GL BAJAJ

Institute of Management & Research

Approved by A.I.C.T.E., Ministry of HRD, Govt. of India

Roll No...........

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

POST GRADUATE DIPLOMA IN MANAGEMENT (2018-20)
END TERM EXAMINATION (TERM -V)

Subject Name Financial Derivative and Risk Management	Time: **02.30 hrs**
Sub. Code PGF-04	Max Marks: **60**

Note:

1. Writing anything except Roll Number on question paper will be deemed as an act of indulging in unfair means and action shall be taken as per rules.

2. All questions are compulsory in Section A & C. Section A carries 8 questions of 2.5 marks each, Section B carries 5 questions of 04 marks each and Section C carries 1 Case Study of 20 marks.

SECTION - A

Attempt all questions. All questions are compulsory. **2.5×08 = 20 Marks**

Q. 1 (A): What do you understand by Risk? What are the different ways of classifying risk and managing them?

Q. 1 (B): On January 01, the price of a commodity is $300 and the October futures price is $315. On September 01 the price is $280 and the October futures price is $281. A producer entered into a October futures contracts on January 01 to hedge the sale of the commodity on September 01. It closed out its position on September 01. What is the effective price received by the producer?

Q. 1 (C): Differentiate between exchange traded and over-the counter derivatives.

Q. 1 (D): Explain different types of underlying assets on which derivatives exists.

Q. 1 (E): Why derivatives are criticized?

Q. 1 (F): What are the advantages of future contracts over forward contracts?

Q. 1 (G): A company enters into a long futures contract to buy 4,000 units of a commodity for $20 per unit. The initial margin is $12,000 and the maintenance margin is $8,000. What futures price will allow $3,000 to be withdrawn from the margin account?

Q. 1 (H): What is the difference between open interest and volume?

SECTION - B

Attempt any five out of six questions **04×05 = 20 Marks**

Q. 2: The spot price of an investment asset that provides no income is Rs 150 and the risk-free rate for all maturities (with continuous compounding) is 5%. What is the three year forward price?

Q. 3: On December 1, the spot price of a commodity is $80 and the April futures price is $76. On March 01 the spot price is $96 and the April futures price is $94. A company entered into futures contracts on December 1 to hedge the purchase of the commodity on March 01. It closed out its position on March 01. What is the effective price paid by the company for the commodity?

Q. 4: Explain carefully the difference between hedging, speculation, and arbitrage.

Q. 5: How Credit Default Swap works? Explain.

Q. 6: Explain carefully the difference between buying a Call option and Writing a Put option.

Q. 7: 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.

SECTION - C

Read the case and answer the questions **10×02 = 20 Marks**

Q. 8: Case Study:

Companies A and B have been offered the following rates per annum on a Rs 10 million loan for 5 Years:

	Fixed Rate (%)	Floating Rate (%)
Company A	12	MIBOR+1.5
Company B	14.5	MIBOR+2.5

Company A requires a floating rate loan; Company B requires a fixed rate loan.

Questions

Q 8(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.

Q8(B): Create net cash flow statement for companies.

Question Number	**CLO**
Q. 1	**CL01**, **CL02**
Q. 2	**CL02**
Q. 3	**CL02**
Q. 4	**CL02**
Q. 5	**CL03**
Q. 6	**CL04**
Q. 7	**CL04**
Q. 8	**CL04**

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2. All questions are compulsory in Section A & C. Section A carries 8 questions of 2.5 marks each, Section B carries 5 questions of 04 marks each and Section C carries 1 Case Study of 20 marks.

SECTION - A

Attempt all questions. All questions are compulsory. **2.5×08 = 20 Marks**

Q. 1 (A): How do you classify risk. Explain.
Q. 1 (B): How do you manage different types of Risk. Explain with the suitable examples.
Q. 1 (C): On January 01, the price of a commodity is $400 and the October futures price is $415. On September 01 the price is $380 and the October futures price is $381. A producer entered into a October futures contracts on January 01 to hedge the sale of the commodity on September 01. It closed out its position on September 01. What is the effective price received by the producer?
Q. 1 (D): What is exchange traded derivatives? Explain.
Q. 1 (E): Discuss negative aspects of derivatives.
Q. 1 (F): How call option is different from put option?
Q. 1 (G): A company enters into a long futures contract to buy 1000 units of a commodity for $30 per unit. The initial margin is $15,000 and the maintenance margin is $10,000. What futures price will allow $4,000 to be withdrawn from the margin account?
Q. 1 (H): What is the difference between open interest and volume?

SECTION - B

Attempt any five out of six questions **04×05 = 20 Marks**

Q. 2: The spot price of an investment asset that provides no income is Rs 100 and the risk-free rate for all maturities (with continuous compounding) is 7%. What is the three year forward price?

Q. 3: On December 1, the spot price of a commodity is $60 and the April futures price is $56. On March 01 the spot price is $76 and the April futures price is $74. A company entered into futures contracts on December 1 to hedge the purchase of the commodity on March 01. It closed out its position on March 01. What is the effective price paid by the company for the commodity?
Q. 4: Explain carefully the difference between hedging, speculation, and arbitrage.
Q. 5: How Credit Default Swap works? Explain.
Q. 6: Differentiate between buying a Baying a Call option and Writing a Put option.
Q. 7: 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.

SECTION - C

Read the case and answer the questions **10×02 = 20 Marks**

Q. 8: Case Study:

Companies A and B have been offered the following rates per annum on a Rs 10 million loan for 5 Years:

	Fixed Rate (%)	Floating Rate (%)
Company A	8	LIBOR +1.0
Company B	12	LIBOR +2.0

Company A requires a floating rate loan; Company B requires a fixed rate loan.

Questions

Q 8(A): Design a swap that will net a bank, acting as intermediary, 0.3% per annum and that will appear equally attractive to both companies.

Q8 (B): Create net cash flow statement for companies.

Question Number	**CLO**
Q. 1	**CL01**, **CL02**
Q. 2	**CL02**
Q. 3	**CL02**
Q. 4	**CL02**
Q. 5	**CL03**
Q. 6	**CL04**
Q. 7	**CL04**
Q. 8	**CL04**