

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA
(An Autonomous Institute Affiliated to AKTU, Lucknow)

MBA

SEM: IV - THEORY EXAMINATION (2025 - 2026)

Subject: Financial 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:-

- | | | |
|-------|--|---|
| (1.1) | Option seller has (CO1, K1) | 1 |
| | (a) Right | |
| | (b) Obligation | |
| | (c) Both | |
| | (d) None | |
| (1.2) | Main purpose of derivatives (CO1, K2) | 1 |
| | (a) Risk management | |
| | (b) Tax saving | |
| | (c) Accounting | |
| | (d) None | |
| (1.3) | Determine the expiry frequency of most currency futures in India.(CO2, K1) | 1 |
| | (a) Yearly | |
| | (b) Half-yearly | |
| | (c) Monthly | |
| | (d) Weekly | |
| (1.4) | NSE started derivatives in (CO2, K1) | 1 |
| | (a) 1995 | |
| | (b) 2000 | |
| | (c) 2005 | |
| | (d) None | |
| (1.5) | Recognize the factor directly affecting the time value of options. (CO3, K1) | 1 |

- (a) Maturity length
 - (b) CEO performance
 - (c) Dividend history
 - (d) Currency rate
- (1.6) Point out the ideal strategy for low volatility expectations. (CO3, K1) 1
- (a) Long straddle
 - (b) Short straddle
 - (c) Long strangle
 - (d) Protective put
- (1.7) Select the main purpose of interest rate swaps.(CO4,K1) 1
- (a) Avoid taxes
 - (b) Hedge against interest rate changes
 - (c) Increase volatility
 - (d) Create bonds
- (1.8) Swaps are traded in (CO4, K1) 1
- (a) Exchange
 - (b) OTC
 - (c) Bank
 - (d) None
- (1.9) Determine which risk type is specific to a company or industry.(CO5, K1) 1
- (a) Market risk
 - (b) Systematic risk
 - (c) Unsystematic risk
 - (d) Interest rate risk
- (1.10) Unsystematic risk is (CO5, K1) 1
- (a) Market risk
 - (b) Firm specific
 - (c) Global
 - (d) None

2. Attempt all parts:-

- (2.1) List two features of derivatives (CO1, K1) 2
- (2.2) Describe Indian derivatives market (CO2, K1) 2
- (2.3) In what ways do traders use index options for speculative purposes? Explain. (CO3, K3) 2
- (2.4) Explain purpose of swaps (CO4, K2) 2
- (2.5) Define the term " Uncertainty". (CO5, K1) 2

SECTION-B

30

Answer any one of the following:-

- (3.1) Discuss the role of options in portfolio diversification and risk management.(CO1,K2) 6

(3.2)	Explain option contracts and their features (CO1, K2)	6
Answer any one of the following:-		
(3.3)	A company enters into a 6-month forward contract to buy 1,000 barrels of crude oil at ₹6,500 per barrel. If the spot price at maturity is ₹7,000 per barrel, what is the gain or loss? (CO2, K3)	6
(3.4)	Explain application of index futures in portfolio management (CO2, K2)	6
Answer any one of the following:-		
(3.5)	Explain role of options in financial markets (CO3, K2)	6
(3.6)	A portfolio worth ₹10,00,000 is exposed to Nifty 50 movements. The investor buys Nifty put options at a strike price of ₹22,000 with a premium of ₹200 per contract. If Nifty falls to ₹21,500, what is the hedging gain? (CO3, K3)	6
Answer any one of the following:-		
(3.7)	Investigate how financial swaps contribute to market liquidity and financial stability. (CO4, K6)	6
(3.8)	A company enters a 3-month FRA to borrow ₹10 crore at 6% fixed rate. If the actual market rate turns out to be 7%, what is the settlement amount? (CO4, K3)	6
Answer any one of the following:-		
(3.9)	Explain the various types of risks. (CO5, K2)	6
(3.10)	Describe risk-return tradeoff (CO5, K2)	6
SECTION-C		50
4. Answer any <u>one</u> of the following:-		
(4.1)	Evaluate speculation and arbitrage strategies in derivatives markets (CO1, K5)	10
(4.2)	Evaluate the impact of derivatives on financial market liquidity and risk (CO1, K5)	10
5. Answer any <u>one</u> of the following:-		
(5.1)	Evaluate Indian derivatives market structure and analyze its growth (CO2, K5)	10
(5.2)	Evaluate role of futures in price discovery and risk management (CO2, K5)	10
6. Answer any <u>one</u> of the following:-		
(6.1)	Evaluate the role of index options in predicting broader market trends.(CO3, K6)	10
(6.2)	Analyze hedging with index options and evaluate effectiveness (CO3, K4)	10
7. Answer any <u>one</u> of the following:-		
(7.1)	Discuss the differences between currency swaps and foreign exchange forwards in terms of risk management. (CO4, K4)	10
(7.2)	Evaluate FRA mechanism with numerical illustration and analyze outcomes (CO4, K5)	10
8. Answer any <u>one</u> of the following:-		
(8.1)	Clearly discuss the concept of hedging which help to reduce the risk factors and also explain the various applications of hedging in case of forwards. (CO5, K4)	10
(8.2)	Analyze expected return and risk relationship with numerical example (CO5, K4)	10