

Unit 5 - Week 2: Basics of Financial Markets

Course outline

How does an NPTEL online course work?

MATLAB

Week 0: Prerequisite

Week 1: Basics of Probability Theory

Week 2: Basics of Financial Markets

Lec 1: Financial markets

Lec 2: Bonds and stocks

Lec 3: Binomial and geometric Brownian motion (gBm) asset pricing models

Quiz : Assignment 2

Feedback form

Assignment Solution

Week 3: Mean-Variance Portfolio Theory

Week 4: Mean-Variance Portfolio Theory- II

Week 5: Non-Mean-Variance Portfolio Theory

Week 6: Non-Mean-Variance Portfolio Theory- II

Week 7: Non-Mean-Variance Portfolio Theory- III

Week 8: Optimal Portfolio and Consumption

Week 9: Optimal Portfolio and Consumption- II

Week 10: Bond Portfolio Management

Week 11: Risk Management

Week 12: Applications with market data

Live Session: Mathematical Portfolio Theory

Text Transcripts

Assignment 2

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

Due on 2020-09-30, 23:59 IST.

1) Which of the following is not a type of trader :

1 point

- Speculator
- Hedger
- Bureaucrat
- Arbitrageur

No, the answer is incorrect.
Score: 0

Accepted Answers:
Bureaucrat

2) State whether the following statement is TRUE or FALSE :
The par value is paid by the creditor to the debtor at maturity :

1 point

- TRUE
- FALSE

No, the answer is incorrect.
Score: 0

Accepted Answers:
FALSE

3) Which of the following can be the number of payments made by the debtor to the creditor of a coupon bond :

1 point

- 0
- 1
- 3
- 5

No, the answer is incorrect.
Score: 0

Accepted Answers:
3
5

4) Which of the following can be earned by a stockholder :

1 point

- Coupon payments
- Dividend yields
- Capital gains
- Swap payments

No, the answer is incorrect.
Score: 0

Accepted Answers:
Dividend yields
Capital gains

5) Consider a two-step binomial model with $S(0) = 100$, $u = 0.2$ and $d = -0.1$.
The stock price at time $t = 2$ as a result of one upward and one downward movement equals :

Hint

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Range) 106,110

1 point

6) The value of an investment of 100 at a risk-free rate (with continuous compounding) of 6%, for one year equals :

Hint

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Range) 105,107

1 point

7) If $W(t)$ is a Wiener process with $W(0) = 0$, then $Var(W(5) - W(3)) + Var(W(8) - W(6))$ equals :

Hint

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Range) 3.9,4.1

1 point

8) If $S(t) = S(0)e^{3t+2W(t)}$, then the corresponding stochastic differential equation (SDE) is given by :

1 point

- $dS(t) = S(t)dt + 2S(t)dW(t)$
- $dS(t) = 2S(t)dt + S(t)dW(t)$
- $dS(t) = 5S(t)dt + 2S(t)dW(t)$
- $dS(t) = 2S(t)dt + 5S(t)dW(t)$

No, the answer is incorrect.
Score: 0

Accepted Answers:
 $dS(t) = 5S(t)dt + 2S(t)dW(t)$