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Question Paper Code: CMBB58



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

MODEL QUESTION PAPER

MBA IV Semester End Examinations, April - 2020

Regulations: R18

FINANCIAL DERIVATIVES

(Professional Elective to MBA)

Time: 3 Hours

Max Marks: 70

Answer any ONE question from each Unit

All questions carry equal marks

All parts of the question must be answered in one place only

UNIT – I

- | | | | |
|---|----|--|------|
| 1 | a) | Furnish the classification of derivatives based on the nature of | [7M] |
| | | i) Derivative instruments | |
| | | ii) Underlying asset | |
| | | iii) markets | |
| | b) | Who are traders in derivatives markets? How do they differ from the participants in the derivatives market while trading? | [7M] |
| | | | |
| 2 | a) | Explain the role of derivative market in economic development of a nation in general with regard to price discovery in particular. | [7M] |
| | b) | Compare and contrast over the counter contracts and exchange traded derivatives in derivatives market? | [7M] |

UNIT - II

- | | | | |
|---|----|---|------|
| 3 | a) | Determine the pay off in a forward contract in derivatives market for long and short position? Explain with the help on a diagram. | [7M] |
| | b) | The current price of wheat is Rs. 3.4 per bushel and interest rates are at 4%. The storage cost per one year runs at about 0.1 per bushel, which is to be paid up front. What is the 1 year forward price of wheat? | [7M] |
| | | | |
| 4 | a) | Discuss briefly about the pricing model for index futures and commodity futures in derivative contract? | [7M] |
| | b) | The current price of NIFTY is Rs.1500. the stock underlying this index provides an yield of 3% P.A. the continuously compounding rate of interest is 6%. What will be the price of 4 months NIFTY? | [7M] |

UNIT – III

- | | | | |
|---|----|--|------|
| 5 | a) | Write a note on | [7M] |
| | | i) American option | |
| | | ii) European option | |
| | b) | The stock value of GMR industries in spot market is Rs.350 and 3 months option contract is of Rs.350. the price of an option is 12% share. At what price the option will be at the money, out of money and in the money, if the option is both call as well as put option? | [7M] |

- 6 a) State any two methods of the neutral strategies in advanced option strategies in options under derivatives market? [7M]
- b) A stock price is currently Rs.80. it is known that at the end of four months it will be either Rs.75 or Rs.85. the risk free interest rate is 5% P.A with continuous compounding. What is the value of four –month European put option with a strike price of Rs.80? [7M]

UNIT – IV

- 7 a) Write about the trading of commodity options in exchanges? What do you mean by call option hedge, put option hedge and long combo hedge? [7M]
- b) Design Write a note on [7M]
- Energy swap hedges
 - Agro swap hedges
- 8 a) Define derivatives. Explain the different types of bullion products and metal products in detail. [7M]
- b) What steps are generally taken by the commodities exchanges to protect the interests of the genuine traders against the misuse by unscrupulous speculators? [7M]

UNIT – V

- 9 a) “Plain vanilla swap is simplest form of interest rate swap contract available in interest rate swap market” discuss with the help of an example explaining its structure and mechanism [7M]
- b) On October 01, 2016, the spot term structure is as follows [7M]

12 months	24 months	36 months	48 months
2.52	5.08	7.73	10.4

Determine the fixed rate on a 4 year swap for the pay fixed part?

- 10 a) When do we use swaps as a hedging tool? Explain the silent features of currency and interest rate swaps with an example. [7M]
- b) Companies A and B have been offered the following rates per annum on a Rs.20million 5 year loan [7M]

	Fixed rate	Floating rate
Company A	5%	LIBOR+0.1%
Company B	6.4%	LIBOR+0.6%

Company A requires a floating rate loan, company B requires a fixed rate loan. Design a swap that will net a bank, acting as intermediary, 0.1% per annum and that will appear equally attractive to both companies.



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I. COURSE OBJECTIVES (COs):

The course should enable the students to:

S.No	Description
I	Understand fundamental linkages between spot markets and derivative markets and uses and misuses of derivatives.
II	Apply knowledge about basic option strategies, advanced option strategies, trading with options, hedging with options, currency options.
III	Analyze the commodity futures and options and swaps for the effectiveness of derivative markets.
IV	Understand the role of swaps in terms of interest rate, currency, commodity, equity index, credit risk and credit.

II. COURSE LEARNING OUTCOMES (COs)

CCMBB58.01	Understand the development and growth of derivative markets, types and uses of derivatives.
CCMBB58.02	Examine the fundamental linkages between spot and derivatives market and role of derivative market.
CCMBB58.03	Demonstrate the structure of forward and future markets and know the mechanics of future markets hedging strategies.
CCMBB58.04	Elucidate the determination of forward, future prices, interest rates of currency futures and forwards.
CCMBB58.05	Analyze the concept, structure and principles of option pricing and know the differences between options market and future market.
CCMBB58.06	Explain the option pricing models like binomial model, the black model and scholes merton model.
CCMBB58.07	Interpret the basic option strategies, advanced option strategies, trading with options and currency options.
CCMBB58.08	Ability to gain the knowledge in different types of commodity futures and options.
CCMBB58.09	Classify various types of swaps commodity exchanges, multi commodity exchange, national commodity derivatives exchange role, functions and trading.
CCMBB58.10	Explain the concept and nature, evolution of swap market and features of swaps.
CCMBB58.11	Differentiate major types of swaps like interest rate swaps, equity index swaps, credit risk in swaps credit swaps pricing and valuing swaps.

MAPPING OF SEMESTER END EXAMINATION TO COURSE OUTCOMES:

SEE Question No		Course Outcomes		Course Outcomes	Blooms Taxonomy Level
1	a	CCMBB58.01	Understand the development and growth of derivative markets, types and uses of derivatives.	CO 1	Remember
	b	CCMBB58.01	Understand the development and growth of derivative markets, types and uses of derivatives.	CO 2	Understand
2	a	CCMBB58.02	Examine the fundamental linkages between spot and derivatives market and role of derivative market.	CO 1	Apply
	b	CCMBB58.02	Examine the fundamental linkages between spot and derivatives market and role of derivative market.	CO 2	Evaluate
3	a	CCMBB58.03	Demonstrate the structure of forward and future markets and know the mechanics of future markets hedging strategies.	CO 4	Understand
	b	CCMBB58.04	Elucidate the determination of forward, future prices, interest rates of currency futures and forwards.	CO 3	Apply
4	a	CCMBB58.03	Demonstrate the structure of forward and future markets and know the mechanics of future markets hedging strategies.	CO 3	Create
	b	CCMBB58.04	Elucidate the determination of forward, future prices, interest rates of currency futures and forwards.	CO 4	Remember
5	a	CCMBB58.05	Analyze the concept, structure and principles of option pricing and know the differences between options market and future market.	CO 5	Remember
	b	CCMBB58.06	Explain the option pricing models like binomial model, the black model and scholes merton model.	CO 6	Apply
6	a	CCMBB58.07	Interpret the basic option strategies, advanced option strategies, trading with options and currency options.	CO 6	Evaluate
	b	CCMBB58.06	Explain the option pricing models like binomial model, the black model and scholes merton model.	CO 5	Understand
7	a	CCMBB58.07	Interpret the basic option strategies, advanced option strategies, trading with options and currency options.	CO 7	Apply
	b	CCMBB58.08	Ability to gain the knowledge in different types of commodity futures and options.	CO 8	Evaluate
8	a	CCMBB58.08	Ability to gain the knowledge in different types of commodity futures and options.	CO 7	Understand
	b	CCMBB58.09	Classify various types of swaps commodity exchanges, multi commodity exchange, national commodity derivatives exchange role, functions and trading.	CO 8	Remember
9	a	CCMBB58.10	Explain the concept and nature, evolution of swap market and features of swaps.	CO 9	Remember
	b	CCMBB58.11	Differentiate major types of swaps like interest rate swaps, equity index swaps, credit risk in swaps credit swaps pricing and valuing swaps.	CO 10	Understand
10	a	CCMBB58.10	Explain the concept and nature, evolution of swap market and features of swaps.	CO 9	Apply
	b	CCMBB58.11	Differentiate major types of swaps like interest rate swaps, equity index swaps, credit risk in swaps credit swaps pricing and valuing swaps.	CO 10	Understand

Signature of Course Coordinator

HOD, MBA