Paper / Subject Code: 43811 / Financial Derivatives

(Time : 2 ½ Hours) Total Marks: 75]

N.B.: 1. All questions are compulsory.
2. Figures to the right indicate M.
3. Each question carries 15 M each.

Q.1 (A) Match the column: (any 8) 8M

'A' Column	'B' Column
1. Derivatives	a. Cost of holding
2. Tick size	b. Option spread
3. Hedgers	c. Change in time till maturity
4. Risk free interest rate	d. Carry out pay in & pay out of funds
5. Cost of carry	e. Similar to butterfly spread
6. Vertical spread	f. OTC Contract
7. Claering banks	g. Quantifiable factor affecting option premium
8. Forward	h. Participant of derivative market
9. Condor	i. Derived from value of underlying asset
10. Gamma	j. Minimum change in future price

Q.1 (B)State whether following statements are True or False: (any 7) 7M

1. Future & options contracts are settled through Clearing house.
2. A future contract to sell underlying is referred to as long futures.
3. Arbitrage is a process of simultaneous buying in cheap at one market & selling in another market at high .
4. A relationship where future price exceeds spot price is known as backwardation.
5. Perfect Hedge is a situation where the loss in spot market is fully offset by profits in spot markets.
6. The difference between the future price and spot price is referred to as future price.
7. The option has Non -linear payoffs.
8. Strips is a Bullish strategy.
9. BSM is a continuous time model .
10. MTM means Mean to Market.

TURN OVER

Q.2 (a) What are financial derivatives and explain its economic functions? 8M

(b) Explain the underlying assets in Financial Derivatives. 7M

OR

Q.2 (c) Discuss the factors driving growth of financial derivatives . 8M

(d) Explain features & specifications of stock index futures. 7M

Q.3 (a) Explain the following terminologies: 8M

1. Spot price 2. Contract Size 3. Settlement Date 4. Initial Margin

Q 3) b) An investor bought future contract of M/s Roy Ltd. with a lot size of 1,500 shares at Rs. 1,800 and at expiry it closed at Rs. 2,150. Calculate Profit and Loss. 7M

OR

Q.3 (c) An investor took the position in the futures market which are as follows: 8M

(1) Sold 2 futures contract on ICICI bank with a lot size of 200 shares at Rs. 178 spot and at expiry it closed at Rs. 184.

(2) Sold a 5 future contract on L & T with a lot size of 4500 shares at Rs. 220 Spot and at expiry it closed at Rs. 350

Find the net profit or loss for the investor from both the positions.

(d) Explain the concept of pricing of future contracts. 7M

Q.4 (a) Mr Tejas writes European put option of XYZ ltd. Having an exercise price of Rs. 150 and receives a premium of Rs. 3 Calculate intrinsic value & profit & loss of Mr. Tejas for spot prices at expiry of Rs. 146 to Rs. 155. Also draw the payoff 8M

(b) Explain the three board categories of options. 7M

OR

Q 4) c) The share is currently available for Rs. 275. Expected underlying asset price will be either up by 25% or down by 20% in each of the future period. The exercise price of a call option is Rs. 285. The risk free interest rate is 5%. Draw a Binomial tree (2 multiple period). 8M

(d) Mrs. Vinaya buys a call option of TCS Ltd. at Rs.100 premium with a strike price of Rs.850 and at expiry it closed at Rs. 910. Lot size is 1000 shares. Find out the amount of profit/loss to him and draw a pay off diagram. 7M

TURN OVER

Q.5 (a). Discuss in brief Ordering types & conditions 7M

(b) Explain the Clearing system. 8M

OR

Q.5 Write short notes on : (any 3) 15M

1. Participants of derivative markets
2. Volatile Strategies
3. Future contract
4. Types of margins
5. Option Spread
