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**NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA**

(An Autonomous Institute Affiliated to AKTU, Lucknow)

**MBA**

**SEM: IV - THEORY EXAMINATION (2024 - 2025 )**

**Subject: Financial Derivatives & 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**

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1. Attempt all parts:-

- |      |   |   |
|------|---|---|
| 1-a. | The selection criteria for a scrip to form part of the BSE sensitive index is (CO1,K1)                              | 1 |
|      | (a) The scrips must have been traded every day in the last six months   |   |
|      | (b) The company must have be dividend paying company  |   |
|      | (c) Number of trades in the last six mnths should be greater than a certain number specified by the index committee |   |
|      | (d) All of the above  |   |
| 1-b. | The value of a derivative instrument (CO1,K2)   | 1 |
|      | (a) Is fixed  |   |
|      | (b) Depends on the value of an underlying   |   |
|      | (c) Is reset at fixed intervals   |   |
|      | (d) None of the above   |   |
| 1-c. | At any given time the clearing house net position will be equal to (CO2,K2)   | 1 |
|      | (a) Net outstanding shorts position   |   |
|      | (b) Net outstanding long position   |   |
|      | (c) Zero  |   |
|      | (d) None of the above   |   |
| 1-d. | If you have bought a future contract and the price drops you will make a profit (CO2,K2)                            | 1 |

- (a) True
  - (b) False
  - (c) Sometimes true
  - (d) Sometimes false
- 1-e. A call option gives the holder the right: (CO3,K2) 1
- (a) To buy the underlying asset
  - (b) To sell the underlying asset
  - (c) To either sell or buy the underlying
  - (d) None of the above
- 1-f. An European option : (CO3,K1) 1
- (a) Can be exercised any time before maturity
  - (b) Can be exercised only at maturity
  - (c) Is traded only on the European exchange
  - (d) None of the above
- 1-g. Which of the following event has lead to an increase in the value of a call option? (CO4,K2) 1
- (a) An increase in the interest rates
  - (b) A declining time to maturity
  - (c) An increase in the exercise price
  - (d) Declining price of underlying asset
- 1-h. A call option has intrinsic value only when the strike price- (CO4,K2) 1
- (a) Is below the spot price
  - (b) Exceeds the spot price
  - (c) Equal the spot price
  - (d) Not sure
- 1-i. Which of the following investment strategies has unlimited profit potential? (CO5,K2) 1
- (a) Writing a call
  - (b) Bull spread
  - (c) Protective put
  - (d) Covered call.
- 1-j. Futures markets have grown rapidly because futures (CO5,K2) 1
- (a) Are standardized.
  - (b) Have lower default risk.
  - (c) Are liquid.
  - (d) All of the above

2. Attempt all parts:-

- 2.a. Define the concept “Underlying Asset” . (CO1,K1) 2

- |      |  |   |
|------|--|---|
| 2.b. | Give full form of OTC and NIFTY. (CO2,K1)                  | 2 |
| 2.c. | Explain the speculators in the derivative market. (CO3,K2) | 2 |
| 2.d. | Discuss interest rate SWAP.(CO4,K1)                        | 2 |
| 2.e. | Explain unsystematic risk.(CO5,K2)                         | 2 |

## **SECTION-B**

30

3. Answer any five of the following:-

- |      |   |   |
|------|---|---|
| 3-a. | Distinguish between forward contract and futures contract. (CO1,K4)           | 6 |
| 3-b. | Write a note on financial assets which can be traded in derivatives .(CO1,K1) | 6 |
| 3-c. | Explain the characteristics of put and call options in derivatives. (CO2,K2)  | 6 |
| 3-d. | Explain the role of the derivatives market in attractive investment. (CO2,K2) | 6 |
| 3.e. | Write a note on volatility and its importance in the option pricing. (CO3,K1) | 6 |
| 3.f. | Explain the trading mechanism of SWAP with suitable example. (CO4,K2)         | 6 |
| 3.g. | State the risk management and its process.(CO5,K1)                            | 6 |

## **SECTION-C**

50

4. Answer any one of the following:-

- |      |   |    |
|------|---|----|
| 4-a. | Explain the growth and development of derivatives and elaborate types of derivatives. (CO1,K2)  | 10 |
| 4-b. | An investor with an annual income of 15 lakhs has an option to invest in 12% taxable corporate bonds or 7% tax-free bonds. Which option should be selected by him. Explain with reasons. (CO1,K4) | 10 |

5. Answer any one of the following:-

- |      |  |    |
|------|--|----|
| 5-a. | "Risk is involved in derivatives contracts". How?(CO2,K2)  | 10 |
| 5-b. | Unilateral transfer or sale of the contract typically not allowed in forward market. Elaborate. (CO2,K2) | 10 |

6. Answer any one of the following:-

- |      |  |    |
|------|--|----|
| 6-a. | Discuss the various determinants of the currency option value with examples. (CO3,K1)  | 10 |
| 6-b. | A call option with a strike price of \$55 can be bought for \$54. Compute Net profit if you sell the call ,and the stock price is \$52 when the call expires. (CO3,K4) | 10 |

7. Answer any one of the following:-

- |      |  |    |
|------|--|----|
| 7-a. | Define the term "Swap Contract". Who are the parties involved in a SWAP? (CO4,K1)  | 10 |
| 7-b. | Companies A and B both want to borrow 10 crores for 5 years and the following rates are offered:<br>Company A - Fixed Rate 10% and LIBOR+0.3%(Floating Rate)<br>Company B- Fixed Rate 11.2% and LIBOR+ 1%(Floating Rate)<br>Companies A requires a floating rate loan, company B requires a fixed rate loan.<br>Design a SWAP that will equally attractive to both companies. (CO4,K5) | 10 |

8. Answer any one of the following:-

- 8-a. "There are six possibilities that may constitute credit events in CDS contracts". 10  
Comment.(CO5,K2)
- 8-b. Write the note on the various kinds of risk and the strategies to manage risk by 10  
various option strategies. (CO5,K1)

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