

Share-based Payment (IFRS 2)

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1. Objective and core principle

Objective: IFRS 2 prescribes the financial reporting for share-based payment transactions—where an entity receives goods or services and pays using:

- **Equity instruments** (e.g. shares, share options), or
- **Cash or other assets** whose amount is based on the entity's share price.

Core principle: The entity must **recognise the fair value of goods or services received** as:

- **An expense** (usually employee benefits), or
- **Part of the cost of an asset,**

with a corresponding **credit to equity or a liability**, depending on how the arrangement is settled.

Even if no cash is paid, share-based payments represent a real cost and must be reflected in profit or loss.

2. Scope of IFRS 2

IFRS 2 applies to:

- **Transactions in which the entity receives goods or services** and settles by:
 - Issuing its own equity instruments; or
 - Paying cash or other assets based on its share price.
- **Transactions with employees, directors, and external suppliers.**

It does **not** apply to:

- **Business combinations** (IFRS 3) where consideration is paid in shares.
- Certain **contracts within the scope of other standards** (e.g. some commodity contracts).
- Some **employee share purchase plans** that meet specific criteria (treated as financial instruments under other standards).

3. Key definitions

- **Share-based payment transaction:** A transaction in which the entity receives goods or services in exchange for equity instruments or cash/other assets based on the share price.
- **Equity-settled share-based payment:** The entity issues its own equity instruments (shares, options, etc.) and has **no obligation to pay cash**.
- **Cash-settled share-based payment:** The entity incurs a **liability** to pay cash or other assets, with the amount based on the share price (e.g. share appreciation rights).

- **Grant date:** The date when the entity and the counterparty agree to the share-based payment arrangement and understand the terms.
- **Vesting conditions:** Conditions that must be satisfied for the counterparty to become entitled to the equity instruments or cash. They can be:
 - **Service conditions:** e.g. remain employed for 3 years.
 - **Performance conditions:** e.g. achieve a profit or EPS target.
 - **Non-market performance conditions:** based on internal measures (profit, sales, EPS).
 - **Market conditions:** based on market-related measures (share price, total shareholder return).
- **Non-vesting conditions:** Conditions that do not determine whether the award vests (e.g. requirement to hold shares for a certain period after vesting).

4. Classification of share-based payments

4.1 Equity-settled transactions

Characteristics:

- The entity's obligation is to **deliver its own equity instruments**.
- There is **no obligation to pay cash**.
- The credit side of the entry is **equity** (share-based payment reserve).

Examples:

- Share options granted to employees, exercisable after 3 years of service.
- Restricted shares granted to directors, subject to performance targets.

4.2 Cash-settled transactions

Characteristics:

- The entity has a **present obligation** to pay cash or other assets.
- The amount payable is **linked to the share price**.
- The credit side of the entry is a **liability**, remeasured at fair value at each reporting date.

Examples:

- Share appreciation rights (SARs) that entitle employees to cash equal to the increase in share price over a specified period.
- Phantom share plans where employees receive cash based on the value of notional shares.

4.3 Transactions with a choice of settlement

Sometimes the arrangement allows either:

- **The entity** to choose between cash or equity; or
- **The counterparty** (e.g. employee) to choose.

If the entity has the choice:

- If there is **no present obligation to pay cash**, the award is generally treated as **equity-settled**.
- If the entity has a **present obligation** to pay cash (e.g. past practice or stated policy), treat as **cash-settled**.

If the counterparty has the choice:

- The award is split into:
 - **Equity component**, and
 - **Liability component**, based on the relative fair values of each component at grant date.

5. Measurement principles

5.1 General rule

- **Measure the goods or services received at fair value.**
- If fair value of goods or services cannot be reliably measured (common for employees), measure **indirectly** by reference to the **fair value of the equity instruments granted**.

5.2 Equity-settled share-based payments

Measurement:

- Measure at **grant-date fair value** of the equity instruments.
- **Grant-date fair value is not remeasured** subsequently.

Recognition:

- Recognise the total fair value as an **expense** (or asset cost) over the **vesting period**.
- Credit **equity** (usually “share-based payment reserve”).

Example 1 — Basic equity-settled option grant

- On 1 Jan 20X1, Entity A grants 1,000 share options to each of 100 employees (100,000 options).
- Each option has a grant-date fair value of R5.
- Vesting condition: employees must remain employed for 3 years (service condition only).
- Expected forfeiture rate: 5%.

Step 1: Total grant-date fair value

- Expected number of options to vest: $100,000 \times 95\% = 95,000$
- Total fair value: $95,000 \times R5 = R475,000$

Step 2: Expense recognition over vesting period

- Vesting period: 3 years (20X1–20X3).
- Annual expense (if expectations remain unchanged): $R475,000/3 = R158,333$ per year.

Journal entry (Year 1):

- Dr Employee benefits expense R158,333
- Cr Equity – share-based payment reserve R158,333

Similar entries are made in Years 2 and 3, adjusted for any changes in expected forfeitures.

5.3 Cash-settled share-based payments

Measurement:

- Recognise a **liability** measured at **fair value**.
- **Remeasure** the liability at each reporting date and at settlement.
- Changes in fair value are recognised in **profit or loss**.

Recognition:

- Recognise the cost of the services received over the **vesting period**.
- The liability increases as services are rendered and as fair value changes.

Example 2 — Cash-settled SARs

- On 1 Jan 20X1, Entity B grants 10,000 SARs to employees.
- Vesting after 3 years of service.
- Each SAR entitles the employee to cash equal to the increase in share price over the grant-date price.
- Fair value of each SAR:
 - At 31 Dec 20X1: R3
 - At 31 Dec 20X2: R4
 - At 31 Dec 20X3: R6

Assume all SARs are expected to vest and no forfeitures.

Year 1 (end of 20X1):

- Total fair value at 20X1: $10,000 \times R3 = R30,000$

- Portion relating to 1 of 3 years: $R30,000 \times \frac{1}{3} = R10,000$

Journal entry:

- Dr Employee benefits expense R10,000
- Cr Liability – SARs R10,000

Year 2 (end of 20X2):

- Total fair value at 20X2: $10,000 \times R4 = R40,000$
- Portion relating to 2 of 3 years: $R40,000 \times \frac{2}{3} = R26,667$
- Liability already recognised: R10,000
- Additional expense in Year 2: $R26,667 - R10,000 = R16,667$

Journal entry:

- Dr **Employee benefits expense** R16,667
- Cr **Liability – SARs** R16,667

Year 3 (end of 20X3):

- Total fair value at 20X3: $10,000 \times R6 = R60,000$
- Portion relating to 3 of 3 years: $R60,000 \times \frac{3}{3} = R60,000$
- Liability already recognised: R26,667
- Additional expense in Year 3: $R60,000 - R26,667 = R33,333$

Journal entry:

- Dr Employee benefits expense R33,333
- Cr Liability – SARs R33,333

At settlement, if the actual cash paid equals R60,000, the liability is derecognised:

- Dr **Liability – SARs** R60,000
- Cr **Bank** R60,000

6. Vesting conditions and their impact

6.1 Service conditions

- Require the employee to **complete a specified period of service**.
- Expense is recognised **over the service period**.
- If employees leave before vesting, the entity **revises the estimate** of the number of awards expected to vest.

6.2 Non-market performance conditions

- Based on internal performance measures (e.g. profit, sales, EPS).
- **Not included** in the grant-date fair value of the options.
- Instead, the entity estimates the **number of awards expected to vest** and revises this estimate at each reporting date.

Example 3 — Non-market performance condition

- Options vest if cumulative profit over 3 years exceeds R1,000,000.
- At grant date, the fair value per option is R4 (ignoring performance condition).
- The entity estimates that 80% of options will vest.
- Each year, the estimate is updated based on actual performance.

The expense is based on:

- **Grant-date fair value per option**, and
- **Best estimate of options expected to vest**.

6.3 Market performance conditions

- Based on market-related measures (e.g. share price reaching CU 50).
- **Included in the grant-date fair value** using an option-pricing model.
- Once grant-date fair value is determined, **no adjustment** is made if the market condition is not met.

Key point: For equity-settled awards, **market conditions do not affect the number of options expected to vest** for expense purposes—the effect is already embedded in the fair value.

6.4 Non-vesting conditions

- Conditions that do not determine whether the award vests (e.g. requirement to hold shares for 2 years after vesting).
- These are **included in the grant-date fair value**.
- No subsequent adjustment for failure to meet non-vesting conditions.

7. Modifications, cancellations and settlements

7.1 Modifications of equity-settled awards

A modification occurs when the entity changes the terms of the award (e.g. repricing options, changing vesting conditions).

General rules:

- Recognise at least the **original grant-date fair value** over the original vesting period.

- If the modification **increases the fair value** of the award (beneficial to the employee), recognise the **incremental fair value** over the remaining vesting period.

Example 4 — Repricing options

- Original grant: 10,000 options, grant-date fair value R3 each.
- After 1 year (of a 3-year vesting period), the entity reduces the exercise price, increasing fair value to R4 per option.
- Incremental fair value: R1 per option × 10,000 = R10,000.
- Original fair value: R30,000.

Accounting:

- Continue recognising the **original R30,000** over 3 years.
- Recognise the **incremental R10,000** over the **remaining 2 years**.

7.2 Cancellations and settlements

If the entity **cancels** or **settles** an equity-settled award during the vesting period:

- Treat the cancellation as an **acceleration of vesting**.
- Recognise immediately the amount that would otherwise have been recognised over the remaining vesting period.
- Any **payment to the employee** in excess of the fair value of the equity instruments at cancellation date is recognised as **expense**.

8. Group share-based payment arrangements

IFRS 2 also covers arrangements involving **parent and subsidiary entities**.

Examples:

- Parent grants options over its shares to employees of a subsidiary.
- Subsidiary reimburses the parent, or not.

Key principles:

- Each entity accounts for the share-based payment **in its own financial statements** based on:
 - The **nature of its obligation** (equity or cash), and
 - Whether it receives the **services**.

Typical pattern:

- **Subsidiary** recognises the **expense** for employee services and a **credit to equity** (if it has no obligation to pay cash) or a **liability** (if it must reimburse the parent in cash).

- **Parent** recognises an **increase in investment in subsidiary** and a **credit to equity** if it issues its own shares.

9. Presentation and disclosure

9.1 Presentation

- **Expense** is usually presented within **employee benefits** or **operating expenses**.
- **Equity-settled awards**: credit to **equity** (usually a separate “share-based payment reserve”).
- **Cash-settled awards**: credit to **liabilities**, often classified as **non-current** if settlement is expected after more than one year.

9.2 Disclosure requirements

Entities must disclose information that enables users to understand:

- **Nature and extent** of share-based payment arrangements.
- **How fair value was determined**, including:
 - Option-pricing models used (e.g. Black-Scholes, binomial).
 - Key assumptions (volatility, risk-free rate, expected life, dividend yield).
- **Effect on profit or loss and financial position**, including:
 - Total expense recognised for share-based payments.
 - Carrying amount of liabilities for cash-settled awards.
- **Reconciliation of outstanding options**, including:
 - Number and weighted average exercise price of options:
 - Outstanding at beginning and end of period.
 - Granted, exercised, forfeited, expired during the period.

These disclosures help users assess the **cost**, **risk**, and **dilution** effects of share-based payment schemes.

10. Summary and exam focus points

Core exam points:

- **Classification**:
 - Equity-settled vs cash-settled; understand the entity’s obligation.
- **Measurement**:
 - Equity-settled: **grant-date fair value**, not remeasured.
 - Cash-settled: **liability at fair value**, remeasured each reporting date.
- **Vesting conditions**:
 - Service and non-market performance conditions affect **number of awards expected to vest**.
 - Market conditions are **built into fair value** and not adjusted later.

- **Recognition pattern:**
 - Expense recognised **over vesting period** based on best estimate of awards expected to vest.
 - True-up at each reporting date for changes in expectations (except for market conditions).
- **Modifications and cancellations:**
 - Always recognise at least the **original grant-date fair value**.
 - Incremental fair value from beneficial modifications is recognised over remaining vesting period.
 - Cancellations accelerate recognition.

11. 20 Multiple-Choice Questions (with Answers)

1. IFRS 2 primarily deals with transactions in which an entity receives goods or services in exchange for:

- A. Cash only
- B. Equity instruments or cash based on share price
- C. Financial liabilities only
- D. Inventory transfers

➤ **Answer: B**

2. For equity-settled share-based payments, fair value is measured at:

- A. Grant date
- B. Vesting date
- C. Settlement date
- D. Reporting date

➤ **Answer: A**

3. For cash-settled share-based payments, the liability is measured at:

- A. Grant-date fair value only
- B. Historical cost
- C. Fair value remeasured at each reporting date
- D. Fair value at vesting date only

➤ **Answer: C**

4. A service condition affects:

- A. Grant-date fair value
- B. Number of awards expected to vest

- C. Exercise price
- D. Market volatility

➤ **Answer: B**

5. Market performance conditions are:

- A. Ignored in fair value measurement
- B. Included in grant-date fair value
- C. Adjusted for after grant date
- D. Treated as non-vesting conditions

➤ **Answer: B**

6. Non-market performance conditions:

- A. Are included in grant-date fair value
- B. Are ignored completely
- C. Affect the number of awards expected to vest
- D. Are treated as market conditions

➤ **Answer: C**

7. If fair value of employee services cannot be measured reliably, the entity measures the transaction using:

- A. Intrinsic value
- B. Fair value of equity instruments granted
- C. Replacement cost
- D. Historical cost

➤ **Answer: B**

8. For equity-settled awards, changes in fair value after grant date:

- A. Are recognised in profit or loss
- B. Adjust the share-based payment reserve
- C. Are ignored
- D. Affect vesting conditions

➤ **Answer: C** (*refer paragraph 5.2*)

9. Cash-settled share appreciation rights (SARs) create:

- A. An equity balance
- B. A liability
- C. A contingent liability

D. No recognition until settlement

➤ **Answer: B**

10. When an award is cancelled during the vesting period, IFRS 2 requires:

- A. No further expense
- B. Immediate recognition of remaining expense
- C. Reversal of all prior expense
- D. Measurement at intrinsic value

➤ **Answer: B**

11. Incremental fair value from a modification that benefits employees is:

- A. Ignored
- B. Recognised immediately
- C. Recognised over the remaining vesting period
- D. Recognised over the original vesting period

➤ **Answer: C**

12. If employees choose between cash or shares, the award is treated as:

- A. Equity only
- B. Liability only
- C. A compound instrument
- D. A derivative

➤ **Answer: C**

13. A parent company grants share options over its own shares to subsidiary employees. The subsidiary:

- A. Recognises no expense
- B. Recognises an expense for employee services
- C. Recognises a liability only
- D. Recognises revenue

➤ **Answer: B**

14. The fair value of share options is typically measured using:

- A. FIFO method
- B. Black-Scholes or binomial models
- C. Net realisable value
- D. Replacement cost

➤ **Answer: B**

15. IFRS 2 requires disclosure of:

- A. Only cash-settled awards
- B. Only equity-settled awards
- C. Nature, extent, and fair-value assumptions of all share-based payments
- D. Only awards granted to directors

➤ **Answer: C**

16. If employees fail to meet a service condition, the entity:

- A. Continues recognising expense
- B. Reverses previously recognised expense
- C. Recognises additional expense
- D. Ignores the failure

➤ **Answer: B**

17. A non-vesting condition:

- A. Affects vesting
- B. Is included in grant-date fair value
- C. Is ignored in measurement
- D. Is treated as a market condition

➤ **Answer: B**

18. The vesting period is:

- A. Always one year
- B. The period during which employees must satisfy conditions
- C. The period after exercise
- D. The period between settlement and reporting date

➤ **Answer: B**

19. For cash-settled awards, changes in fair value are recognised in:

- A. Other comprehensive income
- B. Equity
- C. Profit or loss
- D. Retained earnings

➤ **Answer: C**

20. Equity-settled awards are recognised as:

- A. A liability
- B. A contingent liability
- C. An equity increase
- D. A financial asset

➤ **Answer: C**

12. Calculation-Heavy Journal Entry Drill Set

Below are **10 challenging, exam-style IFRS 2 scenarios**, each requiring calculations and full journal entries. **Answers are included after each question.**

1. Equity-settled options — service condition only

Scenario: On 1 Jan 20X1, Entity A grants **5,000 share options** to employees. Fair value per option at grant date: **R8**. Vesting period: **4 years**. Expected forfeiture rate: **10%**.

Required: Calculate annual expense and journal entry for Year 1.

Solution:

- Expected vesting: $5,000 \times 90\% = \mathbf{4,500 \text{ options}}$
- Total fair value: $4,500 \times \text{R}8 = \mathbf{\text{R}36,000}$
- Annual expense: $\text{R}36,000 \div 4 = \mathbf{\text{R}9,000}$

Journal entry (Year 1):

- Dr Employee benefits expense 9,000
- Cr Equity – share-based payment reserve 9,000

2. Equity-settled options — change in forfeiture estimate

Scenario: Same as Question 1, but at end of Year 2, expected forfeiture changes from **10%** to **5%**.

Required: Calculate Year 2 expense.

Solution:

- Revised expected vesting: $5,000 \times 95\% = \mathbf{4,750 \text{ options}}$
- Total fair value: $4,750 \times \text{R}8 = \mathbf{\text{R}38,000}$
- Cumulative expense after 2 years: $\text{R}38,000 \times (2/4) = \mathbf{\text{R}19,000}$
- Expense already recognised (Year 1): **R9,000**

➤ Year 2 expense: $R19,000 - R9,000 = \mathbf{R10,000}$

Journal entry (Year 2):

- Dr Employee benefits expense 10,000
- Cr Equity – share-based payment reserve 10,000

3. Cash-settled SARs — annual remeasurement

Scenario: Entity B grants **12,000 SARs** on 1 Jan 20X1. Vesting period: **3 years**. Fair value per SAR:

- End of Year 1: R4
- End of Year 2: R6
- End of Year 3: R9

No forfeitures.

Required: Calculate liability and expense for each year.

Solution:

Year 1: Liability = $12,000 \times 4 = 48,000$. Recognise $1/3 = \mathbf{R16,000}$

Entry:

- Dr Employee benefits expense 16,000
- Cr SAR liability 16,000

Year 2: Liability = $12,000 \times 6 = 72,000$. Recognise $2/3 = 48,000$. Expense = $48,000 - 16,000 = \mathbf{R32,000}$

Entry:

- Dr Employee benefits expense 32,000
- Cr SAR liability 32,000

Year 3: Liability = $12,000 \times 9 = 108,000$. Recognise $3/3 = 108,000$. Expense = $108,000 - 48,000 = \mathbf{R60,000}$

Entry:

- Dr Employee benefits expense 60,000
- Cr SAR liability 60,000

4. Cash-settled SARs — settlement

Scenario: Continuing Question 3, SARs are settled for **R108,000**.

Journal entry:

- Dr SAR liability 108,000
- Cr Bank 108,000

5. Equity-settled options with market condition

Scenario: Entity C grants **20,000 options** with a market condition (share price must reach R50). Grant-date fair value (including market condition): **R6**. Vesting period: **3 years**. No forfeitures.

Required: Calculate annual expense.

Solution: Total fair value: $20,000 \times 6 = \mathbf{R120,000}$. Annual expense: $120,000 \div 3 = \mathbf{R40,000}$.

Journal entry (each year):

- Dr Employee benefits expense 40,000
- Cr Equity – share-based payment reserve 40,000

6. Modification — increase in fair value

Scenario: Original grant: **10,000 options**, fair value **R5**. After 1 year (of 3-year vesting), fair value increases to **R7** due to repricing. Incremental fair value: $7 - 5 = \mathbf{R2}$ per option.

Required: Calculate Year 2 expense.

Solution: Original fair value: $10,000 \times 5 = \mathbf{R50,000}$. Incremental fair value: $10,000 \times 2 = \mathbf{R20,000}$.

- Original expense Year 2: $50,000 \times (2/3) - 50,000 \times (1/3) = \mathbf{16,667}$
- Incremental expense Year 2: $20,000 \times (1/2) = \mathbf{10,000}$
- Total Year 2 expense: **26,667**

Journal entry:

- Dr Employee benefits expense 26,667
- Cr Equity – share-based payment reserve 26,667

7. Cancellation — accelerate vesting

Scenario: Entity D grants options worth **R60,000** over 3 years. After 2 years, the entity cancels the plan.

Required: Calculate expense at cancellation.

Solution:

- Expense already recognised: $60,000 \times (2/3) = \mathbf{40,000}$
- Remaining expense accelerated: $60,000 - 40,000 = \mathbf{20,000}$

Journal entry:

- Dr Employee benefits expense 20,000
- Cr Equity – share-based payment reserve 20,000

8. Subsidiary employees — parent issues shares

Scenario: Parent company grants options worth **R100,000** to subsidiary employees. Subsidiary has no obligation to reimburse parent.

Required: Subsidiary's journal entry for Year 1 (3-year vesting).

Solution: Annual expense: $100,000 \div 3 = \mathbf{R33,333}$

Subsidiary entry:

- Dr Employee benefits expense 33,333
- Cr Equity – contribution from parent 33,333

9. Share purchase plan — discount treated as SBP

Scenario: Employees may buy shares at a **20% discount**. Fair value of shares: R10. Discount: R2. Employees buy **3,000 shares**. No vesting period.

Required: Recognise SBP expense.

Solution: Expense = $3,000 \times 2 = \mathbf{R6,000}$

Journal entry:

- Dr Employee benefits expense 6,000
- Cr Equity – share-based payment reserve 6,000

10. Equity-settled options — forfeitures occur

Scenario: Entity E grants **8,000 options**, fair value **R9**, vesting over 4 years. Expected forfeiture: 15%. Actual forfeiture in Year 2: 500 employees leave, losing **1,000 options**.

Required: Calculate Year 2 expense.

Solution: Expected vesting initially: $8,000 \times 85\% = \mathbf{6,800 options}$. Total fair value: $6,800 \times R9 = \mathbf{R61,200}$.

Year 1 expense: $R61,200 \div 4 = \mathbf{R15,300}$.

Actual forfeiture adjustment: Remaining options expected to vest = $8,000 - 1,000 = \mathbf{7,000}$.

Revised fair value: $7,000 \times R9 = \mathbf{R63,000}$.

Cumulative expense after Year 2: $R63,000 \times (2/4) = \mathbf{R31,500}$. Expense already recognised: R15,300.

➤ Year 2 expense: $R31,500 - R15,300 = \mathbf{R16,200}$

Journal entry:

- Dr Employee benefits expense 16,200
- Cr Equity – share-based payment reserve 16,200

13. Comprehensive Question Bank (with Solutions)

SECTION A — FOUNDATIONAL QUESTIONS

1. What is the core principle of IFRS 2?

Solution: Entities must recognise the fair value of goods or services received in exchange for equity instruments or cash based on share price.

2. Define an equity-settled share-based payment.

Solution: A transaction in which the entity issues its own equity instruments and has no obligation to pay cash.

3. Define a cash-settled share-based payment.

Solution: A transaction in which the entity incurs a liability to pay cash or other assets based on the share price.

4. What is the grant date?

Solution: The date on which both the entity and the counterparty agree to the share-based payment arrangement and understand its terms.

5. What is a vesting condition?

Solution: A condition that determines whether the counterparty becomes entitled to the award, such as service or performance conditions.

6. What is a market performance condition?

Solution: A condition based on market-related metrics, such as share price or total shareholder return.

7. Are market conditions included in grant-date fair value?

Solution: Yes, they are incorporated into the option's fair value using valuation models.

8. Are non-market performance conditions included in grant-date fair value?

Solution: No. They affect the number of awards expected to vest.

9. How are equity-settled awards measured?

Solution: At grant-date fair value, not remeasured subsequently.

10. How are cash-settled awards measured?

Solution: At fair value, remeasured at each reporting date and at settlement.

SECTION B — INTERMEDIATE QUESTIONS

11. How does an entity treat forfeitures for equity-settled awards?

Solution: The entity revises the estimate of awards expected to vest and adjusts cumulative expense accordingly.

12. What happens when an equity-settled award is cancelled?

Solution: The remaining unrecognised expense is recognised immediately (accelerated vesting).

13. What is incremental fair value in a modification?

Solution: The increase in fair value of the modified award compared to the original award at modification date.

14. How is incremental fair value recognised?

Solution: Over the remaining vesting period.

15. How does a subsidiary account for share-based payments granted by its parent?

Solution: The subsidiary recognises an expense and credits equity (contribution from parent) unless it must reimburse the parent.

16. What valuation models are commonly used for options?

Solution: Black-Scholes and binomial models.

17. What disclosures are required under IFRS 2?

Solution: Nature of arrangements, fair-value assumptions, expense recognised, and reconciliation of outstanding instruments.

18. What is a non-vesting condition?

Solution: A condition that does not determine vesting (e.g., post-vesting holding period). Included in fair value.

19. How are share purchase plans treated under IFRS 2?

Solution: Any discount that is not available to all shareholders is treated as a share-based payment expense.

20. What is the vesting period?

Solution: The period during which employees must satisfy vesting conditions.

SECTION C — ADVANCED CALCULATION QUESTIONS

21. Equity-settled options — service condition only

Entity A grants **6,000 options**, fair value **R7**, vesting over **3 years**. Expected forfeiture: **5%**.

Required: Calculate Year 1 expense.

Solution:

- Expected vesting: $6,000 \times 95\% = 5,700$
- Total fair value: $5,700 \times R7 = R39,900$
- Year 1 expense: $R39,900 \div 3 = \mathbf{R13,300}$

22. Equity-settled options — change in forfeiture estimate

Same as Question 21. At end of Year 2, expected forfeiture changes to **2%**.

Solution:

- Revised vesting: $6,000 \times 98\% = 5,880$
- Total fair value: $5,880 \times R7 = R41,160$
- Cumulative expense (2 years): $R41,160 \times (2/3) = R27,440$
- Expense already recognised: R13,300
- Year 2 expense: $R27,440 - R13,300 = \mathbf{R14,140}$

23. Cash-settled SARs — remeasurement

Entity B grants **15,000 SARs**, vesting over **3 years**. Fair value per SAR:

- Year 1: R3
- Year 2: R5
- Year 3: R8

Required: Calculate Year 1 expense.

Solution:

- Liability: $15,000 \times R3 = R45,000$
- Year 1 expense portion: $R45,000 \div 3 = \mathbf{R15,000}$

24. Cash-settled SARs — Year 2

Using Question 23 data.

Solution:

- Liability: $15,000 \times R5 = R75,000$
- Cumulative (2 years): $R75,000 \times (2/3) = R50,000$
- Expense Year 2: $R50,000 - R15,000 = \mathbf{R35,000}$

25. Cash-settled SARs — Year 3

Using Question 23 data.

Solution:

- Liability: $15,000 \times R8 = R120,000$
- Cumulative (3 years): R120,000
- Expense Year 3: $R120,000 - R50,000 = \mathbf{R70,000}$

26. Modification — incremental fair value

Original grant: **9,000 options**, fair value **R4**. After 1 year (of 3), fair value increases to **R6**.

Solution:

- Original fair value: $9,000 \times R4 = R36,000$
- Incremental: $9,000 \times (R6 - R4) = R18,000$
- Original Year 2 expense: $R36,000 \times (2/3) - R36,000 \times (1/3) = R12,000$
- Incremental Year 2: $R18,000 \times (1/2) = R9,000$
- Total Year 2 expense: **R21,000**

27. Cancellation — accelerate vesting

Award worth **R45,000** over 3 years. Cancelled after Year 1.

Solution:

- Expense recognised: $R45,000 \times (1/3) = R15,000$
- Remaining accelerated: $R45,000 - R15,000 = \mathbf{R30,000}$

28. Share purchase plan discount

Employees buy **4,000 shares** at a **25% discount**. Fair value: R12. Discount: R3.

Solution: Expense: $4,000 \times R3 = \mathbf{R12,000}$

29. Subsidiary employees — parent issues shares

Parent company grants options worth **R150,000** over 3 years.

Solution: Annual expense: $R150,000 \div 3 = \mathbf{R50,000}$

30. Equity-settled options — actual forfeitures

Entity E grants **10,000 options**, fair value **R5**, vesting over 4 years. Expected forfeiture: 10%. Actual forfeiture by Year 2: 800 options.

Solution:

- Expected vesting initially: $10,000 \times 90\% = 9,000$
 - Total fair value: $9,000 \times R5 = R45,000$
 - Year 1 expense: $R45,000 \div 4 = R11,250$
 - Actual vesting after forfeiture: $10,000 - 800 = 9,200$
 - Revised fair value: $9,200 \times R5 = R46,000$
 - Cumulative (2 years): $R46,000 \times (2/4) = R23,000$
 - Expense Year 2: $R23,000 - R11,250 = \mathbf{R11,750}$
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