

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: IMSc
BRANCH: CQEDS**

**SEMESTER : VI
SESSION : SP/2025**

SUBJECT: ED321 FINANCIAL ECONOMICS

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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Q.1(a)	Consider the cash flow stream (-2, 1, 1, 1) when the periods are years and the interest rate is 10% then find the future value of the given cash flow stream.	[5] 1	2
Q.1(b)	Suppose you have borrowed \$1000 from a credit union. The terms of the loan are that the yearly interest rate is 12% compounded monthly. You are to make equal monthly payments of such magnitude as to repay this loan over 5 years. Calculate the monthly payments?	[5] 1	3
Q.2(a)	Explain the “Arbitrage Pricing Theory”. How it differs from the “Mean-variance” analysis?	[5] 3	2
Q.2(b)	Show that the CAPM model is a special case of the Single-Factor model.	[5] 2	3
Q.3(a)	Define derivative securities. Briefly explain the types of derivative securities with examples.	[5] 3	2
Q.3(b)	What is ‘corporate finance’? Briefly explain the patterns of corporate financing.	[5] 4	4
Q.4(a)	Explain and derive the Markowitz model.	[10] 2	2
Q.5(a)	What do you understand by the ‘uncertainty’? Based on the expected utility concept explain the various types of risk.	[10] 5	5

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