Part A. Multiple Choice Questions (75 points, 2.5 points for each question. Please select the best answer.)

1. Which of the following statements is most correct?

a. Downward sloping yield curves are inconsistent with the expectations theory.

b. Upward sloping yield curves are inconsistent with the expectations theory.

c. If the expectations theory is correct, a downward sloping yield curve indicates that interest rates are expected to decline in the future.

d. None of the statements above is correct.

2. Which of the following is likely to increase the level of interest rates in the economy?

a. Households start saving a larger percentage of their income.

b. Corporations step up their plans for expansion and increase their demand for capital.

c. The level of inflation is expected to decline.

d. None of the statements above is correct.

3. Which of the following formulas regarding NPV is incorrect?

a. NPV + PV(benefits) = PV(Cost)　　b. NPV + PV(costs) = PV(benefits)

c. NPV = PV(All project cash flows)　　d. NPV = PV(benefits) - PV(costs)

4. Which of the following is not an operating expense?

a. Interest expense　　b. Depreciation and amortization

c. Selling, general and administrative expenses　　d. Research and development

5. Which of the following statements is false?

a. Firms generally do not possess better information than outside investors regarding the risk of future commodity price change

d. If a coupon bond's yield to maturity exceeds its coupon rate, the present value of its cash flows at the yield to maturity will be greater than its face value.

7. Which of the following statements is false?
a. To improve the performance of their portfolios, investors who are holding the market portfolio will compare the expected return of each security with its required return from the security market line.
b. The Sharpe ratio of a portfolio will increase if we sell stocks with positive alphas.
c. When a stock's alpha is not zero, investors can improve upon the performance of the market portfolio.
d. When the market portfolio is efficient, all stocks are on the security market line and have an alpha of zero.

8. Which of the following statements is false?
a. The relative proportions of debt, equity, and other securities that a firm has outstanding constitute its capital structure.
b. The most common choices are financing through equity alone and financing through a combination of debt and equity.
c. The project's NPV represents the value to the new investors of the firm created by the project.
d. When corporations raise funds from outside investors, they must choose which type of security to issue.

9. Which of the following statements is false?
a. In general, the gain to investors from the tax deductibility of interest payments is referred to as the interest tax shield.
b. The interest tax shield is the additional amount that a firm would have paid in taxes if it did not have leverage.
c. Because Corporations pay taxes on their profits after interest payments are deducted, interest expenses reduce the amount of corporate tax firms must pay.
d. As Modigliani and Miller made clear in their original work, capital structure matters in perfect capital markets. Thus, if capital structure does not matter, then it must stem from a market imperfection.

10. The difference between a firm's operating cycle and its cash cycle is
a. there is no difference between the cash and operating cycles.
b. its account receivable days.
c. its accounts payable days.

d. its inventory days.

11. Which of the following statements is false?
a. The incentives come from owning stock in the company and from compensation that is sensitive to performance.
b. The role of the corporate governance system is to mitigate the conflict of interest that results from the combination of ownership and control without unduly burdening managers with the risk of the firm.
c. Punishment comes when a board fires a manager for poor performance or fraud, or when, upon failure of the board to act, shareholders or raiders launch control contests to replace the board and management.
d. The corporate governance system attempts to align interests by providing incentives for taking the right action and punishments for taking the wrong action.

12. DEF Corporation is expected pay a dividend of $1.40 per share at the end of this year and a $1.50 per share at the end of the second year. You expect DEF's stock price to be $25.00 at the end of two years. DEF's equity cost of capital is 10%. The price you would be willing to pay today for a share of DEF stock, if you plan to hold the stock for two years is closest to:
a. $23.15　　b. $20.65　　c. $21.95　　d. $21.90

13. Which of the following statements is false?
a. Options also allow investors to speculate, or place a bet on the direction in which they believe the market is likely to move.
b. Options where the strike price and the stock price are very far apart are referred to as deep in-the-money or deep out of-the-money.
c. Call options with strike prices above the current stock price are in-the money, as are put options with strike prices below the current stock price.
d. European options allow their holders to exercise the option only on the expiration date–holders cannot exercise before the expiration date.

14. You own a small manufacturing plant that currently generates revenues of $2 million per year. Next year, based upon a decision on a long-term government contract, your revenues will either increase by 20% or decrease by 25%, with equal probability, and stay at that level as long as you operate the plant. Other costs run $1.6 million dollars per year. You can sell the plant at any time to a large conglomerate for $5 million and your cost of capital is 10%. If you are awarded the government contract and your sales increase by 20%, then the value of your plant will be closest to:

a. $5 million　b. $8 million　c. $9 million　d. $7 million

15. ABC Corp. is offered a $1 million dollar loan for four months at an APR of 9%. If ABC's bank requires that the firm maintain a compensating balance equal to 10% of the loan amount in a non-interest bearing account, then the effective annual rate EAR for this loan is closest to:

a. 50.0%　b. 12.6%　c. 14.4%　d. 71.5%

16. One year ago, you purchased a stock at a price of $32 a share. Today, you sold the stock and realized a total return of 14.62 percent. Your capital gain was $3.48 a share. What was your dividend yield on this stock?

a. 2.25%　b. 3.75%　c. 3.35%　d. 2.85%

17. You would be making a wise decision if you chose to:

a. base decisions regarding investments on effective rates and base decisions regarding loans on annual percentage rates.
b. assume all loans and investments are based on simple interest.
c. accept the loan with the lower effective annual rate rather than the loan with the lower annual percentage rate.
d. invest in an account paying 6 percent, compounded quarterly, rather than an account paying 6 percent, compounded monthly.

18. If a project is assigned a required rate of return of zero, then:

a. the timing of the project's cash flows has no bearing on the value of the project.
b. the project will always be accepted.
c. the project will always be rejected.
d. whether the project is accepted or rejected will depend on the timing of the cash flows.

19. The option to wait:

a. increases in value as the project's sensitivity to new technology increases.
b. is independent of the project's discount rate.
c. may have value even if a project currently does not.
d. decreases the net present value of a project.

20. The cash flow from a project is computed as the:

a. net operating cash flow generated by the project, less any sunk costs and erosion costs.
b. sum of the incremental operating cash flow and aftertax salvage value of the project.
c. net income generated by the project, plus the annual depreciation expense.

d. sum of the incremental operating cash flow, capital spending, and net working capital cash flows incurred by the project.

21. The excess return earned by an asset that has a beta of 1.0 over that earned by a risk-free asset is referred to as the:
a. market rate of return. b. market risk premium.
c. systematic return. d. total return.

22. Which one of the following is the best example of two mutually exclusive projects?
a. planning to build a warehouse and a retail outlet side by side
b. buying sufficient equipment to manufacture both desks and chairs simultaneously
c. renting out a company warehouse or selling it outright
d. using the company sales force to promote sales of both shoes and socks

23. The payback method:
a. applies mainly to projects where the actual results will be known relatively soon.
b. is the most frequently used method of capital budgeting analysis.
c. is a more sophisticated method of analysis than the profitability index.
d. considers the time value of money.

24. For a firm with a constant payout ratio, the dividend growth rate can be estimated as:
a. Payout ratio × Return on equity. b. Return on assets × Retention ratio.
c. Return on retained earnings × Retention ratio. d. Payout ratio × Return on assets.

25. A stock had annual returns of 3 percent, 18 percent, and -24 percent over a three-year period. Based on this information, what is the 68 percent probability range for any one given year?
a. -40.53 to 38.53% b. –16.10 to 14.10%
c. -24.53 to 22.53% d. -22.28 to 20.28%

26. The weighted average cost of capital for a firm is the:
a. discount rate which the firm should apply to all of the projects it undertakes.
b. overall rate which the firm must earn on its existing assets to maintain its value.
c. rate the firm should expect to pay on its next bond issue.
d. maximum rate which the firm should require on any projects it undertakes.

27. As the degree of sensitivity of a project to a single variable rises, the:
a. lower the forecasting risk of the project.

b. smaller the range of possible outcomes given a pre-defined range of values for the input.
c. more attention management should place on accurately forecasting that variable.
d. lower the maximum potential value of the project.

28. As part of an unexpected news announcement, Alpha Co. stated that it is increasing its annual dividend from $1.04 per share to $1.10 per share. What else must the company have also announced if its stock price and total expected return remained constant following this announcement? Assume none of the announcement information was previously expected by the market.
a. The firm's rate of growth will be less than previously anticipated.
b. The firm is planning a new period of rapid growth.
c. The firm's ongoing operations are on track to meet prior expectations.
d. The firm's dividend payout ratio has been, is, and will continue to be constant.

29. Assume the single-factor APT model is applied to a security that has a negative factor beta. The security will:
a. always have a positive rate of return.
b. have an expected return greater than the risk-free rate.
c. have an actual rate of return that can be positive, negative, or zero.
d. have an expected return equal to the market rate of return.

30. You have a portfolio comprised of two risky securities. This combination produces no diversification benefit. The lack of diversification benefits indicates the returns on the two securities:
a. are too low for their level of risk. b. move perfectly opposite of one another.
c. are too large to offset. d. move perfectly in sync with one another.

Part B. Problems (25 points)

1. XYZ Corp. wishes to earn an annual interest rate of 200% on any customers foolish enough to not take a discount. If the credit terms to be offered are X/20, net 30, what must X be, to the nearest percent? (12 points)

2. One of the most important theory of capital structure is the pecking-order theory. Please answer the following questions:
   A. What is pecking order theory? (5 points)
   B. What is the reason that results in this order? (4 points)
   C. What is the optimal capital structure implied by the theory? (4 points)