Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Nov/Dec – 2018**

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| **Code : 18MS3017** |  | **Duration :** | **3hrs** |
| **Sub. Name : FINANCIAL DERIVATIVES** |  | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | What are the different types of derivatives? Explain its significance and features. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Write notes on i) put call parity (ii) Bear Spread (iii) OTM  (iv) Historical and Implied Volatility (v) key parameters of options contract. | CO1 | 20 |
|  |  |  |  |  |
| 3. |  | Consider an option on a non-dividend-paying stock when the stock price is $30, the exercise price is $29, the risk-free interest rate is 5% per annum, the volatility is 25% per annum, and the time to maturity is four months.   1. What is the price of the option if it is a European call? 2. What is the price of the option if it is a European put? 3. Verify that put–call parity holds. | CO2 | 20 |
| (OR) | | | | |
| 4. | a. | What are the functions of clearing house? | CO1 | 10 |
| b. | How does Monte Carlo Simulation Method apply in the derivatives market ? | CO2 | 10 |
|  |  |  |  |  |
| 5. |  | Explain the various types of Option strategies? When and why would you apply these strategies? | CO2 | 20 |
| (OR) | | | | |
| 6. |  | Explain the growth and development of derivatives market in India. | CO2 | 20 |
|  |  |  |  |  |
| 7. |  | Draw a payoff diagram for **Covered call** (Buy stock + sell call):  Spot price Rs.5100  Sell call strike price Rs.5200  Premium Rs.50  What is its BEP?  Find the (i)stock payoff (ii) the sell call payoff and (iii) strategy payoff  If the spot prices are:   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | spot prices | 4800 | 4900 | 5000 | 5100 | 5200 | 5300 | 5400 | 5500 | | CO3 | 20 |
| (OR) | | | | |
| 8. | a | Explain Settlement of options contracts. | CO1 | 10 |
| b | What is swap? Explain the types of swaps? | CO1 | 10 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | How is an American option different form an European option? | CO2 | 5 |
| b. | How is an option contract better than Forward & Futures contract? | CO2 | 5 |
| c. | What is the payoff from a 6month OPTIONcall with a strike price of Rs.50. What is the payoff in 6 months for prices if Rs.40, Rs.45, Rs.50, Rs.65 and Rs.80? The premium of an option call is Rs. 20. | CO3 | 5 |
| d. | The market lot of NIFTY futures is 200 and the two months NIFTY futures are available at 1700. An investor creates a long position and buys 5 lots. On the settlement, the NIFTY is 1730. Find out the profit or loss of the investor. | CO3 | 5 |