Seat No.: _____ *Enrolment No.______*

GUJARAT TECHNOLOGICAL UNIVERSITY

M.B.A. Sem - IV Examination May 2011

Subject code: 840203

Subject Name: Risk Management

Date:24/05/2011 **Time: 02.30 pm – 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 **(a)** What are the major stock indices in India? Explain in detail about the Sensex and S&P CNX Nifty Indices. **07**

(b) Explain the users of derivatives and state the reasons for using the derivatives product. **07**

Q.2 **(a)** Differentiate between call and put options. What are the rights and obligations of the holders of long and short positions in them? **07**

(b) An agreement by IDBI Bank to receive 6-month MIBOR (Mumbai Inter-bank Offer Rate) and pay a fixed rate of 5.0% per annum every 6-month for 3 years on a notion principal of Rs. 100 millions. What is received / paid by IDBI Bank? Assume MIBOR Rate **07**

Time Period	MIBOR Rate (%)
0	4.2
1	4.8
6	5.3
12	5.5
18	5.6
24	5.9
30	6.4

OR

(b) From the following data, calculate the values of call and put options using Black and Scholes model: Current price of share is Rs. 486, Exercise price is Rs. 500, Time to expiration 65 days, standard deviation is 54% , Continuously compounded rate of interest is 9% p.a. and no divided is expected during the period. Assume 365 days year. **07**

Q.3 **(a)** What are the advantages of futures contract over forward contract? **07**

(b) Discuss the nature of currency swaps and explain different types of currency swaps **07**

OR

Q.3 **(a)** Explain the principles of put-call parity with suitable example. **07**

(b) What do you understand by commodity futures? What are the benefits of commodity futures at national level? **07**

Q.4 **(a)** What do you understand by risks and what are different ways of classifying and managing them? **07**

(b) What are the differences between exchange traded and over-the-counter derivatives? **07**

OR

Q.4 **(a)** Discuss the various factors affecting the prices of options. **07**

(b) Explain what is meant by a perfect hedge. Does a perfect hedge always lead to a better outcome then an imperfect hedge? Explain your answer. **07**

Q.5 **(a)** What are the benefits of trading in Index Futures compared to any other security? **07**

(b) Distinguish between the open interest and trading volume. **07**

OR

Q.5 **(a)** An investor buys 4 futures contract of gold at MCX of India. Each contract is of 100 grams of gold. The price quotation is Rs. 21,500 per 10 grams. Initial margin is set at 5%, while minimum margin is 90% of the initial margin. Find out the gain or loss on daily basis, position of margin account and margin call if any on daily basis when the contracts are marked-to-market. The clearing prices of the next 8 days are given and it is also assumed that on 8^{th} day investor square off his position at price Rs. 21800. **07**

Day	0	1	2	3	4
Closing Price	21500	21450	21300	21400	21600
Day	5	6	7	8	
Closing Price	21200	21500	21550	21800	

(b) Stock price of Wipro Ltd. is Rs. 500. If the risk-free rate of interest is 10% p.a. continuously compounding, then at what minimum price following call options on the stock of Wipro would sell for: **07**

(a) A Call with strike price of Rs. 450 maturing 1 month later
(b) A Call with strike price of Rs. 500 maturing 2 months later
(c) A Call with strike price of Rs. 550 maturing 3 months later

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