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CS/MMA/SEM-3/MMAFNE-305/2009-10

2009

EFFICIENT MARKET THEORY & FUTURES & OPTIONS

Time Allotted : 3 Hours Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives of the following :

5 × 2 = 10

i) *X* sold one January Nifty Future Contract for Rs. 2,69,000 on January 15. For this he had to pay an initial margin of Rs. 21,520 to his broker. Each Nifty future contract is for the delivery of 200 Niftys. On January 25, the index closed at 1,390. How much Profit/Loss did he make ?

a) *X* made a Loss of Rs. 9,000

b) *X* made a Profit of Rs. 9,000

c) *X* did not make any Profit/Loss

d) *X* lost his initial margin of Rs. 21,520.

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ii) The TATA Tea trades on the Spot market at Rs. 177. Cost of financing is 12% per year. It is expected to pay a dividend of Rs. 10, 45 days later. What is the fair value of three months futures on TATA Tea.

a) Rs. 178.65 b) Rs. 172.09

c) Rs. 177 d) None of these.

iii) A stock currently sells at Rs. 120. The put option to sell the stock sells at Rs. 135 & costs Rs. 18. The time value of the Option is

a) Rs. 14 b) Rs. 18

c) Rs. 4 d) None of these.

iv) On February 1, a call option on the Nifty with a strike of 1280 is available for trading. Expiration date is February 22. Computed T that is used in the Black-scholes formula is

a) 22 b) 1280

c) 0·06 d) none of these.

v) A two month futures contract trades on the NSE. The cost of financing is 15% and the dividend yield on Nifty is 2% annualized. The spot value of Nifty is Rs. 1,200. What is the Fair value of the Futures Contract ?

a) Rs. 1,200 b) Rs. 1,225.64

c) Rs. 1,350 d) none of these.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. 3 × 5 = 15

2. A call option at a strike price of Rs. 170 is selling at a premium of Rs. 15. At what Share Price on maturity will it Break-even for the buyer of the option. Will the writer of the option also Break-even at the same price.

3. An investor buys one market lot of December Rs. 1,230. Nifty calls at Rs. 70 a call and sells one market lot on December Rs. 1,300. Nifty calls for Rs. 34 a call. If the Nifty closes at Rs. 1,210 on the expiration date. What is the payoff from this spread position ?

4. Explain the differences between weak form semi-strong form & strong form concept of market efficiency.

5. What are the main differences between traditional finance & behavioral finance ?

6. How horse trading and limits to arbitrage influence price behavior ?

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. 3 × 15 = 45

7. Define Futures/Futures Contracts. How do they differ from Forward Contracts.

8. Discuss the differences between Options and Futures.

9. What is an efficient market ? What are the common misconceptions about the efficient market hypothesis ? What is an event study ? What are the steps involved in an event study ?

10. Explain in detail the heuristic driven biases and cognitive errors that impair judgment.

11. Explain the Black & Scholes Model.