Assignment 2

The due date for submitting the assignment has passed. As per our policy you have submitted assignment by

1. Compute the annual (simple) interest rate (in percentage) in case of a zero coupon bond with maturity 1 year from today and a nominal amount of 1080 which sells today for 590.

2. Suppose that the nominal annual rate offered by a bank is 8% with the compounding happening every month. Then the effective annual rate (in percentage) is given by:

3. An amount of 1000 will be paid six months from now. Then its present value with the annual continuous compounding rate of 8% is

4. Suppose that you borrowed amounts of 1000 today, 1250 in three months time and 1500 in six months time, from a friend. Further, you invest these amounts immediately on receipt for a period of 3 years, 33 months and 30 months, respectively, all at a nominal annual rate of 8%, compounded quarterly. In three years time from now, you have to repay an amount of 5500 to your friend. Then the amount of gain from the investment after having repaid your friend the amount of 5500 is

5. Consider investment in a project where you invest an amount of 2.136 today and receive amounts of 2.58 after 1 year and 3.12 after 2 years. Then the present value of the project with the annual compounding rate of 8% is

6. Suppose that you take a 3 year loan of amount 100000 to buy a scooter at an interest rate of 9%, compounded quarterly. Then the amount of your monthly payment or EMI is

7. Suppose that the face value of a coupon bond of maturity \( T \) is \( V \), and \( n \) is the number of coupons to the total annual coupon payment being \( nC \). The interval between coupon payments is \( \frac{T}{n} \). Let \( P(t) \) be the price of the bond at time \( t \). Then, state whether the following statement is TRUE or FALSE:

The current yield \( r(t) \) of the bond is given by

8. The relationship between bond price and yield rate, is such that the bond price goes up if the yield rate goes...

9. Consider a two year bond which trades at par, with a face value of 1000. The bond pays coupons of 100 at the end of the first and the second year. Then the annual yield rate (in percentage) of the bond is

10. Consider a three year pure discount bond with nominal 1000 and which is currently selling at 900. Then the annual rate of interest (in percentage) using the simple interest rate rule is