**MBA Financial Management and Markets Exam 2 Spring 2010**

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**Directions: The following 33 questions are designed to test your knowledge of financial instruments, financial statements and ratios, as well as, risk/return relationships in regards to CAPM. Choose the best possible answer from those responses that are given to each question. Your completed exam will be due at the start of class on Monday, March 8th, 2010.**

**True/False**

*Indicate whether the statement is true or false.*

____ 1. The current ratio and inventory turnover ratios both help us measure the firm's liquidity. The current ratio measures the relationship of a firm's current assets to its current liabilities, while the inventory turnover ratio gives us an indication of how long it takes the firm to convert its inventory into cash.

____ 2. Profitability ratios show the combined effects of liquidity, asset management, and debt management on operating results.

____ 3. Since the ROA measures the firm's effective utilization of assets (without considering how these assets are financed), two firms with the same EBIT must have the same ROA.

____ 4. Sinking funds are devices used to force companies to retire bonds on a scheduled basis prior to their maturity. Many bond indentures allow the company to acquire bonds for a sinking fund by either purchasing bonds in the market or selecting the bonds to be acquired by a lottery administered by the trustee through a call at face value.

____ 5. The market value of any real or financial asset, including stocks, bonds, or art work purchased in hope of selling it at a profit, may be estimated by determining future cash flows and then discounting them back to the present.

____ 6. Because short-term interest rates are much more volatile than long-term rates, you would, in the real world, generally be subject to much more interest rate price risk if you purchased a 30-day bond than if you bought a 30-year bond.

____ 7. A bond has a $1,000 par value, makes annual interest payments of $100, has 5 years to maturity, cannot be called, and is not expected to default. The bond should sell at a <u>premium</u> if interest rates are below 10% and at a <u>discount</u> if interest rates are greater than 10%.

____ 8. The prices of high-coupon bonds tend to be less sensitive to a given change in interest rates than low-coupon bonds, other things held constant.

____ 9. A payoff matrix shows the set of possible rates of return on an investment, along with their probabilities of occurrence, and the investment's expected rate of return as found by multiplying each outcome or "state" by its probability.

____ 10. The coefficient of variation, calculated as the standard deviation of expected returns divided by the expected return, is a standardized measure of the risk per unit of expected return.

____ 11. According to the Capital Asset Pricing Model, investors are primarily concerned with portfolio risk, not the risks of individual stocks held in isolation. Thus, the relevant risk of a stock is the stock's contribution to the riskiness of a well-diversified portfolio.

____ 12. The slope of the SML is determined by investors' aversion to risk. The greater the marginal investor's risk aversion, the steeper the SML.

____ 13. Debt management ratios show the extent to which a firm's managers are attempting to magnify returns on owners' capital through the use of financial leverage.

**Multiple Choice**
*Identify the choice that best completes the statement or answers the question.*

____ 14. A firm wants to strengthen its financial position. Which of the following actions would <u>increase</u> its current ratio?
a. Reduce the company's days' sales outstanding to the industry average and use the resulting cash savings to purchase plant and equipment.
b. Use cash to repurchase some of the company's own stock.
c. Borrow using short-term debt and use the proceeds to repay debt that has a maturity of more than one year.
d. Issue new stock and then use some of the proceeds to purchase additional inventory and hold the remainder as cash.
e. Use cash to increase inventory holdings.

____ 15. Which of the following would indicate an <u>improvement</u> in a company's financial position, holding other things constant?
a. The inventory and total assets turnover ratios both decline.
b. The debt ratio increases.
c. The profit margin declines.
d. The EBITDA coverage ratio declines.
e. The current and quick ratios both increase.

____ 16. Aziz Industries has sales of $100,000 and accounts receivable of $11,500, and it gives its customers 30 days to pay. The industry average DSO is 27 days, based on a 365-day year. If the company changes its credit and collection policy sufficiently to cause its DSO to fall to the industry average, and if it earns 8.0% on any cash freed-up by this change, how would that affect its net income, assuming other things are held constant?
a. $267.34
b. $281.41
c. $296.22
d. $311.81
e. $328.22

____ 17. Last year Vaughn Corp. had sales of $315,000 and a net income of $17,832, and its year-end assets were $210,000. The firm's total-debt-to-total-assets ratio was 42.5%. Based on the Du Pont equation, what was Vaughn's ROE?
a. 14.77%
b. 15.51%
c. 16.28%
d. 17.10%
e. 17.95%

____ 18. Which of the following bonds has the greatest interest rate price risk?
a. A 10-year $100 annuity.
b. A 10-year, $1,000 face value, zero coupon bond.
c. A 10-year, $1,000 face value, 10% coupon bond with annual interest payments.
d. All 10-year bonds have the same price risk since they have the same maturity.
e. A 10-year, $1,000 face value, 10% coupon bond with semiannual interest payments.

____ 19. Sadik Inc.'s bonds currently sell for $1,280 and have a par value of $1,000. They pay a $135 annual coupon and have a 15-year maturity, but they can be called in 5 years at $1,050. What is their <u>yield to call (YTC)</u>?
a. 6.39%

b. 6.72%
c. 7.08%
d. 7.45%
e. 7.82%

____ 20. Assume that you are considering the purchase of a 15-year bond with an annual coupon rate of 9.5%. The bond has face value of $1,000 and makes semiannual interest payments. If you require an 11.0% nominal yield to maturity on this investment, what is the maximum price you should be willing to pay for the bond?
a. $891.00
b. $913.27
c. $936.10
d. $959.51
e. $983.49

____ 21. Wachowicz Corporation issued 15-year, noncallable, 7.5% annual coupon bonds at their par value of $1,000 one year ago. Today, the market interest rate on these bonds is 5.5%. What is the current price of the bonds, given that they now have 14 years to maturity?
a. $1,077.01
b. $1,104.62
c. $1,132.95
d. $1,162.00
e. $1,191.79

____ 22. Moerdyk Corporation's bonds have a 10-year maturity, a 6.25% semiannual coupon, and a par value of $1,000. The going interest rate ($r_d$) is 4.75%, based on semiannual compounding. What is the bond's price?
a. 1,063.09
b. 1,090.35
c. 1,118.31
d. 1,146.27
e. 1,174.93

____ 23. In order to accurately assess the capital structure of a firm, it is necessary to convert its balance sheet figures to a market value basis. KJM Corporation's balance sheet as of today is as follows:

| | |
|---|---:|
| Long-term debt (bonds, at par) | $10,000,000 |
| Preferred stock | 2,000,000 |
| Common stock ($10 par) | 10,000,000 |
| Retained earnings | 4,000,000 |
| Total debt and equity | $26,000,000 |

The bonds have a 4.0% coupon rate, payable semiannually, and a par value of $1,000. They mature exactly 10 years from today. The yield to maturity is 12%, so the bonds now sell below par. What is the current market value of the firm's debt?
a. $5,276,731
b. $5,412,032
c. $5,547,332
d. $7,706,000
e. $7,898,650

____ 24. Keith Johnson has $100,000 invested in a 2-stock portfolio. $30,000 is invested in Potts Manufacturing and the remainder is invested in Stohs Corporation. Potts' beta is 1.60 and Stohs' beta is 0.60. What is the portfolio's beta?
a. 0.60
b. 0.66
c. 0.74

d. 0.82
e. 0.90

____ 25. A stock has an expected return of 12.60%. Its beta is 1.49 and the risk-free rate is 5.00%. What is the market risk premium?
a. 5.10%
b. 5.23%
c. 5.36%
d. 5.49%
e. 5.63%

____ 26. Ripken Iron Works believes the following probability distribution exists for its stock. What is the coefficient of variation on the company's stock?

| State of the Economy | Probability of State Occurring | Stock's Expected Return |
|---|---|---|
| Boom | 0.25 | 25% |
| Normal | 0.50 | 15% |
| Recession | 0.25 | 5% |

a. 0.4360
b. 0.4714
c. 0.5068
d. 0.5448
e. 0.5856

____ 27. Yonan Corporation's stock had a required return of 11.50% last year, when the risk-free rate was 5.50% and the market risk premium was 4.75%. Now suppose there is a shift in investor risk aversion, and the market risk premium increases by 2%. The risk-free rate and Yonan's beta remain unchanged. What is Yonan's new required return? (Hint: First calculate the beta, then find the required return.)
a. 14.03%
b. 14.38%
c. 14.74%
d. 15.10%
e. 15.48%

____ 28. Vera Paper's stock has a beta of 1.40, and its required return is 12.00%. Dell Dairy's stock has a beta of 0.80. If the risk-free rate is 4.75%, what is the required rate of return on Dell's stock? (Hint: First find the market risk premium.)
a. 8.45%
b. 8.67%
c. 8.89%
d. 9.12%
e. 9.34%

____ 29. Bertin Bicycles has a beta of 0.88 and an expected dividend growth rate of 4.00% per year. The T-bill rate is 4.00%, and the T-bond rate is 5.25%. The annual return on the stock market during the past 4 years was 10.25%. Investors expect the average annual future return on the market to be 11.50%. Using the SML, what is Bertin's required rate of return?
a. 10.48%
b. 10.75%
c. 11.02%
d. 11.29%
e. 11.58%

____ 30. Your subscription to *Investing Wisely Weekly* is about to expire. You plan to subscribe to the magazine for the rest of your life, and you can renew it by paying $75 annually, beginning immediately, or you can get a lifetime subscription for $750, also payable immediately. Assuming you can earn 5.5% on your funds and the annual renewal rate will remain constant, how many years must you live to make the lifetime subscription the better buy? Round fractional years **up**. (Hint: Be sure to remember that you are solving for how many years you must live, not for how many payments must be made.)

a. 7
b. 8
c. 9
d. 11
e. 13

____ 31. Hunter Manufacturing Inc.'s December 31, 2006, balance sheet showed total common equity of $2,050,000 and 100,000 shares of stock outstanding. During 2007, Hunter had $250,000 of net income, and it paid out $100,000 as dividends. What was the book value per share at 12/31/07, assuming that Hunter neither issued nor retired any common stock during 2007?

a. $20.90
b. $22.00
c. $23.10
d. $24.26
e. $25.47

____ 32. Suppose the U.S. Treasury announces plans to issue $50 billion of new bonds. Assuming the announcement was not expected, what effect, other things held constant, would that have on bond prices and interest rates?

a. Prices and interest rates would both rise.
b. Prices would rise and interest rates would decline.
c. Prices and interest rates would both decline.
d. There would be no changes in either prices or interest rates.
e. Prices would decline and interest rates would rise.

____ 33. If a bank loan officer were considering a company's request for a loan, which of the following statements would you consider to be CORRECT?

a. The lower the company's EBITDA coverage ratio, other things held constant, the lower the interest rate the bank would charge the firm.
b. Other things held constant, the higher the debt ratio, the lower the interest rate the bank would charge the firm.
c. Other things held constant, the lower the debt ratio, the lower the interest rate the bank would charge the firm.
d. The lower the company's TIE ratio, other things held constant, the lower the interest rate the bank would charge the firm.
e. Other things held constant, the lower the current ratio, the lower the interest rate the bank would charge the firm.