4M1011

Roll No. ____________

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4M1011
M.B.A. IV-Sem (Main / Back) Exam., May – 2018
Finance
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 "Derivatives are contracts whose value depends on the underlying asset". Elucidate the statement along with the types of derivative instruments. Explain the regulatory framework for derivative trading in India. [7+7=14]

Q.2 What are the specifications of a futures contract? Illustrate how a futures contract is settled on an exchange. [7+7=14]

Q.3 What are interest rate swaps? What are the features of an interest rate swap? Illustrate an interest rate swap arrangement. [4+5+5=14]

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Q.4 Explain -

(a) Intrinsic value of a call option [4]

(b) Hedging [3]

(c) Open interest [3]

(d) Delta and Theta [4]

Q.5 (a) A stock is currently priced at ₹ 60. It is known that at the end of one month it will be either ₹ 50 or 70. The risk free interest rate is 8% per annum with continuous compounding. What is the value of a one month European call option with the strike price of ₹ 58? [7]

(b) A trader has sold 5 March 91 day T-bill contracts at a price of ₹ 95.30 and subsequently the futures fell to ₹ 95. Did he gain or lose? Calculate his gain or loss. [7]

Q.6 (a) Five years ago Blackstone Corp had raised loans through 10 year old debenture issue worth ₹ 100 crore with fixed interest rate of 12% After the issue the interest rates remained constant for some time. But now they have been around 10% and are likely to come down further. Blackstone Corp. wishes to contain the cost of funding for the remaining five years. A bank has offered a swap rate of 9.50% against MIBOR for a period of 5 years. Depict the swap arrangement and find out the new nature of liabilities the firm can have. [7]

(b) An investor predicts a price increase in the silver futures market from current futures price of Rs.8000 per kg. The market lot is 10 kg. He buys one lot of futures silver of Rs. (8000×10) = ₹ 80,000. Assume that margin is 20%, what is the amount of margin money? Suppose, if the price of silver increases by 20%, what will be profit/loss to the investor? [7]

SECTION – B

Case Study

Q.7 Consider the following data: [14]

Stock price = ₹ 50

Months to expiration = 3 months

Risk-free rate of interest = 10% p.a.

Standard deviation of stock = 40%

Exercise price = ₹ 55

Option type – European call

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