72562

Reg. No.

II Semester M.Com. Degree Examination, August/September - 2025

COMMERCE

Risk Management And Derivatives

(CBCS Scheme)

Paper : 2.2

Time : 3 Hours **Maximum Marks : 70**

SECTION - A

Answer any Seven Sub-Questions out of Ten. Each Question carries Two marks. **(7×2=14)**

1. a) Define 'risk' in a business context

   b) Define 'Peril' and provide an example.

   c) List any four sources of credit risk for a bank

   d) What is the primary purpose of the Altman Z-Score model?

   e) Define 'Stress Testing'.

   f) What is the '5M Model' used for in operational risk analysis?

   g) Mention any two differences between spot market and derivatives market.

   h) Mention two settlement mechanisms used in derivative contracts.

   i) Define initial margin

   j) What do you mean by Put option?

SECTION - B

Answer any Four questions out of six. Each question carries Five marks. (4×5=20)

2. Write a short note on the importance of 'Clauses' and 'Risk Covers' in an insurance contract.

3. Define Credit Risk. Explain its significance for a financial institution with suitable examples.

4. The annual volatility of Ashok Leyland is 66.42 percent and the underlying asset price is Rs.13. An investor owns 9,550 shares (market lot 4,775). The investor needs to identify the risk of market exposure for a holding period of one month (30 days).

[P.T.O.

5. Explain the Historical Simulation method for calculating VaR.

6. Differentiate between a Forward Contract and a Futures Contract.

7. Explain the fundamental principle behind the Binomial Option Pricing Model.

SECTION - C

Answer any Two questions out of Four. Each question carries 12 marks. (2×12=24)

8. What are various methods used for modeling operational risk? Discuss the role of risk modelling in mitigating operation failures.

9. A manufacturing company, M/s Strong Build Ltd., provides the following financial information for the year ending 31st March, 2025.

Particulars	Amount(Rs.in lakhs)
Working Capital	240
Retained Earnings	180
EBIT (Earnings Before Interest and Taxes)	300
Total Assets	1200
Market Value of Equity	600
Book Value of Total Liabilities	900
Sales	1800

a) Compute the Z-Score of M/s Strong Build Ltd. using Altman's Z-score Model

b) Interpret the result using the Altman Z-score classification.

10. What is a yield curve? Explain the different types of yield curves and their implications for interest rate risk and market risk assessment.

11. The NSE Nifty index futures contract has a multiplier of 10. Assume that you enter into a NSE Index futures contract at INR 16,125 at 11 a.m. on March 1. Assume that the initial margin is 5% of the initial contract value (INR 8,062.50) and the maintenance margin is INR 5,000 at any given time. The following table shows the settlement prices on the days of trading between August 1 and August 12. You close out your position on August 12. Prepare a table showing the daily margin balances in your account.

Date	Settlement Value of the Index(INR)
August 1	17,140
August 2	17,250
August 3	16,850
August 4	16,740
August 5	16,350
August 8	16,900
August 9	17,850
August 10	17,450
August 11	18,035
August 12	17,438

SECTION - D

Answer the following Question. This Question carries Twelve marks (1×12=12)

12. The contract size of Bank of India options is 950. Bank of India shares are selling at INR 338 on September 1. Call options and put options are available with expiry on October 29 and with an exercise price of INR 350. It is estimated that the standard deviation of the stock price is 30%. The risk-free rate is 9%. By using the Black-Scholes options pricing model, calculate the put option price on September 1.