No. of Printed Pages : **2**

Sl. No.

21MBA3E2CL

M.B.A. III Semester Degree Examination, April/May - 2023

FINANCIAL DERIVATIVES

Time : 3 Hours Maximum Marks : 70

Note : *Answer **any five** of the following questions with Question No.**1 (Q1) Compulsory**, each question carries **equal** marks.*

1. Define the term derivative. Discuss the various types of derivatives with suitable examples. **14**

2. Calculate the forward price from the below information : **14**

A forward contract is entered into to purchase a coupon (interest) bearing bond

- Current price of the bond Rs. 10,000
- Coupon rate = 8%
- Interest is payable semi-annually
- Interest is payable after 3 months and 9 months respectively from the date of entering into the forward contract.
- The maturity period of the forward contract is 10 months.
- Risk free interest = 6% p.a.
- Spot price of the bond is Rs. 9,500.

With your analysis explain the arbitrageur's strategy.

3. How to calculate the pay-off from the call option holder, call option writer, put option holder and put option writer ? **14**

4. From the following data calculate the European call option price : **14**

Current stock price = ₹ 60

Exercise price = ₹ 55

Risk free interest rate = 12% p.a.

Option period = 1 year

Up factor = 35%

Down factor = 30%

Use Binomial option pricing model

P.T.O.

5. A firm wants to enter into 2 year currency swap, the firm wishes to pay a fixed rate of 6% in € and receives payments floating sterling (British pounds) the euro payments will be semi-annual and the pound payment will be quarterly both on 30/360 day count basis the principal amount are £ 40 million and € 70 million in 3 month sterling LIBOR 5%, subsequent realization of 3 month sterling LIBOR are as follows : **14**

Time	3 Month LIBOR Sterling
0.25	5.25%
0.50	6%
0.75	6.3%
1.0	6.85%
1.25	6.5%
1.50	6.2%
1.75	6%
2.0	6.3%

What are the cash flows that the firm will pay and receive at each date ?

6. What is Margin Money ? Why it is collected ? What are the different types of Margin Money ? **14**

7. (a) Calculate profit or loss from the following transactions : **7**
Spot price : Rs. 21,00,000
Interest rate : 8% p.a.
Storage cost : 4% of commodity per annum
Transaction cost-Nil
Use cost-of-carry model

(b) Calculate the call option price from the following data by using put-call parity theory : **7**
Present value of Exercise Price : Rs. 128
Value of put option : Rs. 10
Current stock price : Rs. 125

8. (a) Discuss the uses of Derivatives in Financial Markets. **5**
(b) Write a note on economic motives of swap contract. **5**
(c) What are the major types of option exercising styles ? **4**

- o 0 o -