

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

POST GRADUATE DIPLOMA IN MANAGEMENT (2023-25)
END TERM EXAMINATION (TERM -V)

Subject Name: **FIXED INCOME SECURITIES**

Time: **02.00 hrs**

Sub. Code: **PGF09**

Max

Marks: **40**

Note: All questions are compulsory. Section A carries 12 marks: 6 questions of 2 marks each, Section B carries 18 marks having 3 questions (with internal choice question in each) of 6 marks each and Section C carries 10 marks one Case Study having 2 questions of 5 marks each.

<u>SECTION - A</u>		
Attempt all questions. All questions are compulsory.		2×6 = 12 Marks
Questions	CO	Bloom's Level
Q. 1: (A). Define fixed income securities	1	1
Q. 1: (B). Describe are the main participants in the fixed income markets	1	2
Q. 1: (C). Explain any two types of bonds with examples.	1	2
Q. 1: (D) Explain how to price a zero-coupon bond with a numerical example for a bond maturing in 10 years with a yield of 4%	2 2 2	3 3 3
Q. 1: (E) A \$1,000 par bond with an annual coupon has only 1 year until maturity. Its current yield is 6.713% and its yield to maturity is 10%. What is the price of the bond?		
Q. 1: (F) Differentiate between yield to call and YTM (three questions from CO1 and CO2)		
<u>SECTION – B</u>		
All questions are compulsory (Each question has an internal choice. Attempt anyone (either A or B) from the internal choice)		6 x 3 = 18 Marks
Questions	CO	Bloom's Level
Q. 2: (A). Differentiate between liquidity risk, interest rate risk and volatility risk and explain how they impact investments in bonds. Or Q. 2: (B). Describe the features of bonds with relevant examples and how they influence pricing of bonds (internal choices with two questions corresponding to the same CO)	1	2
Q. 3: (A). Differentiate between duration and modified duration. Evaluate their importance in bond price volatility. Calculate the duration and modified duration for a bond with a face value of \$1,000, a coupon rate of 8% paid annually, a yield of 7%, and maturing in 3 years Or Q. 3: (B). A bond with a face value of \$1,000 has a coupon rate of 7% paid annually and a yield of 6%. It matures in 4 years. Calculate the bond's	3	4,5

<p>modified duration using Macaulay duration and analyse the difference between duration and convexity</p> <p>(internal choices with two questions corresponding to the same CO)</p> <p>Q. 4: (A) Discuss and analyse the difference between price volatility of option-free bonds and callable bonds. Why are callable bonds more sensitive to interest rate movements</p> <p style="text-align: center;">Or</p> <p>Q. 4: (B) Explain the concept of convexity in bond pricing and evaluate its effects on price-yield sensitivity.</p> <p>(internal choices with two questions corresponding to the same CO)</p>	3	4,5
<p style="text-align: center;"><u>SECTION - C</u></p> <p>Read the case and answer the questions 5×02 = 10 Marks</p>		
Questions	CO	Bloom's Level
<p>Q. 5: Case Study: A bond issued has the following information:</p> <ul style="list-style-type: none"> • Trade value (Settlement) date: 12-Aug-2020 • Maturity date: 11-May-2030 • Coupon: 5.79% • Present yield: 5.90%. • The bond pays semi-annual coupon. • The market convention for day count is “30/360 European” (i.e., every month is 30 days and year is 360 days). <p>Questions:</p> <p>Q. 5: (A). Calculate both the clean price and dirty price (use discounted cash flow method)</p> <p>Q. 5: (B). Explain the difference between the clean price and dirty price. Why is this distinction important for investors?</p> <p>(Entire Sec C to be assigned one CO. Both questions corresponding to the same CO)</p>	2	3

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

COs	Question No.	Marks Allocated
CO1	Q.1A)1B)1C) Q 2	6+6
CO2	Q.1D)1E)1F) Q 5	6+10
CO3	Q 3, Q4	6+6
CO4		
CO5		
CO6		

(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