Printed Page:- 04 **Subject Code:- AMBAFM0413**

Roll. No:

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MBA

SEM: IV - THEORY EXAMINATION (2023 - 2024)

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.*

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SECTION A **20**

1. Attempt all parts:-

1-a. The term of future contract such as quality and quantity of the commodity and delivery date are specified by the (CO1) 1

(a) Buyer and seller

(b) Future exchange

(c) Buyer

(d) Brokers and Dealers

1-b. If the price of underlying asset rise sharply after initial of a future contract (CO1) 1

(a) The long position become profitable

(b) The long position become unprofitabl

(c) The short position become profitable

(d) None of the above

1-c. Break even of Put Option occurs when Spot Price is equal to : (CO2) 1

(a) Strike price + Premium

(b) Strike price - Premium

(c) Premium

(d) None of the above

1-d. A put option on NIFTY will best protect a portfolio: (CO2) 1

(a) That corrosponds to the NIFTY

(b) OF 50 BONDS

(c) Of 100 sharesof any company

(d) 50 shares of one and 50 shares of another

1-e. A call or put option in which the exercise price is approximately the same as the current market price of the underlying security is called: (CO3) 1

(a) At the money option

(b) In the money option

(c) Out of money option

(d) Naked option

1-f. Higher value of the stock induce reduction in the premium on put option in absolute terms (CO3) 1

(a) TRUE

(b) False

(c) True only at BSE

(d) True ony at NSE

1-g. ________ party in a swap contract typically pays a fixed rate of interest. (CO4) 1

(a) The party with the weaker credit rating

(b) The party with the stronger credit rating

(c) The party with the liability tied to a fixed rate

(d) The party with the liability tied to a floating rate

1-h. _____________party in a financial swap is exposed to credit risk. (CO4) 1

(a) The party receiving fixed payments

(b) The party receiving floating payments

(c) The party paying fixed payments

(d) The party paying floating payments

1-i. When companies eliminate the potential loss due to increase the price to the input, that is........(CO5) 1

(a) Options

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(b) Diversifying

(c) Hedging

(d) None of the above

1-j.	On which base company selected the risk technique (CO5) (a) Minimization the cost (b) Maximization of profitc. (c) To secure the company (d) Both A and C	1

2. Attempt all parts:-

2.a.	Distinguish between the Spot Market and Future Market. (CO1)	2
2.b.	Discuss put option in derivatives. (CO2)	2
2.c.	Explain hedging through futures in detail. (CO3)	2
2.d.	Discuss put able SWAP. (CO4)	2
2.e.	Define the words "Standard deviation and Beta".(CO5)	2

SECTION B **30**

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

3-a.	Explain the merits and demerits of financial derivatives. (CO1)	6
3-b.	Explain the risk involved in financial derivatives.(CO1)	6
3-c.	“Forward contracts are zero-sum games”. Explain.(CO2)	6
3-d.	Explain the Open market operations.(CO2)	6
3.e.	Calculate the delta of an at-the-money six-month option on a non-dividend paying stock when the risk-free interest rate is 5% per annum and stock price volatility is 12.5% per annum. (CO3)	6
3.f.	Write the notes on (1) Market risk (2) Currency exchange rate and (3) Interest rate risk. (CO4)	6
3.g.	Explain the statistical tool "VaR" to measure the risk.(CO5)	6

SECTION C **50**

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

4-a.	Explain the difference between Future and Forward Market in India. (CO1)	10
4-b.	A mill owner enters into 3 months short wheat forward contract on 1st July, 2018 when the spot price was Rs. 10/ per Kg. One contract Is for delivery of 1,000 kgs . What is the gain/loss of the farmer if on maturity, the prevailing	10

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price is-(a) Rs.9 per kg, (b) Rs. 12/kg. ?(CO1)

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

5-a.	Explain the disadvantages for hedging are created by the presence of delivery option.(CO2)	10
5-b.	Explain the Importance of cost of carry model.(CO2)	10

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

6-a.	Explain a long position in a call option and a long position in a put option with examples.(CO3)	10
6-b.	Option on ABC 500- Stock price=Rs.120, Call exercise price=Rs. 100, Exercise date=6Months, Estimated standard deviation=30%, current market price=Rs. 28 and Risk-free return=8%p.a. Calculate call option price of the stock as per Black Scholes model. (CO3)	10

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

7-a.	Describe the steps of making a valuation of SWAPs. (CO4)	10
7-b.	Compare and contrast between financial SWAP, SWAP contract and options.(CO4)	10

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

8-a.	Discuss various techniques of risk mitigation and statistical tools used in risk management . (CO5)	10
8-b.	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)	10

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