Registration No : | | | | | | | | | | |

Total Number of Pages : 02

MBA
18MBA302B

3rd Semester Regular Examination 2019-20
FINANCIAL DERIVATIVES
BRANCH : MBA
Max Marks : 100
Time : 3 Hours
Q.CODE : HR763

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.
The figures in the right hand margin indicate marks.

Part-I

Q1 **Only Short Answer Type Questions (Answer All-10)** **(2 x 10)**

a) What are the common types of derivatives?
b) What are the motives of a forward contract?
c) Define a swap by giving an example.
d) What is cost of carry?
e) Who are the traders in a derivative market?
f) Calculate the fair price of a forward contract if the current price is Rs 5,00,000, the risk free rate of interest is 10% and time to expiration is 1year?
g) Explain a bear spread with call by way of an example.
h) Explain Bull spread with call by way of an example.
i) What is a straddle? Explain with an example.
j) What is a short strangle? Show with an example.

Part-II

Q2 **Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** **(6 x 8)**

a) What are the different ways to manage risk?
b) Explain the three most important types of business risk?
c) Describe the four important features of Financial Derivatives.
d) Describe the classification of derivatives based on Underlying Asset and Trading mechanisms.
e) Explain how a Forward contract is settled?
f) Distinguish between a future contract from an Option contract.
g) Mr DD is bullish about the shares of TCS. He expects the price may rise to Rs 350 from the cmp of Rs 200 within 3 months. He wants to buy shares but fears a fall. He approaches you. You advise him to buy a call option which trades as follows:
TCS (1000), Rs 230 June, CA, Rs 15
Suppose the spot price on a day is Rs 320 or Rs190. Discuss the payoff and net gain or loss in either of the situations.
h) Explain the Payoffs of call option buyer and call option seller at expiration form the following data:
Exercise Price is Rs 150, Option Premium is Rs 5 and the Spot Prices are Rs 130,140,150,160,170,180,190,200
Also show it in the form of graphs.
i) An investor has a portfolio worth Rs 11,75,000 Current NIFTY Future quotes at Rs 1950/-. The investor fears a fall of market by 5%. He wants to sell Stock Index Future to hedge his portfolio. Find out the gain or loss if he really goes for Futures. Assume that the price per index point is Rs 200.

j) An investor buys one December gold futures of contract size 100gms on 1st November at Rs 400 per gram with an initial margin of 10% and maintenance margin of 75% of initial margin. Set up a Buyer's Margin account and Seller's Margin Account on daily basis if the the prices for first 10 days are as follows:
Rs 400, 403, 398, 390, 392, 387, 394, 401, 405, 410.

k) What are the uses of options?

l) Set up a butterfly spread with imaginary figures. Draw a graph to show this.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 Discuss who benefit out of derivative contracts and the objectives for entering into such contracts **(16)**

Q4 A 2 month call option on the Infosys with strike price of Rs 2100 is selling for Rs 140/- when the share is trading at Rs 2200/- Find the following: **(16)**

a. What is the intrinsic value?
b. Why should one buy the call for a price in excess of intrinsic value?
c. Under what circumstances the option holder would exercise his call?
d. At what price of the asset the call option holder would breakeven?
e. If the price becomes Rs 2150/-, should the option holder exercise?
f. What is the net payoff of the holder and writer if price is either Rs 2000,2250,2500 on the date of expiry of the option?

Q5 A stock sells at Rs 100/-. Price after one year may rise by 25% or decline by 20%. The risk free rate of interest is 6%. Find out the Present value of the option in following cases: **(16)**

a. A as an Optimistic Investor expects the probability of rise to be 90%
b. B as a realistic investor sees equal probability at 50%
c. C as a pessimistic investor sees the probability of decline to be 90%.

Q6 **Write short notes on any TWO :** **(16)**

a) Black-Scholes model of Option pricing
b) Put-Call Parity
c) Plain Vanilla swap

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MBA
15MNG305B

3rd Semester Regular / Back Examination 2018-19
FINANCIAL DERIVATIVES (FD)
BRANCH : MBA
Time : 3 Hours
Max Marks : 100
Q.CODE : E407

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.
The figures in the right hand margin indicate marks.

Part- I

Q1 Short Answer Type Questions (Answer All-10) (2 x 10)

a) What is meant by price discovery?
b) What are the roles of a clearing house? Name the clearing house.
c) What is displacement effect?
d) What is an optional term contracts?
e) What is cross hedge equation?
f) What is a basis risk?
g) What is convergence?
h) What is margin? Where is it applicable?
i) When is a put exercised?
j) What is risk neutral valuation?

Part- II

Q2 Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

a) A stockbroker is holding 1000 shares of Reliance industries limited. Each selling currently at Rs. 1800.A future contract expiring in one month is trading at Rs. 1808.Each contract is of 100 shares. If the stockholder can borrow or invest at 12% p.a, can he take advantage of the situation identifying arbitrage opportunity?
b) What categories of investors / traders use derivatives?
c) Explain the concept of cost of carry through an example.
d) Distinguish between forwards and futures.
e) Discuss the uses and applications of Stock index Futures.
f) Discuss the principles of American Options pricing.
g) What are straddle and strangle? Explain through examples.
h) Explain the different types of spreads.
i) Explain the put-call parity citing an example.
j) Discuss the binomial model for pricing of options.
k) What are various assumptions under the Black-Scholes model?
l) Suppose the stock price is Rs100 and the risk free rate of return is 8%. Can a three month Europeancall with a strike price of Rs 94 be priced at Rs 6? Can a European Put be priced at Rs 6?

Part-III

Long Answer Type Questions (Answer Any Two out of Four)

Q3 Write a note on financial derivatives market with reference to Indian context and the global context. **(16)**

Q4 Discuss the basic and advanced trading strategies using stock futures? **(16)**

Q5 What is an option? Explain with examples the modality of earning a profit or suffering a loss in option trading? **(16)**

Q6 What is a swap? Discuss the economic motive for swaps and the mechanics of interest rate swaps **(16)**

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MBA
15MNG305B

3rd Semester Regular Examination 2017-18
Financial Derivatives (FD)
BRANCH : MBA
Time : 3 Hours
Max Marks : 100
Q.CODE : B685

Answer Question No.1 and 2 which are compulsory and any four from the rest.
The figures in the right hand margin indicate marks.

Q1 **Answer the following questions :** (2x10)

a) What categories of investors / traders use derivatives?
b) A rice farmer is happy to note that the price per kg for the type of rice that his farm produces is around Rs.15 now. However, the farmer will get the corps only after two months. He fears that the prices might fall in the meantime. How can the farmer use forwards to reduce his risk?
c) Will forwards always result in profit? Under what circumstances will a trader feel that he would have been better off without the forward?
d) What is margin? Is this applicable only to futures contracts?
e) What is basis risk? Is it important in hedging?
f) What is convergence? Why does it occur?
g) How are options different from futures?
h) Is buying the call same as writing a put?
i) Under what circumstances are : (a) a short hedge and (b) a long hedge suitable ?
j) Name stock exchanges where derivatives are traded in India.

(2×10)

Q2 a) In index futures, the spot value is represented by ----------.
b) The principle of convergence is useful in---------.
c) When the basis weakens futures price----------the spot price.
d) The maximum amount that a person can gain from a European call is-------.
e) It is not possible to determine maximum losses in ..... (strangle/ straddle/spread)
If stock price is 30,present value of exercise price is 25 and call price is 6, the corresponding put must be -----
f) If stock price is 30,present value of exercise price is 25 and call price is 6, the corresponding put must be -----
g) The maximum number of periods for which the binomial model can be used for price determination is.....
h) An employee stock option can be thought of as---------
i) Margins are levied in futures contract from------of futures
j) In a --------portfolio,a different set of assets is used involving the same investment.

Q3 a) Explain the features of an OTC market. What are the advantages of OTC contract vis-à-vis exchange traded contracts? (7.5)
b) Briefly discuss the factors contributing to the growth of financial derivatives (7.5)

Sketch the polar plots i) $G(s)H(s) = \frac{1}{1+ST}$ ii) $G(s)H(s) = \frac{1}{S(1+ST)}$

Q4 a) From the following information find the value of a forward contract: **(7.5)**

Date of contract: 1st April, 2014
Date of maturity: 31st December 2014
Forward price as on 1st April 2014 with expiry date 31st December 2014: Rs.20,000/-
Forward price as on 1st July 2014 with expiry date 31st December 2014: Rs.25,600/-.
Rate of interest: 6%

b) What is margin money? What are different forms of margin money? **(7.5)**

Q5 a) Calculate the profit or loss from the following transactions: **(7.5)**

Spot price: Rs.31,000
Interest Rate: 7% per annum
Storage cost: 3% of commodity per annum
Transportation cost: Nil
Use cost of carry model.

b) What is option moneyness? Explain the following concepts in context of option moneyness. **(7.5)**
In-the-money, Out-of-the money, At the money

Q6 a) What are the different types of financial derivatives? Explain their features in brief. **(7.5)**

b) There are three major participants in derivative markets. They are Hedgers, Speculators and Arbitrageurs. Explain their functions with suitable examples. **(7.5)**

Q7 a) Briefly explain the following arbitrage strategy of cost-of-carry model : **(7.5)**
Cash-and-carry arbitrage
Reverse cash-and-carry arbitrage.

b) Determine the futures price from the following data : **(7.5)**

Sport price of the commodity	=	Rs.90,000
Storage cost	=	6% p.a. of spot price
Insurance cost	=	4% p.a. of spot price
Transportation cost	=	3% (fixed)
Financing cost	=	12% p.a.
Carry period	=	6 months

Use cost-of-carry model.

Q8 What is Black-Scholes formula for option pricing ? What are the assumptions ? Discuss. **(15)**

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MBA
15 MNG305B

3rd Semester Regular Examination – 2016-17
FINANCIAL DERIVATIVES
BRANCH(S): MBA
Time: 3 Hours
Max Marks: 100
Q.CODE:Y758

Answer Question No.1 and 2 which are compulsory and any four from the rest.

The figures in the right hand margin indicate marks.

Q1 Answer all questions. Fill in the blanks with appropriate answer. (2 x 10)

a) The major players in derivatives market are----------, ---------- and Speculators.
b) Two types of option contracts that are facilitated by investors are ---------- and ----------.
c) The difference between the Future price and Spot price is known as ---------- ----------.
d) Most common type of Swap contracts are ----------and ----------.
e) CBOT stands for ----------.
f) Short hedge is and arrangement when you take ----------position in spot market and ----------position in derivatives market.
g) The amount required in an investor's account to start trading in known as ----------margin.
h) OTC stands for ----------.The OTC products traded in India are ----------.
i) The concept that says the difference between Spot price and futures prices reduces as time to maturity approaches is known as ----------.
j) ----------takes a riskless position and makes instant profits.

Q2 Answer briefly the following questions: (2 x 10)

a) What do you understand by risk? What are different ways to manage them?
b) Define plain vanilla swap.
c) What are Spreads?
d) Differentiate between put and call options.
e) What is the relevance of derivatives in economy?

f) Explain differences between financial derivatives and commodity derivatives.
g) How does cost of carry model explain pricing of future contracts?
h) List all the exchanges that facilitate derivatives trading in India.
i) What do you understand by day to day settlement?
j) How are OTC traded products different from exchange traded products? Give some examples of both.

Q3 A stockbroker is holding 1000 shares of reliance industries limited. Each selling currently at Rs. 1800.A future contract expiring in one month is trading at Rs. 1808.Each contract is of 100 shares. If the stockholder can borrow or invest at 12% p.a, can he take advantage of the situation identifying arbitrage opportunity? (15)

Q4 "Derivatives are best risk management tools but not in the reach of common investor. " Discuss the statement in lieu of general features and criticism of derivatives. Explain the different types of derivatives and major players in derivatives market. (15)

Q5 How does a swap contract work? Explain Currency swap and Interest rate swap contracts along with appropriate examples and mechanism of settlement. (15)

Q6 What is binomial model of option pricing? Calculate the value of a two year call option with strike price Rs 105, stock price Rs 100, Risk free interest rate is 8%p.a and prices can move up by 10 % and down by 5%. (15)

Q7 Describe in detail Black Scholes model of option pricing, Stating its features, use, advantages and limitations. (15)
Calculate the value of call option using following details-
Stock Price –Rs.30
Excise Price-Rs 25
Risk free interest rate-12% p.a
Variance-0.16
Time period-3 months
N(.978) = .836
N(.753) =.773

Q8 Write shorts on (any two): (7.5 x 2)

a) Straddle and Strangle spread
b) Options Greeks
c) Commodity Derivatives and their trading in India

Registration No: | | | | | | | | | | |

Total number of printed pages : 02

MBA
MGT 304B

3rd SEMESTER REGULAR/BACK EXAMINATION, 2015-16

FINANCIAL DERIVATIVE

BRANCH : MBA

QUESTION CODE : T560

Max marks: 70

Time: 3 Hours

Answer Question No.1 which is compulsory and any five from the rest.

[The figures in the right hand margin indicate marks]

Q.1 Answer the following questions : 2x10

(a) What are hedging, speculation and arbitrage ?
(b) What are long forward and short forward position ?
(c) Explain "Selling a call option" and 'buying a put option".
(d) When first issued, a stock provides funds for a company. Is the same true of a stock option ?
(e) Options and futures are zero-sum games. Explain.
(f) What are bid and offer quotes of a market maker in the OTC market ?
(g) What are the difference between OTC market and ET market ?
(h) Under what circumstances are (a) a short hedge and (b) a long hedge appropriate ?
(i) What is meant by basic risk when futures contracts are used for hedging?
(j) What is the difference between a strangle and a straddle ?

Q.2 Mr. Manish, a Fund Manager, has 10,000 TISCO equity shares in his portfolio, purchased at Rs.250/-. Beta of TISCO is 1.2 with Nifty. Each Nifty contract is 200 units. TISCO is now at Rs.250, the purchase price. Nifty futures is quoting at 1600. Suggest the hedging strategy for Manish under the following conditions : 10

i) Manish feels that TISCO would fall
ii) He feels that TISCO would rise substantially.
iii) He is not sure of movement of TISCO share price.

Q.3 Identify which of the following options are ITM, ATM or OTM for the buyer of option. Which of these options would be exercised ? 10

(a) RIL 840 CALL when the price on expiry is Rs.855
(b) ACC 510 PUT when the price on expiry is Rs.510
(c) ACC 520 PUT when the price on expiry is Rs.500
(d) RIL 800 CALL when the price on expiry is Rs.765
(e) ACC 540 PUT when the price on expiry is Rs.555

Q.4 Ram and Shyam purchase an Index at 1200. However, they decide to seek downside protection by buying put options of different strike prices. Whereas Ram prefers at the money put option costing Rs.60, Shyam buys in the money put option with a strike price of 1170, costing Rs.45. Compare and contrast their profits of the respective protective puts they have purchased. 10

Q.5 Explain the merits and demerits of financial derivatives. **10**

Q.6 "Price of an option is that amount which is paid by the option buyer to the option seller". Discuss the statement in the light of types of options with suitable illustrations. **10**

Q.7 If a company is holding an inventory of oil believes that oil prices may fall significantly in the near future, what option hedging strategy would you recommend ? Explain your answer with relevant data. **10**

Q.8 Short notes on any two : **10**

(a) Bull call spread with examples.
(b) Bull put spread with examples.
(c) Naked and covered option.
(d) Currency swap.

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