Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA - SEMESTER–IV • EXAMINATION–SUMMER • 2015

Subject Code: 840203 Date: 18-05-2015

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)**	Explain carefully the difference between heading, speculation and arbitrage	**07**
	(b)	Discuss assumptions of the Black-Scholes Model	**07**
Q.2	**(a)(i)**	Consider a four-month forward contract to buy a zero–coupon bond that will mature one year from today. The current price of the bond is Rs. 930. Assume that risk free rate of interest continuously compounded is 6% p.a. Calculate the delivery price of the contract if negotiated today?	**3.5**
	(a)(ii)	Consider a ten month forward contract on a stock with a price of Rs. 50. Assume risk free rate of interest continuously compounded is 8% p.a. also assume that dividend of Rs. 0.75 per share are expected after three months, six months and nine months. Calculate the forward price of the share?	**3.5**
	(b)	Distinguish Between forward and future contact	**07**
		OR	
	(b)	What are the types of margins levied in the cash market segment?	**07**
Q.3	**(a)**	List and explain the factors affecting the stock option price.	**07**
	(b)	Briefly explain the importance of put-call parity in options pricing.	**07**
		OR	
Q.3	**(a)**	Explain two ways in which a bear spread can be created.	**07**
	(b)	Define four different types of derivatives	**07**
Q.4	**(a)**	What is implied volatility! How can it be calculated?	**07**
	(b)	Explain in-the-money, at-the-money and out-of the money call and put.	**07**
		OR	
Q.4	**(a)**	Gold futures contact size 100 ounces, Current futures price is $500 per ounce. Assume initial margin is $3,000 per contact and maintenance margin is $2,000 per contract. Next eight days futures prices are 494, 494, 488, 490, 491, 474, 475, and 474. Calculate margins requirements and marking to market.	**07**
	(b) (i)	A stock is prevailing at Rs. 80.00. A call with strike of Rs. 85 and maturity after 2 months is selling for Rs. 2.00. Find out the price of the put with exercise price of Rs. 85 and expiry of 2 months assuming the risk-free interest rate of 6% and no dividend on the stock for next two months.	**3.5**
	(ii)	A stock is selling for Rs. 500. If the risk-free rate of interest is 10% p.a. continuously compounded, then at what minimum price a call with strike price of Rs. 500 maturing 2 months later would sell for Rs.	**3.5**
Q.5	**(a)**	Describe the contract for interest rate futures and its features introduced in India.	**07**
	(b)	Explain the terms: (a) Ask rate (b) Bid rate (c) Interest rate parity (d) Basic swap (e)Counterparty risk (f) Equity swap (g) Interest rate Swap	**07**
		OR	
Q.5	**(a)**	Explain the differences of forward/futures and options	**07**
	(b)	What are exotic options and why are they popular?	**07**

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