

Financial Performance Analysis of
Larsen & Toubro Limited

based on Ratio Analysis

A project Submitted in partial fulfilment of the requirements for the Course

Accounting for Engineers (MAT2008)

Submitted to

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Company Profile:

Into: -

Construction conglomerate Larsen & Toubro (L&T) is committed to building a stronger India. Founded in 1938, the firm and its subsidiaries offer technology, engineering, construction, manufacturing, and financial services for commercial projects. It also manufactures equipment and machinery used to build weaponry systems and infrastructure facilities including airports, oil and gas platforms, power plants.

Buildings & Factories:

L&T's buildings and factories (B&F) business undertakes construction projects such as commercial buildings and airports, residential buildings, and factories. Its track record includes, 400 high-rise towers, 11 airports, 53 IT parks, 17 automobile plants, 28 cement plants and 45 hospitals offered to oversee the design and construction of Ram Mandir, Ayodhya free of cost and is the contractor of the project.

Heavy Civil Infrastructure:

L&T's Heavy Civil Infrastructure (HCI) business undertakes projects in the areas of hydel power, tunnels, nuclear power, special bridges, metros, ports, harbors and defense installations. Its track record includes 231 km of metro rail corridors, 19.5 km of monorail corridors, 8,315 MW of hydropower projects and 8,080 MW of nuclear power projects. It has a subsidiary, L&T Geostructure LLP, and two JVs set up for metros in Doha and Saudi Arabia – ALYSI JV Gold Line Doha Metro and ArRiyadh New Mobility Consortium Riyadh Metro Orange Line.

Transportation Infrastructure:

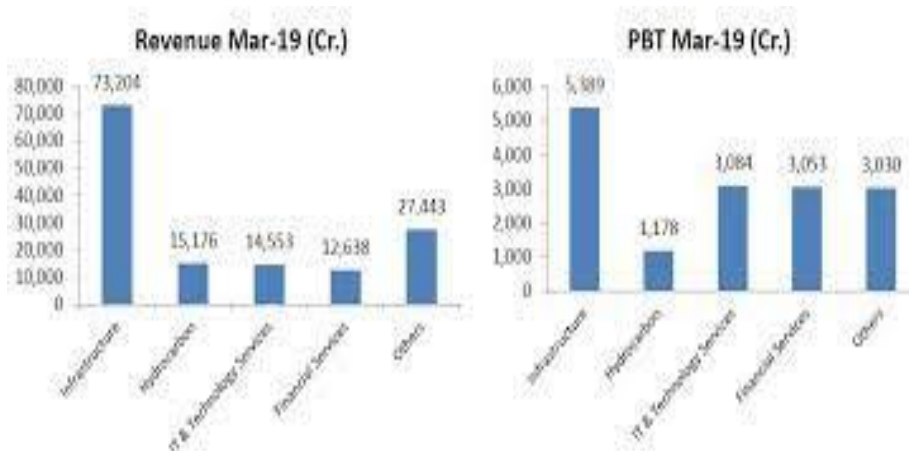
L&T's Transportation Infrastructure (TI) business undertakes projects such as roads, runways, elevated corridors, railways, etc. Its track record includes 13,500 lane km of highways, 7.49 million sq.m of runways and 3,260 tkm (track kilometer) of railway tracks. It also operates through subsidiaries such as L&T Oman LLC, L&T Infrastructure Engineering Ltd, and Hitech Rock Products & Aggregates Ltd.



We are going to do the ratio analysis on the company Larsen and Turbo

Ratio analysis:

Ratio analysis is a quantitative method of gaining insight into a company's liquidity, operational efficiency, and profitability by studying its financial statements such as the balance sheet and income statement.



Types of ratios:

1. Liquidity Ratios

Liquidity ratios measure a company's ability to pay off its short-term debts as they become due, using the company's current or quick assets. Liquidity ratios include the current ratio, quick ratio, and working capital ratio.

2. Solvency Ratios

Also called financial leverage ratios, **solvency ratios** compare a company's debt levels with its assets, equity, and earnings, to evaluate the likelihood of a company staying afloat over the long haul, by paying off its long-term debt as well as the interest on its debt. Examples of solvency ratios include: debt-equity ratios, debt-assets ratios, and interest coverage ratios.

3. Profitability Ratios

These ratios convey how well a company can generate profits from its operations. Profit margin, return on assets, return on equity, return on capital employed, and gross margin ratios are all examples of **profitability ratios**.

4. Efficiency Ratios

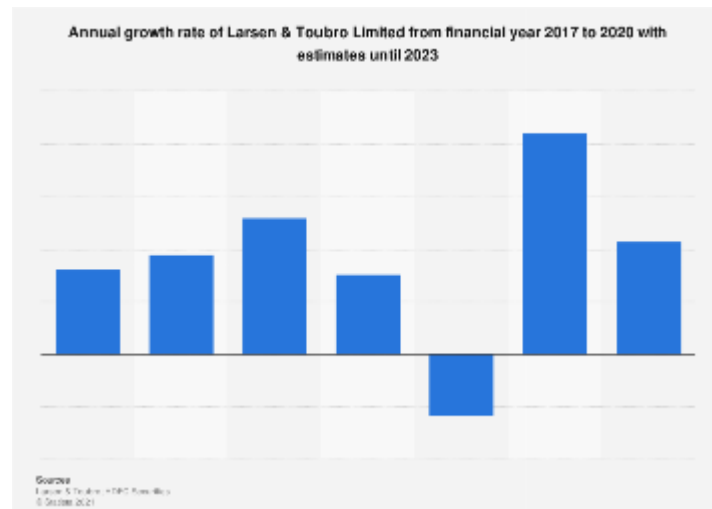
Also called activity ratios, **efficiency ratios** evaluate how efficiently a company uses its assets and liabilities to generate sales and maximize profits. Key efficiency ratios include: turnover ratio, inventory turnover, and days' sales in inventory.

5. Coverage Ratios

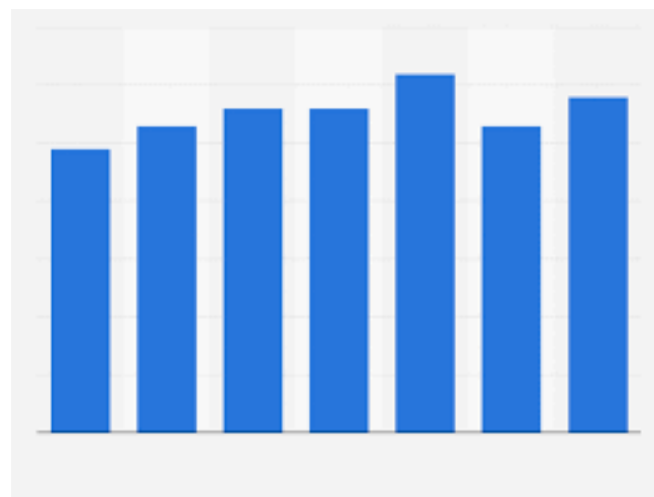
Coverage ratios measure a company's ability to make the interest payments and other obligations associated with its debts. Examples include the times interest earned ratio and the debt-service coverage ratio.

6. Market Prospect Ratios

These are the most commonly used ratios in fundamental analysis. They include dividend yield, P/E ratio, earnings per share (EPS), and dividend payout ratio. Investors use these metrics to predict earnings and future performance.



Annual Growth



ROCE

The Ratio ANALYSIS ON (L And T) in march 2021: (The pdf of balance sheet attached below)

Current Ratio (CR):

$$\begin{aligned} \text{CR} &= \text{Current Asset} / \text{Current Liability} \\ &= 194966.83 / 137408.01 \\ &= > 1.41 \end{aligned}$$

Ideal value for **C.R** = 2

C.R. of company < 2, shows that the company has low liquid of firm's ability to pay its currents allegation on time.

Liquidity Ratio

Liquidity Ratio L.R.: -

$$\text{L.R.} = \text{Liquid Asset} / \text{Current Liabilities}$$

$$\text{Liquid Asset} = \text{Current Asset} - \text{Stock and Prepaid Expenses}$$

$$\text{Liquid Asset of company} = 194966.83$$

$$\text{Current Liabilities C.L} = 137408.01$$

$$\begin{aligned}\text{L.R} &= 194966.83 / 137408.01 \\ &= > 1.418\end{aligned}$$

- Liquidity ratios are an important class of financial metrics used to determine a debtor's ability to pay off current debt obligations without raising external capital.

$$\text{Quick Assets} = \text{C.A} - [\text{Inventory} + \text{Prepaid Expenses}]$$

ratio *Quick assets are also known as acid test

$$\text{Current Assets (C.A)} = 194966.83$$

$$[\text{Inventory} + \text{Prepaid Expenses}] = 5820.54$$

$$\begin{aligned}\text{Q.A} &= 194966.83 - [5820.54] \\ &= > 189146.29\end{aligned}$$

$$\text{Quick Asset Ratio (Q.A.R)} = \text{Q.A} / \text{C.L}$$

$$\text{Q.A.R} = 189146.29 / 137408.01$$

= > 1.3: 1

- Quick assets refer to **assets owned by a company with a commercial or exchange value that can easily be converted into cash** or that are already in a cash form. ... They include cash and equivalents, marketable securities, and accounts receivable

Profitability Ratio

Gross Profit (G.P) = Net sales (N.S) – Direct expense

G.P = 72,036.49

Return on Investment or Return on Capital Employee:

Cost Of Goods Sold (COGS) = N.S – G.P

COGS = 76,751.03 - 72,036.49
= > 4714.54

Operating Ratio (O.R):

OP = GP – Operating Expense
= 72,036.49 - 51,026.96
= > 21009.53

- Return on Investment (ROI) is a popular profitability metric used to evaluate how well an investment has performed.
- ROI is expressed as a percentage and is calculated by dividing an investment's net profit (or loss) by its initial cost or outlay.

Return On Capital Employed (ROCE):

$$\text{ROCE} = (21009.53 / 173865.7) * 100$$

$$= > 12.03$$

- A high ROCE value indicates that a larger chunk of profits can be invested back into the company for the benefit of shareholders. The reinvested capital is employed again at a higher rate of return, which helps produce higher earnings-per-share growth. A high ROCE is, therefore, a sign of a successful growth company

Earnings before interest and Tax (EBIT):

$$\text{EBIT} = \text{OP}$$

(Or)

$$\text{EBIT} = \text{GP} - \text{Operating Expense}$$

$$\text{Capital Employed (CE)} = \text{Total Assets} - \text{Current Liability}$$

$$\text{CE} = 173865.7$$

- high ratio indicates that a company's stock may be overvalued. While beneficial for an immediate sale of shares for profit-taking, such a situation can spell disaster if the market prices reverse, causing share prices to plummet. Conversely, a low EV/EBIT ratio indicates that a company's stock may be undervalued

Overall Pressure Ratio (OPR):

$$\text{OPR} = (21009.53 / 76,751.03) * 100$$

$$= > 27.37$$

$$\text{Operating Ratio} = 100 - 27.37$$

$$= > 72.63$$

- a higher overall pressure ratio **implies higher efficiency**, but the engine will usually weigh more, so there is a compromise.

$$\text{Shareholders' Equity} = \text{Total Assets} - \text{Total Liabilities}$$

$$= 311273.71 - 137408.01$$

=> 173865.70

Return on Assets (ROA):

$$\begin{aligned}\text{ROA} &= \text{EBIT} / \text{Total Assets} \\ \text{ROA} &= 21009.53 / 311273.71 \\ &=> 6.79\end{aligned}$$

- The ROA figure gives investors an idea of how effective the company is in converting the money it invests into net income. **The higher the ROA number**, the better, because the company is earning more money on less investment

SOLVENCY RATIO

Proprietary ratio P/E:

$$\begin{aligned}\text{Shareholder's fund} / \text{Total assets} \\ &= 76992.19 / 311273.71 \\ &= > 0.247\end{aligned}$$

*Low PE ratio is greater risk to creditors

- A high proprietary ratio, therefore, indicates a strong financial position of the company and greater security for creditors. A low ratio indicates that the company is already heavily depending on debts for its operations.

Debt Equity Ratio (DER):

$$\begin{aligned}\text{DER} &= \text{Long term debt} / \text{total shareholder's fund} \\ &= 80996.38 / 76992.19 \\ &= > 1.05: 1\end{aligned}$$

- A good debt-to-equity ratio **is anything lower than 1.0**. A ratio of 2.0 or higher is usually considered risky. If a debt-to-equity ratio is negative, it means that the company has more liabilities than assets—this company would be considered extremely risky.

Compound Annual Growth Ratio (CAGR):

$$\begin{aligned}\text{Fixed interest-bearing fund} &= 1123.66 + 80996.38 \\ &= 82120.04\end{aligned}$$

$$\begin{aligned}\text{Total Equity share} &= \text{equity share capital} + \text{capital reserve} \\ &= 280.91 + 75204.02\end{aligned}$$

$$\begin{aligned}\text{CAGR} &= \text{Total Equity Share} / \text{Fixed Interest-Bearing fund} \\ &= > 1.087: 1\end{aligned}$$

- The larger the standard deviation, **the lower the risk-adjusted CAGR**. This analysis shows two findings: While the bond holds no investment risk, the return is below that of stocks. Blue chip appears to be a preferable investment than high-tech stock

Dept Service Ratio (DSR) :

$$\begin{aligned}\text{Pat} + \text{depreciation} + \text{interest on term loan} \\ &= 2,686.49 + 5112.59 + 12051.53 \\ &= > 19850.61\end{aligned}$$

$$\text{Lt loan} + \text{interest on loan} = > 12051.53 + 6997.36 = > 19048.86$$

$$\begin{aligned}\text{DSR} &= 19850.61 / 19048.86 \\ &= 1.04 \text{ times}\end{aligned}$$

- DSR is within the limit, you stand a higher chance to receive the loan. Normally, **the lower the DSR**, the better the chance that you can get a loan approved. Best advice is you should always maintain the DSR within 30-40% range

Turn Over Ratio

Stock / Inventory Ratio (IR):

IR = COGS / avg inventory cost

*Opening and closing stock is 1,767.25

Stock Turn-Over Ratio = net sales / inventory

= 76751.03 / 5820.84

= >13.18 (times)

- For most industries, the ideal inventory turnover ratio will be between 5 and 10, meaning the company will sell and restock inventory roughly every one to two months. For industries with perishable goods, such as florists and grocers, the ideal ratio will be **higher** to prevent inventory losses to spoilage.

Debtor Turn Ratio (DTR):

Sale = 72,036.49

Avg Debtor = (5820.54 + 5746.65) / 2
= 5783.595

DTR = Sale / avg debtor = > 12.4 times

Avg collection period = 365 / 12.4 = > 29.43 days

- **high ratio** implies either that a company operates on a cash basis or that its extension of credit and collection of accounts receivable is efficient. While a low ratio implies the company is not making the timely collection of credit.

Total Asset Turnover Ratio (TATR):

$$\begin{aligned}\text{TATR} &= \text{Net sale} / \text{total assets} \\ &= 76,751.03 / 311,273.71 \\ &\Rightarrow 24.65 \%\end{aligned}$$

- Generally, a **higher ratio is favored** because it implies that the company is efficient in generating sales or revenues from its asset base. A lower ratio indicates that a company is not using its assets efficiently and may have internal problems.

Capital Turnover Ratio (CTR):

$$\begin{aligned}\text{CTR} &= \text{Net sales} / \text{shareholders fund} + \text{long term loan} \\ &= 76,751.03 / 1,301,106.52 \\ &= >5.89\%\end{aligned}$$

- A **higher working capital turnover ratio is better**, and indicates that a company is able to generate a larger number of sales. However, if working capital turnover rises too high, it could suggest that a company needs to raise additional capital to support future growth.

Long term liability = reserves and surplus + depreciation + net income + bank loan + equity

$$= > 75,204.02 + 1,025.62 + 76,751.03 + 53,114.33 + 280.91$$

= > **206,375.91** is long term liability of the company

- Long-term liabilities, also called long-term debts, are **debts a company owes third-party creditors that are payable beyond 12 months**. This distinguishes them from current liabilities, which a company must pay within 12 months. On the balance sheet, long-term liabilities appear along with current liabilities

Market Test Ratio

$$\text{Earnings Per Share (EPS)} = 80.54$$

$$\begin{aligned}\text{Net Income} &= 76,751.03 - 69,494.61 \\ &= 7,256 - \text{dividends} \\ &= 7,256 - 2,527.66 \\ &\Rightarrow 4,728.34\end{aligned}$$

$$\text{Earning After Tax} = 73,315.59 - 69,494.61$$

$$= > 3820.98$$

Price To Earnings Ratio (P/E):

Current Share price: 1,767.10

$$\begin{aligned} \text{P/E} &= \text{Current market price of share} / \text{EPS} \\ &= 1767.10 / 80.74 \\ &= > 21.88 \end{aligned}$$

- The P/E ratio shows what the market is willing to pay today for a stock based on its past or future earnings. A high P/E could mean that a stock's price is high relative to earnings and possibly overvalued. Conversely, a low P/E might indicate that the current stock price **is low relative to** earnings.

Dividend payout Ratio (DPR):

$$\begin{aligned} \text{DPR} &= \text{Dividend's equity share} / \text{EPS} \\ &= 2,527.66 / 80.74 \\ &= > 31.3 \end{aligned}$$

- Payout ratios that are **between 55% to 75%** are considered high because the company is expected to distribute more than half of its earnings as dividends, which implies less retained earnings. A higher payout ratio viewed in isolation from the dividend investor's perspective is very good.

Retention Ratio (RR):

$$\begin{aligned} \text{RR} &= 100 - \text{DPR} \\ \text{RR} &= 68.7 \end{aligned}$$

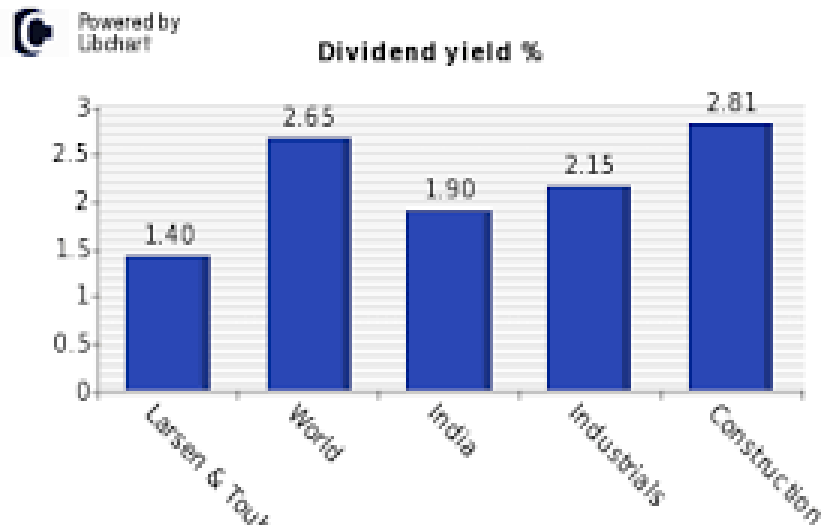
- investors who are income-oriented would expect a lower plowback ratio, as this suggests high dividend possibilities to the shareholders. Growth-oriented investors will prefer a high plowback ratio.

Dividend Yield Ratio:

$$\begin{aligned} \text{DYR} &= (\text{DPS} / \text{MPS}) * 100 \\ &= 36 / 1767.1 \\ &= > 2.037 \end{aligned}$$

- **There is no set standard for judging** whether a dividend yield is high or low. A high dividend yield indicates undervaluation of the stock because the

stock's dividend is high relative to the stock price. High dividend yields are particularly sought after by income and value investors.



Price to book value (p/b):

p/b Ratio: MPS / book value

Book value = TA – TI

= 311273.71 - 137408.01

= > 173865.7

p/b ratio = 1.01:1

- Traditionally, any value **under 1.0** is considered a good P/B value, indicating a potentially undervalued stock. However, value investors often consider stocks with a P/B value under 3.0.

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Balance Sheet - Consolidated

LARSEN & TOUBRO LTD. (BALANCE SHEET - CONSOLIDATED)

(Rs. In Cr.)

PARTICULARS	FY 2021	FY 2020	FY 2019	FY 2018	FY 2017
Months	12	12	12	12	12
Source Of Info (AR = Annual Report, PR = Press Release)	AR	AR	AR	AR	AR
FaceValue	2.00	2.00	2.00	2.00	2.00
No. of Equity Shares (in Lacs)	14045.55	14038.92	14027.29	14013.69	9329.66
EQUITIES AND LIABILITIES					
SHAREHOLDER'S FUNDS					
Equity Share Capital	280.91	280.78	280.55	280.27	186.59
Preference Share Capital	1123.66	1404.03	0.00	0.00	0.00
Total Share Capital	1404.57	1684.81	280.55	280.27	186.59
Reserves and Surplus	75204.02	66040.95	61604.00	55219.96	49876.73
Total Reserves and Surplus	75204.02	66040.95	61604.00	55219.96	49876.73
Employees Stock Options	383.60	401.49	337.05	0.00	0.00
Total Shareholders Funds	76992.19	68127.25	62221.60	55500.23	50063.32
Equity Share Application Money	0.00	0.00	0.00	3.56	0.00
Hybrid/Debt/Other Securities	0.00	0.00	153.20	153.20	153.20
Minority Interest	12051.53	9520.83	6826.11	5625.00	3563.60

NON-CURRENT LIABILITIES

Long Term Borrowings	80996.38	80927.30	74120.79	72914.76	67340.58
Deferred Tax Liabilities [Net]	1178.66	1453.04	311.13	637.92	610.95
Other Long Term Liabilities	1873.16	2673.83	355.38	421.92	398.23
Long Term Provisions	773.78	708.67	556.84	523.54	526.60
Total Non-Current Liabilities	84821.98	85762.84	75344.14	74498.14	68876.36

CURRENT LIABILITIES

Short Term Borrowings	50485.22	58675.79	51434.38	19331.85	16534.47
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<https://investors.larsentoubro.com/Print.aspx>

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Balance Sheet - Consolidated

Trade Payables	45504.61	43643.93	42994.81	37794.96	30294.86
Other Current Liabilities	38419.50	39658.64	36929.69	49662.66	40027.98
Short Term Provisions	2998.68	2750.85	2443.43	2483.75	2667.81
Total Current Liabilities	137408.01	144729.21	133802.31	109273.22	89525.12
Total Capital And Liabilities	311273.71	308140.13	278347.36	245053.35	212181.60
ASSETS					
NON-CURRENT ASSETS					
Tangible Assets	17054.60	16045.00	15144.12	14987.90	14846.23

ASSETS

NON-CURRENT ASSETS

Tangible Assets	17054.60	16045.00	15144.12	14987.90	14846.23
Intangible Assets	19197.76	19596.98	4222.91	2030.51	432.22
Capital Work-In-Progress	388.37	3224.91	2483.56	2143.07	1944.71
Intangible Assets Under Development	112.02	86.18	11435.93	11300.36	11353.23
Fixed Assets	36752.75	38953.07	33286.52	30461.84	28576.39
Goodwill On Consolidation	8066.96	8011.40	1826.91	1561.78	1398.66
Non-Current Investments	8615.40	7347.73	6960.93	5847.06	5452.80
Deferred Tax Assets [Net]	2697.00	3846.58	3418.93	2131.98	1736.15
Long Term Loans And Advances	53114.33	60111.69	59269.96	63610.39	48621.24
Other Non-Current Assets	7060.44	7179.77	6792.67	5202.06	4555.11
Total Non-Current Assets	116306.88	125450.24	111555.92	108815.11	90340.35

CURRENT ASSETS

Current Investments	31011.23	12699.75	13946.17	9464.25	14300.22
Inventories	5820.54	5746.65	6413.93	4847.80	4139.74
Trade Receivables	42229.78	40731.52	36845.87	34654.08	28688.97
Cash And Cash Equivalents	16241.50	15117.78	11726.24	8032.53	5305.96
Short Term Loans And Advances	42027.59	42439.42	43157.51	27007.73	25413.83
OtherCurrentAssets	57636.19	65954.77	54701.72	52231.85	43992.53
Total Current Assets	194966.83	182689.89	166791.44	136238.24	121841.25

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Balance Sheet - Consolidated

OTHER INFORMATION

CONTINGENT LIABILITIES, COMMITMENTS

Contingent Liabilities	21540.85	24656.26	35753.08	24550.82	24141.31
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BONUS DETAILS

Bonus Equity Share Capital	244.94	244.94	244.94	244.94	151.59
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NON-CURRENT INVESTMENTS

Non-Current Investments Unquoted Book Value	5945.14	4496.72	4318.64	3359.47	2679.90
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CURRENT INVESTMENTS

Current Investments Unquoted Book Value	31011.23	12699.75	13946.17	9464.25	14300.22
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BALANCE SHEET,P and L DRIVE LINK:

https://drive.google.com/drive/folders/1mt_JrnIFkCLFXu349tiaGMDcmubkLGxC?usp=sharing

All Ratio Analysis Formulas:

Ratio Analysis	
Name of the Ratio	Formula
1. LIQUIDITY RATIOS	Liquidity ratios measure the short-term solvency which means the ability of the enterprise to meet its short-term obligation as and when they become due.
(a) Current ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}} = \dots : \dots$ <p>C.A= Debtors+ Provision on Debtors+ B/R+ Marketable securities+ Cash+ Accrued Incomes+ Stock + Prepaid Expenses C.L= Trade Creditors+ B/P+ O/s Exp+ Bank O/D+ Provision for Tax Current ratio establishes a relationship between CA and CL.</p>
(b) Quick Ratio (or Acid Test Ratio) (or Liquid Ratio)	$\frac{\text{Quick Assets}}{\text{Current Liabilities}} = \dots : \dots$ <p>Notes: 1. Quick Assets= Current Assets-Stock-Prepaid Expenses 2. Working Capital= Current Assets- Current Liabilities Quick ratio establish a relationship between quick assets and CL.</p>
(c) Super Quick Ratio or absolute Cash ratio	$\frac{\text{Cash+Bank+Marketable Securities}}{\text{Current Liabilities}} = \dots : \dots$
2. Solvency ratios	Solvency ratio measure the long-term financial solvency which means the enterprise's ability to pay the interest regularly and to repay the principal on maturity or in pre-determined installments at due dates.
(a) Debt-equity ratio	$\frac{\text{Long Term Debt}}{\text{Shareholders Funds}} = \dots : \dots$ <p>Note: Shareholder's Funds can be calculated as follows: 1. Equity Share Capital+ Preference Share Capital+ Reserves and Surplus- Fictitious Assets 2. Equity Share holder's Funds+ Preference Share Capital 3. Capital Employed- Long Term Debt 4. Net Fixed Assets+ Investment+ Working Capital- Long Term Debt 5. Net Fixed Assets+ Investment+ Current Assets- Current Liabilities- Long Term Debt 6. Total Assets- Total Debt Debt-equity ratio establishes a relationship between Long term debt and Share holders' fund.</p>
(b) Total Assets Debt Ratio	$\frac{\text{Total Assets}}{\text{Long Term Debt}} = \dots : \dots$ <p>Total assets to debt ratio establish a relationship between Total assets and total long term debt.</p>
(c) Proprietary Ratio	$\frac{\text{Proprietor's Funds}}{\text{Total Assets}} \times 100 = \dots\%$ <p>Note: Proprietor's Funds = Shareholder's Funds</p>

Ratio Analysis

	Proprietary ratio measures a relationship between proprietors' fund and the total assets.
(d) Interest Coverage Ratio	$\frac{\text{Net Profit Before Interest And Taxes}}{\text{Interest on Long Term Debt}} = \dots \text{ Times}$ <p>Interest coverage ratio establishes a relationship between PBIT and interest on long term debt.</p>
(e) Capital Gearing Ratio	$\frac{\text{Funds bearing Fixed Financial Payments}}{\text{Equity Shareholders Funds}}$
3. Activity Ratios	Activity ratios measure the effectiveness with which a firm uses its available resources. These ratio help in commenting on the efficiency of the enterprise in managing its assets.
(a) Stock Turnover Ratio	$\frac{\text{Cost of Goods Sold}}{\text{Average Stock}} = \dots \text{ Times}$ <p>Notes:</p> <ol style="list-style-type: none"> 1. Average Stock = $\frac{\text{Opening Stock} + \text{Closing Stock}}{2}$ 2. Cost Of Goods Sold = Net sales - Gross Profit OR COGS = Opening Stock + Purchases + Direct Expenses - Closing Stock <p>Stock turnover ratio establish a relationship between cost of goods sold and average stock.</p>
(b) Debtors Turnover Ratio	$\frac{\text{Net Credit Sales}}{\text{Average Debtors}} = \dots \text{ Times}$ <p>Notes:</p> <ol style="list-style-type: none"> 1. Average Debtors = $\frac{\text{Op.Drs.} + \text{Op.B/R} + \text{CL Drs.} + \text{CLB/R}}{2}$ 2. Net Credit Sales = Gross Credit Sales - Sales Return Or, = Net Sales - Cash Sales
(c) Average Debt Collection Period	$= \frac{12 \text{ months or } 52 \text{ weeks or } 365 \text{ days}}{\text{Debtors turnover ratio}} = \dots \text{ Period}$ $= \frac{\text{Average Debtors}}{\text{Average Monthly / Weekly / Daily Sales}}$ <p>Note:</p> $\text{Average Sales} = \frac{\text{Net Credit Sales}}{12 \text{ months} / 52 \text{ weeks} / 365 \text{ days}}$
(d) Creditor's Turnover Ratio	$\frac{\text{Net Credit Purchase}}{\text{Average Creditors}} = \dots \text{ Times}$ <p>Notes:</p> <ol style="list-style-type: none"> 1. Average Creditors = $\frac{\text{Op.Crs.} + \text{Op.B/P} + \text{CL Crs.} + \text{CLB/P}}{2}$ 2. Net Credit Purchases = Gross Credit Purchases - Purchase Returns, = Net Purchases - Cash Purchases
(e) Average Debt Payment Period	$\frac{12 \text{ months} / 52 \text{ weeks} / 365 \text{ days}}{\text{Creditors turnover ratio}} = \dots \text{ Period}$

Ratio Analysis

	$\text{Or} = \frac{\text{Average Creditors}}{\text{Average Monthly / Weekly / Daily Sales}} = \dots \text{Period}$ <p>Note: $\text{Average Purchases} = \frac{\text{Net Credit Purchases}}{12 \text{ months}/52 \text{ weeks}/365 \text{ days}}$</p>
(f) Working Capital Turnover Ratio	$\frac{\text{Net Sales}}{\text{Net Working Capital}} = \dots \text{Times}$ <p>Note: Working Capital = Current Assets - Current Liabilities</p>
4. Profitability Ratios	Profitability Ratios measures managements overall effectiveness as shown by the returns generated on sales and investments.
(I) In Relation to Sales	
(a) Gross Profit Ratio	$\frac{\text{Gross Profit}}{\text{Net Sales}} \times 100 = \dots\%$ <p>Note: Gross Profit = Net Sales - Cost of Goods Sold</p>
(b) Operating Ratio	$\frac{\text{Operating Cost}}{\text{Net Sales}} \times 100 = \dots\%$ <p>Note: Operating Cost = Cost of Goods Sold + Operating Expenses</p>
(c) Operating Profit Ratio	$\frac{\text{Operating Profit}}{\text{Net Sales}} \times 100 = \dots\%$ <p>Note: Operating Profit = Net Sales - Operating Costs</p>
(d) Net Profit Ratio	$\frac{\text{Net Profit}}{\text{Net Sales}} \times 100 = \dots\%$ <p>Notes:</p> <ol style="list-style-type: none"> 1. Net Profit = Net Sales - Cost Of Goods Sold - Operating Expenses - Non Operating Expenses + Non Operating Incomes 2. Net Profit = Gross Profit - Operating Expenses - Non Operating Expenses + Non Operating Incomes 3. Net Profit = Operating Profit - Non Operating Expenses + Non Operating Incomes
II. In Relation To Investment	
Return On Investment (ROI) OR Return On Capital Employed	$\frac{\text{Net Profit Before Interest and Tax}}{\text{Capital Employed}} \times 100 = \dots\%$ <p>Notes:</p> <ol style="list-style-type: none"> 1. Capital Employed = Shareholder's Funds + Long term debts 2. Non-Operating Assets do not form the part of Capital Employed 3. Income from Non Operating Assets should excluded be from the Net Profit Before Interest and Tax

Ratio Analysis

Return on Total Assets	$\frac{\text{Net Profit Before Interest and Tax}}{\text{Total Assets}} \times 100 = \dots\%$
Return on Shareholders Funds	$\frac{\text{Net Profit After Interest and Tax}}{\text{Shareholders Funds}} \times 100 = \dots\%$
Return on Equity Shareholders Funds	$\frac{\text{Net Profit After Interest and Tax and Preference Dividend}}{\text{Equity Shareholders Funds}} \times 100 = \dots\%$
Earning Per Share (EPS)	$\frac{\text{Net Profit After Interest and Tax and Preference Dividend}}{\text{Number of Equity Shares}}$
Dividend Payout Ratio	$\frac{\text{DPS}}{\text{EPS}} \times 100$
Earnings Yield	$\frac{\text{EPS}}{\text{MP per share}} \times 100$
Market Value to Book Value	$\frac{\text{Market Value Per Share}}{\text{Book Value Per Share}} \times 100$ <p>OR</p> $\frac{\text{Average or Closing MP per share}}{\frac{\text{Net Worth}}{\text{No of Equity Shares}}} \times 100$