

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA – SEMESTER 3 – EXAMINATION – SUMMER 2021

Subject Code: 4539222

Date:09/09/2021

Subject Name: Financial Derivatives (FD)

Time: 02.30 PM TO 05.30 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 Explain the following terms : 14**
- a Spread
 - b Combinations
 - c Risk free security
 - d Options
 - e Swaps
 - f Forward
 - g Derivatives
- Q.2 A Differentiate between Forward Contracts and Futures Contracts. 7**
B Explain the concepts of upside risks and downside risks. 7
- OR**
- B Write short-note on Greeks in Options. 7**
- Q.3 A R Co. has a market price of Rs.990. The volatility on the share is 0.34, the risk free interest rate is 6%. What would be the price of the call with a strike price of Rs.980, if the expiry date were 22 days ahead? Assumption is that there has not been any dividend announcement 7**
- B Write the difference between Futures contract and options contract. 7**
- OR**
- Q.3 A A 10 month forward contract on a stock with a price of Rs.50. We assume that the risk free rate of interest (continuously compounded) is 8 % p.a. for all maturities. We also assume the dividends of Rs.0.75 per share are expected after 3 months, 6 months and 9 months. What is the price of forward today? 7**
- B Write the difference between Spot/cash market and Derivative market. 7**
- Q.4 A Write a note on the types of orders. 7**
B Write a note on Cost-of-Carry Model. 7
- OR**
- Q.4 A Write a note on the participants in the Derivatives market. 7**
B Share X is currently available at Rs.100. The risk free rate of interest is 8% p.a. compounded continuously. What should be the ideal contract price of one month futures contract? 7
- Q.5 Assume that an importer in India is importing goods from Australia for AUD 500000 and that this payment will have to be made one month later. The current exchange rate is AUD 14**

1 = INR 25. The exchange rate after one month is not known, and the importer would like to know the amount in Indian rupees they need to pay when the payment of AUD 5,00,000 is due one month hence. They decide to enter a forward contract to buy AUD in one month. Suppose that the interest rate in India and Australia is 12% and 6% respectively.

1. What would be the forward rate?
2. If the actual forward rate is AUD 1 = INR 24.95, what is the arbitrage profit?

OR

Q.5

On 1st September, Ashok Leyland shares are selling at Rs.40.35. Ashok Leyland futures have a contract size of 9,550. The September futures expiring on September 28th are priced at Rs.41.25 and the October futures expiring on October 26 are priced at Rs.41.54. The initial margin requirement is 5 % of the contract value. On September 28, the shares are selling at Rs.41.83.

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1. If you buy one September contract, what is the value of the contract?
2. How much money do you need to post as the margin?
3. What would be the amount of cash settlement for a September contract?