

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

**CLASS: MBA
BRANCH: MBA**

**SEMESTER : IV
SESSION : SP/2025**

**SUBJECT: MT509 MANAGEMENT OF FINANCIAL DERIVATIVES
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)	Movements in underlying asset prices, whether rising or falling, can lead to both beneficial and adverse outcomes. Explain	[5] 1	3
Q.1(b)	What is credit risk associated with forward contract?	[5] 1	3
Q.2(a)	The interest rates in India and Germany are 10% per annum and 3% per annum respectively. The euro-rupee exchange rates are: Rs. 44.54/euro (spot rate) Rs. 46.30/euro (90-day forward rate) Examine whether there is any covered interest arbitrage opportunity. If so, outline the arbitrage process.	[10] 2	4
Q.3(a)	Explain how index futures can be used for hedging the risk in equity investment.	[5] 3	2
Q.3(b)	Discuss the process and impact of marking to market.	[5] 3	3
Q.4(a)	“The profit potential of the owner of a call option is limitless”. Explain and illustrate.	[5] 4	4
Q.4(b)	The current market price of a stock is Rs. 150. The stock has a volatility of 40%. The risk-free interest rate is 10% per annum. Using the binomial tree with monthly intervals, calculate: (a) The three possible prices for the stock after two periods. (b) The value of European call option on the stock with an exercise price of Rs. 160.	[5] 4	4
Q.5	“Financial swaps are not funding instruments; they are asset-liability management tools”. Explain and illustrate.	[10] 5	4

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