminarayan Temple, Surat-Navsari Road, SURAT-394 210

Class: T.Y.B.Com. (Sem. 5)

Subject: Advanced Accounting & Auditing 6

Ratio Analysis (Question and Solution Practice-2)

| | | | | | | | |
|--------------|--|--------------|-----|--------|-----------|-------|-----|
| 1. | <p>Stock turnover is 8 times Sales Rs. 500000 Gross profit is 25% on cost. Closing stock is Rs. 10000 more than opening stock. Find out the closing stock.</p> | | | | | | |
| Ans. | <p>Suppose Opening Stock is X So closing stock X + 10000 Avg. Stock = $\frac{\text{Op. Stock} + \text{Closing Stock}}{2}$ $= \frac{X + (X+10000)}{2}$ $= \frac{2X + 10000}{2}$ $= X + 5000$</p> <p>Sales = 500000 Profit :</p> <table style="margin-left: 20px; border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">Suppose Cost</td> <td style="text-align: right;">100</td> </tr> <tr> <td>Profit</td> <td style="text-align: right;"><u>25</u></td> </tr> <tr> <td>Sales</td> <td style="text-align: right;">125</td> </tr> </table> <p>So Profit $(500000 \times \frac{25}{125}) = 100000$ COGS = $500000 - 100000 = 400000$</p> <p>Stock turnover = $\frac{\text{COGS}}{\text{Avg. Stock}}$ $8 = \frac{400000}{X+5000}$ $X = 45000$</p> <p>Opening Stock = 45000 Closing stock = $45000 + 10000 = \mathbf{55000}$</p> | Suppose Cost | 100 | Profit | <u>25</u> | Sales | 125 |
| Suppose Cost | 100 | | | | | | |
| Profit | <u>25</u> | | | | | | |
| Sales | 125 | | | | | | |
| 2. | <p>Current ratio 2.8:1 Liquidity ratio 1.5:1 Working Capital Rs. 81000 There is no bank overdraft in Current Liabilities. Find out Current assets, Current Liabilities and Liquid assets.</p> | | | | | | |
| Ans. | <p>Working Capital = Current Assets - Current liabilities $= 2.8 - 1$ $= 1.8$</p> <p>working capital Current Assets</p> | | | | | | |

| | | | | | | | | | | | | | |
|-----------------|---|-----------------|----------------|--------------|-----|-----------------|---------------------|-----------------|---------------------|-------|-----|-------|-----|
| | <table style="margin-left: 40px;"> <tr> <td style="padding-right: 20px;">1.8</td> <td>2.8</td> </tr> <tr> <td>81000</td> <td>(?)</td> </tr> </table> <p>So, Current Assets = 126000</p> <table style="margin-left: 40px;"> <tr> <td style="padding-right: 20px;">working capital</td> <td>Current liabilities</td> </tr> <tr> <td style="padding-right: 20px;">1.8</td> <td>1</td> </tr> <tr> <td>81000</td> <td>(?)</td> </tr> </table> <p>Current liabilities = 45000</p> <p>There is no BOD, so current liabilities = liquid liabilities Liquidity ratio 1.5:1 So, Liquid Assets = (45000 * 1.5) = 67500</p> | 1.8 | 2.8 | 81000 | (?) | working capital | Current liabilities | 1.8 | 1 | 81000 | (?) | | |
| 1.8 | 2.8 | | | | | | | | | | | | |
| 81000 | (?) | | | | | | | | | | | | |
| working capital | Current liabilities | | | | | | | | | | | | |
| 1.8 | 1 | | | | | | | | | | | | |
| 81000 | (?) | | | | | | | | | | | | |
| 3 | <p>Following is the info. Of Ganesh co. ltd. Calculate current assets, current liabilities, liquid assets & liquid liabilities.</p> <table style="margin-left: 40px;"> <tr> <td style="padding-right: 20px;">Current ratio</td> <td>2.5:1</td> </tr> <tr> <td>Liquid ratio</td> <td>3:1</td> </tr> <tr> <td>Working cap.</td> <td>Rs. 60000</td> </tr> <tr> <td>Stock is</td> <td>2 times than B.O.D.</td> </tr> </table> | Current ratio | 2.5:1 | Liquid ratio | 3:1 | Working cap. | Rs. 60000 | Stock is | 2 times than B.O.D. | | | | |
| Current ratio | 2.5:1 | | | | | | | | | | | | |
| Liquid ratio | 3:1 | | | | | | | | | | | | |
| Working cap. | Rs. 60000 | | | | | | | | | | | | |
| Stock is | 2 times than B.O.D. | | | | | | | | | | | | |
| Ans. | <p>Working Capital = Current Assets - Current liabilities = 2.5-1 = 1.5</p> <table style="margin-left: 40px;"> <tr> <td style="padding-right: 20px;">working capital</td> <td>Current Assets</td> </tr> <tr> <td style="padding-right: 20px;">1.5</td> <td>2.5</td> </tr> <tr> <td>60000</td> <td>(?)</td> </tr> </table> <p>So, Current Assets = 100000</p> <table style="margin-left: 40px;"> <tr> <td style="padding-right: 20px;">working capital</td> <td>Current liabilities</td> </tr> <tr> <td style="padding-right: 20px;">1.5</td> <td>1</td> </tr> <tr> <td>60000</td> <td>(?)</td> </tr> </table> <p>Current liabilities = 40000</p> <p>Liquid Ratio = Current Asset – stock / Current liabilities – BOD Suppose BOD = x, SO stock = 2x 3 = 100000 - 2x / 40000 - x X = 20000 BOD = 20000 Stock = 40000</p> <p>Liquid Assets = Current Asset – stock = 100000 - 40000 = 60000</p> <p>Liquid Liabilities = Current liabilities – BOD = 40000 – 20000 = 20000</p> | working capital | Current Assets | 1.5 | 2.5 | 60000 | (?) | working capital | Current liabilities | 1.5 | 1 | 60000 | (?) |
| working capital | Current Assets | | | | | | | | | | | | |
| 1.5 | 2.5 | | | | | | | | | | | | |
| 60000 | (?) | | | | | | | | | | | | |
| working capital | Current liabilities | | | | | | | | | | | | |
| 1.5 | 1 | | | | | | | | | | | | |
| 60000 | (?) | | | | | | | | | | | | |

Q.4

The balance sheet of Ankur Co. Ltd. as on 31.3.2019 is as under:

| | Particulars | Rs. |
|-----------|---|----------------------|
| I | EQUITY AND LIABILITIES | |
| 1. | Shareholders' Funds: | |
| a. | Share Capital | |
| | Equity Share capital (Rs. 10) | 240000 |
| | 10% Red. Pref. share capital (Rs. 10 each) | 160000 |
| b. | Reserves and Surplus | |
| | General Reserve | 40000 |
| 2. | Non-Current Liabilities: | |
| a. | Long-term borrowings: 10% Debentures | 180000 |
| 3. | Current liabilities: | |
| a. | Trade payables: Creditors | 56000 |
| | Bills payable | 20000 |
| b. | Other current liabilities: Bank overdraft | 10000 |
| | Outstanding expenses | 4000 |
| | Total | <u>710000</u> |
| II | ASSETS | |
| 1 | Non-Current Assets: | |
| a. | Fixed Assets | |
| 1. | Tangible Assets | |
| | Land and Buildings | 270000 |
| | Machinery | 160000 |
| b. | Other Non-Current Assets: Preliminary expense | 100000 |
| 2. | Current Assets: | |
| a. | Inventories | 20000 |
| b. | Trade receivable | |
| | Debtors | 56480 |
| | Bills receivable | 18400 |
| c. | Cash and cash equivalents | |
| | Cash | 85120 |
| | Bank balance | - |
| | Total | <u>710000</u> |

Additional Information:

| | |
|---|---------------|
| Credit sales (60% of total sales) | Rs. 480000 |
| Adjusted purchases | 480000 |
| Net profit (after deducting interest and tax) | 80000 |
| Administrative expenses | 50000 |
| Financial expenses | 26000 |
| Sales and Distribution Expenses | 4000 |
| Stock on 1.04.2018 | 80000 |

Rate of income tax on profit is 50%.

Calculate the following ratios:

1. Liquidity ratio
2. Gross profit ratio
3. Operating ratio

4. Stock turnover ratio
5. Debtor ratio (assume 360 days)
6. Rate of return on capital employed
7. Rate of return on equity share capital

Ans.

1. Liquidity ratio = Liquid Assets/ Liquid Liabilities
= 160000/80000
= 2 times
2. Gross Profit ratio = Gross Profit /Sales *100
= 320000/800000 *100
= 40%
3. Operating Ratio = COGS + Operating exp./Sales *100
= 480000 + 54000 / 800000 *100
= 66.75%
4. Stock Turnover Ratio = COGS/ Avg. Stock
= 480000/50000
= 9.6 times
5. Debtor Ratio = Debtors + Bills receivable / Credit Sales * 360
= 56480 + 18400 /480000 *360
= 56.16 days
6. Rate of return on capital employed = EBIT/ Capital employed *100
= 178000/520000 *100
= 34.23%
7. Rate of return on equity share capital = EAIT – Pref. Dividend / Equity share capital *100
= 80000- 16000 / 240000 *100
= 26.67%

Q.5 The following is summarized balance sheet of Smit Ltd. As on 31st March 2018.

| | Particulars | Rs. |
|----------|--|--------|
| I | EQUITY AND LIABILITIES | |
| | 1. Shareholders' Funds: | |
| | a. Share Capital | |
| | Equity Share capital | 300000 |
| | 10% redeemable Pref. share capital | 150000 |
| | b. Reserves and Surplus | 115000 |
| | c. Money received against share warrants | |
| | 2. Share Application Money pending allotment | |
| | 3. Non-Current Liabilities: | |
| | a. Long-term borrowings: 8% Debentures | 200000 |
| | b. Deferred Tax liability (Net) | |
| | c. Other long term liabilities | |

| | | | |
|-----------|-----------|---|---------------|
| | d. | Long-term provisions | |
| | 4. | Current liabilities: | |
| | a. | Short-term borrowings: Bank overdraft | 30000 |
| | b. | Trade payables: Creditors | 110000 |
| | | Bills payable | 20000 |
| | c. | Other current liabilities: Outstanding expenses | 10000 |
| | d. | Short-term provisions: | |
| | | Total | 935000 |
| II | | ASSETS | |
| | 1 | Non-Current Assets: | |
| | a. | Fixed Assets | |
| | 1. | Tangible Assets | 600000 |
| | 2. | Intangible Assets: | |
| | b. | Non-Current Investments | |
| | c. | Long-term loans & Advances | |
| | d. | Other Non-Current Assets: Preliminary expenses | 15000 |
| | 2. | Current Assets: | |
| | a. | Current investments: | |
| | b. | Inventories | 120000 |
| | c. | Trade receivable: Debtors | 100000 |
| | | Bills receivable | 30000 |
| | d. | Cash and cash equivalents | |
| | | Cash and bank balance | 50000 |
| | e. | Short-term loans and advances: Prepaid expenses | 20000 |
| | f. | Other Current Assets | |
| | | Total | 935000 |

Additional Information:

1. Total sales (cash sales are 20% of credit sales) Rs. 1080000
2. Cost of goods sold Rs. 540000
3. Net profit (before interest and tax provision) Rs. 300000
4. Stock on 1.4.2017 Rs. 100000

From the above information, calculate the following ratios

1. Current ratio
2. Debtors ratio (360 days)
3. Return on capital employed
4. Net profit ratio
5. Capital gearing ratio
6. Debt equity ratio (on the basis of long term debt)
7. Liquid ratio
8. Operating ratio

(M.A.2008)

| | |
|------|---|
| Ans. | <p>1. Current Ratio = Current Assets / Current Liabilities = 320000/170000 = 1.88:1</p> <p>Suppose credit sales 100 Cash sales <u>20</u></p> |
|------|---|

Total sales 120

Total sales Credit Sales
 120 100
 1080000 ?
 Credit Sales = 900000

2. Debtors ratio = Debtors + Bills receivable / Credit Sales * 360
 = 100000 + 30000 / 900000 * 360
 = 52 Days

3. Return on capital employed = EBIT/ Capital employed * 100
 = 300000/750000 * 100
 = 40%

4. Net profit ratio = Net Profit / Sales * 100
 = 142000/1080000 * 100
 = 13.15%

5. Capital gearing ratio = Long term liabilities + Pref.Share Capital / Equity Share Capital * 100
 = 200000 + 150000 / 300000 * 100
 = 1.16

6. Debt equity ratio(on the basis of long term debt) = Long term liabilities/ Owner's fund * 100
 = 200000/ 550000 * 100
 = 36.36%

7. Liquid ratio = Liquid Assets/ Liquid Liabilities
 = 180000/140000
 = 1.29:1

8. Operating Ratio = COGS + Operating exp./Sales * 100
 = 540000 + 240000 / 1080000 * 100
 = 72.22%

Q.6 Find out the following ratio from the balance sheet of Jigar Ltd. as on 31.3.2018 and additional details given to you:

1. Stock turnover ratio
2. Proprietary ratio
3. Current ratio
4. Liquid ratio
5. Rate on return on capital employed
6. Rate on return on equity capital
7. Net profit ratio
8. Creditors ratio

Balance Sheet of Jigar Ltd. As on 31.3.2018

| | | Particulars | Rs. |
|----------|----|-------------------------------|-----|
| I | | EQUITY AND LIABILITIES | |
| | 1. | Shareholders' Funds: | |

| | | | |
|-------------------------------------|-----------|--|----------------|
| | a. | Share Capital | |
| | | Equity Share capital (Rs. 10) | 400000 |
| | | 10% redeemable Pref. share capital | 250000 |
| | b. | Reserves and Surplus | |
| | | Profit and Loss A/c | 170000 |
| | | General Reserve | 200000 |
| | c. | Money received against share warrants | |
| | 2. | Share Application Money pending allotment | |
| | 3. | Non-Current Liabilities: | |
| | a. | Long-term borrowings: 8% Debentures | 250000 |
| | b. | Deferred Tax liability (Net) | |
| | c. | Other long term liabilities | |
| | d. | Long-term provisions | |
| | 4. | Current liabilities: | |
| | a. | Short-term borrowings: Bank overdraft (state bank) | 40000 |
| | b. | Trade payables: Creditors | 100000 |
| | | Bills payable | 50000 |
| | c. | Other current liabilities: Provident Fund | 30000 |
| | | Outstanding expenses | 10000 |
| | d. | Short-term provisions: | |
| | | Total | 1500000 |
| II | | ASSETS | |
| | 1 | Non-Current Assets: | |
| | a. | Fixed Assets | |
| | 1. | Tangible Assets | |
| | | Land and Buildings | 500000 |
| | | Machinery | 130000 |
| | 2. | Intangible Assets: | |
| | b. | Non-Current Investments | |
| | c. | Long-term loans & Advances | |
| | d. | Other Non-Current Assets: Debenture discount | 5000 |
| | 2. | Current Assets: | |
| | a. | Current investments: Temporary Investments | 270000 |
| | b. | Inventories | 175000 |
| | c. | Trade receivable: Debtors | 200000 |
| | | Bills receivable | 50000 |
| | d. | Cash and cash equivalents | |
| | | Cash | 20000 |
| | | Bank | 40000 |
| | e. | Short-term loans and advances: Prepaid expenses | 30000 |
| | | Advance income tax | 80000 |
| | f. | Other Current Assets | |
| | | Total | 1500000 |
| Additional information: | | | |
| 1. Cash sale is 20% of total sales. | | | |
| 2. Stock on 1.4.17 is Rs. 125000. | | | |
| 3. Debtor ratio is 90 days. | | | |

4. Gross profit is 40% of sales.
5. Net profit (before interest and tax) is Rs.250000.
6. Rate of taxation is 50%.
7. Working days are 360 days.

(M.A.2007)

Ans.

$$\text{Debtor Ratio} = \text{Debtors} + \text{Bills receivable} / \text{Credit Sales} * 360$$

Suppose credit sales = x

$$90 = 200000 + 50000 / x * 360$$

$$x = 1000000$$

Suppose Total Sales 100

- Cash sales 20

Credit sales 80

| | |
|--------------|-------------|
| Credit sales | Total Sales |
|--------------|-------------|

| | |
|----|-----|
| 80 | 100 |
|----|-----|

| | |
|---------|---|
| 1000000 | ? |
|---------|---|

Total Sales 1250000

Gross Profit 1250000 * 40% = 500000

COGS = Sales 1250000 – Gross profit 500000 = 750000

Avg. Stock = 125000 + 175000/2 = 150000

1. Stock turnover ratio = COGS/ Avg.Stock
= 750000/150000
= 5 times

2. Proprietary ratio = Owner's Fund/ Total Assets *100
= 1015000 / 1495000 *100
= 67.89%

Owner's fund

| | |
|------------------------------------|----------------|
| Equity Share capital | 400000 |
| 10% redeemable Pref. share capital | 250000 |
| Reserves and Surplus | |
| Profit and Loss A/c | 170000 |
| General Reserve | <u>200000</u> |
| | 1020000 |
| - Debenture discount | <u>5000</u> |
| Owner's Fund | 1015000 |
| + Debentures | <u>250000</u> |
| Capital Employed | 1265000 |

3. Current ratio = Current Assets / Current Liabilities
= 865000/ 230000
= 3.76:1

4. Liquid ratio = Liquid Assets/ Liquid Liabilities
= 680000/190000
= 3.17:1

$$\begin{aligned}
 5. \text{ Rate on return on capital employed} &= \text{EBIT} / \text{Capital employed} * 100 \\
 &= 250000 / 1265000 * 100 \\
 &= 19.76\%
 \end{aligned}$$

| | | |
|-------|---|---------------|
| EBIT | = | 250000 |
| -Int. | = | <u>20000</u> |
| | | 230000 |
| Tax | = | <u>115000</u> |
| EAIT | | 115000 |

$$\begin{aligned}
 6. \text{ Rate on return on equity capital} &= \text{EAIT} - \text{Pref. Dividend} / \text{Equity share capital} * 100 \\
 &= 115000 - 25000 / 400000 * 100 \\
 &= 22.5\%
 \end{aligned}$$

$$\begin{aligned}
 7. \text{ Net profit ratio} &= \text{Net Profit} / \text{Sales} * 100 \\
 &= 115000 / 1250000 * 100 \\
 &= 9.2\%
 \end{aligned}$$

$$\begin{aligned}
 \text{COGS} &= \text{opening stock} + \text{purchases} - \text{closing stock} \\
 750000 &= 125000 + \text{purchases} - 175000 \\
 \text{Purchases} &= 800000
 \end{aligned}$$

$$\begin{aligned}
 8. \text{ Creditors ratio} &= \text{Creditors} + \text{Bills Payable} / \text{Credit Purchase} * 360 \\
 &= 100000 + 50000 / 800000 * 360 \\
 &= 67.5 \text{ days}
 \end{aligned}$$

Q.7 From the following information calculate the following ratios:

1. Stock turnover ratio
 2. Operating ratio
 3. Net profit ratio
- Closing stock is 50% of the opening stock.
Purchases are 8 times of the opening stock.
Sales are 15 times of the opening stock.
Adjusted purchase 60%
Purchase expense Rs. 20000
Operating expenses Rs. 60000
Taxation rate is 50%

(M.A.2010)

Ans. Suppose Closing stock x

Opening stock $2x$
 Sales $30x$
 Purchase $16x$
 Adjusted purchase 60% so Gross Profit 40%
 Gross Profit $12x$
 Opening stock + purchases + exp. related purchase + Gross profit = sales + closing stock
 $2x + 20000 + 12x = 30x + x$
 $x = 20000$
 Closing stock $x = 20000$
 Opening stock $2x = 40000$
 Sales $30x = 600000$
 Purchase $16x = 320000$
 Gross Profit $12x = 240000$
 COGS $(600000 - 240000) = 360000$

1. Stock turnover = $\text{COGS} / \text{Average stock}$
 $= 360000 / 30000$
 $= 12 \text{ times}$
2. Operating ratio = $\text{COGS} + \text{Operating exp.} / \text{Sales} * 100$
 $= 360000 + 60000 / 600000 * 100$
 $= 70\%$
3. Net profit ratio = $\text{Net profit} / \text{Sales} * 100$
 $= 90000 / 600000 * 100$
 $= 15\%$

Gross Profit = 240000
 -Operating exp. = 60000
 180000
 Taxes = 90000
 Net Profit 90000

Q.8 From the following information calculate the following ratios:

1. Stock turnover ratio
 2. Debtor's ratio
 3. Creditor's ratio
- Closing stock is 50% of the opening stock.
 Purchases are 8 times of the opening stock.
 Sales are 15 times of the opening stock.
 Adjusted purchase 60%
 Purchase expense Rs.60000
 Creditors and bills payable Rs. 153600
 Debtors Rs.300000
 Proportion of credit sale and cash sales 2:1
 Proportion of credit purchase and cash purchase is 4:1

360 days of the year to be considered.

(M.A.2010)

Ans. Suppose Closing stock x
 Opening stock 2x
 Sales 30x
 Purchase 16x
 Adjusted purchase 60% so Gross Profit 40%
 Gross Profit 12x
 Opening stock + purchases + exp. related purchase + Gross profit = sales + closing stock
 $2x + 60000 + 12x = 30x + x$
 $x = 60000$
 Closing stock $x = 60000$
 Opening stock $2x = 120000$
 Sales $30x = 1800000$
 Purchase $16x = 960000$
 Gross Profit $12x = 720000$
 COGS $(1800000 - 720000) = 1080000$

1. Stock turnover = $\text{COGS} / \text{Average stock}$
 $= 1080000 / 90000$
 $= 12 \text{ times}$
2. Debtor Ratio = $\text{Debtors} + \text{Bills receivable} / \text{Credit Sales} * 360$
 $= 300000 + 1200000 / 1800000 * 360$
 $= 90 \text{ days}$
3. Creditor's ratio = $\text{Creditors} + \text{Bills payable} / \text{credit purchases} * 360$
 $= 153600 + 768000 / 1800000 * 360$
 $= 72 \text{ days}$

Q.9 Some balances of Gangesvar co. ltd. Are as under:

| | Rs. |
|--------------------------------------|---------|
| Equity share capital (each Rs. 100) | 700000 |
| 8% preference share capital | 500000 |
| 10% Debentures | 200000 |
| Retained earning | 210000 |
| Fictitious Assets | 35000 |
| Fixed Assets | 2000000 |
| Debtors | 250000 |
| Bills receivables | 50000 |
| Prepaid expenses | 20000 |
| Cash and Bank | 120000 |
| Quickly salable securities | 60000 |
| Creditors | 150000 |
| Bills payable | 50000 |
| Bank overdraft | 50000 |
| Fright octroy | 40000 |

Additional information:

- i. Closing stock is 25% of the opening stock.

- ii. Purchases are made five times of opening stock.
- iii. The ratio of purchases and sales is 2:5
- iv. Gross profit rate is 50%.
- v. Credit sales are 60% of total sales.
- vi. Divisible profit to equity share holder is Rs. 140000.
- vii. Taxation rate is 40%

Calculate the following ratios:

1. Rate of return on capital employed
2. Debtors ratio (360 days is to be considered)
3. Operating ratio
4. Net profit ratio
5. Inventory turnover ratio
6. Proprietary ratio

(M.A.2011)

Ans.

| | | |
|---|-------|---------------|
| Profit before interest and tax (?) | | 325000 |
| -Interest on Debenture | 20000 | |
| Interest on Public Deposit | 5000 | <u>25000</u> |
| | | 300000 |
| - 40 % taxes | | <u>120000</u> |
| Net Profit after tax | | 180000 |
| - preference dividend | | <u>40000</u> |
| Divisible profit to equity share holder | | 140000 |

$$\begin{aligned}
 1. \text{ Rate of return on capital employed} &= \text{EBIT/ Capital employed} * 100 \\
 &= 325000/ 1625000 * 100 \\
 &= 20\%
 \end{aligned}$$

Suppose Opening Stock = 100x
 Closing stock 25x
 Purchases 500x
 The ratio of purchases and sales is 2:5
 So sales 1250 x
 Gross Profit 625x

Opening stock + purchases + exp. related purchase + Gross profit = sales + closing stock

$$100x + 500x + 40000 + 625x = 1250x + 25x$$

$$X = 800$$

Opening Stock 100x = 80000
 Closing stock 25x = 20000
 Purchases 500x = 400000
 So sales 1250 x = 1000000
 Gross Profit 625x = 500000
 COGS = 1000000-500000 = 500000

$$\begin{aligned}
 2. \text{ Debtor Ratio} &= \text{Debtors + Bills receivable / Credit Sales} * 360 \\
 &= 250000 + 50000 / 600000 * 360 \\
 &= 180 \text{ days}
 \end{aligned}$$

$$3. \text{ Operating Ratio} = \text{COGS + Operating exp./Sales} * 100$$

$$= 500000 + 175000 / 1000000 * 100$$

$$= 67.5\%$$

Profit & Loss Account

| | | | |
|--------------------|---------------|--------------|---------------|
| Operating Exp. (?) | 200000 | Gross Profit | 500000 |
| Taxes | 120000 | | |
| Net Profit | 180000 | | |
| | <u>500000</u> | | <u>500000</u> |

4. Net Profit Ratio = Net Profit / Sales * 100
 = 180000 / 1000000 * 100
 = 18%

5. Inventory turnover ratio = COGS / Sales
 = 500000 / 50000
 = 10 times

6. Proprietary Ratio = Owner's Fund / Total Assets * 100
 = 1375000 / 2500000 * 100
 = 55%

Owner's Fund = 700000 + 500000 + 210000 - 35000 = 1375000

Total Assets:

| | |
|----------------------------|----------------|
| Fixed Assets | 2000000 |
| Debtors | 250000 |
| Bills receivables | 50000 |
| Prepaid expenses | 20000 |
| Cash and Bank | 120000 |
| Quickly salable securities | <u>60000</u> |
| Total Assets | 2500000 |

Q.10 Following info. Is available from the financial records of mojiwala Ltd. Calculate,
 (1) Current ratio. (2) Debtors ratio. (360 days). (3) Return on share holders funds. (4) Return on capital employed. (5) Net profit ratio. (6) Stock turnover ratio.

| Particulars | Rs. | Particulars | Rs. |
|-------------------|--------|------------------|--------|
| Eq. share capital | 400000 | Clo. Stock | 128000 |
| Retained earnings | 83200 | Debtors | 160000 |
| 15% deb. | 320000 | Cash bal. | 64000 |
| Creditors | 140000 | Ope. Stock | 132000 |
| B.O.D. | 46000 | Preliminary exp. | 3200 |
| Fixed assets | 640000 | Operating exp. | 256000 |

(1) Credit sales are 62.5% of total sales. (2) Cost of good sold is 70%. (3) Operating ratio 90% & rate of tax 50%.

Ans. Suppose Sales X

COGS (X*70%) 0.70X

Operating ratio = COGS + Operating exp./Sales * 100

90 = 0.7X + 256000/X * 100

X = 1280000

Sales = 1280000

| | | |
|--|--|--|
| | COGS = (1280000*70%) 896000 | |
| | Credit Sales = (1280000*62.5%) 800000 | |
| | 1. Current ratio = Current Assets / Current liabilities | |
| | = 352000/176000 | |
| | = 2 times | |
| | 2. Debtors ratio = Debtors + Bills receivable / Credit Sales * 360 | |
| | = 160000 + - /800000 *360 | |
| | = 72 days | |
| | 3. Return on share holders' funds = EAIT / share holders' fund *100 | |
| | = 64000 / 480000 *100 | |
| | = 13.33% | |
| | Calculation of EAIT | |
| | Sales 1280000 | |
| | -COGS <u>896000</u> | |
| | Gross Profit 384000 | |
| | -Operating exp. <u>256000</u> | |
| | 128000 | |
| | Tax (50%) <u>64000</u> | |
| | EAIT 64000 | |
| | Calculation of share holders' fund | |
| | Share capital 400000 + Retained earnings 83200 – fictitious assets 3200 | |
| | = 480000 | |
| | 4. Rate of return on capital employed = EBIT/ Capital employed *100 | |
| | = 176000/80000 *100 | |
| | = 22% | |
| | Calculation of EBIT | |
| | EAIT 64000 | |
| | +Tax <u>64000</u> | |
| | 128000 | |
| | +interest on Debenture <u>48000</u> | |
| | EBIT 176000 | |
| | Calculation of Capital employed | |
| | Share capital 400000 + Retained earnings 83200 + long term liabilities 320000 – fictitious assets 3200 | |
| | = 800000 | |
| | 5. Net profit ratio = Net Profit / Sales * 100 | |
| | = 64000/1280000 *100 | |
| | = 5% | |
| | 6. Stock Turnover Ratio = COGS/ Avg. Stock | |
| | = 896000/130000 | |
| | = 6.9 times | |

| | <p>Avg. Stock = opening stock + closing stock / 2 = 132000 + 128000 / 2 = 130000</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|--|-----|----------------------|--------|-----------------------|--------|-----------|-------|----------|--------|----------------|--------|-----------|-------|----------|-------|--------|-------|-----|--------|-----------|--------|---------|-------|-----|-------|-------------|--------|-------|-------|------------------|--------|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q.11 | <p>The information of shivkrupa ltd. as on 31-12-98 was as follow.</p> <table style="margin-left: 40px;"> <thead> <tr> <th></th> <th style="text-align: right;">Rs.</th> </tr> </thead> <tbody> <tr><td>Eq. sh. Cap. (Rs.10)</td><td style="text-align: right;">300000</td></tr> <tr><td>Pref. sh.cap. (Rs.10)</td><td style="text-align: right;">200000</td></tr> <tr><td>Gen. Res.</td><td style="text-align: right;">50000</td></tr> <tr><td>15% deb.</td><td style="text-align: right;">100000</td></tr> <tr><td>Public deposit</td><td style="text-align: right;">130000</td></tr> <tr><td>Creditors</td><td style="text-align: right;">90000</td></tr> <tr><td>O/S exp.</td><td style="text-align: right;">10000</td></tr> <tr><td>B.O.D.</td><td style="text-align: right;">12500</td></tr> <tr><td>L/B</td><td style="text-align: right;">337000</td></tr> <tr><td>Machinery</td><td style="text-align: right;">200000</td></tr> <tr><td>Debtors</td><td style="text-align: right;">70600</td></tr> <tr><td>B/R</td><td style="text-align: right;">23000</td></tr> <tr><td>Cash / bank</td><td style="text-align: right;">106400</td></tr> <tr><td>Stock</td><td style="text-align: right;">25000</td></tr> <tr><td>Preliminary exp.</td><td style="text-align: right;">130000</td></tr> </tbody> </table> <p>(1) Credit sales (which is 60% of total sales) Rs. 312000. (2) Adjusted purchase Rs. 312000. (3) Net profit (after interest & tax) Rs. 122500. (4) Administrative exp. Rs. 60000. (5) Financial exp. Rs. 40000. (6) Selling & distribution exp. Rs. 4000. (7) Stock on 31-12-97 Rs. 37400. (8) Rate of tax is 50%</p> <p>Calculate (1) Liquid ratio (2) G.P. ratio (3) operating ratio (4) debtors ratio (360 days) (5) stock turnover ratio (6) return on capital employed.</p> | | Rs. | Eq. sh. Cap. (Rs.10) | 300000 | Pref. sh.cap. (Rs.10) | 200000 | Gen. Res. | 50000 | 15% deb. | 100000 | Public deposit | 130000 | Creditors | 90000 | O/S exp. | 10000 | B.O.D. | 12500 | L/B | 337000 | Machinery | 200000 | Debtors | 70600 | B/R | 23000 | Cash / bank | 106400 | Stock | 25000 | Preliminary exp. | 130000 | |
| | Rs. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eq. sh. Cap. (Rs.10) | 300000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pref. sh.cap. (Rs.10) | 200000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gen. Res. | 50000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15% deb. | 100000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Public deposit | 130000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Creditors | 90000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O/S exp. | 10000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.O.D. | 12500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L/B | 337000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Machinery | 200000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Debtors | 70600 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B/R | 23000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cash / bank | 106400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stock | 25000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preliminary exp. | 130000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ans. | <p>1. Liquidity ratio = Liquid Assets/ Liquid Liabilities = 200000/100000 = 2 times</p> <p>2. Gross Profit ratio = Gross Profit /Sales *100 = 208000/520000 *100 = 40%</p> <p>Credit sales (which is 60% of total sales) Rs. 312000 So sales 520000 Adjusted purchase 312000 Gross Profit = 520000 – 312000 = 208000</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | <p>3. Operating Ratio = $\frac{\text{COGS} + \text{Operating exp.}}{\text{Sales}} * 100$ $= \frac{312000 + 64000}{520000} * 100$ $= 72.31\%$</p> | | | | | | | | | | | | | | | | | | | |
|------------------------|--|------|--------|----------------------|---------------|-----------------------|--------|------------------------|--------------|----------|--------|----------------|---------------|--|--------|------------------|---------------|--|--------|--|
| | <p>4. Debtor Ratio = $\frac{\text{Debtors} + \text{Bills receivable}}{\text{Credit Sales}} * 360$ $= \frac{70600 + 23000}{312000} * 360$ $= 108 \text{ days}$</p> | | | | | | | | | | | | | | | | | | | |
| | <p>5. Stock Turnover Ratio = $\frac{\text{COGS}}{\text{Avg. Stock}}$ $= \frac{312000}{31200}$ $= 10 \text{ times}$</p> | | | | | | | | | | | | | | | | | | | |
| | <p>6. Rate of return on capital employed = $\frac{\text{EBIT}}{\text{Capital employed}} * 100$ $= \frac{260000}{650000} * 100$ $= 40\%$</p> <p>Calculation of Capital employed</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="text-align: right; width: 20%;">Rs.</th> </tr> </thead> <tbody> <tr> <td>Eq. sh. Cap. (Rs.10)</td> <td style="text-align: right;">300000</td> </tr> <tr> <td>Pref. sh.cap. (Rs.10)</td> <td style="text-align: right;">200000</td> </tr> <tr> <td>Gen. Res.</td> <td style="text-align: right;">50000</td> </tr> <tr> <td>15% deb.</td> <td style="text-align: right;">100000</td> </tr> <tr> <td>Public deposit</td> <td style="text-align: right;"><u>130000</u></td> </tr> <tr> <td></td> <td style="text-align: right;">780000</td> </tr> <tr> <td>Preliminary exp.</td> <td style="text-align: right;"><u>130000</u></td> </tr> <tr> <td></td> <td style="text-align: right;">650000</td> </tr> </tbody> </table> | | Rs. | Eq. sh. Cap. (Rs.10) | 300000 | Pref. sh.cap. (Rs.10) | 200000 | Gen. Res. | 50000 | 15% deb. | 100000 | Public deposit | <u>130000</u> | | 780000 | Preliminary exp. | <u>130000</u> | | 650000 | |
| | Rs. | | | | | | | | | | | | | | | | | | | |
| Eq. sh. Cap. (Rs.10) | 300000 | | | | | | | | | | | | | | | | | | | |
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| Gen. Res. | 50000 | | | | | | | | | | | | | | | | | | | |
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| Public deposit | <u>130000</u> | | | | | | | | | | | | | | | | | | | |
| | 780000 | | | | | | | | | | | | | | | | | | | |
| Preliminary exp. | <u>130000</u> | | | | | | | | | | | | | | | | | | | |
| | 650000 | | | | | | | | | | | | | | | | | | | |
| | <p>Calculation of EBIT</p> <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 80%;">EAIT</td> <td style="text-align: right;">122500</td> </tr> <tr> <td>+Tax</td> <td style="text-align: right;"><u>122500</u></td> </tr> <tr> <td></td> <td style="text-align: right;">245000</td> </tr> <tr> <td>+interest on Debenture</td> <td style="text-align: right;"><u>15000</u></td> </tr> <tr> <td>EBIT</td> <td style="text-align: right;">260000</td> </tr> </tbody> </table> | EAIT | 122500 | +Tax | <u>122500</u> | | 245000 | +interest on Debenture | <u>15000</u> | EBIT | 260000 | | | | | | | | | |
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