

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY**M.B.A -IVth SEMESTER-EXAMINATION – MAY- 2012****Subject code: 840203****Date: 23/05/2012****Subject Name: Risk Management****Time: 10:30 am – 01:30 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) There are so many types of risk associated with the business – elaborate the sentence with suitable examples. **07**

(b) What is Derivative? Define various types of instruments of it. **07**

Q.2 (a) Distinguish between forward contract & future contract. **07**

(b) Angel ltd. will be receiving Rs. 40,00,000 by the way of interim dividend from its subsidiary in 4 months. At the end of the year it will be receiving Rs. 1,00,00,000 by the way of final dividend and interest on loans to subsidiaries.

What is the present value of such interest and dividends if the weighted average cost of capital for Angel ltd. is 13.5% and the company discounts continuous compounding for income by the way of dividends and interest?

OR

(b)

Strike price	Rs. 180
Current price of one share	Rs. 200
Risk free rate of interest	10% p.a.

07

(a) Calculate theoretical minimum price of a European call option expiring after one year.

(b) If price of the call option is Rs. 30, than how can an arbitrageur make profit?

Q.3 (a) Explain the various types of option: **07**

1. Based on activity
2. Based on exercise

(b) Define intrinsic value and time value of an option with suitable example **07**

OR

Q.3 (a) Mr. X had entered into 5 put options and 5 call options in different securities, the particulars of which are given below, along with their exercise and actual market price on the date of exercise – **07**

Put options			Call options		
Security	Exercise price	Actual market price	Security	Exercise price	Actual market price
A	Rs. 120	Rs.122	P	Rs. 369	Rs. 376
B	Rs. 758	Rs. 758	Q	Rs. 450	Rs. 444
C	Rs. 350	Rs. 340	R	Rs. 1790	Rs. 1700
D	Rs. 65	Rs. 69	S	Rs. 136	Rs. 140
E	Rs. 225	Rs. 220	T	Rs. 953	Rs. 953

What is his position on the date of exercise and what would he do?

- (b) Stock of Ravi Ltd. is currently quoted at Rs. 112. Ascertain the time value and intrinsic value of option from the following particulars available in relation to derivative markets. **07**

Put options			Call options		
Situation	Exercise price	Actual market price	Situation	Exercise price	Actual market price
A	Rs. 100	Rs. 10	A	Rs. 124	Rs. 9
B	Rs. 104	Rs. 11	B	Rs. 121	Rs. 10
C	Rs. 108	Rs. 11	C	Rs. 118	Rs. 10
D	Rs. 112	Rs. 11	D	Rs. 115	Rs. 11
E	Rs. 116	Rs. 12	E	Rs. 112	Rs. 11
F	Rs. 120	Rs. 12	F	Rs. 109	Rs. 11
G	Rs. 124	Rs. 13	G	Rs. 106	Rs. 12
H	Rs. 128	Rs. 13	H	Rs. 103	Rs. 12

- Q.4** (a) Define the currency future. How a person can do “Arbitrage” using currency future? **07**
- (b) On 01/04/2011 following are the interest rate quotes available on different Govt. of India bonds based on the tenure of the bonds – **07**

Period to maturity	Interest Rate
1 Year	9.50%
2 Year	10.25%
3 Year	11.00%
4 Year	10.50%

Calculate the forward rates of interests as at the following date -

- (a) As on 01/04/2012, 1 – year Bond, 2 – year Bond and 3 – year Bond.
 (b) As on 01/04/2013, 1 – year Bond, 2 – year Bond.
 (c) As on 01/04/2014, 1 – year Bond.

OR

- Q.4** (a) OTC derivatives v/s. Exchange traded derivatives **07**
- (b) On 01/12/2010, when the tread opens, the stock price of Amit Ltd. is 120. It rise to 125. The December 2010 call option on Amit Ltd. started at Rs. 10. It moved to 11.5. find out the Delta(Δ) of call option of Amit Ltd. **07**

- Q.5** (a) What is currency Swap? Classify the different types of currency rate Swaps **07**
- (b) What are the positions which can be taken by an investor in the options market? **07**

OR

- Q.5** (a) What are T-bill futures? Classify the hedging strategies with T-bill futures. **07**
- (b) What is “Plain Vanilla” swap? Classify the different types of Interest rate Swaps **07**
