

Juli 2006 (Neue DPO)
Final Exam

1. (2 Points) What is the net present value of the following cash flow at a discount rate of 15%?

T=0	t=1	t=2
-120,000	-100,000	300,000

- (a) \$19,887
(b) \$80,000
(c) \$26,300
(d) None of the above
2. (1 Point) Which of the following portfolios have the least risk?
- (a) A portfolio of treasury bills
(b) A portfolio of long-term United States Government bonds
(c) Standard and Poor's composite index
(d) Portfolio of common stocks of small firms
3. (4 Points) Safro Corporation has had returns of -5%, 15% and 20% for the past three years. Calculate the standard deviation of the returns. (hint: assume this is a sample of the population)
- (a) 10.22%
(b) 22.91%
(c) 30.92%
(d) 13.23%
4. (1 Point) The portion of the risk that can be eliminated by diversification is called:
- (a) Unique risk
(b) Market risk
(c) Interest rate risk
(d) Default risk
5. (1 Point) Diversification works because?
- (a) Market risk is eliminated
(b) Correlation coefficients
(c) All of the above
(d) None of the above
6. (2 Points) Stocks with betas _____ tend to amplify the overall movements of the market.
- (a) Equal to one
(b) Greater than one
(c) Less than one
(d) None of the above

7. (4 Points) Investments A and B both offer an expected rate of return of 12%. If the standard deviation of A is 20% and that of B is 30%, then investors would:
- (a) Prefer A to B
 - (b) Prefer B to A
 - (c) Prefer a portfolio of A and B
 - (d) Cannot answer without knowing investor's risk preferences
8. (1 Point) When stocks with the same expected return are combined into a portfolio, the expected return of the portfolio is:
- (a) Less than the average expected return value of the stocks
 - (b) Greater than the average expected return of the stocks
 - (c) Equal to the average expected return of the stocks
 - (d) Impossible to predict
9. (1 Point) Maximum diversification is obtained by combining two stocks with a correlation coefficient equal to:
- (a) +1.0
 - (b) 0.0
 - (c) -1.0
 - (d) +0.5
10. (1 Point) Efficient portfolios are those that offer:
- (a) Highest expected return for a given level of risk
 - (b) Highest risk for a given level of expected return
 - (c) The maximum risk and expected return
 - (d) All of the above
11. (1 Point) The beta of a Treasury bill portfolio is:
- (a) Zero
 - (b) +0.5
 - (c) -1.0
 - (d) +1.0
12. (1 Point) The market risk premium is:
- (a) The difference between the rate of return on an asset and the risk-free rate.
 - (b) The difference between the rate of return on the market portfolio and the risk-free rate.
 - (c) The risk-free rate.
 - (d) The market rate of return.
13. (1 Point) The capital asset pricing model (CAPM) states that:
- (a) The expected risk premium on an investment is proportional to its beta.
 - (b) The expected rate of return on an investment is proportional to its beta.
 - (c) The expected rate of return on an investment depends on the risk-free rate and the market rate of return.
 - (d) The expected rate of return on an investment is dependent on the risk-free rate

14. (1 Point) The security market line (SML) is the graph of:
- (a) Expected return on investment (Y-axis) vs. variance of return.
 - (b) Expected return on investment vs. standard deviation of return.
 - (c) Expected rate of return on investment vs. beta.
 - (d) a and b.
15. (4 Points) If the beta of Freon is 0.73, risk-free rate is 5.5%, and the market rate of return is 13.5%, calculate the expected rate of return from Freon:
- (a) 12.6%
 - (b) 15.6%
 - (c) 13.9%
 - (d) 11.3%
16. (1 Point) If a stock is overpriced it will plot:
- (a) Above the security market line
 - (b) On the security market line
 - (c) Below the security market line
 - (d) On the Y-axis
17. (1 Point) The hurdle rate for capital budgeting decisions is:
- (a) The cost of capital
 - (b) The cost of debt
 - (c) The cost of equity
 - (d) All of the above
18. (1 Point) If a company changes its financial structure:
- (a) The required rate of return on its debt will not change
 - (b) The required rate of return on the equity will not change
 - (c) The required rate of return on the assets will not change
 - (d) All of the above
19. (4 Points) The beta of debt is 0.4 and beta of equity is 1.2. The debt-equity ratio is 0.8. Calculate the beta of the assets of the firm. (Assume no taxes.)
- (a) 0.9
 - (b) 0.48
 - (c) 1.6
 - (d) None of the above
20. (1 Point) Modigliani and Miller's Proposition I states that:
- (a) The market value of a firm's common stock is independent of its capital structure
 - (b) The market value of a firm's debt is independent of its capital structure
 - (c) The market value of any firm is independent of its capital structure
 - (d) None of the above

21. (4 Points) The beta of an all-equity firm is 1.2. If the firm changes its capital structure to 50% debt and 50% equity using 8% debt financing, what will be the beta of the levered firm? The beta of debt is 0.2. (Assume no taxes.)
- (a) 1.2
 - (b) 2.4
 - (c) 2.2
 - (d) 1.8
22. (1 Point) Financial leverage increases the expected return and risk of the shareholder.
- (a) True
 - (b) False
23. (4 Points) Firm ABC has \$5 million in outstanding debt, currently has 200,000 shares outstanding priced at \$60 a share, and has a borrowing rate of 10%. If the firm's return on equity is 15%, what is the firm's WACC?
- (a) 13.53%
 - (b) 30.23%
 - (c) 14.25%
 - (d) 12.16%
24. (1 Point) If a firm permanently borrows \$20 million at an interest rate of 8%, what is the present value of the interest tax shield? Assume a 35% tax rate.
- (a) \$7.00 million
 - (b) \$8.75 million
 - (c) \$16.50 million
 - (d) \$25.00 million
25. (1 Point) The positive value to the firm by adding debt to the capital structure in the presence of corporate taxes is:
- (a) Due to the extra cash flow going to the investors of the firm rather than the tax authorities.
 - (b) Due to the earnings before interest and taxes being fully taxed at the corporate rate.
 - (c) Because personal tax rates are the same as corporate tax rates.
 - (d) Because shareholders prefer to let financial managers choose the capital structure thus making their value independent of it.
26. (1 Point) The possibility of bankruptcy has a negative effect on the value of the firm because:
- (a) Increased bankruptcy risk lowers project cash flows
 - (b) Reorganization is costless but risk is not
 - (c) bankruptcy has real costs associated with it
 - (d) Value-enhancing strategies are no longer available
27. (1 Point) What are some of the possible consequences of financial distress?
- (a) Debt holders, who face the prospect of getting only part of their money back, are likely to want the company to take additional risks.
 - (b) Equity investors would like the company to cut its dividend payments to conserve cash.
 - (c) Equity investors would like the firm to shift toward riskier lines of business

- (d) Equity investors would like the firm to settle up with creditors as fast as possible
28. (1 Point) The trade-off theory of capital structure predicts:
- (a) Unprofitable firms should borrow more than profitable ones
 - (b) Safe firms should borrow more than risky ones
 - (c) Rapidly growing firms should borrow more than mature firms
 - (d) Increasing leverage increases firm value
29. (4 Points) Suppose David's stock price is currently \$20. In the next six months it will either fall to \$10 or rise to \$30. What is the current value of a put option with an exercise price of \$12? The six-month risk-free interest rate is 5% (periodic rate).
- (a) \$9.78
 - (b) \$2.00
 - (c) \$0.86
 - (d) \$9.43
30. (4 Points) What is the value of a call option given the following variables? Stock price = \$109, exercise price = \$120, standard deviation = .15, risk-free rate = .04, and two years until expiration.
- (a) \$0.00
 - (b) \$5.54
 - (c) \$6.56
 - (d) \$8.35
31. (2 Points) The Black-Scholes option pricing model is dependent on what five parameters?
- (a) Stock price, exercise price, risk-free rate, beta, and time to maturity
 - (b) Stock price, risk-free rate, beta, time to maturity, and variance
 - (c) Stock price, risk-free rate, probability, variance and exercise price
 - (d) Stock price, exercise price, risk-free rate, variance and time to maturity
32. (2 Points) A call option is in the money when:
- (a) Exercise price is greater than the stock price
 - (b) Exercise price is lower than the stock price
 - (c) Exercise price is equal to the stock price
 - (d) None of the above
33. (2 Points) American options cannot be exercised early.
- (a) A) True
 - (b) B) False