R22

Code No: 783AJ

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

MBA III Semester Examinations, February - 2025

RISK MANAGEMENT AND FINANCIAL DERVATIVES

Time: 3 Hours **Max.Marks:60**

Note: This question paper contains two parts A and B. i) **Part- A** for 10 marks, ii) **Part - B** for 50 marks.

- Part-A is a compulsory question which consists of ten sub-questions from all units carrying equal marks.
- Part-B consists of **ten questions** (numbered from 2 to 11) **carrying 10 marks each**. Each of these questions is from each unit and may contain sub-questions. For each question there will be an "either" "or" choice, which means that there will be two questions from each unit and the student should answer either of the two questions.

PART- A

(10 Marks)

1.a) Define risk. [1]
b) What does beta mean for investors? [1]
c) Define exchange rate risk. [1]
d) What is operational risk? [1]
e) What is arbitrage? [1]
f) What is stock index? [1]
g) What is put option? [1]
h) Define Rho. [1]
i) What is carbon credit? [1]
j) Define commodity swaps. [1]

PART – B

(50 Marks)

2.a) How does liquidity risk arise? Briefly explain.
b) What is currency risk? How would you manage it? [5+5]

OR

3.a) What are the benefits of risk management?
b) Discuss the ways in which a firm can identify its exposure to price risks. [5+5]

4. Explain Basel Adequacy norms of capital requirement, its objective and the regulatory purpose of implementation. [10]

OR

5.a) What is cash flow risk and how would you measure it?
b) What is Value at Risk? What is its relevance to finance? [5+5]

6. What is a forward contract? What are the classifications of forward contracts? Explain with illustrative examples. [10]

OR

7.a) A fund manager finds that the modified duration of her US bond portfolio is 5.3 years while the modified duration of the benchmark against which she is evaluated is 5.8 years. If her portfolio is $20 million how many US T-bond futures should she buy or sell to achieve the same duration as the benchmark? Assume that the cheapest to deliver bond has a price of 101.15 a modified duration of 8.75 years and a conversion factor of 0.9950.

b) Describe the futures on government bonds. [7+3]

8. The Rupee dollar exchange rate is Rs.82/$, the Indian interest rate is 7.5%, the US interest rate is 4.5% and the volatility of the exchange rate is 12%. Compare the following strategies for an exporter over a one-month horizon:
a) no hedging.
b) hedging with futures
c) hedging with at-the money dollar puts. [10]

OR

9. Write short notes on: a) Box option strategies, b) Option strangle, c) Winning option trading rules. [4+3+3]

10. Discuss the evolution of SWAP market and discuss the various types of swaps and their features. [10]

OR

11.a) A firm observes that 10- year treasury yields are 7.1% and two-year treasury notes are yielding 7.0% . It believes that the 10-year basis point spread is very narrow and will likely widen in the near future. What kind of swap can the firm enter into to speculate on these beliefs?

b) Describe the methods of valuing of commodity swap. [6+4]

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