

M. COM. DEGREE END SEMESTER (SPECIAL) EXAMINATION - MAY 2026**SEMESTER 4 : COMMERCE****COURSE : 24P4COMT19EL : DERIVATIVES AND RISK MANAGEMENT***(For Supplementary (Special) 2024 Admission)*

Time : Three Hours

Max. Weights: 30

PART A**Answer any 8 questions****Weight: 1**

1. What do you mean "u" factor? How it is calculated? (U, CO 5, CO 7)
 2. Who are the participants in derivative markets? Name them. (U, CO 1)
 3. What is a stock index? How is it calculated? (U, CO 1, CO 5, CO 7)
 4. What is convenience yield? (U, CO 1)
 5. What do you mean by "underlyings" ? (U, CO 1)
 6. What is Contango? (U, CO 1, CO 4)
 7. What is a currency swap? (U, CO 1, CO 7)
 8. What do you mean by forward price? (U, CO 1)
 9. What is customised contract? (U, CO 1)
 10. What is a commodity swap? (U, CO 7)
- (1 x 8 = 8)**

PART B**Answer any 6 questions****Weights: 2**

11. How do forward contracts work? Discuss. (An, CO 2, CO 3, CO 6)
 12. Describe and illustrate the cost-of-carry model of futures pricing in perfect market environment. (A, CO 1, CO 4, CO 7)
 13. From the following information find the value of a forward contract:
Date of contract - 1st April 2017
Date of maturity - 31st December 2017
Forward Price as on 1st April 2017 with expiry date 31st December 2017 =Rs. 20,000 Forward Price as on 1st July 2017, with expiry date 31st December 2017 =Rs. 25,600 Rate of interest = 6% p.a. (An, CO 2, CO 4, CO 7)
 14. Give an account of SEBI and its functions. (U, CO 1)
 15. Compare and contrast the Black-Scholes model with the Binomial model. (U, CO 4, CO 6, CO 7)
 16. A six month gold future of contract of 100 gm. Assume that the Spot price is Rs. 2,500 per gram and that it cost Rs. 10 per gram for the six month period and the cost is incurred at the end of the period. If the risk less interest rate is 12% p.a. compounded continuously. Calculate the future price. (An, CO 2, CO 3, CO 6)
 17. Describe the functions of a Stock Exchange? (U, CO 1)
 18. Trace the evolution of index futures trading. (R, CO 1, CO 4, CO 7)
- (2 x 6 = 12)**

PART C
Answer any 2 questions

Weights: 5

19. What is a financial system? What are the four components? Discuss. (U, CO 1)
20. In general, many traders in futures contracts does out their position before the delivery date. Explain Why? Also describe the various steps in trading in futures contract. (E, CO 1)
21. How do forward contracts work? Discuss. (U, CO 1)
22. What is Black-Scholes formula for option pricing? What are the assumptions? Discuss. (U, CO 5, CO 6, CO 7)
(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	demonstrate an understanding of the uses of financial engineering and risk management approaches and techniques used by modern organisations	U	2, 3, 4, 5, 6, 7, 8, 9, 12, 14, 17, 18, 19, 20, 21	31
CO 2	Apply their knowledge of derivatives in solving problems involving financial risk including foreign risk, interest rate risk, credit risk and portfolio risk	A	11, 13, 16	6
CO 3	analyse and price diverse derivative products to generate an optimal risk management strategy	An	11, 16	4
CO 4	demonstrate critical thinking, analytical and problem solving skills in the context of derivatives pricing and hedging practices	E	6, 12, 13, 15, 18	9
CO 5	explain the binomial model and its extension in continuous time to the black scholes model	E	1, 3, 22	7
CO 6	demonstrate and understanding of pricing forwards, futures and options contract	An	11, 15, 16, 22	11
CO 7	be able to decide which securities to use for hedging and/or speculative purposes	An	1, 3, 7, 10, 12, 13, 15, 18, 22	17

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;