

Depreciation, Provisions and Reserves

Kerala · Class 11 · Accountancy — exam notes

A bakery cannot treat a ₹4,00,000 oven the way it treats a ₹500 pen. The oven earns income for ten years, so its cost must be spread over those ten years — that is depreciation. This chapter covers why depreciation exists, the two methods you must know (SLM and WDV), how it is recorded, and the sharp distinction between a PROVISION (a charge against profit) and a RESERVE (an appropriation of profit).

Key terms & definitions

Depreciation

The systematic allocation of the cost of a fixed asset over its useful life. It is an allocation of cost, not a valuation and not a cash payment.

Depreciable amount

Cost of the asset minus its estimated scrap (residual) value — the total amount to be written off over the asset's life.

Useful life

The estimated period over which the asset is expected to be used by the business, which may be shorter than its physical life.

Scrap / residual value

The estimated amount expected to be realised on disposal at the end of the asset's useful life.

Straight-Line Method (SLM)

An equal amount of depreciation is charged every year, computed as $(\text{Cost} - \text{Scrap}) \div \text{Useful life}$. Also called the fixed instalment method.

Written Down Value Method (WDV)

A fixed percentage is applied to the book value at the beginning of each year, so the charge is higher in early years and falls thereafter. Also called the diminishing balance method.

Book value (WDV)

Cost less accumulated depreciation to date — the value at which the asset stands in the books.

Accumulated Depreciation

The running total of all depreciation charged on an asset since purchase, shown in the Balance Sheet as a deduction from the asset's gross cost.

Obsolescence

Loss of usefulness caused by new technology or changed demand rather than by physical wear — one of the causes of depreciation.

Provision

An amount set aside to meet a known liability or a probable loss whose amount cannot be determined exactly — for example provision for doubtful debts. It is a CHARGE against profit.

Reserve

An amount set aside out of profit to strengthen the financial position or to meet a future need — for example General Reserve. It is an APPROPRIATION of profit.

Secret reserve

A reserve not disclosed in the Balance Sheet, created by understating assets or overstating liabilities. It makes the true position unclear and is generally not permitted.

Why depreciation must be charged

- A bakery in Thrissur pays ₹4,00,000 for an oven used for ten years.
- If the whole ₹4,00,000 is treated as a Year 1 expense, Year 1 looks disastrous while Years 2 to 10 look unrealistically good — even though the oven bakes bread equally in all ten years.
- Charging depreciation spreads the cost across the years that actually receive the benefit. This is the **MATCHING CONCEPT** in action.
- It also keeps the Balance Sheet honest: the asset is shown at cost less the portion already used up.
- And it ensures profit is not overstated, so the owner does not withdraw money that is really needed to replace the asset.

Causes of depreciation

- **WEAR AND TEAR** from ordinary use — the commonest cause.
- **EFFLUXION OF TIME**: some assets lose value simply as time passes, such as a lease.
- **OBSOLESCENCE**: new technology or changed demand makes the asset less useful even if it still works.
- **DEPLETION**: natural resources such as a quarry are physically exhausted by extraction.
- **ACCIDENT**: a permanent fall in value caused by damage.

Straight-Line Method (SLM)

- Depreciation per year = $(\text{Cost} - \text{Scrap value}) \div \text{Useful life}$. The same amount every year.
- Bakery oven: cost ₹4,00,000, life 10 years, scrap ₹20,000 → depreciable amount ₹3,80,000 → ₹38,000 a year.
- Advantage: simple to compute and easy to understand; the asset can be written down exactly to its scrap value.
- Suitable for assets that give roughly equal service each year — furniture, buildings, leases.
- Limitation: repair costs usually rise as an asset ages, so the **TOTAL** charge (depreciation plus repairs) increases over the years.

Written Down Value Method (WDV)

- A fixed **PERCENTAGE** is applied to the opening book value each year, so the rupee charge falls year after year.
- Machine costing ₹1,00,000 at 20%: Year 1 ₹20,000 (book value ₹80,000); Year 2 ₹16,000 (book value ₹64,000); Year 3 ₹12,800.
- Advantage: heavier depreciation early, when repairs are low, and lighter later, when repairs are high — so the combined burden stays fairly even.
- Suitable for assets like machinery and vehicles that lose more value in early years.
- With an arbitrary flat rate the book value falls towards zero but never exactly reaches it; a rate derived from the formula writes the asset down to its scrap value.

Worked example — Kozhikode Textiles power loom

- Purchased 1 April 2024 for ₹2,50,000; useful life 5 years; salvage value ₹50,000.
- Depreciable amount = $₹2,50,000 - ₹50,000 = ₹2,00,000$.
- SLM depreciation = $₹2,00,000 \div 5 = ₹40,000$ per year.
- **JOURNAL** (31 March 2025): Depreciation A/c Dr. ₹40,000 / To Power Loom A/c (or Accumulated Depreciation A/c) ₹40,000.
- Then: Profit & Loss A/c Dr. ₹40,000 / To Depreciation A/c ₹40,000 — closing the expense to P&L.
- **BALANCE SHEET** as at 31 March 2025: Power Loom ₹2,50,000 less Accumulated Depreciation ₹40,000 = ₹2,10,000.

Two ways of recording depreciation

- **METHOD 1** — charge to the asset account: Depreciation A/c Dr., To Asset A/c. The asset account itself falls each year.
- **METHOD 2** — use a Provision for / Accumulated Depreciation account: Depreciation A/c Dr., To Accumulated Depreciation A/c. The asset stays at original cost.
- Method 2 is preferred because the Balance Sheet can show **BOTH** the original cost and the total depreciation to date, which is more informative.
- In either case Depreciation A/c is transferred to the Profit & Loss Account at year end.
- Accumulated Depreciation is shown as a **DEDUCTION** from the asset on the assets side, not as a liability.

Provisions — a charge against profit

- A provision is created for a KNOWN liability or probable loss whose exact amount is uncertain.
- A school cooperative store selling on credit knows from experience that about 5% of debtors will not pay. The loss is probable NOW, so it must be recognised now.
- Entry: Profit & Loss A/c Dr. / To Provision for Doubtful Debts A/c.
- It is a CHARGE against profit — it is deducted before arriving at net profit, and must be created even if the business makes a LOSS.
- Examples: provision for doubtful debts, provision for depreciation, provision for discount on debtors, provision for taxation.
- In the Balance Sheet, a provision for doubtful debts is deducted from Sundry Debtors.

Reserves — an appropriation of profit

- A reserve is created AFTER profit has been determined, as a decision about what to do with that profit.
- An owner may decide to keep ₹50,000 aside for future expansion instead of withdrawing it — that becomes a General Reserve.
- Entry: Profit & Loss Appropriation A/c Dr. / To General Reserve A/c.
- A reserve can be created ONLY IF there is a profit. No profit, no reserve.
- It strengthens the financial position and is shown on the liabilities side under Reserves & Surplus, along with capital.
- REVENUE reserves arise from normal trading profit; CAPITAL reserves arise from capital profits and are not available for dividend.

Provision versus Reserve — the distinction examiners test

- PURPOSE: a provision meets a known liability or probable loss; a reserve strengthens the business generally.
- NATURE: a provision is a CHARGE against profit; a reserve is an APPROPRIATION of profit.
- NECESSITY: a provision must be created even when there is a loss; a reserve is created only out of profit.
- PRESENTATION: a provision is usually deducted from the asset it relates to; a reserve appears on the liabilities side under Reserves & Surplus.
- USE: a provision can be used only for the purpose for which it was created; a general reserve may be used for any purpose.
- They are NOT interchangeable words — using one for the other in an answer loses the mark.

Three misconceptions to clear

- WRONG: 'Depreciation is a cash payment made every year.' It is a NON-CASH entry. No money leaves the business; the cash went out once, when the asset was bought.
- WRONG: 'SLM and WDV give the same charge each year.' Total cost allocated may be the same, but the DISTRIBUTION differs sharply — WDV charges far more in early years.
- WRONG: 'Provisions and reserves are both just savings.' A provision is a charge against profit for a specific probable loss; a reserve is an appropriation of profit already earned.

Formulas & formats

- Straight-Line Method:
$$\text{Annual Depreciation} = (\text{Cost} - \text{Scrap value}) \div \text{Useful life (years)}$$
$$\text{SLM Rate (\%)} = [(\text{Cost} - \text{Scrap}) \div (\text{Cost} \times \text{Life})] \times 100$$
- Written Down Value Method:
$$\text{Depreciation for the year} = \text{Opening Book Value} \times \text{Rate \%}$$
$$\text{Closing Book Value} = \text{Opening Book Value} - \text{Depreciation}$$
$$\text{WDV Rate} = [1 - \sqrt[n]{(\text{Scrap} \div \text{Cost})}] \times 100$$
- Journal entries:

Depreciation A/c	Dr.
To Asset A/c (or Accumulated Depreciation A/c)	
Profit & Loss A/c	Dr.
To Depreciation A/c	
- Balance Sheet presentation:

Fixed Asset (at cost)	2,50,000
Less: Accumulated Depreciation	40,000

Net book value	2,10,000
- Provision vs Reserve:
Provision → Profit & Loss A/c Dr. (a CHARGE, made even in loss)
Reserve → Profit & Loss Appropriation A/c Dr. (an APPROPRIATION, only out of profit)

Important questions & model answers

3 marks Define depreciation. State any two causes.

- Depreciation is the systematic allocation of the cost of a fixed asset, less its scrap value, over the asset's useful life.
- It is an allocation of cost to the periods that benefit from the asset, not a valuation of the asset and not a cash outflow.
- CAUSES: (i) wear and tear through ordinary use; (ii) obsolescence, where new technology makes the asset less useful; (iii) efflux of time, as with a lease; (iv) depletion of a natural resource.

3 marks A bakery oven costs ₹4,00,000, has a useful life of 10 years and a scrap value of ₹20,000. Compute annual depreciation under SLM.

- Depreciable amount = Cost – Scrap value = ₹4,00,000 – ₹20,000 = ₹3,80,000.
- Annual depreciation = ₹3,80,000 ÷ 10 years = ₹38,000 per year.
- The same ₹38,000 is charged in each of the ten years.
- After ten years the accumulated depreciation is ₹3,80,000 and the asset stands at its scrap value of ₹20,000.

5 marks Kozhikode Textiles bought a power loom on 1 April 2024 for ₹2,50,000, with a 5-year life and salvage value ₹50,000. Compute first-year SLM depreciation, pass the journal entry and show the Balance Sheet extract as at 31 March 2025.

- Depreciable amount = ₹2,50,000 – ₹50,000 = ₹2,00,000. Annual depreciation = ₹2,00,000 ÷ 5 = ₹40,000.
- JOURNAL (31 March 2025): Depreciation A/c Dr. ₹40,000 / To Accumulated Depreciation A/c ₹40,000 — (Being depreciation for the year).
- TRANSFER: Profit & Loss A/c Dr. ₹40,000 / To Depreciation A/c ₹40,000.
- BALANCE SHEET (extract) as at 31 March 2025:
- Power Loom (at cost) ₹2,50,000 less Accumulated Depreciation ₹40,000 = ₹2,10,000.
- The asset is shown at its net book value of ₹2,10,000 on the assets side.

4 marks Distinguish between the Straight-Line Method and the Written Down Value Method on any four points.

- BASIS OF CHARGE: SLM applies the rate to the ORIGINAL cost; WDV applies it to the opening BOOK VALUE of each year.
- AMOUNT: Under SLM the annual charge is EQUAL every year; under WDV it DECREASES year after year.
- TOTAL BURDEN: Under SLM depreciation plus repairs rises as the asset ages; under WDV the combined burden stays more even, since heavy depreciation early offsets low repairs.
- WRITING OFF: SLM can write the asset down exactly to its scrap value; with a flat WDV rate the book value approaches zero but never quite reaches it.
- SUITABILITY: SLM suits assets giving uniform service such as buildings and furniture; WDV suits machinery and vehicles that lose more value early.

4 marks A machine costing ₹1,00,000 is depreciated at 20% p.a. under WDV. Compute depreciation for the first three years.

- YEAR 1: ₹1,00,000 × 20% = ₹20,000. Book value at end = ₹80,000.
- YEAR 2: ₹80,000 × 20% = ₹16,000. Book value at end = ₹64,000.
- YEAR 3: ₹64,000 × 20% = ₹12,800. Book value at end = ₹51,200.
- The charge falls each year because the rate is applied to a progressively smaller book value.
- Total depreciation over three years = ₹20,000 + ₹16,000 + ₹12,800 = ₹48,800.

3 marks 'Depreciation is a non-cash expense.' Explain.

- Depreciation reduces profit in the Profit & Loss Account, but no money leaves the business when it is charged.
- The cash outflow occurred once, at the time the asset was purchased; depreciation merely spreads that past outflow over the years of use.
- For this reason depreciation is added back to profit when cash from operations is computed.
- Charging it nevertheless matters, because it prevents profit from being overstated and stops the owner withdrawing funds that will be needed to replace the asset.

4 marks Distinguish between a provision and a reserve on any four points.

- **PURPOSE:** A provision is created for a known liability or probable loss of uncertain amount; a reserve is created to strengthen the general financial position.
- **NATURE:** A provision is a CHARGE against profit; a reserve is an APPROPRIATION of profit.
- **NECESSITY:** A provision must be created even if the business makes a loss; a reserve can be created only when there is a profit.
- **PRESENTATION:** A provision is normally deducted from the asset concerned, for example provision for doubtful debts from debtors; a reserve is shown on the liabilities side under Reserves & Surplus.
- **USE:** A provision may be used only for the specific purpose for which it was created; a general reserve may be used for any purpose.

3 marks A cooperative store's experience shows that 5% of its ₹60,000 debtors will not pay. Show the treatment.

- Provision required = ₹60,000 × 5% = ₹3,000.
- **JOURNAL:** Profit & Loss A/c Dr. ₹3,000 / To Provision for Doubtful Debts A/c ₹3,000.
- It is created now, before the debtors actually default, because the loss is already probable — this follows the conservatism convention.
- **BALANCE SHEET:** Sundry Debtors ₹60,000 less Provision for Doubtful Debts ₹3,000 = ₹57,000 shown on the assets side.

3 marks Why is the Accumulated Depreciation method of recording preferred to charging the asset account directly?

- When depreciation is credited to a separate Accumulated Depreciation Account, the asset account continues to show the ORIGINAL COST.
- The Balance Sheet can then disclose both the original cost and the total depreciation written off to date, with the net book value in between.
- This gives the reader far more information — the age and extent of use of the asset can be judged.
- If the asset account is credited directly, only a single net figure appears and the original cost is lost from view.

2 marks What is a secret reserve? Why is it generally objectionable?

- A secret reserve is a reserve that is not disclosed in the Balance Sheet, created by deliberately understating assets or overstating liabilities.
- It is objectionable because the Balance Sheet then fails to show a true and fair view, and users are misled about the real financial position.
- It also conflicts with the convention of full disclosure, and is generally not permitted for companies.

Exam tips

- Always compute the DEPRECIABLE AMOUNT (cost – scrap) first in SLM problems. Forgetting to deduct scrap is the single commonest error.
- In WDV problems, apply the rate to the OPENING BOOK VALUE of each year, never to the original cost.
- Show the year-by-year working in WDV questions — method marks are given even if a later figure slips.
- State clearly that depreciation is a NON-CASH expense if the question asks about its nature.
- Use the words 'charge against profit' for a provision and 'appropriation of profit' for a reserve — these exact phrases are what the examiner looks for.
- In Balance Sheet extracts, show the asset at cost and DEDUCT accumulated depreciation below it; do not show only the net figure.
- If a question gives a purchase date mid-year, charge depreciation only for the months of use and say so in your working.

Quick revision

- Depreciation = systematic allocation of (Cost – Scrap) over useful life. Matching concept.
- Causes: wear and tear, efflux of time, obsolescence, depletion, accident.
- SLM: equal amount each year = (Cost – Scrap) ÷ Life. Oven example: ₹38,000 a year.
- WDV: fixed % on opening book value, so the charge falls. ₹1,00,000 @20% → 20,000 / 16,000 / 12,800.
- Loom example: (2,50,000 – 50,000) ÷ 5 = ₹40,000; Balance Sheet 2,50,000 – 40,000 = ₹2,10,000.
- Entry: Depreciation A/c Dr., To Asset or Accumulated Depreciation A/c; then close to P&L.
- Depreciation is a NON-CASH expense.
- PROVISION = charge against profit, made even in loss, deducted from the related asset.
- RESERVE = appropriation of profit, only out of profit, shown under Reserves & Surplus.

