

JK Lakshmipat University Jaipur
INSTITUTE OF MANAGEMENT

End Term Examination, MAY 2025
B.B.A, Semester IV, 2024-25

Roll No.....

FA 1108: PRINCIPLES OF FINANCIAL RISK
MANAGEMENT

Time: 2.5 hours

Max. Marks: 40

Instructions for students

1. Do not write anything other than the roll number on the question paper.
2. Scientific Calculator without memory allowed.
3. Paper has Section A (4 Marks each) and Section B (6 marks each).
4. Attempt four (4) questions each in Section A and Section B

Section A

- Q. 1 Define Underwriting. How does underwriting risk impacts insurance business? (LO2, 3)
- Q. 2 Explain Law of Large Numbers? Discuss the principles of risk management impacted insurance business. (LO2, 3)
- Q.3 Discuss how volatility is different from variability. (LO1)
- Q.4 Explain the difference between a direct loss and an indirect or consequential loss. (LO2,3)
- Q.5 What is Value at Risk (VaR) and Expected Shortfall? (LO1)

Section B

- Q. 6 Assume that two business owners own an identical storage building valued at ₹150,000. There is a 15 percent chance in any year that each building will be destroyed by peril, and that a loss to either building is an independent event. Suppose instead of bearing the risk of loss individually as an independent event, the two owners decide to pool (combine) their loss exposures. Calculate how much risk gets mitigated while pooling their risk. (LO3,5)
- Q. 7 The change in the value of a portfolio in three months is normally distributed with a mean of ₹ 500,000 and standard deviation of ₹ 3 million. Calculate the Expected Shortfall for a confidence level of 99% and time horizon of three months. (LO4)
- Q. 8 The asset price is ₹ 60, and the given volatility is 8% per annum. Calculate the 2 days volatility under given situation. (LO4)
- Q.9 Consider a portfolio of two stocks. Big House Ltd. (BHL) and Small Room Ltd. (SRL) both have an investment value of ₹ 2 Cr each, the daily SD of (BHL) is 1.5%, and (SRL) is 1.25%, and the correlation coefficient (r) of both shares is 0.35. Calculate the Value at Risk (VaR) for the portfolio under a 99% and 95% confidence interval for 10 days.
(Given 99%: Z score=2.33, 95% Z score=1.65) (LO3,5)
- Q.10 Illustrate with proper diagram that Expected shortfall is better than Value at Risk under 95% level of significance. (LO5)

all the best!