



NISM Series-VIII: Equity Derivatives Certification Examination - Comprehensive Summary

This workbook serves as a complete guide for the NISM Series-VIII Equity Derivatives Certification Examination, covering all essential aspects of equity derivatives trading, regulation, and risk management in India.

Chapter 1: Basics of Derivatives

Definition and Types

- **Derivative:** A contract whose value derives from an underlying asset (metals, energy, agriculture, financial assets)
- **Main Types:** Forwards, Futures, Options, Swaps

Historical Development

- **Global Evolution:** From 12th century European trade fairs to modern electronic exchanges
- **Key Milestones:**
 - 1848: Chicago Board of Trade established
 - 1865: First exchange-traded futures contracts
 - 1973: Chicago Board Options Exchange launched
 - 1982: First stock index futures

Indian Derivatives Market

- **Regulatory Foundation:**
 - 1996: L.C. Gupta Committee established framework
 - 1999: SCRA amended to include derivatives as securities
 - 2000: Trading commenced with index futures (Sensex, Nifty)
 - 2001: Index options and stock options introduced
 - 2001: Stock futures launched

Market Participants

1. **Hedgers:** Reduce risk exposure using derivatives
2. **Speculators/Traders:** Profit from price movements with leverage
3. **Arbitrageurs:** Exploit price differences across markets for risk-free profits

Market Types

- **Exchange-Traded:** Standardized, centralized, guaranteed settlement
- **Over-the-Counter (OTC):** Customized, bilateral agreements, higher counterparty risk

Significance and Risks

Benefits:

- Price discovery
- Risk transfer mechanism
- Market depth and liquidity

Key Risks:

- Counterparty risk
- Price risk
- Liquidity risk
- Operational risk
- Legal/regulatory risk

Chapter 2: Understanding the Index

Index Fundamentals

- **Definition:** Statistical measure of market performance representing a portfolio of securities
- **Purpose:** Benchmark for performance evaluation and underlying for derivatives

Types of Indices

1. Market Capitalization Weighted Index

- Weight based on company's market cap
- **Formula:** $\text{Market Cap} = \text{Outstanding Shares} \times \text{Current Price}$
- Higher market cap = higher weight in index

2. Free-Float Market Capitalization Index

- Based on readily tradeable shares only
- Excludes promoter holdings and locked-in shares
- Most global indices use this method

3. Price-Weighted Index

- Each stock influences index proportionally to its price
- Higher-priced stocks have greater influence
- **Example:** Dow Jones Industrial Average

4. Equal Weighted Index

- All stocks have same weightage
- Requires regular rebalancing

Key Attributes of Good Index

- Reflects market behavior
- Computed by independent third party
- Professionally maintained
- Adequate liquidity (measured by impact cost)

Impact Cost

- **Definition:** Percentage degradation from ideal price due to market friction
- **Calculation:** $(\text{Execution Price} - \text{Ideal Price}) / \text{Ideal Price} \times 100$
- Lower impact cost indicates higher liquidity

Index Management

- **Construction:** Selecting stocks and methodology
- **Maintenance:** Adjusting for corporate actions
- **Revision:** Changing composition based on market dynamics

Major Indian Indices

- **BSE:** Sensex, Sensex Next 50, BSE 100/200/500, SX40
- **NSE:** Nifty 50, Nifty Next 50, Nifty 100/200/500

Applications

1. **Index Funds:** Passive investment replicating index performance
2. **Index Derivatives:** Futures and options with index as underlying
3. **Exchange Traded Funds (ETFs):** Tradeable index funds

Chapter 3: Introduction to Forwards and Futures

Forward Contracts

- **Definition:** Agreement to buy/sell asset at future date at predetermined price
- **Characteristics:**
 - Bilateral OTC contract
 - Customized terms
 - No daily settlement
 - High counterparty risk

Major Limitations of Forwards

1. **Liquidity Risk:** Difficult to exit before maturity
2. **Counterparty Risk:** Risk of default by either party
3. **Lack of Transparency:** No centralized pricing

Futures Contracts

- **Definition:** Standardized forward contracts traded on exchange
- **Key Features:**
 - Exchange guarantee settlement
 - Standardized terms (except price)
 - Daily mark-to-market
 - Margin requirements

Contract Specifications

Essential Elements:

- **Underlying Asset:** Index or individual stock
- **Contract Size/Multiplier:** Number of units (e.g., Nifty: 25 units)
- **Expiry Date:** Last trading day (typically last Thursday)
- **Tick Size:** Minimum price movement (₹0.05 for Nifty)
- **Contract Cycle:** 3-month cycle (near, next, far month)

Important Dates and Prices:

- **Daily Settlement Price:** Last 30-minute volume weighted average
- **Final Settlement Price:** Underlying closing price on expiry
- **Trading Hours:** 9:15 AM to 3:30 PM

Key Terminology

Basis

- **Definition:** Spot Price - Futures Price
- Converges to zero at expiry
- Can be positive or negative during contract life

Cost of Carry

- **Formula:** Interest Cost - Dividend Income
- For equity derivatives: $F = S \times e^{(r-q) \times T}$
- Where: F=Futures Price, S=Spot Price, r=Interest Rate, q=Dividend Yield, T=Time

Margin Requirements

1. **Initial Margin:** Upfront deposit based on risk assessment
2. **Mark-to-Market (MTM):** Daily profit/loss settlement
3. **Example Calculation:**
 - Contract Value: $\text{₹}22,250 \times 25 = \text{₹}5,56,250$
 - Initial Margin (10%): $\text{₹}55,625$

Open Interest and Volume

- **Open Interest:** Total outstanding contracts
- **Volume:** Contracts traded in specific period
- Different implications for market sentiment

Price Discovery and Pricing Models

Cost of Carry Model

- **Fair Price:** $F = S \times (1 + r - q)^T$
- **Arbitrage Opportunities:**
 - If $F > \text{Fair Price}$: Cash and Carry arbitrage
 - If $F < \text{Fair Price}$: Reverse Cash and Carry arbitrage

Expectations Model

- Futures price reflects expected future spot price
- **Contango:** Futures > Spot (rising market expectation)
- **Backwardation:** Futures < Spot (falling market expectation)

Applications

Hedging

- **Long Hedge:** Protection against price rise
- **Short Hedge:** Protection against price fall
- **Portfolio Hedging:** Using index futures for systematic risk management
- **Hedge Ratio:** $(\text{Portfolio Value} \times \text{Beta}) / (\text{Futures Price} \times \text{Contract Size})$

Speculation

- **Bullish Strategy:** Long futures position
- **Bearish Strategy:** Short futures position
- **Advantages:** Leverage, lower capital requirements, easy short selling

Arbitrage

1. **Cash and Carry:** Buy spot, sell futures when overpriced
2. **Reverse Cash and Carry:** Sell spot, buy futures when underpriced
3. **Calendar Spread:** Arbitrage between different expiry months

Chapter 4: Introduction to Options

Basic Concepts

- **Definition:** Contract giving right (not obligation) to buy/sell at predetermined price
- **Premium:** Price paid for the option
- **Buyer/Holder:** Has rights, limited risk
- **Writer/Seller:** Has obligations, potentially unlimited risk

Types of Options

1. **Call Options:** Right to buy
2. **Put Options:** Right to sell
3. **Exercise Styles:**
 - **European:** Exercise only at expiry

- **American:** Exercise anytime before expiry

Contract Specifications

- **Strike Price:** Exercise price
- **Expiry Date:** Last trading day
- **Contract Size:** Number of underlying units
- **Premium:** Market determined price

Option Classifications (Moneyness)

For Call Options:

- **In-the-Money (ITM):** $\text{Spot} > \text{Strike}$
- **At-the-Money (ATM):** $\text{Spot} \approx \text{Strike}$
- **Out-of-the-Money (OTM):** $\text{Spot} < \text{Strike}$

For Put Options:

- **In-the-Money (ITM):** $\text{Spot} < \text{Strike}$
- **At-the-Money (ATM):** $\text{Spot} \approx \text{Strike}$
- **Out-of-the-Money (OTM):** $\text{Spot} > \text{Strike}$

Option Premium Components

1. Intrinsic Value:

- Call: $\text{Max}(\text{Spot} - \text{Strike}, 0)$
- Put: $\text{Max}(\text{Strike} - \text{Spot}, 0)$

2. Time Value: Premium - Intrinsic Value

Factors Affecting Option Premium

1. **Spot Price:** Direct for calls, inverse for puts
2. **Strike Price:** Inverse for calls, direct for puts
3. **Volatility:** Higher volatility increases premium for both
4. **Time to Expiry:** More time generally increases premium
5. **Interest Rates:** Affects present value calculations

Payoff Analysis

Long Call:

- **Maximum Loss:** Premium paid
- **Maximum Gain:** Unlimited
- **Break-even:** Strike + Premium

Short Call:

- **Maximum Gain:** Premium received
- **Maximum Loss:** Unlimited
- **Break-even:** Strike + Premium

Long Put:

- **Maximum Loss:** Premium paid
- **Maximum Gain:** Strike - Premium (if spot goes to zero)
- **Break-even:** Strike - Premium

Short Put:

- **Maximum Gain:** Premium received
- **Maximum Loss:** Strike - Premium (if spot goes to zero)
- **Break-even:** Strike - Premium

Option Greeks

1. **Delta (δ):** Price sensitivity to underlying movement
2. **Gamma (γ):** Rate of change of delta
3. **Theta (θ):** Time decay sensitivity
4. **Vega (v):** Volatility sensitivity
5. **Rho (ρ):** Interest rate sensitivity

Option Pricing Models

1. **Binomial Model:** Iterative, flexible approach
2. **Black-Scholes Model:** Mathematical formula for European options

Implied Volatility

- **Definition:** Market's expectation of future volatility
- Derived by reverse-engineering option prices
- High implied volatility suggests expensive options

Trading Considerations

Option Buyer Perspective:

- Higher premium for ITM options
- OTM options cheaper but higher risk
- Time decay affects all long positions

Option Writer Perspective:

- Premium collection strategy
- Risk management crucial for short positions
- Margin requirements for short positions

Chapter 5: Strategies Using Equity Futures and Options

Hedging Strategies

Using Futures

1. Long Hedge (Stock Futures):

- **Scenario:** Planning future purchase
- **Strategy:** Buy futures today
- **Benefit:** Locks in purchase price

2. Short Hedge (Stock Futures):

- **Scenario:** Planning future sale
- **Strategy:** Sell futures today
- **Benefit:** Locks in selling price

3. Portfolio Hedging (Index Futures):

- **Formula:** $\text{Contracts} = (\text{Portfolio Value} \times \text{Beta}) / (\text{Index Futures Value})$
- **Purpose:** Hedge systematic risk

Using Options

1. Protective Put:

- **Strategy:** Long stock + Long put
- **Payoff:** Similar to long call
- **Benefit:** Downside protection with upside participation

2. Covered Call:

- **Strategy:** Long stock + Short call
- **Payoff:** Similar to short put
- **Benefit:** Additional income, limited upside

Trading Strategies

Spread Strategies

1. Bull Call Spread:

- **Position:** Long lower strike call + Short higher strike call
- **View:** Moderately bullish
- **Payoff:** Limited profit, limited loss

2. Bear Put Spread:

- **Position:** Long higher strike put + Short lower strike put
- **View:** Moderately bearish
- **Payoff:** Limited profit, limited loss

3. Calendar Spread:

- **Position:** Different expiry months, same strike
- **Strategy:** Time decay arbitrage

Volatility Strategies

1. Long Straddle:

- **Position:** Long call + Long put (same strike, expiry)
- **View:** High volatility expected
- **Payoff:** Profit from large moves either direction

2. Short Straddle:

- **Position:** Short call + Short put (same strike, expiry)
- **View:** Low volatility expected
- **Risk:** Unlimited loss potential

3. Long Strangle:

- **Position:** Long OTM call + Long OTM put
- **Benefit:** Lower cost than straddle
- **Requirement:** Larger moves needed for profit

4. Butterfly Spread:

- **Position:** Long wing strikes + Short middle strikes
- **Payoff:** Limited profit/loss
- **Best Case:** Expiry at middle strike

Collar Strategy

- **Position:** Long stock + Long put + Short call
- **Benefit:** Limited downside, capped upside
- **Cost:** Lower than protective put alone

Arbitrage Strategies

Cash and Carry Arbitrage

- **Condition:** Futures Price > Fair Price
- **Strategy:** Buy underlying + Sell futures
- **Example:** If fair price ₹1,534, actual ₹1,550, profit ₹16 per unit

Reverse Cash and Carry

- **Condition:** Futures Price < Fair Price
- **Strategy:** Sell underlying + Buy futures
- **Requirement:** Ability to short underlying

Put-Call Parity Arbitrage

- **Formula:** $C + X \times e^{(-r \times T)} = P + S$
- **Application:** Identify mispriced options
- **Execution:** Buy underpriced, sell overpriced

Risk Management

Delta Hedging

- **Concept:** Maintain delta-neutral portfolio
- **Method:** Adjust futures position based on option delta
- **Example:** Short 10 calls (delta 0.5) → Long 5 futures contracts

Position Sizing

- **Greeks Management:** Monitor and adjust for risk parameters
- **Diversification:** Avoid concentration in single strategy
- **Capital Allocation:** Risk-appropriate position sizing

Market Indicators

Open Interest Analysis

- **Rising OI + Rising Price:** Fresh long positions (bullish)
- **Rising OI + Falling Price:** Fresh short positions (bearish)
- **Falling OI + Rising Price:** Short covering
- **Falling OI + Falling Price:** Long liquidation

Put-Call Ratio (PCR)

- **Formula:** Put OI / Call OI
- **PCR < 1:** Bearish sentiment (contrarian bullish signal)
- **PCR > 1:** Bullish sentiment (contrarian bearish signal)

Chapter 6: Trading Mechanism

Market Structure

Trading Entities

1. **Trading Members (TM):** Execute trades
2. **Trading-cum-Clearing Members:** Trade and clear
3. **Professional Clearing Members:** Clear for others
4. **Self-Clearing Members:** Clear own trades only
5. **Participants:** Clients of trading members
6. **Authorized Persons (APs):** Extended broker network

Corporate Hierarchy

1. **Corporate Manager:** Highest level, all functions
2. **Branch Manager:** Branch-specific operations
3. **Dealer:** Individual trading operations

Trading Hours and Operations

- **Normal Hours:** 9:15 AM to 3:30 PM
- **Extended Hours:** Possible up to 11:55 PM (with SEBI approval)
- **Holidays:** Exchange-published calendar

Order Types

Time Conditions

1. **Day Order:** Valid for single trading day
2. **Immediate or Cancel (IOC):** Execute immediately or cancel

Price Conditions

1. **Limit Order:** Execute at specified price or better
2. **Market Order:** Execute at best available price
3. **Stop-Loss Order:** Triggered when price hits trigger level

Order Matching

- **Priority System:** Price-time priority
- **Best Price:** Highest for buy, lowest for sell
- **Execution:** Automatic matching system

Price Bands

- **Index Futures:** 10% operating range
- **Stock Futures:** 10% operating range
- **Options:** Delta-based dynamic ranges

Enhanced Price Band Framework (2024)

- **Stricter Criteria:** 50 trades, 10 unique traders, 3 firms required
- **Sliding Bands:** Both upper and lower limits adjust together
- **Extended Cooling Periods:** Progressive time increases

Eligibility Criteria

Stock Selection for Derivatives

Primary Criteria:

- Top 500 stocks by market cap and trading value
- MQSOS \geq ₹75 lakhs
- MWPL \geq ₹1,500 crores
- Average daily delivery value \geq ₹35 crores

Product Success Framework (PSF):

- 15% of active trading members (minimum 200)
- Trading on 75% of days
- Average daily turnover \geq ₹75 crores
- Average daily OI \geq ₹500 crores

Index Selection

- 80% constituent stocks eligible for derivatives
- No single ineligible stock >5% weight
- Continuous compliance monitoring

Corporate Actions Adjustments

Bonus/Stock Splits/Consolidations

- **Strike Price:** Divided by adjustment factor
- **Market Lot:** Multiplied by adjustment factor
- **Position:** Multiplied by adjustment factor

Rights Issues

- **Adjustment Factor:** $(P-E)/P$
- Where P = closing price, E = benefit per share

Dividends

- **Ordinary:** <2% of market price (no adjustment)
- **Extraordinary:** \geq 2% of market price (full adjustment)

Mergers/Demergers

- **Process:** Contracts expire on last cum date
- **Settlement:** At last available closing price

Trading Costs

User Charges

- **Brokerage:** Variable by service level
- **Transaction Charges:** Exchange fees
- **IPFT Charges:** Investor protection fund

Statutory Charges

- **STT Rates:**
 - Option sale: 0.10% on premium
 - Option exercise: 0.125% on settlement price
 - Futures sale: 0.02% on traded price
- **GST:** 18% on brokerage and charges
- **Stamp Duty:** 0.002% for futures, 0.003% for options
- **SEBI Fees:** ₹10 per crore

Market Impact Costs

- **Bid-Ask Spread:** Difference between best buy/sell prices
- **Impact Cost:** Price degradation for market orders
- **Liquidity Factor:** Affects execution quality

Algorithmic Trading

Framework Requirements (Effective Aug 2025)

Classification:

- **Low Frequency:** ≤ 10 orders per second (OPS)
- **High Frequency:** > 10 OPS (registration required)

Security Measures:

- **API Access:** Static IP mapping required
- **Authentication:** OAuth with 2FA mandatory
- **Family Sharing:** Limited to immediate family

Algo Categories

1. White Box (Execution Algos):

- Logic disclosed to user
- Replicable by user
- No registration required

2. Black Box Algos:

- Logic not disclosed
- Requires Research Analyst registration
- Research reports mandatory

Broker Responsibilities

- **Empanelment:** Deal only with approved providers
- **Surveillance:** Monitor for prohibited activities
- **Grievance Handling:** Sole responsibility for client issues

Data Tracking and Monitoring

Available Information

- **Price Data:** OHLC, LTP, volumes
- **Position Data:** Open interest, contract details
- **Market Trends:** Gainers, losers, active contracts
- **Ratios:** Put-call ratios, volatility measures

Risk Reduction Mechanisms

1. **IRRA Platform:** Emergency access during broker outages
2. **Business Continuity:** Cross-exchange hedging capabilities
3. **Technical Glitch Framework:** Structured reporting and resolution

Chapter 7: Introduction to Clearing and Settlement System

Clearing Corporation Structure

Types of Clearing Members

1. **Self-Clearing Member:** Clear own trades only
 - Net worth: ₹100 lakhs minimum
 - Deposit: ₹50 lakhs base

2. **Trading-cum-Clearing Member:** Clear for self and others

- Net worth: ₹300 lakhs minimum
- Additional ₹10 lakhs per TM cleared

3. **Professional Clearing Member:** Clear for TMs only

- Net worth: ₹300 lakhs minimum
- Bank/custodian typically

Interoperability Framework

Benefits

- **Capital Efficiency:** Single clearing house for all trades
- **Risk Netting:** Cross-exchange position offsetting
- **Operational Simplification:** Unified compliance requirements
- **Business Continuity:** Alternative clearing during disruptions

Implementation

- Trades on any exchange cleared by chosen clearing corporation
- Net position calculation across exchanges
- Integrated margin computation

Settlement Mechanisms

Futures Contracts Settlement

Daily Mark-to-Market (MTM):

- **Calculation:** Price difference × Contract size
- **Settlement Price:** Last 30-minute weighted average
- **Timeline:** T+1 settlement before market opening

Final Settlement:

- **Cash Settlement:** Index futures at closing price
- **Physical Settlement:** Stock futures by delivery
- **Assignment:** Random allocation system

Options Contracts Settlement

Premium Settlement:

- **Timeline:** T+1 for all option trades
- **Netting:** Client-level premium calculation
- **Process:** Direct bank account transfer

Exercise Settlement:

- **Index Options:** Cash settlement at intrinsic value
- **Stock Options:** Physical delivery at strike price
- **Auto Exercise:** All ITM options on expiry

Net Settlement Framework

- **Cross-Segment Netting:** F&O and cash market obligations
- **Conditions:** Same TM-CM combination required
- **Benefits:** Reduced settlement obligations

Risk Management Framework

Margining System - SPAN

Standard Portfolio Analysis of Risk:

- **Objective:** Calculate potential one-day loss
- **Coverage:** 99% VaR over 1-2 day horizon
- **Methodology:** Risk array analysis

Margin Types

1. Initial Margin:

- **Basis:** 99% VaR calculation
- **Collection:** Upfront, client level
- **Adjustment:** Daily SPAN parameters

2. Premium Margin:

- **Coverage:** Option premium obligations
- **Duration:** Until premium settlement

3. Assignment Margin:

- **Application:** ITM option positions
- **Amount:** Exercise settlement value
- **Release:** Post settlement completion

4. Delivery Margins:

- **Timing:** 4 days before expiry
- **Staggered Collection:** 20%-40%-60%-80%
- **Coverage:** Physical settlement obligations

5. Exposure Margins:

- **Rate:** VaR + Extreme Loss Margin percentages
- **Application:** Settlement obligation value
- **Updates:** Aligned with cash market rates

Advanced Margin Concepts

Intraday Crystallized Losses (ICMTM):

- Real-time loss calculation for closed positions
- Immediate margin adjustment
- Release upon settlement completion

Net Option Value:

- Mark-to-market gains/losses on option positions
- Added to liquid net worth
- No daily cash settlement for options

Peak Margin Framework:

- **Implementation:** Minimum 4 daily snapshots
- **Parameters:** Fixed BOD margin rates
- **Penalty:** On highest shortfall during day

Position Limits Framework

Client Level Limits

Individual Securities:

- Higher of 1% of free float OR 5% of market OI
- Applied across all derivative contracts per stock

Index Derivatives (New Framework):

- **Net EOD FutEq OI:** ₹1,500 crores
- **Gross FutEq OI:** ₹10,000 crores
- **Delta-adjusted calculation:** Future Equivalent Open Interest

Trading Member Limits

Index Futures/Options:

- Higher of ₹7,500 crores OR 15% of total market OI

Individual Securities:

- 20% of applicable MWPL per exchange

Market-Wide Position Limits (MWPL)

- **Individual Securities:** 20% of free float
- **Monitoring:** 60% alert, 95% fresh position ban
- **Recovery:** Resume when below 80% of MWPL

FPI-Specific Limits

Index Futures:

- **Category I/MFs/TMs:** Higher of 15% OI or ₹500 crores
- **Category II (Others):** Higher of 10% OI or ₹500 crores
- **Category II (Individuals):** Higher of 5% OI or ₹500 crores

Collateral and Segregation

Pledge/Repledge Mechanism

Requirements:

- Margin pledge through depository system
- Separate Client Securities Margin Pledge Account
- Complete audit trail maintenance
- Client-specific collateral tracking

Process:

1. Client pledges securities to TM
2. TM repurchases to CM from designated account
3. CM repurchases to clearing corporation
4. Usage restricted to pledging client only

Disaggregated Reporting

TM to CM Reporting:

- Client collateral received
- Client collateral retained
- Client collateral placed with CM

CM to CC Reporting:

- All TM client-level details
- Collateral flow at each level
- Daily basis reporting requirement

Violations and Penalties

Common Violations

- Initial margin non-fulfillment
- Settlement obligation defaults
- Position limit breaches
- Client margin short-reporting
- Collateral misutilization

Penalty Structure

- Automated penalty computation
- T+1 collection through pay-in process
- Escalation to position closeout if required

Funds and Protection Mechanisms

Settlement Guarantee Fund (SGF)

- **Purpose:** Guarantee trade settlement
- **Usage:** Cover defaulting member obligations
- **Structure:** Segment-wise fund allocation

Investor Protection Fund (IPF)

- **Objective:** Compensate investors for member defaults
- **Administration:** Registered trust structure
- **Additional Functions:** Education and research

Recent Strengthening Measures

Enhanced Risk Controls (2024-2025)

1. **Upfront Premium Collection:** Full option premium required
2. **Calendar Spread Restrictions:** No expiry day benefits
3. **Intraday Position Monitoring:** Minimum 4 daily snapshots
4. **Contract Size Revision:** ₹15-20 lakhs minimum value
5. **Weekly Rationalization:** One weekly index per exchange
6. **Tail Risk Coverage:** Additional 2% margin on expiry

Cyber Security Framework

Cyber Security and Cyber Resilience (CSCRF)

Five Goals:

1. **Anticipate:** Maintain preparedness
2. **Withstand:** Continue essential functions
3. **Contain:** Localize crisis impact
4. **Recover:** Restore business functions
5. **Evolve:** Adapt capabilities

Implementation Timeline: Phased from January 2025

Chapter 8: Legal and Regulatory Environment

Primary Legislation

Securities Contracts (Regulation) Act, 1956

Scope and Definition:

- Governs all securities trading in India
- **Securities Definition:** Includes shares, bonds, derivatives, mutual fund units, government securities, and other instruments
- **Derivatives Definition:**
 - Security derived from debt, shares, or other instruments
 - Contracts deriving value from underlying prices/indices
 - Commodity derivatives
 - Other instruments as declared by government

Legal Framework:

- Section 18A: Makes derivative contracts legal and valid if:
 - Traded on recognized stock exchange
 - Settled through exchange clearing house
 - Compliant with exchange rules and bye-laws

Securities and Exchange Board of India Act, 1992

SEBI's Mandate:

- **Primary Functions:**
 - Protect investor interests
 - Promote securities market development
 - Regulate securities markets

Regulatory Powers:

- Register and regulate intermediaries
- Prohibit fraudulent practices
- Conduct inspections and audits
- Promote self-regulatory organizations
- Delegate powers under SCRA

Derivatives Trading Regulations

Exchange Recognition Requirements

Eligibility Criteria:

- Minimum 50 members
- Separate governing council for derivatives
- Member representation limited to 40% of council
- SEBI approval for all derivative contracts

Member Requirements:

- Separate derivative segment membership required
- Cannot automatically transfer from existing segments
- Must fulfill L.C. Gupta Committee eligibility conditions

Clearing and Settlement Framework

Clearing Corporation Approval:

- SEBI registration mandatory
- Compliance with eligibility conditions
- Minimum net worth requirements

Member Financial Requirements:

- **Clearing Members:** ₹300 lakhs minimum net worth
- **Net Worth Calculation:**
 - Capital + Free reserves
 - Less: Fixed assets, pledged securities, non-allowable securities, doubtful debts, 30% marketable securities

Contract Specifications:

- **Minimum Contract Value:** Originally ₹5 lakhs, updated to ₹15-20 lakhs (Nov 2024)
- **Margin Requirements:** SEBI/Exchange prescribed
- **Risk Management:** SEBI-defined exposure limits

Know Your Customer (KYC) Requirements

Mandatory Compliance:

- Client registration mandatory
- Risk Disclosure Document required
- Qualified approved users required
- Certification program completion mandatory

Clearing and Settlement Regulations

Membership Structure

Capital Market + F&O Membership:

- **Combined Membership:** Trading and clearing rights
- **Existing Member Upgrade:** CM members can add F&O segment
- **Clearing-Only Members:** Professional clearing allowed

Margin Framework

Payment Structure:

- **Forms Accepted:** Cash, bank guarantee, FDRs, approved securities
- **Liquid Asset Requirements:** Minimum 50% cash component
- **Limits:** CM-specified limits for TMs and CPs

Violation Consequences:

- Penalty imposition
- Trading facility withdrawal
- Position closeout authority
- Additional deposit requirements
- Bank guarantee invocation

Clearing Corporation Responsibilities

- Margin collection and monitoring
- Daily clearing and settlement operations
- Legal counterparty for all contracts
- Position monitoring across segments
- Daily settlement price determination
- Client-level margin record maintenance

Position Limits and Monitoring

Regulatory Framework

Position Limit Types:

- **Client Level:** 1% free float or 5% OI (whichever higher)
- **Trading Member:** 15% of market OI or ₹7,500 crores
- **Market-Wide:** 20% of free float

Monitoring and Enforcement:

- Real-time position tracking
- Automated limit breach detection
- Penalty structure for violations
- Position closeout authority

Reporting Requirements

Exchange to SEBI Reporting:

- Daily market activity reports
- VaR limit violations (99% threshold)
- Member default incidents
- Market surveillance findings

Membership Eligibility Framework

Financial Requirements

Balance Sheet Criteria:

- **Clearing Members:** ₹3 crore net worth
- **Self-Clearing Members:** ₹1 crore net worth
- **Liquid Net Worth:** ₹50 lakhs minimum for all CMs
- **Auditor Certification:** Semi-annual requirement

Qualification Requirements

Certification Mandatory:

- SEBI-approved certification program
- **Minimum Approved Users:** Two per trading member
- Terminal operation restricted to approved users only
- Continuous education requirements

Operational Requirements

Infrastructure Standards:

- Adequate technology systems
- Risk management capabilities
- Compliance monitoring systems
- Client servicing capabilities

Default Management Framework

Standard Operating Procedures (SOP)

Warning Signal Response:

- **Immediate Actions:** Freeze member activities
- **Client Protection:** Segregate client funds/securities
- **Priority Settlement:** Small investors (<₹25 lakh) first
- **Pro-rata Distribution:** Larger investors based on available funds

Business Continuity (Exchange Outage)

Notification Requirements:

- **Immediate:** Email to SEBI within occurrence
- **Market Communication:** 15 minutes maximum
- **Restoration Notice:** 15 minutes before resumption

Trading Hours Extension:

- **Early Resolution:** No extension if >1 hour before close
- **Late Resolution:** 1.5-hour extension for all exchanges
- **Last Hour Outage:** Automatic 1.5-hour extension

Regulatory Compliance and Enforcement

Inspection and Audit Framework

Mandatory Inspections:

- Annual inspection requirement for F&O members
- Comprehensive book audit
- Compliance verification
- Client fund segregation review

Record Maintenance:

- **Trade Confirmations:** 5-year retention requirement
- **Exercise Notices:** 5-year retention
- **Client Records:** Permanent maintenance
- **Margin Records:** Daily reporting required

Penalty and Suspension Framework

Grounds for Action:

- Regulation violations
- Code of conduct breaches
- Investor complaint failures
- Market manipulation
- Financial deterioration
- Fee payment defaults
- Registration condition violations

Available Actions:

- Warning notices
- Monetary penalties
- Trading restrictions
- Registration suspension
- Registration cancellation
- Criminal prosecution referral

Trade Guarantee Fund Structure

Objectives and Functions

Primary Purposes:

- Guarantee bonafide transaction settlement
- Build market participant confidence
- Protect investor interests
- Maintain market integrity

Contribution Requirements:

- **Initial Contribution:** All active members mandatory
- **Ongoing Contributions:** Based on activity levels
- **Utilization Priority:** Settlement guarantee first

Fund Management

Administration:

- Independent trust structure
- Professional fund management

- Regular adequacy assessment
- Transparent utilization reporting

Investment Guidelines:

- Conservative investment approach
- Liquidity maintenance priority
- Risk diversification requirements
- Regular performance review

Chapter 9: Accounting and Taxation

Forward Contracts Accounting (AS-11)

Hedging Transactions

Premium/Discount Treatment:

- **Method:** Amortize over contract life
- **Exchange Differences:** Recognize in P&L immediately
- **Cancellation/Renewal:** All gains/losses to P&L

Trading/Speculation Transactions

Valuation Approach:

- **No Premium Recognition:** Direct market-to-market
- **Year-end Valuation:** Forward rate for remaining maturity vs contract rate
- **P&L Recognition:** All gains/losses in current period

Equity Futures Accounting

Initial Margin Accounting

Account Treatment:

- **Debit:** "Initial Margin - Equity Futures Account"
- **Balance Sheet:** Show under "Current Assets"
- **Additional Margins:** Same account treatment
- **Excess Deposits:** Separate disclosure under deposits

Journal Entries Example:

Initial Margin Payment:
 Initial Margin - Equity Futures A/c Dr. Rs 50,000

To Bank A/c	Rs 50,000
-------------	-----------

Additional Margin:

Initial Margin - Equity Futures A/c	Dr.	Rs 5,000
To Bank A/c		Rs 5,000

Margin Refund:

Bank A/c	Dr.	Rs 10,000
To Initial Margin - Equity Futures A/c		Rs 10,000

Mark-to-Market Settlement

Daily Settlement Accounting:

- **Account:** "Mark-to-Market Margin - Equity Futures Account"
- **Payments:** Debit to MTM account
- **Receipts:** Credit to MTM account
- **Multiple Contracts:** Separate accounts recommended

Year-end Treatment:

- **Debit Balance:** Provision for loss required
- **Credit Balance:** No income recognition (prudence)
- **Balance Sheet:** Current assets/liabilities as applicable

Final Settlement Accounting

Profit/Loss Calculation:

- **Method:** Final settlement price vs weighted average contract price
- **Recognition:** Transfer to P&L account
- **Margin Release:** Credit initial margin, debit bank

Example Entries:

Loss on Settlement:

P&L A/c	Dr.	Rs 15,000
To M-to-M Margin A/c		Rs 15,000

Margin Release:

Bank A/c	Dr.	Rs 50,000
To Initial Margin A/c		Rs 50,000

Equity Options Accounting

Cash-Settled Options

Inception Accounting:

- **Option Writer:** Initial margin required
- **Option Buyer:** Premium payment
- **Accounts:** "Equity Option Margin A/c", "Equity Option Premium A/c"

Premium Treatment:

```
Option Purchase:
Equity Option Premium A/c      Dr.  Rs 25,000
    To Bank A/c                      Rs 25,000

Option Sale:
Bank A/c                      Dr.  Rs 25,000
    To Equity Option Premium A/c      Rs 25,000
```

Year-end Provisions:

- **Option Buyer:** Provision if premium paid > market premium
- **Option Writer:** Provision if market premium > premium received
- **Stock-wise Calculation:** Net all positions per stock/index

Physical Settlement Options

Exercise Settlement:

Call Option Buyer:

```
Exercise of Call:
Equity Shares A/c              Dr.  Strike × Quantity
    To Bank A/c                  Strike × Quantity

Premium Transfer:
P&L A/c                      Dr.  Premium Paid
    To Equity Option Premium A/c    Premium Paid
```

Put Option Buyer:

```
Exercise of Put:
Bank A/c                      Dr.  Strike × Quantity
    To Equity Shares A/c        Strike × Quantity
```

Taxation Framework

Business Income Classification

Non-Speculative Income:

- **Post-2005:** Derivative transactions on recognized exchanges
- **Set-off Rights:** Against any other income (except salary)
- **Carry Forward:** 8 years for business losses
- **Condition:** Return filed by due date

STT Deduction:

- **Eligibility:** Securities Transaction Tax paid
- **Treatment:** Business expense deduction
- **Documentation:** Exchange confirmation required

Foreign Portfolio Investors (FPIs)

Capital Gains Treatment:

- **Classification:** Short-term capital gains/losses
- **Reason:** Most contracts <3 months maturity
- **Tax Rates:** As per applicable STCG rates

Presumptive Taxation (Section 44AD)

Eligibility: Turnover \leq ₹2 crores

Profit Rate: 6% of turnover

Benefits:

- No expense deductions allowed
- Simplified compliance
- No detailed books required

Tax Audit Requirements

Mandatory Audit Cases:

- **Turnover > ₹10 Crore:** Regardless of profit/loss
- **₹2-10 Crore Turnover:** If profits <6% of turnover
- **Digital Transaction Exemption:** >95% digital, audit not required

Securities Transaction Tax (STT)

Applicable Rates

Current STT Structure:

- **Option Sale:** 0.10% on premium (seller pays)
- **Option Exercise:** 0.125% on settlement price (purchaser pays)
- **Futures Sale:** 0.02% on traded price (seller pays)
- **Physical Settlement:** 0.1% on both buyer and seller

Collection Mechanism

Exchange Responsibility:

- **Calculation:** Per trade at applicable rates
- **Collection:** From clearing members
- **Remittance:** To government accounts
- **Reporting:** Transaction-wise details

Value Determination:

- **Options:** Premium for sales, settlement price for exercise
- **Futures:** Actual traded price
- **Physical Delivery:** Same as equity transactions

Compliance Framework

Member Obligations:

- **Accurate Calculation:** Per transaction STT
- **Timely Payment:** As per settlement schedule
- **Record Maintenance:** Transaction-wise details
- **Client Charging:** Recover from clients

Exchange Monitoring:

- **Real-time Calculation:** Automated systems
- **Daily Settlement:** Along with other obligations
- **Audit Trail:** Complete transaction records
- **Regulatory Reporting:** SEBI and tax authorities

Chapter 10: Sales Practices and Investor Protection Services

Sales Practice Framework

Customer-Oriented Approach

Fundamental Principles:

- Customer-led product sales
- Appropriate advice provision
- Long-term relationship focus
- Customer satisfaction priority

Professional Standards:

- Identify company and purpose immediately
- Respect customer circumstances and diversity
- End discussions when requested
- Maintain professional courtesy
- Avoid high-pressure tactics
- Provide contact information

Common Investment Frauds and Precautions

"High Return" Scams:

- **Warning Signs:** Unrealistic return promises, "risk-free" claims
- **Reality Check:** Returns correlate with risk - no high return without high risk
- **Prevention:** Independent verification, third-party research

Unsuitable Recommendations:

- **Example:** High-risk products for conservative investors
- **Red Flags:** Mismatch between risk profile and product recommendation
- **Protection:** Thorough suitability assessment, documented risk profiling

Churning:

- **Definition:** Excessive unnecessary trading for commission generation
- **Detection:** Abnormally high trading activity, frequent reversals
- **Prevention:** Regular statement review, question unusual activity

Risk Profile Assessment

Risk Tolerance Factors

Demographics:

- Age and life stage
- Income and family size
- Occupation and stability
- Education level
- Existing liabilities
- Investment experience

Financial Factors:

- **Risk Capacity:** Ability to bear losses financially
- **Risk Tolerance:** Psychological comfort with uncertainty
- **Investment Horizon:** Time availability for recovery
- **Liquidity Needs:** Cash flow requirements

Investment Objectives:

- **Capital Preservation:** Low risk tolerance
- **Income Generation:** Moderate risk acceptance
- **Capital Appreciation:** Higher risk tolerance
- **Speculation:** High risk appetite

Risk-Return Trade-off Education

Core Concepts:

- **Direct Relationship:** Higher expected returns require higher risk acceptance
- **Diversification Benefits:** Reduce specific risk through portfolio spreading
- **Time Horizon Impact:** Longer periods allow more risk-taking
- **Market Cycle Understanding:** Short-term volatility vs long-term trends

Risk Disclosure Document Framework

Mandatory Risk Disclosure Facts

Based on SEBI F.Y. 2021-22 Study:

1. **9 out of 10 individual traders** in equity F&O incurred net losses
2. **Average loss** of loss-makers: approximately ₹50,000

3. **Transaction costs** for loss-makers: additional 28% of trading losses

4. **Transaction costs** for profit-makers: 15-50% of profits

Key Derivatives Risks

Market Risk:

- **Definition:** Price movement in unfavorable direction
- **Impact:** Leveraged positions amplify losses
- **Mitigation:** Position sizing, stop losses, diversification

Liquidity Risk:

- **Concern:** Inability to exit losing positions
- **Conditions:** Low volume near expiry, volatile markets
- **Management:** Trade liquid contracts, monitor volumes

Leverage Risk:

- **Mechanism:** Small margin controls large position
- **Danger:** Losses exceed initial capital
- **Control:** Conservative position sizing, adequate capital

Options-Specific Risks

Option Buyers:

- **Time Decay:** Premium erosion with passage of time
- **Total Loss Risk:** Option may expire worthless
- **Volatility Impact:** Implied volatility changes affect premium

Option Writers:

- **Unlimited Loss Potential:** Especially naked call writers
- **Margin Calls:** Additional capital requirements possible
- **Assignment Risk:** Forced exercise by option holders

Complex Strategies:

- **Combination Risks:** Multiple legs increase complexity
- **Execution Risk:** All legs may not execute simultaneously
- **Understanding Requirement:** Detailed strategy knowledge essential

Anti-Money Laundering (AML) Framework

Customer Due Diligence (CDD)

Core Requirements:

- **Client Identification:** Reliable document verification
- **Beneficial Ownership:** Ultimate controlling person identification
- **Ongoing Monitoring:** Transaction pattern surveillance
- **Risk-Based Approach:** Enhanced due diligence for high-risk clients

Policy Framework:

- **Client Acceptance:** Define risk parameters and acceptance criteria
- **Documentation Standards:** Risk-based documentation requirements
- **Monitoring Systems:** Suspicious transaction detection capabilities
- **Reporting Mechanisms:** STR and compliance reporting structure

KYC Documentation Requirements

Individual Accounts:

Mandatory Documents:

- **PAN Card:** Mandatory for all clients
- **Identity Proof:** Passport, Voter ID, Driving License, Aadhaar Card
- **Address Proof:** Utility bills, bank statements, government letters

Corporate Accounts:

Required Documents:

- **Incorporation Certificate:** Company registration proof
- **Memorandum & Articles:** Constitutional documents
- **Board Resolution:** Account opening authorization
- **Power of Attorney:** Operational authority documents
- **PAN Allotment:** Tax identification proof

Partnership Accounts:

Documentation:

- **Registration Certificate:** If registered partnership
- **Partnership Deed:** Partnership terms and conditions
- **Partners' Identity:** Individual identification documents
- **Authority Documents:** Power of attorney for operations

In-Person Verification (IPV)

Mandatory Requirement:

- **Physical Verification:** KYC staff visits client address
- **Video Verification:** Online IPV using webcam
- **Document Authentication:** Original document verification

Exemptions:

- **Aadhaar Authentication:** UIDAI verification process
- **DigiLocker Submission:** Online verified documents
- **e-KYC Process:** Fully digital verification acceptable

Risk-Based Classification

Client Categories:

Low Risk:

- Salaried individuals with known employers
- Government employees
- Listed company employees
- Regulated entity employees

Medium Risk:

- Self-employed individuals
- Private company owners
- High-net-worth individuals
- Frequent traders

High Risk/Clients of Special Categories (CSC):

- **Non-Residents:** Increased documentation and monitoring
- **Politically Exposed Persons (PEPs):** Enhanced due diligence
- **High-Risk Geographies:** Countries with poor AML controls
- **Non-Face-to-Face Clients:** Remote relationship establishment
- **Dubious Reputation:** Public information indicates concerns

Suspicious Transaction Reporting (STR)

Identification Criteria:

- **Identity Issues:** Difficult client verification or non-cooperation
- **Source of Funds:** Unclear or inconsistent with client profile
- **Activity Patterns:** Unusual transaction volumes or frequencies

- **Geographic Concerns:** Transactions with high-risk jurisdictions
- **Third-Party Instructions:** Payments to unrelated parties

Reporting Process:

- **Internal Escalation:** To Principal Officer/MLRO
- **Timeline:** Immediate internal reporting
- **External Reporting:** To Financial Intelligence Unit-India (FIU-IND)
- **Confidentiality:** No client notification of report filing
- **Continuation:** Normal business unless directed otherwise

Unique Client Code (UCC) Framework

Implementation Requirements

Code Assignment:

- **PAN Linkage:** UCC mapped to client PAN
- **Exchange Upload:** UCC details to stock exchanges/clearing corporation
- **Account Activation:** Only after UCC generation and mapping

Benefits:

- **Client Database:** Comprehensive client information maintenance
- **KYC Strengthening:** Enhanced client identification and tracking
- **Mismatch Detection:** Securities pay-in/pay-out reconciliation
- **Regulatory Monitoring:** Improved surveillance capabilities

Grievance Redressal Mechanism

Exchange-Level Redressal

Common Complaint Categories:

1. **Documentation Issues:** Non-receipt of contract notes, statements
2. **Margin Problems:** Non-refund, inadequate margin trading
3. **Fund Delays:** Non-receipt or delayed fund settlement
4. **Unauthorized Trading:** Trades without consent or authorization
5. **Execution Errors:** Price, timing, or quantity discrepancies
6. **Service Issues:** Platform problems, confirmation delays

Resolution Process:

- **First Contact:** Direct complaint to concerned exchange

- **Investigation:** Exchange coordinates with member and client
- **Resolution Timeline:** Defined timeframes for response
- **Escalation:** To SEBI if unsatisfactory resolution

SEBI SCORES Portal

Features:

- **Online Filing:** Web-based complaint submission
- **Instant Acknowledgment:** Unique registration number generation
- **Automated Forwarding:** To concerned entity for resolution
- **Progress Tracking:** Real-time status updates
- **Timeline:** 21-day resolution requirement

Process Flow:

1. **Client Submission:** Online complaint filing
2. **Entity Notification:** Automatic forwarding to concerned party
3. **Action Taken Report (ATR):** Entity uploads resolution details
4. **Client Feedback:** Satisfaction confirmation or escalation
5. **SEBI Review:** Monitoring and follow-up if required

Online Dispute Resolution (ODR) Portal

SMARTODR Platform Features:

- **Centralized Resolution:** Single platform for all disputes
- **Digital Process:** Online conciliation and arbitration
- **Enhanced Accessibility:** Remote participation capability
- **Structured Phases:** Clear resolution stages

Resolution Process:

1. **Initial Complaint:** Direct approach to Market Participant
2. **SCORES Escalation:** If unsatisfactory resolution
3. **ODR Initiation:** Further escalation through ODR Portal
4. **MII Review:** 21-day review by Market Infrastructure Institution
5. **Conciliation:** 21-day attempt at amicable resolution
6. **Arbitration:** Binding decision if conciliation fails
7. **Award Implementation:** 15-day payment/performance requirement

Dispute Categories Covered:

- **Service Complaints:** Account management, transaction execution

- **Trade Disputes:** Order execution discrepancies, settlement issues
- **Fee Disputes:** Incorrect charges, penalty disagreements
- **Product Misrepresentation:** Misleading product information
- **Compliance Violations:** Regulatory standard breaches
- **Ethical Violations:** Market manipulation, insider trading allegations

Investor Guidelines

Do's for Investors:

- **Registered Intermediaries:** Deal only with SEBI-registered entities
- **Due Diligence:** Research intermediary background and reputation
- **Documentation:** Maintain copies of all executed documents
- **Clear Instructions:** Provide unambiguous trading instructions
- **Contract Notes:** Always insist on immediate delivery
- **Banking Channels:** Use only normal banking for settlements
- **Risk Assessment:** Match strategies with risk capacity
- **Documentation:** Keep copies of all investment records
- **Follow-up:** Prompt action on pending issues

Don'ts for Investors:

- **Unregistered Entities:** Never deal with non-SEBI registered intermediaries
- **Incomplete Documentation:** Don't sign documents without full understanding
- **Cash Payments:** Avoid any cash transactions
- **Unsigned Documents:** Don't accept incomplete or unsigned contract notes
- **Rumor Trading:** Don't base decisions on tips or rumors
- **Guaranteed Returns:** Don't believe in guaranteed profit promises
- **Blind Following:** Don't imitate others' investment decisions
- **Delayed Complaints:** Don't postpone dispute resolution
- **Trust Without Verification:** Don't forego documentation even with known persons

This comprehensive summary covers all major aspects of equity derivatives as outlined in the NISM Series-VIII workbook, providing a complete understanding of the regulatory framework, trading mechanisms, risk management, and investor protection measures in the Indian derivatives market.