

Exam 2

Sample Questions

INSTRUCTIONS: Read each question carefully. After you choose an answer, you can check to see if it is correct by clicking “CHECK ANSWER” below the question.

1. If you buy a bond that is selling for *greater than* its face, or maturity, value what will happen to the price (value) of the bond as the maturity date nears if market *interest rates do not change* during the life of the bond?
 - a. Because interest rates remain constant, nothing happens to the market value of the bond.
 - b. The price of the bond should increase even further above the bond's face value because the rates in the market are too low.
 - c. The price of the bond must decrease as the bond gets closer to its maturity because the bond's value has to equal its face value at maturity.
 - d. This question cannot be answered without additional information.
 - e. None of the above is a correct answer.

[CHECK ANSWER](#)

2. Xandu, Inc. has paid very large dividends ever since it started business. Recently, however, Xandu has decided to quit paying dividends and announced that there *never* will be another dividend payment or any other payments to stockholders during the remaining life of the company. Assuming this information is correct, what should be the value of Xandu's stock?
 - a. zero
 - b. greater than zero
 - c. less than zero
 - d. There is not enough information to answer this question.

[CHECK ANSWER](#)

3. Devine Divots issued a bond a few years ago that has a face value equal to \$1,000 and pays investors \$30 interest every six months. The bond has eight years remaining until maturity. If you require a 7 percent rate of return to invest in this bond, what is the maximum price you should be willing to pay to purchase the bond?
 - a. \$761.15
 - b. \$939.53
 - c. \$940.29
 - d. \$965.63
 - e. \$1,062.81

[CHECK ANSWER](#)

4. If investors expect inflation to always be a part of the economy, then the nominal risk-free rate of return (r_{RF}) associated with an investment will always be _____ the real risk-free rate of return (r^*).
 - a. greater than
 - b. less than
 - c. equal to

- d. The rates will not be equal, but more information is needed to determine the exact relationship.
- e. There is not enough information to answer this question.

[CHECK ANSWER](#)

5. According to the Capital Asset Pricing Model (CAPM), under what circumstances should an investor expect to be paid for the *total, or stand-alone, risk* associated with a particular investment?
- a. When the investment is held in isolation—that is, the investor holds a single-asset portfolio.
 - b. When the investment is held in a well-diversified portfolio.
 - c. When the total risk associated with the investment is comprised of *firm-specific risk only*.
 - d. When the total risk associated with the investment is comprised of *market risk only*.
 - e. Investors should always expect to be paid for the total risk associated with an investment.

[CHECK ANSWER](#)

6. According to the *Wall Street Journal*, the yield to maturity on 1-year Treasury bonds is 2.2 percent, the yield to maturity on 2-year Treasury bonds is 3.0 percent, and the yield on 3-year Treasury bonds is 3.6 percent. These bonds are considered risk free, so the rates given here are risk-free rates (r_{RF}). The 1-year bond matures one year from today, the 2-year bond matures two years from today, and so forth. If the *real* risk-free rate (r^*) for all three years is 2 percent, what is the expected inflation rate for the next 12 months (year)? (Assume that the expectations theory is the appropriate explanation for the shape of the yield curve.)
- a. 1.8%
 - b. 0.2%
 - c. 1.0%
 - d. 0.8%
 - e. None of the above is a correct answer.

[CHECK ANSWER](#)

7. If market interest rates for corporate bonds of similar risk drop from 7 percent to 6 percent, which of the following bonds would sell for a *premium*?
- a. 5 percent coupon bond with 10 years remaining until maturity
 - b. 6 percent coupon bond with one year remaining until maturity
 - c. 5 percent coupon bond with one year remaining until maturity
 - d. 7 percent coupon bond that matures today.
 - e. 7 percent coupon bond with 10 years remaining until maturity

[CHECK ANSWER](#)

8. Assume the expectations theory of the term structure of interest rates is correct and the other term structure theories are invalid. If we observe an *upward sloping yield curve*, which of the following is a *correct* statement?
- a. Investors expect short-term (annual) rates to be constant over time.

- b. Investors expect short-term (annual) rates to decrease over time.
- c. Investors expect short-term (annual) rates to increase over time.
- d. It is impossible to say how interest rates are expected to move unless we know whether investors require a positive or negative maturity risk premium.
- e. The maturity risk premium must be positive, because there is less liquidity associated with bonds that have longer terms to maturity.

[CHECK ANSWER](#)

9. Based on the information given below, which of the investments would be considered best based on its risk and return relationship? Assume all investors are risk-averse and the investments will be held in isolation, not in a portfolio.

	Investment		
	D	E	F
Expected return, \hat{r}	10.0%	18.0%	18.0%
Standard deviation, σ	7.0%	12.0%	20.0%

- a. D, because its total risk is lowest.
- b. E, because its coefficient of variation is lowest.
- c. F, because its standard deviation, σ , is highest.
- d. E and F, because they have the same expected return, \hat{r} .
- e. None of the above.

[CHECK ANSWER](#)

10. Susan has an investment portfolio that contains the following two stocks:

<u>Stock</u>	<u>Amount Invested</u>	<u>Beta</u>
A	\$40,000	2.5
B	60,000	0.5

If the risk-free rate is 4 percent and the market rate is 10 percent, what return should Susan's portfolio earn?

- a. 11.8%
- b. 10.0%
- c. 14.4%
- d. 17.0%
- e. None of the above is correct.

[CHECK ANSWER](#)

11. Martaberry Corporation has bonds outstanding that currently sell for \$1,078. The bonds, which were issued five years ago, have 10 years remaining until maturity. Each bond has a face value equal to \$1,000 and a 6 percent coupon rate of interest. Interest payments are made semiannually. What is the yield to maturity (YTM) for the bonds? Martaberry's marginal tax rate is 40 percent.

- a. 2.5%
- b. 5.0%
- c. 6.0%
- d. 3.0%
- e. 5.1%

[CHECK ANSWER](#)

12. According to the results of a recent survey, investors expect the *annual* interest rates in each of the next three years to be:

<u>Year</u>	<u>1-Year Rate</u>
2012	5.0%
2013	9.0
2014	4.0

Given these expectations, what should be the yield to maturity for a 3-year bond? To answer this question, assume today is January 1, 2012 and the 3-year bond matures on December 31, 2014. (Assume that the expectations hypothesis is the only explanation for the shape of the yield curve.)

- a. 4.0%
- b. 6.0%
- c. 6.5%
- d. 7.0%
- e. There is not enough information to answer this question.

[CHECK ANSWER](#)

13. Ms. Manners Catering (MMC) has paid a constant \$1.50 per share dividend to its common stockholders for the past 25 years. MMC expects to continue this policy for the next two years, and then begin to increase the dividend at a constant rate equal to 2 percent per year into perpetuity. Investors require a 12 percent rate of return to purchase MMC's common stock. What is the market value of MMC's common stock?

- a. \$14.73
- b. \$15.00
- c. \$15.58
- d. \$15.30
- e. None of the above is correct.

[CHECK ANSWER](#)

14. Stephanie just purchased a corporate bond that matures in three years. The bond has a coupon interest rate equal to 9 percent and its yield to maturity is 6 percent. If market conditions do not change—that is market interest rates remain constant—and Stephanie sells the bond in 12 months, what will be her capital gain from holding the bond?

- a. Positive; because she bought the bond for a discount, which means its price has to increase as the maturity date nears.
- b. Negative; because she bought the bond for a premium, which means its price has to decrease as the maturity date nears.

- c. Zero, because she must have bought the bond for par, which means its price will not change as the maturity date nears.
- d. This question cannot be answered, because the face (maturity) value of the bond is not given.
- e. None of the above is correct.

[CHECK ANSWER](#)

15. Many experts forecast that interest rates will increase during the next few years. If you invest in a corporate bond today and interest rates do increase, what will happen to the value of your bond?
- a. The bond's value should increase also, because the return (yield) on the bond has to increase so the bond earns a higher rate of return.
 - b. The bond's value should decrease, because the price must be adjusted downward so as to equate the return on the bond to the higher market rates generated by other similar risk bonds.
 - c. The value of the bond should not change, because, assuming the company does not default, the value of the bond at maturity must equal its face, or par, value.
 - d. The value of the bond will change, but the direction of the change cannot be determined until the magnitude of the interest rate increase is known.
 - e. None of the above is a correct answer.

[CHECK ANSWER](#)

16. According to the following information, which of the stocks would be considered *riskiest* if it is held by itself—that is, there are no other investments in the portfolio?

<u>Stock</u>	<u>σ</u>	<u>β</u>
ABC	12.5%	1.0
FGH	8.0	0.5
MNO	20.2	2.4
TUV	15.3	3.0

- a. Stock MNO, because it has the highest standard deviation.
- b. Stock TUV, because it has the highest beta.
- c. Stock FGH, because it has the highest σ/β ratio.
- d. Stock ABC, because its beta is the same as the market beta (1.0) and the market is always very, very risky.
- e. None of the above is a risky investment.

[CHECK ANSWER](#)

17. Given the following information, compute the standard deviation for Investment A:

<u>Investment A</u>	
<u>Payoff</u>	<u>Probability</u>
20%	0.5
10%	0.4
-10%	0.1

$$\hat{r}_A = 13.0\%$$

- a. 81.0%
- b. 5.0%
- c. 9.0%
- d. 17.1%
- e. None of the above is correct.

[CHECK ANSWER](#)

18. Temporary Trucking Company's (TTC) common stock currently sells for \$15.00 per share. It is expected that the company will pay a dividend equal to \$0.90 in one year, and at that time the price of the stock is expected to be \$16.20. According to this information, TTC's stockholders expect to earn a dividend yield equal to _____ and a capital gains rate equal to _____.
- a. 6.0%; 8.0%
 - b. 8.0%; 6.0%
 - c. 5.6%; 14.0%
 - d. 14.0%; 0.0%
 - e. None of the above is a correct answer.

[CHECK ANSWER](#)

19. Shelli is trying to determine whether she should purchase the stock of Alternative Actions Associates (AAA). The stock, which currently sells for \$80 per share, does not currently pay any dividends. But, all the professional analysts forecast that AAA will begin paying a dividend equal to \$24.32 per share *10 years from today*, and that the dividend will remain at this level long into the future (i.e., for more than a century). If investors require a return equal to 16 percent on similar risk investments, should Shelli purchase AAA stock?
- a. No, because the value of AAA's stock is \$40 today, which is much lower than its \$80 market price.
 - b. Yes, because the value of AAA's stock is greater than \$150, which is much higher than its market \$80 price.
 - c. No, because the expected growth rate for the company is zero, which means the return on this investment must be much less than 16 percent.
 - d. Yes, because the current dividend yield is greater than 30 percent, which is much greater than the required rate of return of 16 percent.
 - e. None of the above is correct.

[CHECK ANSWER](#)