Reg. No	Name	21P4043
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M. COM. DEGREE END SEMESTER EXAMINATION - APRIL 2021 SEMESTER 4 : COMMERCE

COURSE: 16P4COMT19EL: DERIVATIVES AND RISK MANAGEMENT

(For Regular - 2019 Admission and Supplementary - 2018/2017/2016 Admissions)

Time: Three Hours Max. Marks: 75

PART A

Answer any 10 (2 marks each)

- What are Commercial Papers?
- 2. What is call money?
- 3. Explain the following concepts in the language of derivatives: (a) Hedging (b) Speculating (c) Arbitraging
- 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 does a derivative help to eliminate uncertainty regarding future price of assets traded? Illustrate.
- 7. What are options? Distinguish between call option and put option.
- 8. What do you mean by margin money?
- 9. What is reverse cash-and-carry arbitrage?
- 10. What is Intrinsic value of an option?
- 11. Why u factor is greater than one and d factor is less than one?
- 12. What is Sensex? How is it computed?

 $(2 \times 10 = 20)$

PART B

Answer any 5 (5 marks each)

- 13. Describe the functions of a Stock Exchange?
- 14. Who all are the players in the management of public issue?
- 15. Distinguish between hedgers and speculators in the derivatives market.
- 16. 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.

- 17. Discuss the cost-of-carry model of futures pricing.
- 18. Describe the steps involved in a currency swap.
- 19. Compare and contrast the Black-Scholes model with the Binomial model.
- 20. "Hedging may not be perfect always." Explain.

 $(5 \times 5 = 25)$

PART C Answer any 3 (10 marks each)

- 21. What are the instruments used in a capital market.
- 22. Define a forward contract. Discuss its features with suitable examples.
- 23. The current market price of Ranbaxy Laboratories is Rs. 537. A put option on the stock has an exercise price of Rs. 525. The risk-free interest rate is 6.15% p.a. The stock volatility, measured by variance of stock prices, is 84%. Use a binomial tree with monthly intervals to calculate: Possible stock prices after three time intervals.
- 24. What do you mean by Binomial Option Pricing Model? What are the assumptions? Briefly di its important characteristics.
- 25. Current price of a stock is Rs. 90 per share. The risk free rate of interest is 8% annualised continuous compounding. If the volatility of the stock is 23% p.a. what is the price of the Rs. 80 call option expiring in 6 months according to Black and Scholar model?

 $(10 \times 3 = 30)$