

OPTIONS TRADING (ADVANCED) MODULE

➤ **Options – A Backgrounder**

- A. Derivative Types
- B. Continuous Compounding
- C. Option Valuation
- D. Option Pricing Band
 - i. Upper Bound: Call Option
 - ii. Upper Bound: Put Option
 - iii. Lower Bound: Call Option
 - iv. Lower Bound: Put Option
- E. Put-Call Parity: European Options
 - i. Position A undervalued
 - ii. Position B Undervalued
- F. Put-Call Parity: American Options
- B. Dividends

➤ **Quantitative Concepts – A Backgrounder**

- A. Normal Distribution
- B. Share Prices – Lognormal Distribution
- C. Linkages that arise from the Distribution
- D. Volatility (s)

➤ **Binomial Option Pricing Model**

- A. Single Period Binomial
- B. Multiple Period Binomial
- C. European Put Option
- D. Binomial Model for American Options
- E. Role of Volatility in 'u' and 'd'

➤ **Black-Scholes Option Pricing Model**

- B. European Call Option
- C. European Put Option
- D. Dividends
- E. American Options

➤ **Option Greeks**

- A. Delta

1. European Call on non-dividend paying stock
 2. European Put on non-dividend paying stock
 3. European Call on asset paying a yield of q
 4. European Put on asset paying a yield of q
- B. Gamma
1. European Call / Put on non-dividend paying stock
 2. European Call / Put on asset paying a yield of q
- C. Theta
1. European Call on non-dividend paying stock
 2. European Put on non-dividend paying stock
 3. European Call on asset paying yield of q
 4. European Put on asset paying yield of q
- D. Vega
1. European Call / Put on non-dividend paying stock
 2. European Call / Put on asset paying yield of q
- E. Rho
1. European Call on non-dividend paying stock
 2. European Put on non-dividend paying stock

➤ **Volatility**

- A. Historical Volatility (s)
- B. ARCH(m) Model
- C. Exponentially Weighted Moving Average (EWMA)
- D. GARCH Model
- E. Implied Volatility

➤ **Basic Option & Stock Positions**

- A. Pay-off Matrix for Basic Option Positions
 1. Long Call
 2. Short Call
 3. Long Put
 4. Short Put
- B. Pay-off Matrix for Position in the Share
 1. Long Stock
 2. Short Stock
- C. Assumptions
- D. A Few Option Contract Intricacies

➤ **Option Trading Strategies**

- A. The Strategies
 - 1. Single Option, Single Stock
 - i. Protective Put
 - ii. Covered Put
 - iii. Covered Call
 - iv. Protective Call
 - 2. Multiple Options of Same Type
 - i. Bull Spread
 - ii. Bear Spread
 - iii. Butterfly Spread
 - iv. Calendar Spread
 - v. Diagonal Spread
 - 3. Multiple Options of Different Types
 - i. Straddle
 - ii. Strangle
 - iii. Collar
 - iv. Range Forward - Long
 - v. Range Forward - Short
 - vi. Box Spread
 - vii. Condor
- B. Option Chain
- C. Contract Fundamentals
- D. Option Trading Intricacies
 - 1. Choice of Strike Price
 - 2. Choice of Expiry
 - 3. Roll Over and Covered Calls

➤ **Exotic Options**

- A. Asian Option
- B. Bermudan Option
- C. Compound Option
- D. Binary Option
- E. Barrier Option
- F. Look back Option
- G. Shout Option
- H. Chooser Option

➤ **Market Indicators**

- A. Put-Call Ratio
- B. Open Interest
- C. Roll-over
- D. Volatility