

Plot No. 2, Knowledge Park-III, Greater Noida (U.P.) –201306

**POST GRADUATE DIPLOMA IN MANAGEMENT (2022-24)**  
**END TERM EXAMINATION (TERM -IV)**

Subject Name: **Financial Derivatives & Risk Management**

Time: **02.00 hrs**

Sub. Code: **PGF41**

Max Marks: **40**

**Note:**

**All questions are compulsory. Section A carries 5 marks: 5 questions of 1 marks each, Section B carries 21 marks having 3 questions (with internal choice question in each) of 7 marks each and Section C carries 14 marks one Case Study having 2 questions of 7 marks each.**

<b><u>SECTION - A</u></b>		
Attempt all questions. All questions are compulsory.		<b>1×5 = 5 Marks</b>
Questions	CO	Bloom's Level
<b>Q. 1: (A).</b> Why derivatives are criticized? <b>Q. 1: (B).</b> How arbitrage works in Derivative markets? <b>Q. 1: (C).</b> Differentiate between buying a Call option and Writing a Put option <b>Q. 1: (D).</b> What is use of Open Interest in Option Chain? <b>Q. 1: (E).</b> How Credit Default Swap works? Explain.	CO-1	L-3
<b><u>SECTION – B</u></b>		
All questions are compulsory (Each question have an internal choice. Attempt any one (either A or B) from the internal choice)		<b>7 x 3 = 21</b>
Questions	CO	Bloom's Level
<b>Q. 2: (A).</b> Analyze that “Black-Scholes model is an important model for pricing the option”. Discuss in context to options pricing explaining the option Greeks in detail.  <p style="text-align: center;"><b>Or</b></p> <b>Q. 2: (B).</b> Explain how Futures contract can be used to hedge the portfolio against risk?	CO-2	L-3
<b>Q. 3: (A).</b> Suppose that March call option to buy a share for Rs 100 costs Rs 5 and is held until March end. Under what circumstances will the holder of the option make a profit? Under what circumstances will the option be exercised? Draw a diagram illustrate how the profit from a long position in the option depends on the stock price at the maturity of the option.  <p style="text-align: center;"><b>Or</b></p> <b>Q. 3: (B).</b> List five factors that affect stock options prices, and explain how each one affects them?	CO-2	L-4
<b>Q. 4: (A).</b> Assume you're an options trader and you decide to initiate a long strangle strategy, anticipating a significant move in the stock price of company XYZ, but you're unsure of the direction of the move. You buy one out-of-the-money call option and one out-of-the-money put option on XYZ stock.  Details of the options:	CO-3	L-3
	CO-3	L-4
	CO-3	L-3

<p>Current stock price of XYZ: \$50  Call option strike price: \$55  Premium paid for call: \$3  Put option strike price: \$45  Premium paid for put: \$2  Calculate:</p> <p>a) The total premium paid for the strangle.  b) The break-even points for the strategy.  c) The profit or loss if XYZ stock ends up at \$60 at expiration.  d) The profit or loss if XYZ stock ends up at \$40 at expiration.</p> <p style="text-align: center;"><b>Or</b></p> <p><b>Q. 4: (B).</b> Differentiate between Strangle and Straddle strategies of Option Buying.</p>	CO-3	L-2
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**SECTION – C**

Read the case and answer the questions

**7×02 = 14 Marks**

Questions	CO	Bloom's Level									
<p>Q. 5: Case Study:</p> <p>Companies A and B have been offered the following rates per annum on a Rs 100 Cr. loan for 5 Years:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 35%;">Fixed Rate (%)</th> <th style="width: 35%;">Floating Rate (%)</th> </tr> </thead> <tbody> <tr> <td>Company A</td> <td style="text-align: center;">13.25</td> <td style="text-align: center;">MIBOR+1.25</td> </tr> <tr> <td>Company B</td> <td style="text-align: center;">15.5</td> <td style="text-align: center;">MIBOR+2.75</td> </tr> </tbody> </table> <p>Company A requires a floating rate loan; Company B requires a fixed rate loan.</p> <p><b>Questions</b>  Q 5: (A): Design a swap that will net a bank, acting as intermediary, 0.2% per annum and that will appear equally attractive to both companies.  Q 5: (B): Create net cash flow statement for companies.</p>		Fixed Rate (%)	Floating Rate (%)	Company A	13.25	MIBOR+1.25	Company B	15.5	MIBOR+2.75	CO-4	L-6
	Fixed Rate (%)	Floating Rate (%)									
Company A	13.25	MIBOR+1.25									
Company B	15.5	MIBOR+2.75									

**Kindly fill the total marks allocated to each CO's in the table below:**

COs	Marks Allocated
CO1	5 Marks
CO2	7 Marks
CO3	14 Marks
CO4	14 Marks

**(Please ensure the conformity of the CO wise marks allocation as per your TLEP.)**

**Blooms Taxonomy Levels given below for your ready reference:**

**L1= Remembering**

**L2= Understanding**

**L3= Apply**  
**L4= Analyze**  
**L5= Evaluate**  
**L6= Create**