

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MBA – SEMESTER - IV – EXAMINATION – WINTER 2021**

**Subject Code:3549222**  
**Subject Name: Risk Management**  
**Time: 10:30 AM TO 01:30 PM**

**Date: 24/12/2021**

**Total Marks: 70**

**Instructions:**

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

- Q.1** Define the following terms; **14**
- (a) Currency Swap
  - (b) Option Contract
  - (c) Upside and downside risks
  - (d) Marking-to-market
  - (e) Delta and Gamma
  - (f) Basis risk
  - (g) Arbitrage
- Q.2** (a) Differentiate between Forward Contracts and Futures Contracts. **07**
- (b) What is stop loss order? Explain the difference between a market order and limit order. **07**
- OR**
- (b) Mukund a cashew merchant wants to buy 5 contracts of cashew on 5th March at Rs.5600 each. Initial margin is 5.5% of contract value. The futures price is for each carton, and the contract size is 50 cartons. Mukund closes out his position on March 16. The futures prices from March 6 to March 16 are shown below. The variation margin is Rs. 50,000. Prepare margin account for Mukund. **07**
- | Date (March)  | 5th      | 6th      | 7th      | 8th      | 9th      | 12th     | 13th     | 14th     | 15th     | 16th     |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Futures price | Rs. 5600 | Rs. 5650 | Rs. 5675 | Rs. 5610 | Rs. 5570 | Rs. 5520 | Rs. 5400 | Rs. 5480 | Rs. 5570 | Rs. 5650 |
- Q.3** (a) What are derivatives? Explain major types of exchange traded derivative contracts. **07**
- (b) ITC share are selling at INR 230 on September 1. American call and American put option are available with expire on October 29 with an exercise price of INR 250. The call is priced at INR 9.60, and the risk free rate is 9%. Calculate the put price using put – call parity. The contract size for ITC options is 1,125. **07**
- OR**
- Q.3** (a) Explain various Greeks letter with suitable example. **07**
- (b) Explain the factors affecting to Option Pricing. **07**
- Q.4** (a) Explain the principles of put-call parity with suitable example. **07**
- (b) Mr. Prakash took a forward contract of 200 shares, currently trading at Rs. 112 per share, is due in 45 days. If the annual risk – free rate of interest is 9%, calculate the value of contract price. **07**
- How would the value be changed if a dividend of Rs. 4 per share is expected to be paid in 25 days before the due date?
- OR**
- Q.4** (a) Explain Binomial Options Pricing model for call and put options with suitable example. **07**
- (b) Write short note on ITM, ATM, OTM. **07**

**Q.5** Using the following data , calculate the values of call and put option using black and scholes model: **14**

Current price of the share	Rs. 486
Exercise price	Rs. 500
Time to expiration	65 days
Standard deviation	0.54
Continuously compounding rate of interest	9% p.a.
Dividend expected	Nil

**OR**

**Q.5** (A) What is Swaps. Explain different types of swaps. **07**  
(B) Explain Characteristics of options hedging. **07**

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