

Duration: 2 Hours 30 Minutes

Max. Marks: 75

NOTE :- 1. All Questions are compulsory (15 marks each).
2. Figures to the right indicate full marks.

Q.1.[A] Match the Following: [Attempt any 8]

(8)

Column A	Column B
Commodity derivatives	Forward & Swaps
Theta	Discrete time model
Arbitrageurs	NSCCL
Non-Linear payoff	Time to expiry
Binomial option pricing	Right but no obligation to sell
Daily settlement	Riskless gains
Clearing house	Unlimited profit, limited loss
Over-the-counter contracts	Gold future
Long Call option	Mark to market margin
Long Put option	Right but no obligation to buy

Q.1. [B] Match the Following: [Attempt any 7]

(7)

- Maintenance margin is usually higher than initial margin.
- SEBI prohibits Mutual Funds in India to speculate in the derivatives markets.
- Speculators are those who enter into a derivative contract with the objective of covering risk arising out of price fluctuation.
- An option that can be exercised at any time up to the expiration date is known as European option.
- In market order, no price is specified and the order is executed at prevailing market rate.
- Long straddle is a bullish option strategy.
- In case of short futures, when the price of underlying increases, the futures contract loose its value.
- An exchange-traded contract, such as a futures or options contract, has a standardized format.
- Increase in strike price (X) results into decrease in call option premium and increase in put option premium.
- A trading member executes trade on behalf of its clients and on its own behalf but they cannot clear and settle the trades executed by them.

- Q.2 (a) Explain in detail the various functions of derivatives. (8)
 (b) Discuss the role of hedgers and speculators in derivatives market. (7)

OR

- Q.2 (c) What are Varma Committee's recommendations to develop derivative markets In India? (8)
 (d) Explain types of derivatives like Forwards, Futures, Options, Swap and CFDs (7)

- Q.3 (a) Explain the hedging strategies in future with long hedge and short hedge (8)
 (b) Mr. Aakash is bullish about HDFC Ltd. And buys 20 one-month HDFC Ltd. future contracts at Rs.3500. On the expiry day, HDFC Ltd. Closes at 4000. How much profit/loss did he make if lot size is 300? (7)

OR

- Q.3 (c) Explain following future terminologies: (8)
 1. Cost of carry 2. Initial Margin 3. Option premium 4. Expiry date
 (d) Mr. Raj Vardhan is bearish about Wipro Ltd. And sells 4 one-month Wipro Ltd. Future contracts at Rs.400. On the expiry day, Wipro Ltd. Closes at Rs. 475. How much profit/loss did he make if lot size is 1000? Also draw the payoff diagram. (7)

- Q.4 (a) Mr. Suraj sold a contract of Nifty Call options-November 2022, at a strike price of Rs.18000 & at a premium of Rs.500. Lot size is 50 units. On expiry day, If possible, spots at expiry for nifty contract are as given below:

Scenario	Spot at expiry
A	17000
B	17500
C	18000
D	18500
E	19000

Compute the total profit & loss position on expiry day for each scenario and support your answer with payoff table & payoff diagram. (8)

- (b) Explain following option terminologies: (7)
 1. Intrinsic value of an option 2. Time value of an option 3. Vega 4. Gamma

OR

- Q.4 (c) The share of POQ Ltd. is currently available for Rs.500. Expected underlying asset price one year from now will be either up by 30% or down by 20%. The risk-free interest rate is 10%. Exercise price of call option is Rs.550. Calculate call option price of today using single period binomial model. (8)

- (d) Ms. Rohini bought a contract of Bank Nifty Put options -October 2022, at a strike price of Rs.40,000 & at a premium of Rs.1,000. Lot size is 25 units. If bank nifty expires at 41,500 then calculate amount of profit/loss to her and draw a payoff diagram. (7)

Q.5 (a) Discuss the functions of NSCCL in Indian derivatives market. (8)

(b) Explain order matching concept with the help of order types and conditions. (7)

OR

Q.5 Write short notes on following: (any three) (15)

- (1) OTC Vs Exchange traded derivatives
- (2) Black-Scholes Model (BSM)
- (3) Long Strangle
- (4) Delta
- (5) Value at Risk (VaR)
