MBA Financial Management and Markets **Spring 2011**
Dr. A. Frank Thompson **Due: February 28, 2011**

Competency Exam 1

Directions: Please answer the following 33 questions designed to test your knowledge of the pure expectations theory of the term structure of interest rates [Chapter 1 Web Extension], an overview of corporate structure and governance [Chapter 1], financial cash flow and statement analysis [Chapters 3 and 13], and the role of financial institutions and the central bank within the capital markets [Chapter 1 and lecture]. Choose the best possible response from the answers that are given. Each question is equally weighted with respect to the 100 total points possible for the assignment.

____ 1. An investor with a six-year investment horizon believes that interest rates are determined only by expectations about future interest rates, (i.e., this investor believes in the expectations theory). This investor should expect to earn the same rate of return over the 6-year time horizon if he or she buys a 6-year bond or a 3-year bond now and another 3-year bond three years from now (ignore transaction costs).
   a. True
   b. False

____ 2. Assume that the pure expectations theory holds. Which of the following statements about Treasury bill rates is most correct? (Two-year rates apply to bonds which will mature in two years, three-year rates apply to bonds which will mature in 3 years, and so on).
   a. If two-year rates exceed one-year rates, then the market expects interest rates to rise.
   b. If two-year rates are 7 percent, and three-year rates are 7 percent, then five-year rates must also be 7 percent.
   c. If one-year rates are 6 percent and two-year rates are 7 percent, then the market expects one-year rates to be 6.5 percent in one year.
   d. Answers a and c are correct.
   e. Answers b and c are correct.

____ 3. The interest rate on one-year Treasury securities is 5 percent. The interest rate on two-year Treasury securities is 6 percent. The pure expectations theory is assumed to be correct. Which of the following statements is most correct?
   a. The maturity risk premium is positive.
   b. The market expects that one-year rates will be 5.5 percent one year from now.
   c. The market expects that one-year rates will be 7 percent one year from now.
   d. The yield curve is downward sloping.
   e. None of the answers above is correct.

____ 4. Which of the following could explain why a business might choose to organize as a corporation rather than as a sole proprietorship or a partnership?
   a. Corporations generally face more difficulty transfering ownership to the founders heirs in estate settlement
   b. Corporations generally face lower taxes and less regulation
   c. Corporations generally find it easier to raise capital.
   d. Corporations enjoy limited liability.
   e. Statements c and d are correct.

____ 5. Your uncle would like to restrict his interest rate risk and his default risk, but he would still like to invest in corporate bonds. Which of the possible bonds listed below best satisfies your uncle's criteria?
   a. AAA bond with 10 years to maturity.
   b. BBB perpetual bond.
   c. BBB bond with 10 years to maturity.
   d. AAA bond with 5 years to maturity.
   e. BBB bond with 5 years to maturity.

____ 6. Jane Doe, who has substantial personal wealth and income, is considering the possibility of opening a new business in the chemical waste management field. She will be the sole owner. The business will have a relatively high degree of risk, and it is expected that the firm will incur losses for the first few years. However, the prospects for growth and positive future income look good, and Jane expects to realize substantial cash flows from dividends the firm will eventually pay out. Which of the legal forms of business organization would probably best suit her needs?
a. Proprietorship, because of ease of entry.
b. Regular corporation, because of the limited liability.
c. Partnership, if she needs additional capital.
d. S corporation, to enjoy tax advantages and gain limited liability.
e. In this situation, the various forms of organization seem equally desirable.

____ 7. If the Federal Reserve sells $50 billion of short-term U.S. Treasury securities to the public, other things held constant, what will this tend to do to short-term security prices and interest rates?
a. Prices and interest rates will both rise.
b. Prices will rise and interest rates will decline.
c. Prices and interest rates will both decline.
d. Prices will decline and interest rates will rise.
e. There will be no changes in either prices or interest rates.

____ 8. Given the following data, find the expected rate of inflation during the next year.

r* = real risk-free rate = 3%.
Maturity risk premium on 10-year T-bonds = 2%. It is zero on 1-year bonds, and a linear relationship exists.
Default risk premium on 10-year, A-rated bonds = 1.5%.
Liquidity premium = 0%.
Going interest rate on 1-year T-bonds = 8.5%.

a. 3.5%
b. 4.5%
c. 5.5%
d. 6.5%
e. 7.5%

____ 9. The financial manager interacts jointly with many different individuals and departments within the firm. Forecasting and planning, as well as coordination and control, are two of the major areas of responsibility where this interaction takes place.
a. True
b. False

____ 10. If Firm A owns no real assets of its own, but simply accepts the savings of individuals and invests them in financial assets issued by other firms or individuals, Firm A is a *financial intermediary sometimes called a financial institution*
a. True
b. False

____ 11. The annual report contains four basic financial statements: the income statement; balance sheet; statement of cash flows; and statement of retained earnings.
a. True
b. False

____ 12. Net operating profit after taxes (NOPAT) is the amount of profit a company would have from its operations if it had no interest income or interest expense.
a. True
b. False

____ 13. Last year Aldrin Co. had negative net cash flow, yet its cash on the balance sheet increased. What could explain these events?
a. Aldrin issued long-term debt.
b. Aldrin repurchased some of its common stock.
c. Aldrin sold some of its assets.
d. Statements a and b are correct.
e. Statements a and c are correct.

____ 14. Kramer Corporation recently announced that its net income was lower than last year. However, analysts estimate that the company's net cash flow increased. What factors could explain this discrepancy?
a. The company's depreciation expense increased.
b. The company's interest expense declined.
c. The company had an increase in its noncash revenues.
d. Answers a and b are correct.
e. Answers b and c are correct.

____ 15. Which of the following statements is most correct?
a. Retained earnings, as reported on the balance sheet, represents the amount of cash a company has available to pay out as dividends to shareholders.
b. 70 percent of the interest received by corporations is excluded from taxable income.
c. 70 percent of the dividends received by corporations is excluded from taxable income.
d. None of the answers above is correct.
e. Answers a and c are correct.

____ 16. Allen Corporation can (1) build a new plant which should generate a before-tax return of 11 percent, or (2) invest the same funds in the preferred stock of Florida Power & Light (FPL), which should provide Allen with a before-tax return of 9 percent, all in the form of dividends. Assume that Allen's marginal tax rate is 25 percent, and that 70 percent of dividends received are excluded from taxable income. If the plant project is divisible into small increments, and if the two investments are equally risky, what combination of these two possibilities will maximize Allen's effective return on the money invested?
a. All in the plant project.
b. All in FPL preferred stock.
c. 60% in the project; 40% in FPL.
d. 60% in FPL; 40% in the project.
e. 50% in each.

____ 17. Which of the following are likely to occur if Congress passes legislation which forces Carter Manufacturing to depreciate their equipment over a longer time period:
a. The company's physical stock of assets would increase.
b. The company's reported net income would decline.
c. The company's cash position would decline.
d. All of the answers above are correct.
e. Answers b and c are correct.

____ 18. Solo Company has been depreciating its fixed assets over 15 years. It is now clear that these assets will only last a total of 10 years. Solo's accountants have encouraged the firm to revise its annual depreciation to reflect this new information. Which of the following would occur as a result of this change?
a. The company's earnings per share would decrease.
b. The company's cash position would increase.
c. The company's EBIT would increase.
d. Both a and b are correct.
e. All of the answers above are correct.

____ 19. Your corporation has the following cash flows:

Operating income	$250,000
Interest received	10,000
Interest paid	45,000
Dividends received	20,000
Dividends paid	50,000

If the applicable income tax rate is 40 percent (federal and state combined), and if 70 percent of dividends received are exempt from taxes, what is the corporation's tax liability?

a. $74,000
b. $88,400
c. $91,600
d. $100,000
e. $106,500

____ 20. Carter Corporation has some money to invest, and its treasurer is choosing between City of Chicago municipal bonds and U.S. Treasury bonds. Both have the same maturity, and they are equally risky and liquid. If Treasury bonds yield 6 percent, and Carter's marginal income tax rate is 40 percent, what yield on the Chicago municipal bonds would make Carter's treasurer indifferent between the two?

a. 2.40%
b. 3.60%
c. 4.50%
d. 5.25%
e. 6.00%

____ 21. A 5-year corporate bond yields 9 percent. A 5-year municipal bond of equal risk yields 6.5 percent. Assume that the state tax rate is zero. At what federal tax rate are you indifferent between the two bonds?

a. 27.78%
b. 38.46%
c. 41.22%
d. 54.33%
e. 72.22%

____ 22. Hayes Corporation has $300 million worth of common equity on its balance sheet, and 6 million shares of stock outstanding. The company's Market Value Added (MVA) is $162 million. What is the company's stock price?

a. $23
b. $32
c. $50
d. $77
e. $138

____ 23. A company has the following balance sheet. What is its total operating capital?

Cash	$ 20	Accounts payable	$ 30
Short-term investments	30	Accruals	50
Accounts receivable	20	Notes payable	10
Inventory	60	Current liabilities	90
Current assets	130	Long-term debt	70
Gross fixed assets	140	Common stock	30
Accumulated deprec.	40	Retained earnings	40
Net fixed assets	100	Total common equity	70
Total assets	$230	Total liab. & equity	$230

a. $90
b. $120
c. $150
d. $200
e. $230

____ 24. Sanguillen Corp. showed retained earnings of $400,000 on its balance sheet last year. This year, the company's earnings per share (EPS) were $3.00 and its dividends paid per share (DPS) were $1.00. The company has 200,000 shares of stock outstanding. What is the level of retained earnings on the company's balance sheet this year?

a. $400,000
b. $500,000
c. $600,000
d. $700,000
e. $800,000

____ 25. New Mexico Lumber recently reported that its earnings per share were $3.00. The company has 400,000 shares of stock outstanding. The company's interest expense was $500,000. The corporate tax rate is 40 percent. What was the company's operating income (EBIT)?

a. $980,000
b. $1,220,000
c. $2,000,000
d. $2,500,000
e. $3,500,000

____ 26. Ratio analysis involves a comparison of the relationships between financial statement accounts so as to analyze the financial position and strength of a firm.

a. True
b. False

____ 27. Determining whether a firm's financial position is improving or deteriorating requires analysis of more than one set of financial statements. Trend analysis is one method of measuring a firm's performance over time.

a. True
b. False

____ 28. Variations in accounting methods among firms can invalidate financial comparisons between firms.

a. True
b. False

____ 29. Last year Thatcher Industries had a current ratio of 1.2, a quick ratio of 0.8, and current liabilities of $500,000. Which of the following statements is most correct?

a. If the company obtained a short-term bank loan for $500,000 and used the proceeds to purchase inventory, its current ratio would fall.
b. Last year Thatcher industries had $200,000 in inventories.
c. Last year Thatcher industries had $416,667 in current assets.
d. All of the answers above are correct.
e. Answers a and b are correct.

____ 30. Kansas Office Supply had $24,000,000 in sales last year. The company's net income was $400,000. Its total assets turnover was 6.0. The company's ROE was 15 percent. The company is financed entirely with debt and common equity. What is the company's debt ratio?

a. 0.20
b. 0.30
c. 0.33
d. 0.60
e. 0.66

____ 31. Dean Brothers Inc. recently reported net income of $1,500,000. The company has 300,000 shares of common stock. The stock currently trades at $60 a share. The company continues to expand and anticipates that one year from now its net income will be $2,500,000. Over the next year the company also anticipates issuing an additional 100,000 shares of stock, so that one year from now the company will have 400,000 shares of common stock. Assuming the company's price/earnings ratio remains at its current level, what will be the company's stock price one year from now?

a. $55
b. $60
c. $65
d. $70
e. $75

____ 32. Mondale Motors has forecasted the following year-end balance sheet:

Assets:	
Cash and marketable securities	$ 300
Inventories	500
Accounts receivable	700
Total current assets	$1,500
Net fixed assets	5,000
Total assets	$6,500
Liabilities and Equity:	
Notes payable	$ 800
Accounts payable	400
Total current liabilities	$1,200
Long-term debt	3,000
Stockholders' equity	2,300
Total liabilities and equity	$6,500

The company also forecasts that its days sales outstanding (DSO) on a 365-day basis will be 35.486 days.

Now, assume instead that Mondale is able to reduce its DSO to the industry average of 30.417 days without reducing its sales. Under this scenario, the reduction in accounts receivable would generate additional cash. This additional cash would be used to reduce its notes payable. If this scenario were to occur, what would be the company's current ratio?

a. 1.35
b. 1.27
c. 1.00
d. 1.17
e. 2.45

____ 33. Austin & Company has a debt ratio of 0.5, a total assets turnover ratio of 0.25, and a profit margin of 10 percent. The Board of Directors is unhappy with the current return on equity (ROE), and they think it could be doubled. This could be accomplished (1) by increasing the profit margin to 12 percent, and (2) by increasing debt utilization. Total assets turnover will not change. What new debt ratio, along with the new 12 percent profit margin, would be required to double the ROE?

a. 55%
b. 60%
c. 65%
d. 70%
e. 75%

s TOP: ROE