

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA - SEMESTER-IV • EXAMINATION-SUMMER • 2014

Subject Code: 840203

Date: 28-05-2014

Subject Name: Risk Management (RM)

Time: 10.30 am - 13.30 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** (a) Write a note on : Market Order & Stop Loss Order **07**
(b) What are derivatives? Explain its functions. **07**
- Q.2** (a) Discuss each of the following type of traders in a derivatives market- Hedger & Speculator. **07**
(b) Explain how futures contracts differ from forward contracts? **07**
- OR**
- (b) What is Marking –To- Market? **07**
- Q.3** (a) What is open interest? **07**
(b) Assume that the futures price of gold contracts is INR 30,500 and the spot price of gold is INR 30,800 during the tender period. The price is for 10 g of gold and each futures contract is for 10 g.
What transactions would an arbitrageur undertake?
What would be the arbitrageur profit? **07**
- OR**
- Q.3** (a) Should hedging be undertaken? Support your answer with a suitable illustration. **07**
(b) On September 3, BSE sensex 30 is at 21,140. BSE Sensex future with an expiry on October 27 are available at a price of 21,360. The contract multiplier is 15. Calculate the cash flow for the following if the BSE sensex 30 has a value of 21,520. **07**
- (i) You take a long position in five BSE Sensex 30 futures contracts on September 3.
- (ii) You take a short position in three BSE Sensex 30 futures contracts on September 3.
- Q.4** (a) A certain stock is selling currently at Rs 72. An investor, who feels that a significant change in this price is unlikely, in the next three months, observes the market prices of 3-month calls as tabulated below: **07**
- | Exercise Price | Call Price (Rs) |
|----------------|------------------|
| 65 | 11 |
| 70 | 8 |
| 75 | 6 |
- The investor decides to go long in two calls-one each with exercise price Rs 65 and Rs 75- and writes two calls- with an exercise price of Rs 70. Determine his payoff function for different levels of stock price. Also, find his profit/loss when the stock price at maturity is (i) Rs 63. (ii) Rs 68, (iii) Rs 73, and (iv) Rs 80.
- (b) What are options contracts? Explain its characteristics. **07**

OR

- Q.4 (a)** Consider the following information with regard to a call option on the stock of ABC company. Calculate the call option value using Black And Scholes .Current price of the share, $S_0 = \text{Rs } 120$. Exercise Price of the option, $E = \text{Rs } 115$ Time period of expiration = 3 months. Standard deviation of the distribution of continuously compounded rates of return $\sigma = 0.6$. Continuously compounded risk-free interest rate, $r = 0.10$ **07**
- (b)** The XYZ Option lot size is 375. Its share price as on September 1 is INR 1,111.35. A put option with the exercise date of November 26 and an exercise price of INR 1,140 is priced at INR 116.15. If Put-Call parity holds, what will be the price of the call option with the exercise date of November 26 and an exercise price of INR 1,140? **07**
- Q.5 (a)** What are Swaps? Explain its types. **07**
- (b)** What are currency futures? Explain advantages of exchange traded currency futures. **07**
- OR**
- Q.5 (a)** What do you understand by commodity futures? What are the benefits of commodity futures at national level? **07**
- (b)** Write about economic function of the derivatives. **07**
