**Course Code: 19MB9045** **R19**

**SIDDHARTH INSTITUTE OF ENGINEERING&TECHNOLOGY**
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**QUESTION BANK (DESCRIPTIVE)**

**Subject with Code:FINANCIAL DERIVATIVES** **Course & Branch**: MBA

**Year &Sem:** II-MBA& II-Sem **Regulation:** R19

## UNIT –I
## INTRODUCTION TO DERIVATIVES

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|---|---|---|---|
| **1** | Explain the growth and development of derivatives. Elaborate types of derivatives. | [L2][CO1] | **[10M]** |
| **2** | The role of derivatives market in India. Explain. | [L2][CO1] | **[10M]** |
| **3** | Explain the different types of financial derivative along with their features in brief. | [L2][CO1] | **[10M]** |
| **4** | Elucidate the merits and demerits of financial derivatives. | [L1][CO1] | **[10M]** |
| **5** | Write a note on evaluation of derivative markets in India. | [L2][CO1] | **[10M]** |
| **6** | Narrate in brief on the fundamental linkages between spot and derivative markets. | [L3][CO1] | **[10M]** |
| **7** | Explain the risk involved in financial derivatives? | [L2][CO1] | **[10M]** |
| **8** | What do you meant by cash market? Discuss the objectives and derivative market? | [L1][CO1] | **[10M]** |
| **9** | Explain the uses andmisuses of financial derivatives. | [L2][CO1] | **[10M]** |
| **10** | Bring out the historical development of financial derivatives. | [L2][CO1] | **[10M]** |

## UNIT –II
## Future and Forward market

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|---|---|---|---|
| **1** | Explain the structure of forward and future market. | [L2][CO2] | **[10M]** |
| **2** | The spot price of wheat is Rs 330 per ton a person has sold a forward contract on wheat expiring in 5 months and the contract is for 300 tons of wheat the price of the forward contract is Rs 315. Assuming the risk free rate to 4% compute the value of the forward contract. | [L5][CO2] | **[10M]** |
| **3** | ElucidateFuture market –mechanics of future markets | [L2][CO2] | **[10M]** |
| **4** | Critically examine the expectation approach of futures price determination withexamples. | [L4][CO2] | **[10M]** |
| **5** | “Hedging is the basic function of futures market”. Discuss the statement in the light of uses of futures contract. | [L3][CO2] | **[10M]** |
| **6** | Explain the relationship between forward and futures prices with examples. | [L2][CO3] | **[10M]** |
| **7** | Write a short note :<br>i) Currencyfutures ii) Interest rate futures | [L2][CO2] | **[10M]** |
| **8** | Define margin requirements for futures? Discuss the types of margin requirements? | [L3][CO3] | **[10M]** |
| **9** | Explain the relationship between forward and futures prices with examples. | [L2][CO2] | **[10M]** |
| **10** | A stock index currently stands at 350. The risk free rate is 8% per annum and dividend yield on index is 4% per annum. What should be the futures price for a four month contract ? | [L5][CO2] | **[10M]** |

## UNIT –III
## Options

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|---|---|---|---|
| **1** | Differentiate between call and put options. What are the rights and obligations of the holders of long and short positionsin them? | [L2][CO3] | **[10M]** |
| **2** | Explain the distinction between options and futures contracts with suitable examples. | [L1][CO3] | **[10M]** |
| **3** | If the spot price of a stock is Rs 60/- and strike price is Rs 68/-. Risk free rate of interest is 10% pa and standard deviation of stock is 40%. Expiration date is 3 months and option type is European option. Calculate the value of call option as per Black-Scholes model. | [L5][CO3] | **[10M]** |
| **4** | Explain the principles of option pricing. | [L2][CO3] | **[10M]** |
| **5** | What are the various assumptions of binomial pricing model? Also discuss one step binomial pricing model with hypothetical examples. | [L3][CO3] | **[10M]** |
| **6** | Explain the terminologies used in option market? Describe the participants in the option market? | [L2][CO2] | **[10M]** |
| **7** | Describe the strategies for hedging with options? | [L3][CO2] | **[10M]** |
| **8** | S=100, Standard deviation =25%, r=10%,K=50,t=1 year. Calculate value of call option as per Binomial option pricing model. | [L5][CO3] | **[10M]** |
| **9** | What is the meaning of option? Discuss the types of option? | [L2][CO3] | **[10M]** |
| **10** | If the spot price of a stock is Rs 50/- and strike price is Rs 58/-. Risk free rate of interest is 8% pa and standard deviation of stock is 20%. Expiration date is 4 months and option type is European option. Calculate the value of call option as per Black-Scholes model. | [L5][CO3] | **[10M]** |

## UNIT –IV
## Basic option strategies

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|---|---|---|---|
| **1** | Describe the trading strategies followed inoptionmarket. | [L2][CO4] | **[10M]** |
| **2** | What do you understand by the term spread in option trading? Discuss the types of spreads with suitable diagrams. | [L3][CO4] | **[10M]** |
| **3** | What are the advantages of option trading? | [L2][CO4] | **[10M]** |
| **4** | Elucidate the advanced option strategies with examples? | [L3][CO3] | **[10M]** |
| **5** | Describe the strategies for hedging with options? Explain the concept of straddle and strangle | [L2][CO4] | **[10M]** |
| **6** | Discuss the basic of option strategies? | [L3][CO4] | **[10M]** |
| **7** | What do you understand by the term spread in option trading? Discuss the types of spreads with suitable diagrams. | [L2][CO4] | **[10M]** |
| **8** | Pricing of currency is not different from other financial options". Comment on the statement with suitable examples. | [L2][CO4] | **[10M]** |
| **9** | What is currency option market? What are its features? Explain with an example. | [L3][CO4] | **[10M]** |
| **10** | Define spreads? What are the types of spreads? | [L2][CO4] | **[10M]** |

## UNIT –V
## Swaps

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|---|---|---|---|
| **1** | What is swap? Explain the nature of swaps. | [L2][CO4] | **[10M]** |
| **2** | How do you relate interest rate swaps with currency swaps and how do you pricethem? | [L3][CO5] | **[10M]** |
| **3** | Explain financial swap. Discuss the features of a swap contract with example. | [L4][CO4] | **[10M]** |
| **4** | Write an essay on Indian swap market. | [L3][CO5] | **[10M]** |
| **5** | "Plain Vanilla swap is simplest form of interest rate swap contract available in interest rates swaps market". Discuss with suitable examples along with its structure and mechanism. | [L4][CO3] | **[10M]** |
| **6** | What do you mean by equity swap? Explain its types and applications? | [L3][CO4] | **[10M]** |
| **7** | Explain the concept and nature of swaps. | [L2][CO5] | **[10M]** |
| **8** | What is a financial swap? Discuss the features of a swap contractwithexample. | [L2][CO4] | **[10M]** |
| **9** | Describe the process of pricing andvaluingswaps. | [L3][CO4] | **[10M]** |
| **10** | What is currency swap? Explain its features and also show the three step flow of currency swaps with examples. | [L2][CO4] | **[10M]** |

**Case study 1:**
**1.**If the spot price of a stock is Rs 40/- and strike price is Rs 49/-. Risk free rate of interest is 7% pa and standard deviation of stock is 30%. Expiration date is 4 months and option type is European option. Calculate the value of call option as per Black-Scholes model.

**Case study 2:**
**2.**S=90, Standard deviation =25%, r=10%,K=80,t=1 year. Calculate value of call option as per Binomial option pricing model.

**Case study 3:**
**3.**The spot price of wheat is Rs 430 per ton a person has sold a forward contract on wheat expiring in 5 months and the contract is for 400 tons of wheat the price of the forward contract is Rs 415. Assuming the risk free rate to 5% compute the value of the forward contract.

**Case study 4:**
4.A stock index currently stands at 450. The risk free rate is 10% per annum and dividend yield on index is 5% per annum. What should be the futures price for a four month contract ?

**PREPARED BY:Chukka.Priyadarshini**