Code No: MB194B1/19

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY- GURAJADA VIZIANAGARAM
MBA IV Semester Regular/Supplementary Examinations, May-2025
Financial Derivatives

Time: 3 Hours **Max. Marks: 75**

Answer any FIVE Questions One Question from Each Unit
All Questions Carry Equal Marks

UNIT-I

1.	a	Define financial derivatives and explain their importance.	6M
	b	Trace out the growth of financial derivatives in India.	6M
		OR	
2.	a	What are swaps? Discuss their applications.	6M
	b	Write a note on recent trends in the Indian derivatives market.	6M

UNIT-II

3.	a	What are futures contracts? Explain their features.	6M
	b	Explain hedging strategies using stock index futures.	6M
		OR	
4.	a	Discuss the role of clearing houses in futures markets.	6M
	b	Describe the regulatory measures for futures trading in India.	6M

UNIT-III

5.	a	What is an option? Explain its basic features.	6M
	b	Explain the importance of margins in options trading.	6M
		OR	
6.	a	How are options traded on stock indices?	6M
	b	Analyze the development of options markets in India.	6M

UNIT-IV

7.	a	What is intrinsic value in options pricing?	6M
	b	Discuss the Black-Scholes option pricing model.	6M
		OR	
8.	a	What role does time to maturity play in options pricing?	6M
	b	Discuss real-life applications of option pricing models.	6M

UNIT-V

9.	a	Discuss the structure of a typical swap agreement.	6M
	b	What is a commodity swap? Explain with an example.	6M
		OR	
10.	a	Discuss the regulatory framework for swap transactions.	6M
	b	How do forward rate agreements (FRAs) differ from swaps?	6M

CASE STUDY

11 15M

Vanilla and Other Flavours

Basic derivative instruments such as futures and options are often referred to as "plain vanilla," although this term is most often applied to an instrument called a swap. More exotic "flavours" include instruments such as "repos" and some that have more bizarre names like "frogs" or "swaptions." While more complex, these instruments are similar to other derivatives in that they are a contract based on another asset. Let's examine a swap. As the name implies, this instrument swaps one thing for another. Usually, it's an interest rate swap. For example, an organisation with debt, payable at a fixed rate of interest, will swap its interest payments for a

floating rate payment. Here's an example of how the system works.

CDB Corporation has borrowed $1 million at a floating rate, currently 7 percent. CDB is concerned that rates will rise. CDB would like to make fixed interest payments of 8 percent. NQ, Inc. has borrowed $1 million at a fixed rate of 8 percent and has invested the funds at a variable rate. It is concerned that, if rates fall, the investment might not be profitable. It is willing to make CDB's interest payments at a floating rate over five years, if CDB will pay the 8 percent fixed rate on NQ's loan for the same period of time. The two parties agree to swap interest rates. CDB will still make floating-rate interest payments to its bank, but will receive from NQ floating-rate interest payments exactly the same as what it is paying. Similarly, NQ will still make the 8 percent fixed-rate interest payments to its bank, but will receive from CDB interest payments precisely equivalent to the payments it is making. The net effect of this interest rate exchange is that CDB ends up making fixed-rate interest payments, in accordance with its wishes, and NQ ends up making floating-rate interest payments, in accordance with its preferences. Both companies will continue to make the appropriate principal repayments to their respective banks in accordance with their loan agreements.

Why did CDB and NQ use swaps? One answer is the expectations of the two companies, each trying to avoid a certain risk. The companies have different opinions of which way interest rates are headed and different needs. Based on those opinions and needs, the companies are trying to manage their risk.

Interest rate swaps provide users with a way of hedging the effects of changing interest rates. CDB is reducing the risk of borrowing funds at a floating rate at a time when it expects rates will rise. NQ is gaining protection against falling interest rates. The lender of funds for each company is not affected because it receives the correct principal and interest payments. Such transactions, multiplied many times over, help foster a more liquid and competitive marketplace.

Questions:

1. Write down the case facts.
2. What is plain vanilla strategy?
3. Explain the process of swap applied by the CDB and NQ.
4. Give reason (any other as give in case) why did CDB and NQ use swaps?