

Class 12 Accountancy: Formulas, Ratios and Formats

All 10 NCERT chapters (Partnership; Company Accounts and Analysis of Financial Statements) plus spreadsheet functions · CBSE syllabus 2026-27 · NCERT textbook (Reprint 2026-27)

How to use this sheet. It collects every formula, ratio and rule-of-thumb from the 10 NCERT Class 12 Accountancy chapters (Part I: Partnership; Part II: Company Accounts and Analysis of Financial Statements), plus the spreadsheet functions from the Computerised Accounting option. Chapter numbers match the NCERT textbook. All plain boxes are in the CBSE 2026-27 syllabus. Grey boxes marked $\diamond$ **Not in 2026-27 syllabus** are in the NCERT book but excluded from the current syllabus. They are kept for reference. Not assessed in 2026-27: interest on calls in arrears/advance, piecemeal distribution on dissolution, TDS on debenture interest, and exceptional/extraordinary items in company financial statements.

1. Accounting for Partnership: Basic Concepts
2. Admission of a Partner
3. Retirement/Death of a Partner
4. Dissolution of Partnership Firm
5. Accounting for Share Capital
6. Issue and Redemption of Debentures
7. Financial Statements of a Company
8. Analysis of Financial Statements
9. Accounting Ratios
10. Cash Flow Statement
11. Computerised Accounting (spreadsheet functions)

1 Accounting for Partnership: Basic Concepts

IF THE PARTNERSHIP DEED IS SILENT

- Profits and losses shared **equally**, whatever the capitals
- **No** interest on capital; **no** interest on drawings
- **No** salary or remuneration to any partner
- Interest on a partner's **loan** to the firm: **6% p.a.**
- Interest on a partner's loan is a **charge** against profit (Profit and Loss A/c), not an appropriation.

INTEREST ON CAPITAL

- $$\text{Interest} = \text{Capital} \times \frac{\text{Rate}}{100} \times \frac{\text{Months}}{12}$$
- Calculated on opening capital; additions earn interest from the date added, withdrawals of capital reduce it from that date
- Only closing capital given? Work backwards: Opening capital = Closing capital + Drawings – Additional capital – Profit share (undo whatever is already in the capital account).

INTEREST ON DRAWINGS

Fixed amount withdrawn	Beginning of period	Middle	End of period
Every month (12 drawings)	6½ months	6 months	5½ months
Every quarter (4 drawings)	7½ months	–	4½ months

$$\text{Interest on drawings} = \text{Total drawings} \times \frac{\text{Rate}}{100} \times \frac{\text{Average period (months)}}{12}$$

$$\text{Average period} = \frac{\text{Months left after 1st drawing} + \text{Months left after last drawing}}{2}$$

Product method (varying amounts, dates given):
$$\text{Interest} = \Sigma(\text{Amount} \times \text{months to year-end}) \times \frac{\text{Rate}}{100} \times \frac{1}{12}$$

PROFIT AND LOSS APPROPRIATION A/C

- Net profit (after interest on partner's loan)
+ Interest on drawings
– Interest on capital – Salary/commission to partners –
Transfer to reserve
= **Divisible profit**, shared in profit sharing ratio
- Commission at $r\%$ of profit **after** charging it:
$$\text{Profit before commission} \times \frac{r}{100 + r}$$

GUARANTEE OF PROFIT AND PAST ADJUSTMENTS

- **Guarantee:** Deficiency = Guaranteed amount – Actual share; borne by the guaranteeing partner(s) in the agreed ratio (else their profit sharing ratio)
- **Past adjustments:** tabulate what each partner got vs should have got (interest, salary, profit share); pass one entry for the net difference through capital/current accounts
- Fixed capital: capital A/c + current A/c (all adjustments go to current A/c). Fluctuating capital: one capital A/c only



2 Reconstitution of a Partnership Firm: Admission of a Partner

RATIOS ON ADMISSION

- Sacrificing ratio = Old share – New share
- New partner's share taken from old partners in their old ratio (unless stated): new ratio of old partners = their old share × (1 – new partner's share)
- If a partner's new share is more than the old one, that partner gains; only sacrificing partners get the goodwill premium.

GOODWILL ON ADMISSION (AS 26)

- New partner's share of goodwill = Firm's goodwill × new partner's share
- Credited to sacrificing partners in **sacrificing ratio** (brought in cash as premium, or debited to new partner's current/capital A/c)
- Self-generated goodwill is **not** raised in the books; existing goodwill is written off among old partners in the old ratio

VALUATION OF GOODWILL

Method	Formula
Average profits	Goodwill = Average profit × Number of years' purchase
Weighted average profits	Weighted average profit = $\frac{\Sigma(\text{Profit} \times \text{Weight})}{\Sigma \text{Weights}}$, then × years' purchase
Super profits	Normal profit = Capital employed × $\frac{\text{Normal rate of return}}{100}$ Super profit = Average profit – Normal profit Goodwill = Super profit × Number of years' purchase
Capitalisation of average profits	Capitalised value = Average profit × $\frac{100}{\text{Normal rate of return}}$ Goodwill = Capitalised value – Net assets (Assets – Outside liabilities)
Capitalisation of super profits	Goodwill = Super profit × $\frac{100}{\text{Normal rate of return}}$

Before averaging, adjust past profits for abnormal items (e.g. add back abnormal loss, deduct abnormal gain).

HIDDEN GOODWILL

- Total capital of new firm = New partner's capital × $\frac{1}{\text{New partner's share}}$
- Hidden goodwill = Total capital of new firm – (Old partners' adjusted capitals + New partner's capital)

REVALUATION, RESERVES AND CAPITAL ADJUSTMENT

- Revaluation A/c: increase in assets / decrease in liabilities = gain (Cr); opposite = loss (Dr). Net gain or loss shared in **old ratio**
- Reserves and accumulated profits (or losses) shared among old partners in **old ratio**
- Proportionate capitals: each partner's new capital = Total capital of new firm × that partner's new share; the difference is brought in or withdrawn

3 Reconstitution of a Partnership Firm: Retirement/Death of a Partner

GAINING RATIO

- Gaining ratio = New share – Old share
- If no new ratio is given, continuing partners take the retiring partner's share in their **old ratio** (gaining ratio = old ratio)
- Retiring/deceased partner's share of goodwill: credited to that partner, debited to continuing partners in **gaining ratio**

DECEASED PARTNER'S SHARE OF PROFIT (TO DATE OF DEATH)

- **Time basis:**
Last year's (or average) profit × $\frac{\text{Months to death}}{12}$ × Share
- **Sales basis:**
Sales to date × $\frac{\text{Last year's profit}}{\text{Last year's sales}}$ × Share
- Entry: Profit and Loss Suspense A/c Dr. To Deceased Partner's Capital A/c

SETTLING THE RETIRING/DECEASED PARTNER'S ACCOUNT

Amount due = Capital (and current) balance + share of revaluation gain + share of reserves/accumulated profits + share of goodwill + interest on capital, salary, profit to date – drawings and interest on drawings – share of revaluation loss / accumulated losses. Paid in cash, transferred to the partner's Loan A/c, or to the deceased partner's Executor's A/c.



4 Dissolution of Partnership Firm

REALISATION ACCOUNT

Debit side	Credit side
All assets at book value (except cash, bank and fictitious assets)	All outside liabilities at book value (not partners' capitals, current A/cs or reserves)
Liabilities paid off; realisation expenses paid by the firm	Cash/value realised from assets; assets taken over by partners
Profit on realisation (to partners in profit sharing ratio)	Loss on realisation (to partners in profit sharing ratio)

- Tangible asset with no realised value given: assume realised at **book value**. Intangible asset with no value given: **nil**
- Reserves and accumulated profits go to partners' capital A/cs in profit sharing ratio; accumulated losses and fictitious assets are written off the same way
- Close the books: partners' capital A/cs settle through Cash/Bank A/c

5 Accounting for Share Capital

CATEGORIES OF SHARE CAPITAL

- Authorised $\geq$ Issued $\geq$ Subscribed $\geq$ Called-up $\geq$ Paid-up
- Called-up capital – Calls in arrears = Paid-up capital
- Subscribed capital is shown as "Subscribed and fully paid" and "Subscribed but not fully paid"
- A call cannot exceed **25%** of face value; at least one month between two calls (unless the articles say otherwise)

OVER-SUBSCRIPTION (PRO-RATA ALLOTMENT)

- Application money received on applicants allotted pro rata, in excess of the application amount due, is adjusted towards allotment (then calls); any balance is refunded
- Applications rejected outright: money refunded in full

FORFEITURE AND REISSUE OF SHARES

- **Forfeiture:** Share Capital A/c Dr. with the amount **called up**; Share Forfeiture A/c Cr. with the amount **received**; unpaid calls Cr.
- If the premium on forfeited shares was **not received**, Securities Premium A/c is also debited; if already received, it stays
- **Reissue:** maximum discount on reissue = amount forfeited on those shares
- $$\text{Capital reserve} = \text{Amount forfeited on reissued shares} - \text{Discount allowed on their reissue}$$
- When only some forfeited shares are reissued, transfer to capital reserve only the proportionate balance relating to the reissued shares.

◇ INTEREST ON CALLS (TABLE F)

- Calls in arrears: up to 10% p.a.; calls in advance: up to 12% p.a.

6 Issue and Redemption of Debentures

ISSUE AND TERMS OF REDEMPTION

- Issue at par, premium or discount; redeemable at par or premium
- Loss on issue = Discount on issue + Premium payable on redemption
- Premium on redemption is credited to Premium on Redemption of Debentures A/c (a liability) at the time of issue

WRITING OFF LOSS AND INTEREST

- Discount/loss on issue is written off in the year of allotment: first from **Securities Premium**, then from the **Statement of Profit and Loss** as finance cost
- $$\text{Interest} = \text{Face value} \times \frac{\text{Rate}}{100}$$

(always on face value, whatever the issue price)
- Debentures issued as collateral security: shown by a note under the loan, or through Debenture Suspense A/c



7 Financial Statements of a Company (Schedule III)

BALANCE SHEET: EQUITY AND LIABILITIES

- **Shareholders' funds:** share capital; reserves and surplus; money received against share warrants
- **Share application money pending allotment**
- **Non-current liabilities:** long-term borrowings; deferred tax liabilities (net); other long-term liabilities; long-term provisions
- **Current liabilities:** short-term borrowings; trade payables; other current liabilities; short-term provisions

BALANCE SHEET: ASSETS

- **Non-current assets:** fixed assets (tangible, intangible, capital work-in-progress, intangible assets under development); non-current investments; deferred tax assets (net); long-term loans and advances; other non-current assets
- **Current assets:** current investments; inventories; trade receivables; cash and cash equivalents; short-term loans and advances; other current assets

STATEMENT OF PROFIT AND LOSS

Revenue from operations + Other income = Total revenue; – Expenses (cost of materials consumed, purchases of stock-in-trade, changes in inventories, employee benefits expense, finance costs, depreciation and amortisation, other expenses) = Profit before tax; – Tax = Profit for the period.

Current = realised/settled within 12 months or the operating cycle; current maturities of long-term debt go under other current liabilities.

8 Analysis of Financial Statements

COMPARATIVE STATEMENTS

- Absolute change = Current year – Previous year
- $\% \text{ change} = \frac{\text{Absolute change}}{\text{Previous year figure}} \times 100$

COMMON SIZE STATEMENTS

- Statement of P&L: each item as % of **revenue from operations**
- Balance sheet: each item as % of **total assets** (or total equity and liabilities)
- $\text{Common size \%} = \frac{\text{Item}}{\text{Base total}} \times 100$

9 Accounting Ratios

LIQUIDITY RATIOS

- $\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$
- $\text{Quick ratio} = \frac{\text{Quick assets}}{\text{Current liabilities}}$
- Quick assets = Current assets – Inventories – Prepaid expenses (and advance tax, other non-liquid current assets)
- Book benchmarks: current ratio about 2 : 1; quick ratio 1 : 1. Working capital = Current assets – Current liabilities.

SOLVENCY RATIOS

- $\text{Debt-equity} = \frac{\text{Long-term debts}}{\text{Shareholders' funds}}$
- $\text{Debt to capital employed} = \frac{\text{Long-term debts}}{\text{Capital employed}}$
- $\text{Proprietary ratio} = \frac{\text{Shareholders' funds}}{\text{Capital employed (or total assets)}}$
- $\text{Total assets to debt} = \frac{\text{Total assets}}{\text{Long-term debts}}$
- $\text{Interest coverage} = \frac{\text{Net profit before interest and tax}}{\text{Interest on long-term debts}}$

BUILDING BLOCKS

- Shareholders' funds = Share capital + Reserves and surplus + Money received against share warrants + Share application money pending allotment
= Non-current assets + Working capital – Non-current liabilities
- Capital employed (net assets) = Shareholders' funds + Long-term debts = Total assets – Current liabilities = Non-current assets + Working capital
- Cost of revenue from operations = Opening inventory + Purchases + Direct expenses – Closing inventory = Revenue from operations – Gross profit
- Average inventory = $\frac{\text{Opening} + \text{Closing}}{2}$; Net profit before tax = Net profit after tax $\times \frac{100}{100 - \text{Tax rate}}$



ACTIVITY (TURNOVER) RATIOS

- Inventory turnover = $\frac{\text{Cost of revenue from operations}}{\text{Average inventory}}$
- Trade receivables turnover = $\frac{\text{Net credit revenue from operations}}{\text{Average trade receivables}}$
- Trade payables turnover = $\frac{\text{Net credit purchases}}{\text{Average trade payables}}$
- Trade receivables = debtors + bills receivable; trade payables = creditors + bills payable
- Average collection period = $\frac{365}{\text{Trade receivables turnover}}$ days;
average payment period = $\frac{365}{\text{Trade payables turnover}}$ days

ACTIVITY RATIOS (ASSETS)

- Net assets turnover = $\frac{\text{Revenue from operations}}{\text{Capital employed}}$
- Fixed asset turnover = $\frac{\text{Net revenue from operations}}{\text{Net fixed assets}}$
- Working capital turnover = $\frac{\text{Net revenue from operations}}{\text{Working capital}}$
- If only year-end receivables/payables are given, use them as the average.

PROFITABILITY RATIOS (ALL $\times 100$, IN %)

- Gross profit ratio = $\frac{\text{Gross profit}}{\text{Net revenue from operations}} \times 100$
- Operating ratio = $\frac{\text{Cost of revenue from operations} + \text{Operating expenses}}{\text{Net revenue from operations}} \times 100$
- Operating profit ratio = $100 - \text{Operating ratio} = \frac{\text{Operating profit}}{\text{Revenue from operations}} \times 100$
- Net profit ratio = $\frac{\text{Net profit}}{\text{Revenue from operations}} \times 100$ (before and after tax)
- Return on investment (ROCE) = $\frac{\text{Profit before interest and tax}}{\text{Capital employed}} \times 100$
- Operating expenses: office, administrative, selling, distribution, depreciation, employee benefits. Exclude non-operating items (interest paid, loss on sale of assets, dividend received, loss by fire).

◇ SHAREHOLDER RATIOS

- Return on shareholders' funds = $\frac{\text{Profit after tax}}{\text{Shareholders' funds}} \times 100$
- EPS = $\frac{\text{Profit after tax} - \text{Preference dividend}}{\text{Number of equity shares}}$
- Book value per share = $\frac{\text{Equity shareholders' funds}}{\text{Number of equity shares}}$
- Dividend payout = $\frac{\text{DPS}}{\text{EPS}}$; P/E ratio = $\frac{\text{Market price per share}}{\text{EPS}}$

10 Cash Flow Statement (AS 3, indirect method)**CASH FLOW FROM OPERATING ACTIVITIES**

Step	Items
Net profit before tax	Change in Surplus (balance in Statement of P&L) + income tax + transfers to reserves + dividend declared/paid during the year (incl. previous year's proposed dividend and interim dividend)
Add: non-cash and non-operating expenses	Depreciation and amortisation, goodwill/patents written off, loss on sale of fixed assets or investments, finance cost (interest paid)
Less: non-operating incomes	Profit on sale of fixed assets or investments, interest and dividend received
= Operating profit before working capital changes	
Working capital changes	Add: decrease in current assets, increase in current liabilities Less: increase in current assets, decrease in current liabilities
= Cash generated from operations; less income tax paid	= Net cash from operating activities

Watch out: the proforma table (Exhibit 6.4) in the 2026-27 NCERT reprint prints "Add" and "Less" for the working capital changes the wrong way round. Follow the rule in the chapter text, which is what this box shows: an increase in current assets is **deducted**.



INVESTING ACTIVITIES

- Purchase/sale of fixed (tangible, intangible) assets and non-current investments
- Interest and dividend **received** (non-financial company)

FINANCING ACTIVITIES

- Issue/redemption of shares and debentures; raising/repaying long-term loans
- Interest **paid** on debentures and loans; dividend **paid** (final and interim)

SYLLABUS NOTES

- Cash and cash equivalents: cash, bank, and short-term highly liquid investments. Current investments are treated as marketable securities (cash equivalents) unless stated otherwise
- Bank overdraft and cash credit are short-term borrowings (financing activity)
- Previous year's proposed dividend is paid this year (financing outflow); this year's proposed dividend is accounted for next year, after shareholders declare it

CAS Computerised Accounting: Spreadsheet Functions**LOGICAL, LOOKUP AND MATHS**

- IF(logical_test, value_if_true, value_if_false); AND(...), OR(...)
- VLOOKUP(lookup_value, table_array, col_index_num, range_lookup)
- HLOOKUP(lookup_value, table_array, row_index_num, range_lookup)
- SUMIF(range, criteria, sum_range); COUNTIF(range, criteria); ROUND(number, num_digits)

FINANCIAL AND DEPRECIATION

- PMT(rate, nper, pv, [fv], [type]): loan instalment (fv = 0 for a fully repaid loan)
- PV(rate, nper, pmt, fv, type); FV(rate, nper, pmt, pv, type)
- SLN(cost, salvage, life): straight line depreciation
- DB(cost, salvage, life, period, month): written down value (declining balance)

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