

CUET · ACCOUNTANCY · CLASS XII · CODE 301

# Accounting Ratios

CUET unit: Analysis of Financial Statements → Accounting Ratios

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## Snapshot

- Accounting ratios convert raw figures in financial statements into meaningful relationships (fraction, percentage, proportion, or times) so liquidity, solvency, efficiency and profitability can be assessed.
- Ratios fall into a functional classification — **Liquidity, Solvency, Activity/Turnover and Profitability** — each with its own formula and ideal benchmark.
- CUET tests this chapter very heavily through numerical MCQs requiring calculation of a ratio from a partial Balance Sheet / Statement of Profit & Loss, or from inter-related ratios (e.g. current ratio + quick ratio → inventory).
- Conceptual MCQs target ideal ratios (Current = 2:1, Quick = 1:1, Debt-Equity = 2:1), the effect of a transaction on a ratio, and the difference between Debt-Equity, Debt-to-Capital-Employed and Proprietary ratios.

## Detailed Notes

### 2.1 Core concepts

Accounting ratios are the bridge between raw financial statement figures and decision-useful information. Absolute numbers in a balance sheet or P&L tell us little until they are placed in relation to one another — a net profit of ₹10 lakh sounds large but is uninformative without knowing the sales, the capital employed, or last year's figure. Ratios convert these absolute numbers into fractions, percentages, proportions or "number of times" relationships, making them comparable across periods (intra-firm) and across firms or industries (inter-firm). The functional classification — Liquidity, Solvency, Activity (Turnover) and Profitability — gives, for each ratio, a definition, a formula, an interpretation, and where relevant an ideal benchmark. This is a high-yield CUET area: almost any line item on the balance sheet or P&L can become a numerator or denominator, and the variety of formulae creates a rich pool of distractors.

- **Meaning of Accounting Ratio:** A mathematical relationship between two accounting numbers derived from financial statements, expressed as fraction, proportion, percentage or number of times. The two numbers must be **meaningfully correlated** — e.g. purchases-to-furniture is arithmetic but meaningless (NCERT §5.1, p. 194-195).

- **Objectives of Ratio Analysis:** Identify problem and bright areas; deeper analysis of profitability, liquidity, solvency, efficiency; enable cross-sectional comparison with industry standards; support projections (NCERT §5.2, p. 195).
- **Advantages:** Tests efficacy of past decisions; simplifies complex figures; aids comparative (time-series & cross-sectional) analysis; identifies problem areas; enables SWOT analysis; permits intra-firm, inter-firm and standard comparisons (NCERT §5.3, p. 195-196).
- **Limitations:** Limitations of accounting data; ignores price-level (inflation) changes; ignores qualitative/non-monetary aspects; variation in accounting policies makes inter-firm comparison weak; historical-only forecasting. Ratio-specific limits: means not end; cannot resolve problems; lack of standardised definitions; no universal ideal standard; ratios on unrelated figures meaningless (NCERT §5.4, p. 197-198).
- **Two-way classification:** Traditional — P&L ratios, Balance Sheet ratios, Composite ratios. **Functional (commonly used)** — Liquidity, Solvency, Activity (Turnover), Profitability (NCERT §5.5, p. 198-199).
- **Liquidity Ratios — short-term solvency.** **Current Ratio** = Current Assets / Current Liabilities; ideal  $\approx 2:1$ ; CA includes inventories, trade receivables, current investments, cash & cash equivalents, short-term loans & advances, prepaid expenses, advance tax, accrued income; CL includes short-term borrowings, trade payables, other current liabilities, short-term provisions. **Quick/Acid-test Ratio** = Quick Assets / Current Liabilities where Quick Assets = Current Assets – (Inventories + Prepaid expenses + Advance tax); ideal  $\approx 1:1$  (NCERT §5.6, p. 200-202).
- **Solvency Ratios — long-term solvency.** Five sub-ratios. **Debt-Equity** = Long-term Debts / Shareholders' Funds; safe  $\approx 2:1$ . Shareholders' Funds = Share Capital (Equity + Preference) + Reserves & Surplus + Money received against share warrants + Share application money pending allotment. **Debt to Capital Employed** = Long-term Debt / Capital Employed (Capital Employed = Long-term Debt + Shareholders' Funds, or Total Assets – Current Liabilities). **Proprietary Ratio** = Shareholders' Funds / Capital Employed (or Total Assets); Debt-to-Capital-Employed + Proprietary = 1. **Total Assets to Debt** = Total Assets / Long-term Debts; higher is better. **Interest Coverage** = Net Profit before Interest & Tax / Interest on long-term debts (NCERT §5.7, p. 204-212).
- **Activity/Turnover Ratios — efficiency.** **Inventory Turnover** = Cost of Revenue from Operations / Average Inventory; Avg Inv = (Opening + Closing)/2. **Trade Receivables Turnover** = Net Credit Revenue from Operations / Average Trade Receivables; Average Collection Period = 365 days / TR Turnover. **Trade Payables Turnover** = Net Credit Purchases / Average Trade Payables; Average Payment Period = 365 / TP Turnover. **Net Assets / Capital Employed Turnover** = Revenue from Operations / Capital Employed. **Fixed Assets Turnover** = Net Revenue from Operations / Net Fixed Assets. **Working Capital Turnover** = Net Revenue from Operations / Working Capital (NCERT §5.8, p. 213-222).

- **Profitability Ratios — earning capacity.** Gross Profit Ratio = (Gross Profit / Net Revenue from Operations) × 100. Operating Ratio = ((Cost of Revenue from Operations + Operating Expenses) / Net Revenue from Operations) × 100. Operating Profit Ratio = 100 – Operating Ratio. Net Profit Ratio = (Net Profit / Revenue from Operations) × 100. Return on Investment / ROCE = (Profit before Interest & Tax / Capital Employed) × 100. Return on Shareholders' Funds (RONW) = (Profit after Tax / Shareholders' Funds) × 100. EPS = Profit available for Equity Shareholders / Number of Equity Shares (Profit available = PAT – Preference Dividend). Book Value per Share = Equity Shareholders' Funds / Number of Equity Shares. Dividend Payout = Dividend per Share / Earnings per Share. P/E Ratio = Market Price per Share / EPS (NCERT §5.9, p. 223-229).

The Profitability ratio family deserves particular attention because each ratio uses a different numerator and denominator drawn from the P&L and Balance Sheet. **Gross Profit Ratio** is the broadest measure — it strips out only direct expenses (purchases, wages, carriage inwards) and tells the analyst what proportion of every rupee of sales is available after covering Cost of Revenue from Operations. **Operating Ratio** narrows further by adding selling, administrative and depreciation expenses to COGS; it answers the question "what proportion of sales is consumed by all operating costs". **Net Profit Ratio** is the bottom-line measure — net profit (after non-operating items, interest and tax) as a percentage of revenue. **Return on Investment (ROI / ROCE)** scales profit before interest and tax against capital employed, allowing comparison across firms with different capital structures. **Return on Shareholders' Funds (RONW)** restricts the denominator to equity (PAT ÷ Shareholders' Funds), reflecting the return earned for owners after meeting interest obligations. **Earnings per Share (EPS)** divides residual profit by the number of equity shares — preference dividend is deducted first because it has a prior claim. **Book Value per Share** is the per-share net worth from the balance sheet; **Dividend Payout** is the share of EPS distributed as dividend; **P/E Ratio** is the market price expressed as a multiple of EPS — the most-watched profitability indicator on the stock market.

## 2.2 Definitions to memorise

Term	Definition	Page
Accounting Ratio	Mathematical relationship between two accounting numbers derived from financial statements	194-195
Liquidity Ratio	Ratio measuring ability of business to pay short-term obligations as and when due	199-200
Solvency Ratio	Ratio measuring ability of business to meet long-term contractual obligations	199
Quick (Liquid) Assets	Current Assets – (Inventories + Prepaid Expenses + Advance Tax)	201
Shareholders' Funds		205

Term	Definition	Page
	Share Capital + Reserves & Surplus + Money received against share warrants + Share application money pending allotment	
Capital Employed	Long-term Debt + Shareholders' Funds (or Total Assets – Current Liabilities)	208
Cost of Revenue from Operations	Opening Inventory + Net Purchases + Direct Expenses (Wages, Carriage Inwards) – Closing Inventory	215-216
Average Collection Period	365 (or 12 months) / Trade Receivables Turnover Ratio	217, 220
Operating Profit Ratio	100 – Operating Ratio; or Operating Profit / Revenue from Operations × 100	224-225
EPS	Profit available for Equity Shareholders (PAT – Preference Dividend) / Number of Equity Shares	227

### 2.3 Diagrams / processes to remember

- Classification chart: Traditional (P&L / Balance Sheet / Composite) and Functional (Liquidity / Solvency / Activity / Profitability) classification of ratios (NCERT §5.5, p. 198-199).
- Standard formula sheet for the five Solvency ratios — Debt-Equity, Debt-to-Capital-Employed, Proprietary, Total Assets-to-Debt, Interest Coverage (NCERT §5.7, p. 204-212).
- Six Turnover ratios formula box — Inventory, Trade Receivables, Trade Payables, Capital Employed/Net Assets, Fixed Assets, Working Capital (NCERT §5.8, p. 213, 220-221).
- Profitability ratio family — Gross Profit, Operating, Operating Profit, Net Profit, ROI/ROCE, RONW, EPS, Book Value per Share, Dividend Payout, P/E (NCERT §5.9, p. 223).

### 2.4 Common confusions / NTA trap points

- **Quick Assets vs Current Assets:** Quick Assets exclude **Inventories AND Prepaid Expenses AND Advance Tax** — not just inventories. Many students subtract only inventory and get a wrong quick ratio (p. 201-202).
- **Debt-Equity vs Debt-to-Capital-Employed vs Proprietary:** Different denominators. Remember Debt-to-Capital-Employed + Proprietary = 1 (p. 208-209).
- **Cash sale vs credit sale and Trade Receivables Turnover:** TR Turnover uses Net Credit Revenue from Operations only, NOT total revenue. Subtract cash revenue first (p. 217-218).

- **Inventory Turnover denominator:** Numerator is Cost of Revenue from Operations — not Revenue from Operations. A common trap option uses Revenue and inflates the ratio (p. 215).
- **Operating Profit Ratio = 100 – Operating Ratio**, not 100 – Gross Profit Ratio. Operating Ratio includes operating expenses (selling, admin, depreciation, employee benefit) on top of Cost of Revenue from Operations (p. 224-225).
- **EPS numerator:** Profit available for equity shareholders = PAT – Preference Dividend. Forgetting to deduct preference dividend is a textbook NTA trap (p. 227-229).
- **Ideal ratios:** Current 2:1, Quick 1:1, Debt-Equity 2:1. NTA loves to swap these (NCERT p. 201, 202, 205).
- **Average period calculation.** Average Collection Period =  $365 \div \text{TR Turnover}$ ; Average Payment Period =  $365 \div \text{TP Turnover}$  (NCERT §5.8.2, p. 220).
- **Capital Employed two definitions.** (i) Long-term Debt + Shareholders' Funds OR (ii) Total Assets – Current Liabilities — both give the same answer (NCERT §5.7.2, p. 208).
- **Working Capital.** Current Assets – Current Liabilities. Used as denominator in Working Capital Turnover Ratio (NCERT §5.8.6, p. 221).
- **Profit available to equity shareholders.** PAT – Preference Dividend, used in EPS (NCERT §5.9.7, p. 227).

## 2.5 Journal entry templates

Accounting Ratios is a computational chapter — no fresh journal entries arise from it. However, the entries below show how individual transactions move particular ratios, which is the basis of "effect-of-transaction" MCQs.

### (a) Cash purchase of inventory — improves current ratio only if $CR < 1$ ; degrades if $CR > 1$ (NCERT §5.6.1)

Date	Particulars	L.F.	Dr. (₹)	Cr. (₹)
Apr 1	Purchases A/c .....Dr.		50,000	
	To Cash A/c			50,000
	(Being inventory bought for cash; no change in Current Assets total, but Quick Ratio falls — cash is quick, inventory is not)			

### (b) Issue of fresh equity shares — improves debt-equity ratio (NCERT §5.7.1)

Date	Particulars	L.F.	Dr. (₹)	Cr. (₹)
	Bank A/c .....Dr.		10,00,000	

Date	Particulars	L.F.	Dr. (₹)	Cr. (₹)
Apr 1				
	To Share Capital A/c			10,00,000
	(Being fresh equity issued; Shareholders' Funds rise — Debt-Equity Ratio falls)			

**(c) Repayment of long-term loan — improves debt-equity ratio (NCERT § 5.7.1)**

Date	Particulars	L.F.	Dr. (₹)	Cr. (₹)
Apr 10	Long-term Borrowings A/c .....Dr.		5,00,000	
	To Bank A/c			5,00,000
	(Being long-term loan repaid; Debt falls — Debt-Equity Ratio improves)			

**(d) Sale of inventory at cost — no impact on current ratio, improves quick ratio (NCERT § 5.6.2)**

Date	Particulars	L.F.	Dr. (₹)	Cr. (₹)
Apr 15	Cash A/c .....Dr.		30,000	
	To Sales A/c			30,000
	(Cost-price sale: inventory (slow) replaced by cash (quick) → Quick Ratio improves)			

**(e) Sale of inventory above cost — both CR and QR improve (NCERT § 5.6.1)**

Date	Particulars	L.F.	Dr. (₹)	Cr. (₹)
Apr 15	Cash A/c .....Dr.		40,000	
	To Sales A/c			40,000
	(Above-cost sale; Current Assets rise by gross margin → CR and QR both improve)			

**(f) Bills receivable discounted with bank — does not affect debt-equity (off-balance sheet contingent)**

Date	Particulars	L.F.	Dr. (₹)	Cr. (₹)
	Bank A/c .....Dr.		19,500	

Date	Particulars	L.F.	Dr. (₹)	Cr. (₹)
Apr 20				
	Discount A/c .....Dr.		500	
	To Bills Receivable A/c			20,000
	(Being bill discounted; trade receivables fall — improves TR Turnover; contingent liability disclosed)			

**(g) Provision for tax (effect on Net Profit Ratio) (NCERT § 5.9.4)**

Date	Particulars	L.F.	Dr. (₹)	Cr. (₹)
Mar 31	Statement of Profit and Loss .....Dr.		60,000	
	To Provision for Tax A/c			60,000
	(Being tax provided — reduces PAT and hence Net Profit Ratio and RONW)			

**(h) Declaration of dividend (effect on EPS / Dividend Payout) (NCERT § 5.9.9)**

Date	Particulars	L.F.	Dr. (₹)	Cr. (₹)
Sep 30	Statement of Profit and Loss .....Dr.		1,50,000	
	To Dividend Payable A/c			1,50,000
	(Being dividend of ₹15 per share declared on 10,000 equity shares; Dividend Payout = 15/EPS)			

 **Practice MCQs**

**Q1.** A ratio is a mathematical number calculated as a reference to relationship of two or more numbers. When such a ratio is computed using two accounting numbers from financial statements, it is termed as:

- A. Financial number
- B. Accounting ratio
- C. Statistical ratio
- D. Composite figure

**Q2.** Which of the following is **\*\*not\*\*** an objective of ratio analysis as listed in the NCERT chapter?

- A. To know the areas of business needing attention
- B. To provide cross-sectional comparison with industry standards
- C. To eliminate the need for financial statements altogether
- D. To provide information for making future projections

**Q3.** From the following data, calculate the Current Ratio: Inventories Rs. 50,000; Trade receivables Rs. 50,000; Advance tax Rs. 4,000; Cash and cash equivalents Rs. 30,000; Trade payables Rs. 1,00,000; Short-term borrowings (bank overdraft) Rs. 4,000.

- A. 1.00 : 1
- B. 1.20 : 1
- C. 1.29 : 1
- D. 1.50 : 1

 **12 more MCQs + answer key**

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## PYQ Alignment

Accounting Ratios is the highest-yield chapter in the **Analysis of Financial Statements** unit and contributes 10-15 MCQs in every CUET Accountancy paper. The dominant question types are: (a) direct computation of one ratio from a 5-7 item Balance Sheet/P&L extract (Illustrations 1, 7, 8, 12, 15, 18, 20, 22, 25), (b) reverse problems where two related ratios are given and a missing figure (inventory, current assets) is asked, and (c) effect-of-transaction questions on current ratio or debt-equity ratio (Illustrations 6 and 10).

### CUET 2025 — Actual PYQs from this chapter

**Q.3 (CUET 2025)** X Ltd. has a current ratio of 3:1 and quick ratio of 2:1. If the excess of current assets over quick assets is ₹5,000, calculate current assets and quick assets.

- A) ₹15,000 ; ₹5,000 B) ₹15,000 ; ₹14,000 C) ₹10,000 ; ₹15,000 D) ₹5,000 ; ₹10,000

Tests: §3 Liquidity Ratios — reverse calculation from current and quick ratios.

Answer: Not in extracted key

**Q.15 (CUET 2025)** Net profit after tax = ₹50,000; 15% Long-term debt = ₹1,20,000; Tax rate = 20%. Calculate profit before tax:

- A) ₹80,000 B) ₹1,50,000 C) ₹62,500 D) ₹72,500

Tests: §5 Profitability Ratios — back-calculation of PBT from after-tax profit and tax rate. Answer: Not in extracted key

**Q.16 (CUET 2025)** Average inventory ₹40,000 and inventory turnover ratio 8 times. Goods sold at 20% profit; find gross profit.

- A) ₹60,000 B) ₹70,000 C) ₹90,000 D) ₹80,000

Tests: §4 Activity Ratios — Inventory Turnover Ratio and gross profit calculation. Answer: Not in extracted key

**Q.17 (CUET 2025)** Gross profit ratio 25%, Credit revenue ₹20,00,000, Cash revenue 20% of total revenue, Indirect expenses ₹50,000. Find Net Profit.

- A) ₹5,00,000 B) ₹25,000 C) ₹6,00,000 D) ₹5,75,000

Tests: §5 Net Profit Ratio — derivation from gross profit and indirect expenses. Answer: Not in extracted key

**Q.36 (CUET 2025)** Match List-I with List-II: (A) Current ratio → Liquidity ratio; (B) Stock turnover → Activity ratio; (C) Debt-Equity → Solvency ratio; (D) Operating ratio → Profitability ratio.

- A) A-I, B-II, C-III, D-IV B) A-II, B-I, C-III, D-IV C) A-I, B-III, C-II, D-IV D) A-III, B-II, C-I, D-IV

Tests: §2 Classification of Accounting Ratios into four families. Answer: Not in extracted key

**Q.45 (CUET 2025)** Which ratio measures liquidity position of a firm?

- A) Current ratio B) Stock turnover ratio C) Debt equity ratio D) Net profit ratio

Tests: §3 Liquidity Ratios — identification. Answer: Not in extracted key

**Q.46 (CUET 2025)** The ratio which shows the relationship between debt and owner's equity is:

- A) Current ratio B) Debt equity ratio C) Operating ratio D) Inventory turnover ratio

Tests: §3 Solvency Ratios — Debt-Equity Ratio formula. Answer: Not in extracted key

### CUET 2023 — Actual PYQs from this chapter

**Q.20 (CUET 2023)** Aradhya Ltd. has debt-equity ratio 2:5. Which transaction will not affect the ratio?

- A) Purchase machinery by bank loan ₹1,20,000 B) ₹20,000 paid to creditors C) Conversion of ₹1,00,000 debentures into equity shares D) Sale of furniture ₹50,000

for ₹55,000 Tests: §3 Solvency Ratios — effect of transactions on Debt-Equity Ratio.

Answer: Not in extracted key

**Q.21 (CUET 2023)** Other income = ₹5,00,000 (25% of Revenue from operations);

Employee benefit expense = 30% of revenue; Tax 40%. Net profit after tax:

- A) ₹10,25,000 B) ₹11,40,000 C) ₹10,75,000 D) ₹10,35,000 Tests: §5 Net Profit Ratio — multi-step PBT and PAT computation. Answer: Not in extracted key

**Q.31 (CUET 2023)** Net Capital Employed is equal to: (A) Fixed Assets + Current Assets – Long-term liabilities (B) Non-current Assets + Current Assets – Current liabilities (C) Fixed Assets + Current Assets – Equity (D) Equity + Debt (E) Current Assets – Current Liabilities

- A) (A) and (B) only B) (B) and (D) only C) (C) and (D) only D) (A) and (D) only Tests: §3 Capital Employed — alternate formulae used in ROCE computation. Answer: Not in extracted key

**Q.38 (CUET 2023)** Match: (A) Current Ratio → Liquidity (B) Inventory Turnover → Activity (C) Return on Investment → Profitability (D) Proprietary Ratio → Solvency.

- A) A-II, B-IV, C-III, D-I B) A-I, B-II, C-III, D-IV C) A-II, B-I, C-III, D-IV D) A-IV, B-I, C-III, D-II Tests: §2 Classification of Accounting Ratios. Answer: Not in extracted key

**Q.45 (CUET 2023)** Which ratio measures short-term solvency?

- A) Current Ratio B) Debt-Equity Ratio C) Inventory Turnover Ratio D) Return on Capital Employed Tests: §3 Liquidity / Short-term Solvency Ratios. Answer: Not in extracted key

**Q.46 (CUET 2023)** Which ratio shows relationship between net profit and capital employed?

- A) Return on Investment B) Current Ratio C) Proprietary Ratio D) Debt-Equity Ratio Tests: §5 Return on Investment (ROCE). Answer: Not in extracted key

**Q.47 (CUET 2023)** Which ratio measures creditors' safety?

- A) Proprietary Ratio B) Debt-Equity Ratio C) Current Ratio D) Inventory Turnover Ratio Tests: §3 Long-term Solvency — interpretation of Debt-Equity Ratio for creditors. Answer: Not in extracted key

**Q.50 (CUET 2023)** Which of the following is not a liquidity ratio?

- A) Current Ratio B) Quick Ratio C) Inventory Turnover Ratio D) Cash Ratio Tests: §2 / §3 — distinguishing Liquidity from Activity Ratios. Answer: Not in extracted key