



**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY  
(AUTONOMOUS) :: PUTTUR**

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**QUESTION BANK (DESCRIPTIVE)**

**Subject with Code: FINANCIAL DERIVATIVES (16MB739)      Course & Branch: MBA**  
**Year & SEM: IYear II-Sem      Regulation: R16**

**FINANCIAL DERIVATIVES**

**Unit-1**

**Introduction to derivatives**

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

## Unit-2

### Future and Forward market

1. “Forward contracts are zero-sum games”. Explain. Also give the difference between the delivery price and the forward price. [10M]
2. Calculate the forward price on a 6-month contract on a share, expected to pay no dividend during the period, which is available at Rs 75, given that the risk-free rate of interest to be 8% p.a compounded continuously. [10M]
3. Explain the structure of forward and future market. [10M]
4. Calculate the price of a forward contract using the following data: Price of the share Rs 75  
Time to expiration 9 months Dividend expected Rs 2.20 per share Time to dividend 4 months Continuously compounded risk-free rate of return 12% per annum [10M]
5. Explain the structure of forward and future markets. [10M]
6. Critically examine the expectation approach of futures price determination with examples.
7. “Hedging is the basic function of futures market”. Discuss the statement in the light of uses of futures contract. [10M]
8. Explain the relationship between forward and futures prices with examples. [10M]
9. Explain the following? [10M]
  - i) Currency futures
  - ii) Interest rate futures
10. Define margin requirements for futures? Discuss the types of margin requirements? [10M]

**Unit-3****Options**

1. 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. [10M]
2. Differentiate between call and put options. What are the rights and obligations of the holders of long and short positions in them? [10M]
3. Explain the distinction between options and futures contracts with suitable examples. [10M]
4. Explain the principles of option pricing. [10M]
5. What are the various assumptions of binomial pricing model? Also discuss one step binomial pricing model with hypothetical examples. [10M]
6. Case study:  
Consider the following: Stock price = Rs.50/-  
. Months to expiration = 3 months.  
Risk free rate of interest = 10%  
p.a. Standard deviation of stock =  
40% Exercise price = Rs.55/-.  
Option type = European call.  
Calculate value of call option as per Black Scholes model. [10M]
7. Explain the terminologies used in option market? Describe the participants in the option market? [10M]
8. What is the meaning of option? Discuss the types of option? [10M]
9. Describe the strategies for hedging with options? [10M]
10.  $S=100$ , Standard deviation =25%,  $r=10\%$ ,  $K=50$ ,  $t=1$  year. Calculate value of call option as per Binomial option pricing model. [10M]

**Unit-4****Basic option strategies**

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

1. What is swap? Explain the nature of swaps. [10M]
2. How do you relate interest rate swaps with currency swaps and how do you price them? [10M]
3. Write an essay on Indian swap market. [10M]
4. Explain the process of pricing and valuing swaps. [10M]
5. What is a financial swap? Discuss the features of a swap contract with example. [10M]
6. "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. [10M]
7. Explain the concept and nature of swaps. [10M]
8. What is currency swap? Explain its features and also show the three step flow of currency swaps with examples. [10M]
9. Explain the concept and nature of swaps. [10M]
10. What do you mean by equity swap? Explain its types and applications? [10M]

### Case studies

1. Option on ABC 500

Stock Price =Rs 120

Call exercise price=Rs 100

Exercise date= 6 months

Estimated standard deviation=30%

Risk free return=8%

Determine call option price of the stock as per Black schools model.

2. Stock price(S) = Rs 20

Strike price (K) =Rs 21

Upswing (u) = 1.1

Downswing (d) =0.9

Risk free interest rate = 0.12

Time to expiration=0.25

Find out call option value as per Binomial pricing model.

3. The stock price of Reliance Industries in spot market is Rs.450 and two month option contract is of Rs 450.The price of the option is Rs.20 per share. At what price the option will be at-the-money,Out-of-money and in-the-money of the option is both call as well as put option?
4. On January 1, price of Reliance share is Rs.450 and two parties enter in to a forward contract for delivery of 1000 shares of Reliance on April 15 at a price of Rs 460. Find out the profit/loss profile of seller if the price of Reliance share turns out to be a) Rs.470 b) Rs.400 on April 15.