Jamia Hamdard

School of Management and Business Studies

Department of Management

Roll No...

Even Semester Examination - July 2023

MBA-IV Semester

Subject Code: MBA-GE-FM-07 & Subject Name: Financial Derivatives

Duration: 3 Hour

Max.Marks -75

(15X5=75)

Note: Attempt any Five Questions, All questions carry equal marks

Q1: Describe the concept of leverage in the context of financial derivatives. How does leverage affect potential returns and risks? [15]

Q2: Discuss the concept of hedging and how financial derivatives can be used for hedging purposes. Provide an example of a situation where a company might use derivatives to hedge against risk? [15]

Q3: (a) Consider a futures contract on crude oil with a contract size of 1,000 barrels. The current market price of crude oil is $70 per barrel. The initial margin requirement is set at 10% of the contract value, and the maintenance margin is set at 5%. If the price of crude oil drops to $65 per barrel, will there be a margin call? If yes, how much will the margin call be? [10]

(b) Explain the concept of a futures contract and discuss its key features. [05]

Q4: Explain the process of option valuation with the help of two step binomial tree Model example. [15]

Q5: (a) ABC Corporation, a manufacturing company, has issued fixed-rate bonds at a coupon rate of 4% per annum. They are concerned about the potential increase in interest rates and want to mitigate their interest rate risk. XYZ Bank is willing to enter into an interest rate swap with ABC Corporation. The swap will have a notional principal of $10 million and a tenor of 5 years. The floating rate will be based on the 3-month LIBOR plus a spread of 1%. The swap will be settled quarterly. Calculate the cash flows for ABC Corporation and XYZ Bank at the end of the first quarter of the swap, assuming the 3-month LIBOR rate is 2.5%. [10]

(b) Discuss the key differences between an interest rate swap and a currency swap. [05]

Q6: (a) What is the process of marking to market in futures contracts? How does it impact traders' margin accounts? [09]

(b) What is the difference between an in-the-money, at-the-money, and out-of-the-money option? [06]

Q7: (a) Discuss the risks associated with trading options and how they can be managed effectively? [10]

(b) An investor purchases a call option on XYZ stock with a strike price of $50. The premium for the option is $3 per share, and each option contract represents 100 shares. If the price of XYZ stock at expiration is $55, what is the investor's net profit? [05]

Q8: (a) Explain the concept of a total return swap and how it allows investors to gain exposure to an underlying asset? [08]

(b) What is meant by the term "underlying asset" in the context of financial derivatives? Give examples of common underlying assets in derivatives markets. [07]