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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MBA

SEM: IV - THEORY EXAMINATION (20..... - 20.....)

Subject: Finacial Derivatives and Risk Management

Time: 3 Hours Max. Marks: 100

General Instructions:

IMP: *Verify that you have received the question paper with the correct course, code, branch etc.*

1. This Question paper comprises of three Sections -A, B, & C. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.

2. Maximum marks for each question are indicated on right -hand side of each question.

3. Illustrate your answers with neat sketches wherever necessary.

4. Assume suitable data if necessary.

5. Preferably, write the answers in sequential order.

6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION-A 20

1. Attempt all parts:-

1-a. Define derivative in financial terms. (CO1,K1) 1

(a) A stock

(b) A bond

(c) A contract based on an underlying asset

(d) A loan

1-b. ________ NOT a type of derivative. (CO1,K1) 1

(a) Futures

(b) Options

(c) Swaps

(d) Stocks

1-c. _______ of these derivatives is commonly used for currency hedging. (CO2, K1) 1

(a) Option

(b) Swap

(c) Forward contract

(d) Mutual Fund

1-d. Choose the primary purpose of a futures exchange.(CO2, K1) 1

(a) Guarantee profits

(b) Provide anonymity

(c) Facilitate standardized trading

(d) Avoid taxes

1-e. Identify a common use of options for institutional investors.(CO3, K1) 1

(a) Currency control
(b) Risk management
(c) Dividend income
(d) Insider trading

1-f. Determine which options are commonly cash-settled in India.(CO3, K3) 1

(a) Stock options
(b) Commodity options
(c) Index options
(d) Real estate options

1-g. Select the typical duration of a forward rate agreement.(CO4, K4) 1

(a) Physical delivery
(b) Exchange of cash flows
(c) Stock issuance
(d) Fixed deposit

1-h. Determine the main risk managed through interest rate swaps.(CO4, K1) 1

(a) Credit risk
(b) Currency risk
(c) Interest rate risk
(d) Political risk

1-i. Choose the typical metric used to measure risk in investment portfolios.(CO5, K1) 1

(a) Net income
(b) ROI
(c) Standard deviation
(d) Turnover ratio

1-j. Select a qualitative method of risk assessment.(CO5, K1) 1

(a) Scenario analysis
(b) Standard deviation
(c) Beta analysis
(d) Sharpe ratio

2. Attempt all parts:-

2.a. Explain the key difference between exchange-traded and over-the-counter derivatives.(CO1, K2) 2

2.b. List two key features of forward contracts that differentiate them from futures contracts.(CO2, K1) 2

2.c. If a call option on USD/INR has a strike price of ₹83, the premium is ₹2, and the spot price at expiry is ₹85, what is the profit for the 2 speculator? (CO3, K3)

2.d.	Define financial swaps and explain their primary purpose. (CO4, K2)	2
2.e.	Define liquidity risk.(CO5, K1)	2

<u>SECTION-B</u> 30

3. Answer any <u>five</u> of the following:-

3-a.	Discuss the key features of derivatives and their role in risk management.(CO1, K2)	6
3-b.	Discuss the role of options in portfolio diversification and risk management.(CO1,K2)	6
3-c.	Analyze the risks associated with forward contracts and how they can be mitigated.(CO2, K4)	6
3-d.	Distinguish between futures and forward contracts in terms of trading mechanisms.(CO2,K4)	6
3.e.	Compare the Black-Scholes model and the Binomial model in terms of option pricing accuracy.(CO3, K4)	6
3.f.	Investigate how financial swaps contribute to market liquidity and financial stability. (CO4, K6)	6
3.g.	"Beta is used to measur the risk". Justify.(CO5, K5)	6

<u>SECTION-C</u> 50

4. Answer any <u>one</u> of the following:-

4-a.	Evaluate the challenges and opportunities in the Indian derivatives market.(CO1, K6)	10
4-b.	Examine the role of macroeconomic factors in influencing the effectiveness of forward contract hedging?(CO1, K5)	10

5. Answer any <u>one</u> of the following:-

5-a.	Examine the affect of market liquidity affect speculation and arbitrage in currency futures?(CO2, K5)	10
5-b.	Evaluate the ethical considerations of speculation and arbitrage in financial markets.(CO2, K6)	10

6. Answer any <u>one</u> of the following:-

6-a.	Evaluate the practical applications of the Black-Scholes model in financial risk management.(CO3, K6)	10
6-b.	Compare the risks associated with speculation and arbitrage in index options trading.(CO3, K4)	10

7. Answer any <u>one</u> of the following:-

7-a.	Compare the advantages and disadvantages of fixed-for-floating and floating-for-floating interest rate swaps.(CO4, K4)	10
7-b.	Evaluate the role of currency swaps in facilitating cross-border investments and trade.(CO4, K6)	10

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8. Answer any one of the following:-

8-a.	"Various types of risks are found in business and derivative markets." Elaborate.(CO5, K5)	10
8-b.	"Standard deviation and beta are used to identify and measure the risk". Justify.(CO5, K5)	10

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