Registration No :

Total Number of Pages : 02

IMBA
16IMN802B

8th Semester Regular / Back Examination: 2021-22
FINANCIAL DERIVATIVES
Branch(S) : IMBA
Time : 3 Hour
Max Marks : 100
Q. Code : J056

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

a) What is a forward contract?
b) What are the main limitations of a forward contract?
c) What are options?
d) A stock currently sells at Rs 120. The put option to sell the stock sells at Rs.134 costs Rs18. What is the time value of the option?
e) On January 15, Mr. Arvind bought a January Nifty Futures contract at accost of Rs2,40,000. Each Nifty futures contract is for delivery of 100 Nifties. On 25th January, the index closed at 1460. How much profit /loss did he make?
f) What is a swap?
g) What is put-call parity?
h) What are features of currency swaps?
i) You saw the following quote in Derivative Market.
"EIL(200),2000, Aug 21, Call EU Rs15"
Explain what do you mean by that
j) What do you mean by open interest?

Part-II

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

a) State the features of derivatives.
b) Give the meaning of IN, OUT and AT the money.
c) A call option at a strike price of Rs170 is selling at a premium of Rs15. At what share price on maturity will it break even for the buyer of the option? Will the writer of the option also break even at the same Price?
d) If on a stock with a market price of Rs 270, a call option is purchased with a premium of Rs 29 and a strike price of Rs 270, What shall be the intrinsic value and Time value of the option?
e) Bring out the distinction between over the counter derivatives and Exchange traded derivatives
f) Distinguish between forward and future contract.
g) Explain Binomial Option Pricing model with an example.

h) Calculate the fair forward price from the following data:
Current price of the asset = Rs5,00,000
Risk free return = 5% per annum
Time to expiration = 6 months

i) Explain the margin system with clear example.

j) How is a forward contract settled?

k) Discuss the assumptions of Black-Scholes model of option pricing.

l) What factors influence the price of option?

Part-III

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

Q3 Who are the participants in derivative market? Explain their roles **(16)**

Q4 Explain 5 factors driving the growth of derivatives in India. **(16)**

Q5 An investor has purchased a 4 month call option on the equity share of Birla co for Rs 5, it has a present market price per share of Rs. 112, exercise price of Rs120. At the end of 4 months, the investros expects the price of share to be in the following range of Rs90 to Rs170 with varying probabilities. **(16)**

Expected price	100	110	125	150	170
Probability	0.10	0.25	0.30	0.25	0.10

You are now required to answer the following:

i. What is the expected value of share price 4-months hence?

ii. What is the value of call option at its expiration if the expected value of shares price prevails at the end of 4 months?

Q6 Give a short description on the FRA and IRF contracts. **(16)**