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

CLASS:	**MBA**		**SEMESTER: IV**
BRANCH:	**MBA**		**SESSION: SP/2023**

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.

			CO	BL
Q.1(a)	Why do future dealers are asked to maintain margin with the exchange?	[5]	1	2
Q.1(b)	What is meant by underlying asset give example.	[5]	1	2
Q.2(a)	Explain how currency forwards are used for speculative gains.	[5]	2	2
Q.2(b)	An Indian company has imported goods worth 50,000 pounds from England for which payment is due in 3 months' time. The 3- month forward exchange rate is quoted at ₹ 75.52/ pound sterling as against the spot exchange rate of ₹ 73.90/ sterling. The Indian company enters a forward currency deal at the quoted forward exchange rate to hedge the risk. On maturity of the forward deal pound sterling appreciate to ₹ 75.10/ sterling. Calculate loss avoided through the forward deal.	[5]	2	3
Q.3(a)	"Market imperfections are relevant in the context of determination of future prices." Discuss	[5]	3	1
Q.3(b)	The market price of Titan Industry Ltd. On September 1, 2010, was Rs. 3114/-. The future price of the stock future contract on Titan Industries Ltd. expiring in Oct. 2010 was Rs. 3132.5. The annual interest rate for borrowing an investing funds is assumed to be 12% and the transaction cost for share trading averages to 0.5% of the transaction amount. Examine whether there was any arbitrage opportunity. If so, outline the process.	[5]	3	5
Q.4(a)	In what circumstances the call option on shares will not be exercised by the owner and what will be the consequences of a call option remaining unexercised.	[5]	4	3
Q.4(b)	The current market price of a stock is Rs. 165/- The stock has a volatility of 40%, the risk-free interest rate is 10% per annum and the exercise price is Rs. 175. Using binomial tree with monthly intervals calculate – the three possible prices of the stock after two periods and the option values at the final nodes.	[5]	4	3
Q.5(a)	Two companies, X and Y, are planning to obtain foreign currency loans. Company X desires to borrow the pound sterling while company Y desires to borrow US $. The interest rate quoted to the companies in the two-currency market are as follows: Calculate effective rate of interest for both the parties.	[5]	5	

Company	*US dollar*	*Pound Sterling*	*Preference*
Company X	7.00	10.6	Sterling
Company Y	9.00	11.0	Dollar
Spread	2.00	0.40	

Q.5(b)	"Financial swaps are not funding instrument; they are asset liability management tool." Explain.	[5]	5	2

::::::03/05/2023::::::E