

4M1011

Roll No. _____

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M. B. A. IV Sem. (Main / Back) Exam., April - May 2017

M – 410 Financial Derivatives

(Major - I)

Time: 3 Hours

Maximum Marks: 70

Min. Passing Marks: 28

Instructions to Candidates:

- (i) *The question paper is divided in two sections.*
- (ii) *There are sections A & B. Section A contains 6 questions out of which the candidate is required to attempt any 4 questions. Section B contains short case study / application based question which is compulsory.*
- (iii) *All questions carry equal marks.*

1. NIL

2. NIL

SECTION – A

Q.1 Define Derivatives. Explain the types and current status of derivatives in India. [2+7+5=14]

Q.2 What do you mean by forward contract? How it is different from future contract? Write the various types of orders of future contract. [2+6+6=14]

Q.3 (a) What is Marking – to – Market? Explain the meaning of initial margin and maintenance margin in future contracts using a imaginary example. [7]

(b) What do you mean by Risk Management? Discuss the framework of Risk measurement and management. [7]

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[1800]

Q.4 (a) What are the determinants of option pricing? Write the Assumptions and formula of Black Scholes Model to calculate the value of call and put option. [7]

(b) A stock is trading at 600₹ today. What would be the fair value of a futures contract on the stock maturing after 90 days, if risk free interest rate is 12% and after 45 days, the stock is expected to give a dividend of 30₹? What would be the fair value of the futures contract be if there were no dividends? Assume annual compounding. [7]

Q.5 Define option contract. Write the types of option contracts. Briefly explain the trading mechanism of option contract. [2+5+7=14]

Q.6 Write notes on:

- (a) Interest Rate Swaps v/s Equity Swaps [4]
- (b) Butterfly spread strategy of option contract [3]
- (c) Vega and Rho in Risk Management [3]
- (d) Put call parity theorem [4]

SECTION – B

Q.7 A sugarcane trader is expecting a stock of 200 MT from various farmers to be available to him after 3 months, next April. In the normal course, the price of sugarcane in the month of April remains at 80₹ per quintal (800₹/MT). As a bumper sugarcane crop is anticipated, he is worried about a fall in prices. Futures contract in sugarcane is not available. However, futures in sugar are available, and 3-m contracts of 10 MT each are selling for 800₹ per quintal (8000₹ / MT).

How can the trader hedge his position using futures contract in sugar, assuming the price of sugar and sugar cane are positively correlated? [14]