Reg. No ..... Name ..... **18P443**

**M. COM DEGREE END SEMESTER EXAMINATION - APRIL 2018**

**SEMESTER 4 : COMMERCE**

COURSE : **16P4COMT19EL ; DERIVATIVES AND RISK MANAGEMENT**

***(For Regular - 2016 admission)***

Time : Three Hours Max. Marks: 75

**Section A**
**Answer any 10 (2 marks each)**

1. Who are the participants in derivative markets? Name them.
2. Differentiate between Exchange Traded derivatives and Over-the-Counter derivatives.
3. Explain the following concept in the language of financial derivative: (a) Long position (b) Short position
4. Explain the following concepts :

    - In-the-money
    - Out-of-the-money
    - At-the-money

5. An amount of Rs. 70,000 is invested for 2 years at 10% p.a. Calculate the terminal value of the investment at the end of the 2nd year, assuming continuous compounding of interest.
6. How a forward contract differs from a spot contract?
7. What do you mean by value of a forward contract?
8. What do you mean by convergence?
9. What is a market order?
10. What are the differences between American style and European style of an option?
11. Why swaps are designed as long-term contracts?
12. What are sector-wise stock indices? Explain their significance.

**(2 x 10 = 20)**

**Section B**
**Answer any 5 (5 marks each)**

13. How does a bull and bear speculator functions?
14. Write an essay on "Growth of Exchange Traded Derivatives Markets" in India.
15. What is credit risk associated with a forward contract?
16. Briefly discuss the following risk aversion method of futures pricing: (a) The Normal Backwardation Method (b) The CAPM
17. Determine the futures price from the following data:

    | | |
    |---|---|
    | Spot price | Rs. 20,00,000 |
    | Cost-of-carry | 12 % p.a. |
    | Carry period | 6 Months |

    Use cost of carry model.
18. What are the uses of options?
19. Explain the followings:

(a) Long call (b) Long put
(c) Short call (d) Short put

20. Explain how currency forwards are used for speculative gains.

**(5 x 5 = 25)**

**Section C**
**Answer any 3 (10 marks each)**

21. What are the uses of financial derivatives? Discuss.
22. An exchange in a future market standardises the various terms of a futures contract. Discuss with suitable example.
23. Discuss various types of Interest Rate Swaps with suitable examples.
24. How to calculate call value and put value by using Black Scholes option pricing model? Discuss.
25. Call option on Reliance Industries, expiring after 3 months from now, has exercise price of Rs. 900. The current market price of the share is Rs. 870. An interim dividend of Rs. 8 per share is expected from the company after 5 months. The variance of share prices is measured as 132%. The risk-free interest rate is 6.75% p.a. Calculate the call option price using Black-Scholes pricing formula. What would be the price of a put option with same expiry and exercise price?

**(10 x 3 = 30)**