

#### SIDDHARTH GROUP OF INSTITUTIONS :: PUTTUR

Siddharth Nagar, Narayanavanam Road – 517583

#### **QUESTION BANK (DESCRIPTIVE)**

Subject with Code: FINANCIAL DERIVATIVES (20MB9045)

Year & Sem: II-MBA & II-Sem

Course & Branch: MBA

Regulation: R20

### <u>UNIT-I</u> INTRODUCTION TO DERIVATIVES

1 a.	Explain the growth and development of derivatives.	[L2][CO1]	[5M]
b.	Elaborate the objectives of derivatives.	[L2][CO1]	[5M]
2.	Illustrate carefully difference between hedging, speculation and arbitrage in	[L2][CO1]	[10M]
	the context of financial.		
3 a.	The role of derivatives market in India. Explain.	[L2][CO1]	[5M]
b.	Elucidate the merits of financial derivatives.	[L2][CO1]	[5M]
4 a.	Describe risk involved in financial derivatives?	[L2][CO1]	[5M]
b.	Explain the term 'financial derivatives '.What is important features?	[L1][CO1]	[5M]
5.	Discuss the uses and misuses of financial derivatives.	[L2][CO1]	[10M]
6.	What do you meant by cash market? Discuss the objectives and derivative market?	[L2][CO1]	[10M]
7.	Bring out the historical development of financial derivatives.	[L2][CO1]	[10M]
8. a.	Write a note on evaluation of derivative markets in India.	[L1][CO1]	[5M]
b.	What advantages futures contracts has over forward contract?	[L2][CO1]	[5M]
9.	Narrate in brief on the fundamental linkages between spot and derivative markets.	[L2][CO1]	[10M]
10.	Explain the different types of financial derivative along with their features in brief.	[L2][CO1]	[10M]

**R20** 

### <u>UNIT-II</u> Future and Forward market

1. a.	Define the forward contract. Also discuss the features of forwards contracts.	[L2][CO2]	[5M]
b.	Explain the structure of forward and future market.	[L5][CO2]	[5M]
2. a.	Discuss the pricing mechanism of forward contract.	[L2][CO2]	[5M]
b.	Write short note on interest rate future.	[L1][CO2]	[5M]
3. a.	Elucidate Future market –mechanics of future markets.	[L2][CO2]	[5M]
b.	Explain the currency futures and forwards.	[L4][CO2]	[5M]
4.	Consider a six month forwards contract on a security where 4 percent per annum continuous dividend is expected. The risk free rate of interest is 10 percent per annum. The assets current price is Rs 25. Then we can calculate the forward price.	[L1][CO2]	[10M]
5.	Compare and contrast between forward contract and futures contracts with suitable examples	[L2][CO2]	[10M]
6.	A stock index currently stands at 350. The risk free rate is 8% per annum anddividend yield on index is 4% per annum. What should be the futures price for a four month contract?	[L1][CO2]	[10M]
7.	Critically examine the expectation approach of futures price determination with examples.	[L2][CO2]	[10M]
8.	Explain the relationship between forward and futures prices with examples.	[L4][CO2]	[10M]
9.	"Hedging is the basic function of futures market". Discuss the statement in the light of uses of futures contract.	[L2][CO2]	[10M]
10.	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.	[L1][CO2]	[10M]
10.	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	[L1][CO2]	

# <u>UNIT-III</u>

# **Options**

1	•	Elucidate the distinction between options and futures contracts with suitable examples.	[L2][CO3]	[10M]
2	a.	What is the term option and option contract?	[L1][CO3]	[3M]
	b.	Discuss various the types of option?	[L2][CO3]	[7M]
3		Differentiate between call and put options. What are the rights and	[L2][CO3]	[10M]
		obligations of the holders of long and short positions in them?		
4	a.	What is various assumption of binomial pricing model?	[L2][CO3]	[5M]
	b.	Discuss one step –binomial pricing model with hypothetical examples.	[L2][CO3]	[5M]
5	a.	Write notes on: Bullish call option spread and Bearish call option spread.	[L2][CO3]	[5M]
	b.	Generalization of two step binomial tree of option pricing	[L3][CO3]	[5M]
6		If the spot price of a stock is Rs 60/- and strike price is Rs 68/ Risk free rate	[L4][CO3]	[10M]
		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.		
7		What are the various assumptions of binomial pricing model? Also discuss	[L1][CO3]	[10M]
		one stepbinomial pricing model with hypothetical examples.		
8		If the spot price of a stock is Rs 50/- and strike price is Rs 58/ Risk free rate	[L4][CO3]	[10M]
		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.		
9		Explain the terminologies used in option market? Describe the participants	[L4][CO3]	[10M]
		in the option market?		
1	0	S=100, Standard deviation =25%, r=10%,K=50,t=1 year. Calculate value	[L1][CO3]	[10M]
		of call option as per Binomial option pricing model.		

## <u>UNIT-IV</u> <u>Basic option strategies</u>

Duble option strategies					
1 a	Explain the trading strategies followed in option market.	[L2][CO4]	[5M]		
b	Define spreads? What are the types of spreads?	[L1][CO4]	[5M]		
2 a	What are the advantages of option trading?	[L2][CO4]	[5M]		
b	Explain the concept of fixed hedging.	[L2][CO4]	[5M]		
3	Compare the implication of writing the options and buying the options with suitable examples.	[L2][CO4]	[10M]		
4	Describe the strategies for hedging with options? Explain the concept of straddle and strangle.	[L2][CO4]	[10M]		
5	What do you understand by the term spread in option trading? Discuss the types of spreads with suitable diagrams.	[L2][CO4]	[10M]		
6	Critically evaluate the hedging options portfolio in practice with latest developments in Indian derivatives market.	[L3][CO4]	[10M]		
7	What is currency option market? What are its features? Explain with an example.	[L2][CO4]	[10M]		
8	"The ultimate economic functions of financial derivatives is to provide means of risk reduction".comment upon the statement with comparison of hedging with options with other financial derivatives intruments.	[L3][CO4]	[10M]		
9	Pricing of currency is not different from other financial options".  Comment on the statement with suitable examples.	[L2][CO4]	[10M]		
10	While considering hedging strategies, What are the relative marits of long option positions,	[L2][CO4]	[10M]		

#### Unit V Swaps

1	What is swap and swap contract? Explain the nature of swaps.	[L2][CO5]	[10M]
	How do you relate interest rate swaps with currency swaps and how do you	[L3][CO5]	[10M]
2	Price them?		
3	Explain financial swap. Discuss the features of a swap contract with example.	[L2][CO5]	[10M]
4	Write a detailed note on evolution of swap market.	[L2][CO5]	[10M]
5	"Plain Vanilla swap is simplest form of interest rate swap contract available	[L4][CO5]	[10M]
	in interest rates swaps market". Discuss with suitable examples along		
	with its structure and		
	mechanism.		
6	What do you mean by equity swap? Explain its types and applications?	[L3][CO5]	[10M]
7	Elucidate the major types of financial swaps with examples.	[L2][CO5]	[10M]
8	What is interest rate swap contract? Discuss the various features of a interest	[L2][CO5]	[10M]
L	rate swaps with suitable examples.		
9	Show how a currency swap agreement can be taken place. Explain with	[L2][CO5]	[10M]
	example		
10	What is currency swap? Explain its features and also show the three step	[L2][CO5]	[10M]
	flow of currency swaps with examples.		

Case study 1: [L5][CO1]10M

**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: [L5][CO1]10M

**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: [L5][CO1]10M

**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: [L5][C01]10M

Financial Derivatives

Course code:20MB9045		
<b>4.</b> A stock index currently stands at 450. The risk free rate is 10% per annum and dividend yield on index is 5% perannum. What should be the futures price for a four month contract?		
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Financial Derivatives		