

Code No: 764AG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**MBA IV Semester Examinations, February - 2025****RISK MANAGEMENT AND FINANCIAL DERIVATIVES****Time: 3 Hours****Max.Marks:75**

- Note:** i) Question paper consists of Part-A, Part-B.
ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.
iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A**(25 Marks)**

- 1.a) Explain the scope of risk management. [5]
b) What do you mean by interest rate risk? How its measured. [5]
c) What are the financial market imperfections? [5]
d) Explain put-call parity? [5]
e) What is a swaption? [5]

PART – B**(50 Marks)**

- 2.a) What are different types of risk? Give suitable examples.
b) What are the various sources of risk? [5+5]

OR

- 3.a) Describe the objectives of risk management and brief on risk management levels.
b) Explain any two techniques of risk measurement. [5+5]
4.a) Illustrate different risk management tools.
b) What is Cash Flow at Risk (CaR) and how is it calculated? [5+5]

OR

- 5.a) What do you mean by capital adequacy requirement? Explain.
b) What is liquidity risk? Explain with suitable examples. [5+5]

- 6.a) Briefly explain the counterparty risk involved in forward contracts.
b) Calculate forward-price of the asset from the following data: [5+5]
i) Spot price of the underlying asset is Rs.1,00,000
ii) Risk-free interest rate p.a. is 12%
iii) Yield per annum is 5%
iv) Time to expiry is 6 months.

OR

- 7.a) Explain the functions of clearing house in futures market.
b) Determine the futures price from the following data by using the cost-of-carry model. [5+5]
i) Spot price of the commodity is Rs.1,20,000.
ii) Storage cost is 7% p.a. of spot price.
iii) Insurance cost is 5% p.a. of spot price.
iv) Transportation cost is 4% (fixed)
v) Financing cost is 10% p.a.
vi) Carry Period (time to expiration) is 6 months.

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8.a) Explain the factors influencing the time value of an option.

b) What do you mean by butterfly spread? Explain its various types. [5+5]

OR

9. From the following information, calculate Call Option and Put Option value using Black-Scholes formula:

a) Style of Option - European

b) Current market price (S) – Rs.100 per share.

c) Exercise price (X) – Rs.120 per share.

d) Volatility of Share Price (S) – 30%

e) Risk-free interest rate (r) – 10% p.a.

f) Time to Expiration (T) – 3 months. [10]

10.a) Explain the significant economic motives for swap derivative contracts.

b) A has fixed rate debt on which it is paying T+1 percent. But it could borrow floating-rate funds at LIBOR. B has floating-rate debt on which it is paying LIBOR+25 b.p. But it could borrow fixed-rate funds at T+1.75 percent. Can the two counterparties go for interest-rate swap? If so, indicate the gains accruing to them. [5+5]

OR

11.a) Explain different types of interest rate swaps with appropriate examples.

b) What are the economic uses of currency swaps? Explain with suitable examples. [5+5]

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