

Unit 4 - Week 2: Time Value of Money and Riskfree Assets

Course outline

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- Lec 4: Interest Rates and Present Value
- Lec 5: Present & Future Values, Annuities, Amortization and Bond Yield
- Lec 6: Price Yield Curve and Term Structure of Interest Rates
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Live Session

Assignment 2

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-08-21, 23:59 IST.

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 value of 1000 and which sells today for 950.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 5.20,5.30

1 point

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:

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 8.2,8.4

1 point

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:

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 960,962

1 point

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 4500 to your friend. Then the amount of gain from the investment after having repaid your friend the amount of 4500 is:

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 150,152

1 point

5)

Consider investment in a project where you invest an amount of 2 lakhs today and receive amounts of 2.5 lakhs after 1 year and 3 lakhs after 2 years. Then the present value of the project with the annual compounding rate of 8% is:

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 2.85,2.95
(Type: Range) 285000,295000

1 point

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:

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 3170,3190
(Type: Range) 4570,4590

1 point

7)

Suppose that the face value of a coupon bond of maturity T is V , and n is the number of coupons with the total annual coupon payment being nC . The interval between coupon payments is $\frac{1}{n}$. Let $P(t)$ be the price of the bond.

Then, state whether the following statement is TRUE or FALSE:

The current yield $y(t)$ of the bond is given by $P(t) = \frac{V}{[1 + y(t)]^T} + \sum_{i=1}^{Tn} \frac{C}{[1 + y(t)]^{i/n}}$.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) TRUE

1 point

8)

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

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) down

1 point

9)

Consider a two year bond which trades at par, with a face value of 10000. The bond pays coupons of 400 at the end of the first and the second year. Then the annual yield rate (in percentage) of the bond is:

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 3.95,4.05

1 point

10)

Consider a three year pure discount bond with nominal 1000 and which is currently selling at 860. Then the annual rate of interest (in percentage) using the simple interest rate rule is:

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 5.40,5.50

1 point