Sample Final Questions
Foundations of Financial Markets
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1. If the (positive) yield to maturity on a zero coupon bond is constant from one year to the next, the price of the zero coupon bond over the next year will

   a. Increase
   b. Decrease
   c. Remain the same
   d. You cannot tell

2. Which of the following five-year investments has the highest yield to maturity?

   a. An 8 percent coupon annual pay bond selling at 103
   b. An 8 percent coupon annual bond selling at par
   c. A zero coupon bond with $ 1000 face value selling at $665
   d. They all have the same YTM

3. Suppose you buy a put option with a strike price of 100 for a premium of $10. Your maximum profit per share is

   a. $10
   b. $100
   c. $90
   d. $110

4. A security has an equilibrium expected return less than that of the risk-free asset when:

   (a) The correlation between its return and the market return is less than 1
   (b) The security is uncorrelated with the market
   (c) A security never has an equilibrium expected return less than the risk free asset
   (d) None of the above

5. According to the Liquidity Preference Theory

   a. Short-term rates are expected to rise at any given time
   b. Investors want to be compensated for holding long-term bonds
   c. All bonds have equal expected holding period return
   d. There is a specific clientele for long-term bonds, and another clientele for short-term bonds

6. Being long a call and short a put is like:

   a. Long a call and short the stock
   b. Short selling
   c. Buying stock on margin
   d. straddle

7. If the implied volatility of a call is greater than what you think is the actual volatility, you should:

   a. Buy the call
   b. Write the call
   c. Buy the put
   d. Sell the stock

8. According to the CAPM, if a security's beta is negative, then its expected return must be

   (a) The market rate of return

   (b) Zero

   (c) A negative rate of return

   (d) The risk free rate

   (e) None of the above

9. Suppose the yield on a one-year zero-coupon bond is 7%. The yield on a two-year zero-coupon bond is 8%. You expect the one-year yield next year to rise to 7.5%. Which of the following strategies would give you the highest expected HPR over one year?

   a. Invest in the one-year bond
   b. Invest in the two-year bond and sell after one year
   c. The expected returns on a and b are equal
   d. Impossible to tell

10. According to the Black-Scholes-Merton model, if, for a particular call option, $N(d1)$ and $N(d2)$ are both close to 0, then which of the following is most true

    a. The call is almost worthless
    b. The call will be exercised almost certainly
    c. The call price is close to $S - X$
    d. The call is worth less than $S - X$

11. Which of the following represents an arbitrage opportunity where you would do the following: buy the call, sell the put, sell the stock, and buy a risk-free security. $S = 110$, $X = 100$, $r = 0$, $T = 1$

    a. P =2, C=12
    b. P=5, C=15
    c. P=12, C=23
    d. P=5, C=12

12. Assume you bought an 8% coupon bearing bond with 4 years to maturity at par and then sold it at a premium before maturity. If you were able to reinvest the coupons at the YTM, then:

    a. HPR = YTM
    b. HPR is less than YTM
    c. HPR is greater than YTM
    d. You cannot tell

13. Assume a zero coupon bond has duration = 10 years and a 30 year bond has an 18% coupon and a duration =10 years. Assume further that the yields on both bonds are the same and then change by the identical small amount. Then, the % price change of the 30 year will be approximately:

    a. Equal to the % price change of the zero
    b. Less than the % price change of the zero
    c. Greater than the % price change of the zero
    d. Can't tell

14. Suppose the expected return on stock ABC is 14%. Suppose $R_f = 3\%$, $E(R_m) = 10\%$ and ABC's $\beta = 1.45$. Then the α on ABC is

    (a) Positive

    (b) Negative

    (c) Zero

    (d) Not enough information to answer

15. According to CAPM, if the expected return on asset 1, $E(R_1)$, is greater than the expected return on asset 2, $E(R_2)$, then:

    (a) R_1 must always be greater than R_2

    (b) σ_1 must be greater than σ_2

    (c) β_1 must be greater than β_2

    (d) all of the above must be true

16. An upcoming event suggests that there will be significant movement in the share price, but you're not sure in which direction. Which position would you choose?

    a. Long a call
    b. Long stock and short a call
    c. A straddle
    d. Portfolio insurance

17. Assuming you hold an annual pay coupon bearing bond to maturity, its holding period return is equal to

    a. the YTM if you can and do reinvest at a fixed rate
    b. the coupon rate
    c. the YTM if you can and do reinvest at the YTM
    d. none of the above

18. According to the Expectations Hypothesis of the term structure

    a. the 1-year rate today equals the expected one-year rate next year
    b. investors are risk averse
    c. when the yield curve is upward sloping, the expected one-year rate next year is higher than the one-year rate today
    d. none of the above

19. The buyer of a put and seller of a call

    a. must disagree about whether the price of the underlying is expected to go up or down
    b. both have rights and not obligations
    c. both profit if the price of the underlying asset falls
    d. both b and c are correct

20. A portfolio of a stock and a protective put

    a. always has higher profit than just owning the stock
    b. profits when the underlying asset's stock price decreases
    c. means that you can loose everything you invested (in the worst case)
    d. none of the above

21. Which of the following statements is false:

    a. A par bond must have a coupon rate that is equal to the yield to maturity
    b. When the coupon rate is greater than the yield to maturity, the bond is selling at a premium
    c. Duration is a measure of interest-rate sensitivity
    d. If I invest \$100 in a par-value bond with coupon rate of 10% and maturity of two years, I will certainly have \$121 at the end of the two years

22. If the stock price falls and the call price rises, then what has happened to the call option's implied volatility (assuming interest rates are unchanged)?

    a. Up
    b. Down
    c. Same
    d. Can't tell

23. The price (per \$100 face value) of a 7% semi-annual pay bond with exactly 2-1/2 years to maturity and a yield to maturity of 8.75% is:

    a. 93.4381
    b. 96.9111
    c. 96.1454
    d. none of the above

24. If a company's growth rate is high then, all else the same, which of the following must be true:

    a. the P/E ratio of its stock will be higher
    b. the stock's beta will be higher
    c. the price-dividend ratio of the stock will be higher
    d. both a and c

25. Suppose that the risk-free rate is $R_f = 3\%$ and the risk-premium is $E(R_m) - R_f = 8\%$. According to Gordon's Growth Model, if a company has a current dividend of $D_0 = \$20$ per share, a constant growth rate of $g = 6\%$, and $\beta = 1.25$, what is its stock price:

    a. the stock price is \$285.71 per share
    b. the stock price is \$302.86 per share
    c. the stock price is \$342.14 per share
    d. not enough information to tell

26. If prices reflect all publicly available information

    a. the market is semi-strong efficient
    b. stock price changes are unpredictable by public information
    c. stock price changes are unpredictable by all information, including private information
    d. one can profit from doing advanced security analysis based on public information
    e. both a and b are true
    f. All of a, b, c, and d are true

27. The price of a stock today is \$100. Next year, the stock price will be either \$120 or \$90. The risk-free rate is 3% per year. What the the price of a put option with strike price \$98

    a. the put option price is \$4.00
    b. the put option price is \$4.23
    c. the put option price is \$4.40
    d. not enough information to tell

ANSWERS

1. A
2. C
3. C
4. D
5. B
6. C
7. B
8. E
9. B
10. A
11. D
12. C
13. A
14. A
15. C
16. C
17. C
18. C
19. C
20. D
21. D
22. A
23. C
24. D
25. B
26. E
27. C