(b) Company X wants to borrow \$ (dollor) 20 million at fixed rate of interest for 10 years. Company Y want to borrow £ 25 million at fixed rate of interest for 10 years. Companies have been offered the following rates.

	Dollor	Pound sterling
Company X	8%	11.6%
Company Y	10%	12%

Show how currency swap is possible with effective cost of borrowing. 7

OR

(c) Describe the factors that motivate the use of interest rate swaps. 7

(d) A firm issues a 7-year bond callable at par after three years. The issue price to yield 9.20 which is 20 bp above what the firm would have paid for a straight, i. e. non-callable bond. The firm then sells a seven year callable swap has paid a 40 bp premium for the option to terminate the swap prematurely. The firm has now floating rate debt at LIBOR 20 bp. Then it combines with a plain vanilla coupon swap in which it pays 9% fixed and receives 6 - months LIBOR. Show the transaction in a diagram. 7

Fourth Semester M. B. A. Examination

FINANCIAL DERIVATIVES

Paper - MBA / 4103 / CGF

P. Pages : 5

Time : Three Hours] [Max. Marks : 70

Note : (1) Attempt all questions.
(2) Figures to right indicate full marks.
(3) Use of scientific calculator is allowed.

SECTION A

1. (a) Discuss the recent trends of financial derivative in India. Explain the different types of financial derivatives along with their features.

OR

(b) "For effecting Hedging, market need Speculators". Discuss the statement in the light of functions of Speculator and Hedger. 14

SECTION B

2. (a) What is credit risk associated with a forward contract ? 7

(b) On March 1 price of HDFC share is ₹ 750 and two parties enter into a forward contract for a delivery of 1000 shares of HDFC on June 15 at price of ₹ 760. Find out the profit/loss profile of seller (short position) if the price of HDFC share terms out to be a

(a) 780

(b) 700

on June 15. 7

OR

(c) Bring out the ways through which a forward contract can be closed out. Discuss with suitable examples. 7

(d) 6–month forward contract on 100 shares with a price ₹ 38 each. The risk free rate of interest (continuously compounded) is 10% per annum. The share is expected to yield a dividend of ₹ 1.50 in 4 month from now. Determine the value of the forward contract. 7

3. (a) What is basis risk ? How is it related to hedging ? 7

(b) Mr. A enter into a short future contract to sale Aug. Gold for ₹ 520/- per gram on the XYZ Exchange. The size of contract is 10 kg. The initial margin is ₹ 5,00,000/- and the maintaince margin is ₹ 3,00,000/-. What change in future price will lead margin call and what will happen if Mr. A do not meet the margin call ? 7

OR

(c) What are the main functions of clearing house ? Do clearing associations gurantee all futures contract in the event of customer default ? 7

(d) A – Three – Month future contract on NSE 50. Assume that the spot value of the index is 1090, the continuously compounded risk free rate of return is 12% per annum and the continuously compounded yield on shares underlying the NSE – 50 index is 4% per annum. Find the value of a future contract, assuming the multiplier to be 200. 7

4. (a) Describe the steps involved in a currency SWAP. 7

SECTION C

5. Using the data given below, calculate the theoratical values of

   (i) Call and (ii) Put options.

   Contract price = 1725

   Exercise price of the option = 1730

   Time to expiration of the options = 56 days

   Risk free interest rate = 8%

   Volatility, standard Deviations (σ) = 28%.

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