23/10/24

Time: 2:30 Hours **Marks: 75**

Note: All questions are compulsory subject to internal choice.
Each question carries 15 marks.

Q1. A. Match the following (any Eight) **(8)**

Group A	Group B
1. Derivative	A. The current market price of an asset
2. Spot price	B. A contract that gives the buyer the right, but not the obligation, to buy or sell an underlying asset at a specified price on or before a specified date
3. Arbitrage	C. A financial instrument that derives its value from an underlying asset
4. Option	D. A transaction involving the simultaneous purchase and sale of the same asset in different markets to profit from price discrepancies
5. Warrant	E. A long-term option issued by a company
6. Future	F. A standardized contract for the purchase or sale of a specified asset at a predetermined price on a future date
7. Hedge	G. A strategy to reduce risk by taking an opposing position in a related asset
8. Speculation	H. Money deposited by a buyer or seller of a futures contract to guarantee performance
9. Clearing house	I. An institution that acts as a central counterparty in futures and options contracts
10. Margin	J. The act of buying or selling securities in the hope of making a profit from price fluctuations

Q1. B. True or False (any Seven) **(7)**

1. Derivative value is derived from only one underlying asset.
2. Speculators are participants who make profit from pricing differential.
3. Basis = Spot price + future price.
4. Hedging is a tool for reducing risk.
5. ITM means in the money.
6. Option writer is the seller of the option.
7. Butterfly is one of the neutral strategies.
8. BPOM means Binomial Option Pricing Model.
9. STRAPS is a bullish strategy.
10. Settlement period for the contract currently is on a T -4 basis.

Q2. A) Distinguish between Forward Contract and Future Contract **(7)**

B) Highlight key features of L.C.Gupta Committee recommendations for development of derivative markets **(8)**

OR

Q2.C) Explain the role played by different classes of participants in derivatives markets. **(15)**

Q3. A) An investor wants to take long or short positions in future market when the spot price is Rs. 1750/- when the following range of expiry prices in August 2023 with lot size of 100 shares: **(7)**

a) Rs. 1710
b) Rs. 1750
c) Rs.1800

B) Explain the following future terminologies: **(8)**

1. Contract cycle
2. Ticksize
3. Ready contract
4. Strike price

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OR

Q3. C) An investor took two Positions in future market which are as follows: (7)

i) Sold Future of AXIS with a lot size of 1000 shares at Rs. 70 and at expiry it closed at Rs. 68.

ii) Bought future contract of ICICI Bank with a lot size of 5000 shares at Rs. 80 and at expiry it closed at Rs. 75

D) Mr. Z Purchased the option on 20th July 2019 when the option was exercised at Rs. 3350. (8)
Calculate Intrinsic Value, Moneyness of option & Time value

Call option		Put option	
Spot Price	Call premium	Spot Price	Put premium
3200	50	3500	75
3350	100	3350	45
3450	200	3150	225

Q4. A) Mr. Vijay writes(sell) a put option of TCS Ltd. at Rs.100 premium with a strike price of Rs.625 and at expiry it closed at Rs. 810. Lot size is 1000 shares. Find out the amount of profit/loss to him. (7)

B) Calculate stock price & probability along with tree diagram using Binomial Option pricing model (multi period - 2 months), when So = Rs.400, exercise price = Rs.410, u = 25%, d = 20%, r = 5%. (8)

OR

Q4.A) Define Options. Explain the types of options. (7)

B) Mr. Vikram writes a European put option on stock of PR Ltd. Having exercise price of Rs.690 with a premium of Rs.50. Calculate the profit or loss on the following spot prices positions on expiry : Rs.650,Rs.660, Rs.670,Rs.680, Rs.690, Rs.700,Rs.710, Rs.720 & Rs.730.Also draw the payoff diagram. (8)

Q5. A) Define Clearing House. Explain its functions. (8)

B) Discuss in brief the Ordering types and conditions (7)

OR

Q5.C) Write short notes on: **(any 3)** (15)

1. 5 Greek options
2. Cost of Carry Model
3. Types of Margins
4. Factors Affecting Option premium
5. Vertical Spread Option strategy

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