

**CHAPTER 2: Interest Rates****MULTIPLE CHOICE**

1. A fixed-income security may be defined as:
  - a. a security that earns a fixed return
  - b. a security that makes interest and principal repayments according to a fixed schedule
  - c. a security that is sold at a fixed discount
  - d. a security that earns dividends according to a fixed schedule
  - e. a security that is sold at a fixed price

ANS: B

DIF: Easy

REF: 2.1

TOP: Introduction

MSC: Factual

2. Suppose that you bought a stock for \$40, received a dividend of \$0.50, and sold it for \$41 after 91 days. Your annualized arithmetic rate of return equals:
  - a. 5.01 percent
  - b. 10.03 percent
  - c. 15.04 percent
  - d. 16.07 percent
  - e. None of these answers are correct.

ANS: C

DIF: Easy

REF: 2.2

TOP: Rate of Return

MSC: Applied

3. Suppose that you are planning to enroll in a master's program two years in the future. The cost to enroll is \$150,000. You expect to have the following funds:
  - From your current job, you can save \$5,000 after one year and \$7,000 after two years.
  - You expect a year-end bonus of \$9,000 after one year and \$15,000 after two years.
  - Your grandparents saved money for your education in a tax-favored savings account and will give you \$18,000 after one year.
  - Your parents offer you the choice of taking \$50,000 at any time, but that amount is deducted from your inheritance. They are risk-averse investors and put money in ultra-safe government bonds giving 2 percent per year.

The borrowing and the lending rate at the bank is 4 percent per year, compounded daily.

Approximating this by continuous compounding, how much money will you need to borrow when you start your master's degree education two years from today?

- a. \$39,489
- b. \$40,530
- c. \$42,489
- d. \$47,501
- e. None of these answers are correct.

ANS: B

DIF: Difficult

REF: 2.2

TOP: Rate of Return

MSC: Applied

4. The interest rate is 7 percent per year. Compute the eight-month zero-coupon bond price using a compound interest rate with monthly compounding.
  - a. \$0.9533
  - b. \$0.9540
  - c. \$0.9545

- d. \$0.9554
- e. None of these answers are correct.

ANS: C                      DIF: Easy                      REF: 2.3  
TOP: Basic Interest Rates: Simple, Compound, and Continuously Compounded  
MSC: Applied

5. The simple interest rate is 5 percent per year. What is the dollar return after nine months?
- a. \$1.0312
  - b. \$1.0375
  - c. \$1.0381
  - d. \$1.0450
  - e. None of these answers are correct.

ANS: B                      DIF: Easy                      REF: 2.3  
TOP: Basic Interest Rates: Simple, Compound, and Continuously Compounded  
MSC: Applied

*Use the following table, where the interest rate is 5 percent per year, compounded once a year to answer the questions that follow.*

Time (in years)	Cash flow (in dollars)
0 (today)	– 105
1	7
2	9
3	106

6. Compute the present value of the above cash flows.
- a. –\$3.78
  - b. \$0.53
  - c. \$1.06
  - d. \$1.40
  - e. None of these answers are correct.

ANS: D                      DIF: Moderate                      REF: 2.4  
TOP: Discounting (PV) and Compounding (FV): Moving Money across Time  
MSC: Applied

7. Compute the future value of the above cash flows in three years.
- a. \$0.05
  - b. \$1.62
  - c. \$4.82
  - d. \$5.68
  - e. None of these answers are correct.

ANS: B                      DIF: Moderate                      REF: 2.4  
TOP: Discounting (PV) and Compounding (FV): Moving Money across Time  
MSC: Applied

8. If the price of a zero-coupon bond maturing in three years is \$0.90, what is the continuously compounded rate of return?
- a. 0.0351
  - b. 0.0426
  - c. 0.0542
  - d. 0.0744

e. None of these answers are correct.

ANS: A                      DIF: Moderate              REF: 2.4  
TOP: Discounting (PV) and Compounding (FV): Moving Money across Time  
MSC: Applied

9. Which of the following is NOT true about US Treasury securities?
- a. These securities are virtually free from default risk.
  - b. They trade in a market with some of the smallest bid/ask spreads in the world.
  - c. Their interest payments are free from state and local taxes.
  - d. They have low minimum denominations and offer a spectrum of maturities that range from one day to thirty years.
  - e. They accurately reflect a company's cost of borrowing.

ANS: E                      DIF: Easy                      REF: 2.5                      TOP: US Treasury Securities  
MSC: Factual

10. A discriminatory auction of US Treasury securities:
- a. raises more revenue than a uniform price auction
  - b. raises less revenue than a uniform price auction
  - c. raises equal revenue as a uniform price auction
  - d. may raise more or less revenues than a uniform price auction
  - e. None of these answers are correct.

ANS: D                      DIF: Moderate              REF: 2.6  
TOP: US Federal Debt Auction Markets              MSC: Conceptual

11. What is the when-issued market with respect to US Treasuries?
- a. It's a special kind of call market that begins a week or so before a Treasury securities auction.
  - b. It's a special kind of forward market that begins a week or so before a Treasury securities auction.
  - c. It's a special kind of futures market that begins a week or so before a Treasury securities auction.
  - d. It's a special kind of repo market that begins a week or so before a Treasury securities auction.
  - e. None of these answers are correct.

ANS: B                      DIF: Easy                      REF: 2.7  
TOP: Different Ways of Investing in Treasury Securities              MSC: Factual

12. A repo agreement:
- a. involves the sale of securities together with an agreement that the seller buys back the securities at a later date at a price that is negotiated at the time of initial sale
  - b. involves the sale of securities together with an agreement that the seller buys back the securities at a later date at a price to be negotiated in the future
  - c. involves the sale of securities together with an agreement that the seller will have the option to buy back the securities at a later date at a price to be negotiated in the future
  - d. is an agreement that allows banks to take possession of homes that become delinquent on mortgage payments
  - e. None of these answers are correct.

ANS: A                      DIF: Easy                      REF: 2.7  
TOP: Different Ways of Investing in Treasury Securities              MSC: Factual

13. US Treasury notes are:
- coupon bonds that have original maturity of more than ten years up to a maximum of thirty years
  - coupon bonds that have original maturity of more than one year up to a maximum of ten years
  - coupon bonds whose interest payments fluctuate with the inflation rate
  - zero-coupon bonds that don't pay interest but pay back the principal at maturity
  - zero-coupon bonds that mature in more than ten years

ANS: B                      DIF: Easy                      REF: 2.8

TOP: Treasury Bills, Notes, Bonds, and STRIPS

MSC: Factual

14. Using a banker's discount yield of 3 percent per year, the price of a US Treasury bill that matures in 181 days is
- \$0.9750
  - \$0.9849
  - \$0.9874
  - \$0.9881
  - None of these answers are correct.

ANS: B                      DIF: Easy                      REF: 2.8

TOP: Treasury Bills, Notes, Bonds, and STRIPS

MSC: Applied

15. Eurodollars are:
- US dollar-denominated deposits held in Europe
  - US dollar-denominated bonds that are held outside the USA
  - US dollar-denominated time deposits that are held outside the United States in a foreign bank or a subsidiary of a US bank
  - Any time deposit denominated in a particular currency but held outside the country of the currency
  - None of these answers are correct.

ANS: C                      DIF: Moderate                      REF: 2.9

TOP: Libor versus Bbalibor

MSC: Factual

16. Bbalibor is:
- the rate at which a bank with surplus funds lends to another bank for a fixed time period in the London interbank market
  - the rate at which a bank with surplus dollars lends to another bank for a fixed time period in the London interbank market
  - the rate at which a bank with a shortage of funds offers to borrow excess funds from another bank for a fixed time period in the London interbank market
  - a trimmed average of libor quotes computed every trading day by the British Banker's Association
  - None of these answers are correct.

ANS: D                      DIF: Easy                      REF: 2.9

TOP: Libor versus Bbalibor

MSC: Factual

17. The yield spread between Eurodollar deposits and Treasury Bill rates is called the:
- BED spread
  - DA spread
  - NOB spread
  - TBE spread
  - TED spread

ANS: E

DIF: Easy

REF: 2.9

TOP: Libor versus Bbalibor

MSC: Factual