

Name:  
Enrolment No:



**UNIVERSITY OF PETROLEUM & ENERGY STUDIES**  
**End Semester Examination – December, 2021**

**Program: BBA FAS**  
**Subject/Course: Fixed Income Securities**  
**Course Code: FINC3002**

**Semester: V**  
**Max. Marks: 100**  
**Duration: 3 Hours**

**Section A**

**(Type the answers in test box)**

- 1. Each question carries 2 marks.**
- 2. Instructions- Select the correct answers.**

S No	Question	CO
Q1	Liquidity of Indian bond market is higher compared to Indian equity market. A) True B) False	CO1
Q2	For a given term to maturity and initial yield, the price volatility of a bond is lower for which of the coupon rates A) Higher B) Same C) Lower D) Basis point	CO1
Q3	When yields in the marketplace rise above the coupon rate at a given point in time, the price of the bond rises so that an investor buying the bond can realize capital appreciation A) True B) False	CO1
Q4	Holding other factors constant, the higher the yield to maturity at which a bond trades, the higher the price volatility A) False B) True	CO1
Q5	For a given change in yields, price volatility is greater when yield levels in the market are ..... A) Low B) High C) Same D) Constant	CO1
Q6	Macaulay duration and modified duration are identical.	CO1

	A. True B. False	
<b>Q7</b>	Which of the following is the relationship between bond prices and yield to maturity (YTM) A) Positive B) Negative C) Neutral D) Zero	<b>CO1</b>
<b>Q8</b>	Which of the following is a feature of Indian bond markets. A) No institutional buyer B) No retail buyer C) High liquidity D) Low liquidity	<b>CO1</b>
<b>Q9</b>	Investments in fixed instrument securities always provides returns which are insufficient to cover inflation. A) False B) True	<b>CO1</b>
<b>Q10</b>	The bonds trading on BSE in India have higher volumes compared to bonds traded on NYSE. A) True B) False	<b>CO1</b>
<b>Section B</b>		
<b>1. Each question carries 5 marks.</b> <b>2. Instructions: Write short answers.</b>		
<b>Q1</b>	Explain the properties concerning the price volatility of a straight bond.	<b>CO2</b>
<b>Q2</b>	Explain- yield to call, and yield to put.	<b>CO2</b>
<b>Q3</b>	Write the formula to calculate the price of the ZCB.	<b>CO2</b>
<b>Q4</b>	Explain the credit spread and its significance in fixed income trading.	<b>CO2</b>
<b>Section C</b>		
<b>1. Each question carries 10 marks. Attempt three questions.</b> <b>2. Show all the steps in calculating the required values until four decimal places.</b>		
<b>Q1</b>	Suppose that HUL issued a bond that has eight years remaining until maturity, a \$1000 face value, and a 5% coupon rate with annual coupon payments. If the current market interest rate is 2%, what is bond's premium or discount? What if the current market rate is 9%?	<b>CO4</b>
<b>Q2</b>	Nykaa sold \$100 million of 50-year bonds with a yield to maturity of 4%. Assuming the bonds were sold at par and pay an annual	<b>CO3</b>

	coupon, by what percentage will the price of the bond change if its yield to maturity decreases by 1%?	
<b>Q3</b>	Fixed income securities market face certain risks. Describe risks associated with investments in fixed income instruments. <b>OR</b> Explain the steps required in valuation of bonds. Clearly state role of various inputs used in bond valuation.	<b>CO3</b>
<b>Section D</b>		
<p><b>1. Each question carries 15 marks.</b>  <b>Show all the steps in calculating the required values until four decimal places.</b></p>		
<b>Q1</b>	You are given that the coupon rate is 8%, term of bond issue is 5 years, YTM (initial) is 9%, Face value of the bond is INR 1000. Calculate the duration and the convexity of the bond if the yield changes by 50 basis points. <b>OR</b> You are given that the coupon rate is 12%, term of bond issue is 10 years, discount factor to be used for bond valuation is 11%, and maturity value of the bond is INR 1000. Compute the price of the bond today and one year from today.	<b>CO4</b>
<b>Q2</b>	The economic crisis affects returns from fixed income securities. Write impact of economic crisis such as sub-prime crisis on bond markets and state the reasons for investing in bond market during recession.	<b>CO4</b>