Problem Sheet

1. (a) Return on Capital Employed $= \dfrac{\text{Operating Profit}}{\text{Capital Employed}} \times 100$

Operating Profit = Net Profit + Non Operating Expence - Non Operating Income.

= 70000 + contribution 8000 + loss on sale 10000 - Discount 5000

= 80000

Capital Employed = Share capital + General Reserve + Pref. Share Capital + Long term loan + Equipment Fund +

= 75000 + 125000 + 200000 + 80000 + 60000

= 540000

Ratio = $\dfrac{80000}{540000} \times 100$ = 14.8 %

ROCE is good (> 10 %)

(b) Debt/Equity Ratio = $\frac{\text{Debt}}{\text{Equity}}$

(or)

= $\frac{\text{Loan (Long term loans) Funds}}{\text{Own Funds}}$

Debt : Long Term loan = 60000

Equity : Share Capital + General Reserve + preference Share capital + Equipment Fund = 75000 + 125000 + 200000 + 60000

= 460 000

Creditors are like short term (so don include)

Debt / Equity Ratio = $\frac{60000}{460\,000}$

= 1 : 7.67

Long Term solvency is good

Ideal = 3 : 1

(c) Operating Ratio

= $\frac{\text{operating Exp}}{\text{Sales}} \times 100$

Operating Expence = (Sales - GP) + Other operating Exp

= (480000 - 285000) + 85000 + 10000 + 20000 + 45000 + 8000 + 30000 + 7000 ₹

Operating Exp : 400000

$$\text{Operating Ratio} = \frac{400000}{480000} \times 100$$

$$= 83.33\%$$

If operating Exp <90% → Ideal.

(d) Average Payment period.

$$= \frac{\text{Sundry Creditors}}{\text{Credit Purchases}} \times 12 \text{ months}$$

$$= \frac{30000}{90000} \times 12 = 4 \text{ months.}$$

→ Its too long in this case.

It should be 30 - 40 days.

Company may not buy materials at competitive prices

(e) Debtors Turnover Ratio : $\frac{\text{Credit Sales}}{\text{Avg Debentore Recievable}}$

$$= \frac{480\,000}{750000} = 6.4 \text{ times}$$

Collection period is High.

(This ratio shoud be 12)

(f) Earning Per Share.

$$= \frac{\text{Net Profit} - \text{IT} - \text{Divident to pref share capital}}{\text{No. of Equity Shares}}$$

$$= \frac{70000 - \underset{(IT)}{21000} - \underset{(9\% \text{ of } 2L)}{18000}}{10000}$$

$$= \frac{31000}{10000} = 3.1$$

₹. 3 & 10 paise per share.

EPS is good.

(g) Stock Turnover Ratio

Should be neither too high nor too low.

$$= \frac{\text{Cost of goods sold}}{\text{Avg Stock}}$$

CGS = Sales − Gross ~~Stock~~ Profit

$$\text{Avg Stock} = \frac{\text{Op stock} + \text{closing stock}}{2}$$

$$\frac{CGS}{\text{Avg Stock}} = \frac{480000 - 285000}{\frac{15000 + 35000}{2}} = \frac{195000}{25000}$$

$$= 7.8$$

Ideal condition : > 12 times → 1 month

1.5 month → moderate.

More than 1.5 is too much.

(h) Current Ratio :

Current Assets → Should be more

= ─────────────

Current Liabilities → Should be less

↓

Immediate solvancy.

Current Assets : Stock + Debtors + Cash + Bank + Prepaid Expence.

Current Liabilities : Bank Over Draft + Creditors + Expences/wages/Salary Outstanding

C.A = 150000 + 75000 + 20000 + 35000 (Ignore Goodwill)

↓

It is intangible.

C.L = 30000 + 10000

$$C R = \frac{280000}{40000} = 7 : 1$$

Ideal position is 2 : 1

(h) Debt Service Coverage Ratio (DSCR)

↳ Being able to repay loan.

(Conformity)

$$DSCR = \frac{\text{Net Profit} - \text{Income Tax} + \text{Interest}}{\text{Interest} + \text{Term loan Instalment}}$$

$$= \frac{70000 - (30\% \text{ of } 70000) + 8000}{8000 + 20000}$$

Term loan is per quarter (3 months)

So per annum is × 4

$\Rightarrow 5000 \times 4 = 20000$

$$= \frac{57000}{28000} = 2 \text{ times}$$

Term loan Interest and Installment can be Serviced comfortably.

(i) Fixed Assets to Net Worth Ratio

$$= \frac{\text{Fixed Assets}}{\text{Net Worth}}$$

↳ own Funds or Owner's money

$$= \frac{210000 + 50000}{75000 + 125000 + 200000 + 60000}$$

$$= \frac{260000}{460000} = 13:2\cancel{8}3$$

$= 0.56$ times.

Ideal

Fixed Assets to Networth $= 0.75$

Current Asset to Networth $= 0.25$

Here it is moderate.

(j) Price Earnings Ratio:

$$= \frac{\text{Market price of share}}{\text{Earning per share}}.$$

$$= \frac{₹.150}{3.1} = 48$$

MPS is high compared to EPS.

Company has very good ~~ratio~~. reputation

(k) Divident Yield Ratio:

$$= \frac{\text{MPS}}{\text{Dividend}}.$$

Out of ₹3 & 10 paise from EPS some part will be given to dividend. Here there is no dividend. So ignore this ratio.

(2)

1. Current Ratio $= \dfrac{\text{Current Asset}}{\text{Current Liabilities}}$

Recievables $= \dfrac{\text{Rec + Stoc + Cash \& Bank}}{\text{Bank OD + Creditors + Interest OS}}$

$= \dfrac{100000 + 111000 + 60000}{130000}$

$= 2.08$

Current ratio is good.

2. Liquid Ratio / Quick Ratio / Acid test ratio.

Instant Liquidity.

$= \dfrac{\text{Quick Assets}}{\text{Quick Liabilities}}$

$= \dfrac{\text{Current Assets - Stock - prepaid exp}}{\text{Current Liability - Bank OD}}$

~~220000~~

~~= Payables + Interest OS~~

~~16~~

$= \dfrac{211000}{95000} = 2.22$

Instant Liquidity is good

3. Debt Equity Ratio

$$= \frac{\text{Bot Debt}}{\text{Equity}} = \frac{\text{Long term Loan + Debenture}}{\text{Share capital + Reserves}}$$

$$= \frac{\cancel{10n}\ 2L}{8.5L} = 1:4.25$$

D/E is good. It can be 3:1

This is conservative style.

4. Operating Ratio $= \frac{\text{Operating Exp}}{\text{Net Sales}} \times 100$

= (Sales - GP) + Other expenses.
70000

= Interest + Indirect Power + Maintenance + Depreciation + Seling Exp
33000 7000 20000 30000 9000

$$= \frac{1\,69000}{340000} = 49$$

5) Return on Capital Employed

or (Return on Investment)

$$= \frac{\text{Net Profit}}{\text{C.E}}$$

- Investment in Govt bonds + Share capital + Pref share cap + LT Loans + Reserves + Surplus

$$= \frac{1.83L}{4L + 3.52 + 1L + 2L + 50000} \times 100$$

$$= \frac{1.83L}{10L} = 18.3\%.$$

Above 10% is good.

6) Working Capital turnover ratio :

$$= \frac{\text{Sales}}{\text{working Cap}}$$

$$= \frac{\text{Sales}}{\text{Current Asset} - \text{Current liabilities}}$$

$$= \frac{340000}{2.71L - 1.3L} = 2.41 \text{ times.}$$

Ideal : (5 or 6)

Working capital is not effectively utilised.

7) Average Collection period (ACP

$$= \frac{\text{Avg Debtors}}{\text{Credit Sales}} \times 12 \text{ monts.}$$

$$= \frac{100\,000}{300\,000} \times 12 = 4 \text{ moths.}$$

8) Averge Payment Period.

$$= \frac{\text{Creditors}}{\text{Credit Purchase}} \times 12 \text{ months.}$$

$$= \frac{80000}{47000} \times 12 \text{ months} = 20 \text{ months.}$$

Too long is

9 Stock Turover Ratio

$$= \frac{\text{Sales}}{\cancel{\text{goods}}\ \text{Stock}} = \frac{\text{Costs of goods Sold}}{\text{Avg Stock}}$$

CGS : Sales - Gross Profit = 70000

$$\text{Avg Stock} : \frac{\text{Opening Stock} + \text{Closing stock}}{2} = 40500$$

$$STR = \frac{70000}{40500} = 1.74 \text{ times.}$$

Should be > 10 times.

Stock holding is very high.

10. Debtor Turnover Ratio

$$= \frac{\text{Credit Sales}}{\text{Avg Debtors}}$$

$$= \frac{300000}{100000} = 3 \text{ times}$$

Should be above 8 → we get our money back within 1.5 month

we get our money in 4 months

for 12, we get our money in 1 month.

11. Operating Profit Ratio

$$= \frac{\text{operating profit}}{\text{Sales}} \times 100$$

operating profit = Gross Profit - other operating exp

$= 270000 - (\underset{\text{Interest}}{33000} + \underset{\text{Indirect power}}{7000} + \underset{\text{Maintenance}}{20000} + \underset{\text{selling exp}}{9000} + \underset{\text{Depreciation}}{30000})$

$$= \frac{170000}{340000} \times 100 = 50\%$$

operating profit is very high

(It should be 20 : 50 = 10%.)

11. Price Earnings Ratio

$$= \frac{\text{Market price of Share}}{\text{Earning per share}}$$

$$\text{Earning per Share} = \frac{\text{Net profit} - \text{Tt} - \text{Divident to pref share}}{\text{No. of equity shares}}$$

$$= \frac{183000 - 30\% \text{ of } 1.83 L - 8\% \text{ of } 1L}{50000}$$

$$= \frac{120100}{50000} = ₹.2.40$$

$$PER = \frac{25}{2.40} = 10.4 \text{ times}$$

12. Dividend payment Ratio

$$= \frac{\text{Dividend paid per Share}}{\text{EPS}}$$

$$= \frac{1.60}{2.40} = 0.75$$

Too high dividend is given.

0.1 is reasonable.

13. Fixed Assets Turnover Ratio :

$$= \frac{\text{Sales}}{\text{Fixed Assets}} \rightarrow \text{Only tangible Assets}$$

$$= \frac{340\,000}{\underset{4.5L}{\text{Machinery}} + \underset{4L}{\text{Land}} + \text{Building}}$$

$$= \frac{3.4\text{ L}}{3.5\text{ L}} = 0.4 \text{ times.}$$

neguigible.

Fixed asset initialisation has to improve

3. commentry on financial position of company

Profitability (Min 20%)

1) Gross Profit → $\frac{GP}{Sales} \times 100$

2) Operating Profit (Min 15%)

$$= \frac{2.23L}{3L} \times 100 = 74.33\%$$

3) Net Profit (Min 10%)

GP is very good.

$$\frac{\text{Net Profit}}{\text{Sales}}$$

$$= \frac{138000}{3L} = 46\%$$

NP is very good.

$$\frac{OP}{Sales} \times 100 = \frac{\underset{2.23L}{GP} - (\underset{25000}{\text{Salary}} + \underset{6000}{\text{Adm exp}} + \underset{20000}{\text{Maintenance}} + \underset{80000}{\text{Selling}} + \underset{30000}{\text{Dep}})}{3L} \times 100$$

$= \frac{1 \cdot 34 L}{3 L} = 44.6\%$.

OP is very high.

$\frac{\text{Operating Exp}}{\text{Sales}} \times 100 = 83.33\%$. (Inverse of OP ratio)