Name:
Enrolment No:

UNIVERSITY OF PETROLEUM & ENERGY STUDIES

End Semester Examination (Online) – December, 2020

Program: BBA FAS **Semester : V**
Subject/Course: Fixed Income Securities **Max. Marks: 100**
Course Code: FINC3002 **Duration : 3 Hours**

Section A

1. **Each question carries 5 marks.**
2. **Instructions- Select the correct answers.**

S No	Question	CO
Q1	Which of the following is the relationship between bond prices and yield to maturity (YTM) A) Positive B) Negative C) Neutral D) Zero	**CO1**
Q2	For a given term to maturity and initial yield, the price volatility of a bond is greater 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 realizes 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	Investors refer to the ratio of Macaulay duration to 1 - y as the modified duration. A. True B. False	**CO1**
	Section B 1. **Each question carries 10 marks.** 2. **Instructions: Write short answers.**	
Q7	Explain the properties concerning the price volatility of an option-free bond.	**CO2**
Q8	Explain- yield to call, yield to put, and payoff to a call option and put option seller.	**CO2**
Q9	What do you mean by Zero Coupon Bond (ZCB) and write the formula to calculate the price of the ZCB.	**CO3**
Q10	Explain the risks associated with investing in bonds.	**CO3**
Q11	The University of London sold $300 million of 100-year bonds with a yield to maturity of 5.67%. Assuming the bonds were sold at par and pay an annual coupon, by what percentage will the price of the bond change if its yield to maturity decreases by 1%? Increases by 2%?	**CO4**
	Section C 1. **Each question carries 20 marks.** 2. **Show all the steps in calculating the required values until four decimal places.**	
Q12	Suppose that HUL issued a bond that has eight years remaining until maturity, a $1000 face value, and a 4% coupon rate with annual coupon payments. If the current market interest rate is 3%, what is bond's premium or discount? What if the current market rate is 7%? What if the current market rate is 13%? **OR** You are given that the coupon rate is 9%, term of bond issue is 6 years, YTM (initial) is 8%, Face value of the bond is INR 100. Calculate the deration and the convexity of the bond if the yield changes by 50 basis points.	**CO4**