September 2014
Master of Business Administration (MBA) Examination
IV Semester

Financial Engineering & Risk Management

Time : 3 Hours]   [Max. Marks : 80

Note : *Attempt any four questions from Section A. All questions carry 15 marks each. Section B is compulsory and carries 20 marks.*

Section A

1. What is Financial Engineering ? Classify different types of financial engineers. What tools they use ? What are the various factors responsible for the growth of financial engineering ?

2. What do you mean by Derivative Instrument ? How can one classify derivative instruments ? Also discuss the activities of different type of traders in derivative market.

3. Discuss the concept of Perfect Hedging. What are the different types of risk involved in hedging using future contract ? How can one make hedge perfect ? Give example.

4. Call option acts like an insurance policy. How ? Discuss with how you will calculate the premium of that insurance factor of the call option.

5. How will you relate the price of future contract and premium of options of same underlying asset ?

6. What are the various factors which affect the premium of a call option ? How can we analyze the impact of rate of change of those factors on the premium of a call ?

7. Write short notes on the following :
    (a) Convergence of spot and future price.
    (b) Basis risk.   (c) Portfolio insurance.   (d) Delta hedging.

Section B

8. Mr. X wanted to hedge his portfolio worth Rs. 1 million at the time when Nifty spot was at 6200 points and Nifty future about to expire in some time was at 6300 points. The beta of the portfolio was 1.5. Discuss how he should hedge his portfolio, assuming that at the time contract expired spot market was at 5800 points, index multiple is 100. Is the hedging suggested a perfect one, if not, then under what condition it can become a perfect hedge ?

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