National Cheng Kung University
Department of accounting
** Graduate School Admission Exam, Spring 1994 **
Subject: Finance

Instruction: There are 20 multiple-choice questions and four short-essay questions in this exam. Multiple question is 3 points each and short-essay is 10 points each. Please confront short-essay questions directly. No credit will be given for even cogent analysis of a question unasked. Since they waste the reader's time and they raise questions regarding to the writer's ability to distinguish the relevant from the irrelevant. Good luck!

I. Multiple Choice: (choose the best answer.)

1. Risky projects can be evaluated by discounting expected cash flows using a _______ rate.
   A. risk-free B. T-bill C. T-bond
   D. federal fund E. risk-adjusted discount

2. Which of the following capital budgeting methods might not consider the salvage value of an equipment being considered for purchase?
   A. internal rate of return B. payback
   C. net present value D. net terminal value
   E. none of the above

3. A increase in the debt ratio will generally have no effect on a firm's _______ risk.
   A. market B. total C. financial D, business E. systematic

4. If the intrinsic value of the stock is less than the current market price of the stock, you should recommend
   A. short sale the stock B. sell the stock C. buy the stock
   D. need more information E. none of the above

5. Referring to the above question, what will be the relationship between required rate of return and expected rate of return for the stock?
   A. required rate of return > expected rate of return
   B. required rate of return = expected rate of return
   C. required rate of return < expected rate of return
   D. B and
   E. need more information

6. What is the future value of $500 invested for 10 years at 12% with monthly compounding?
   A. 1650.19 B. 1552.92 C. 2978.28
   D. 3300.39 E. none of the above

7. Which of the following bonds should have the lowest interest rate risk
   A. 30-years 10% coupon bond B. 30-years 5% coupon bond
   C. 15-years 10% coupon bond D. 15-years 5% coupon bond
   E. 30-years pure discount bond

8. For a constant growth stock, its total rate of return will be the sum of
   A. growth yield and capital gain yield
   B. current yield and dividend yield
   C. dividend yield and growth rate
   D. A & C
   E. all of the above

9. A pure discount bond with a face value of $1000 matures in 3 years. If it is earning a rate of 8% per year, its price is $____.
   A. 1000 B. 1259.71 C. 1021.8
   D. 1000.58 E. none of the above

10. An important difference between commercial banks and investment banks occurs because ____.
   A. investment banks specialize in making loans and taking consumer deposits
   B. investment banks are not governed by SEC regulations
   C. investment banks are permitted to aid corporations in issuing new securities
   D. commercial banks are not allowed to trade in the secondary market
   E. commercial banks are not allowed to borrow in bond market

11. According to the CAPM, there is a positive linear relationship between a asset's expected return and its________ risk.
   A. total B. unsystematic C. diversifiable
   D. systematic E. C and D

12. In equilibrium, which of the following will be a efficient portfolio?
   A. the individual security with the highest expected return
   B. market portfolio C. global minimum variance portfolio
   D. all of above E. B and C only

13. If a company uses the same discount rate for evaluating all projects, it is likely to
   A. accept no projects B. accept all projects
   C. accept only good, low risk projects
   D. accept poor, high risk projects
   E. none of the above

14. On average, most stocks are ____________ correlated with each other.
   A. not B. negatively C. positively D. highly E. perfectly

15. An overpricing security should plot
    A. on the SML   B. below the CML   C. on the CML
    D. A and B   E. none of the above

16. If you worry about a rising price and decide to use futures contract to hedge price risk, you are a________.
    A. speculator   B. short hedger   C. noise trader
    D. long hedger   E. day trader

17. Financial leverage will always
    A. increase expected return   B. decrease risk   C. increase risk
    D. decrease expected return   E. A and C

18. The basis must equal ______ at the delivery date for the futures contract.
    A. negative value   B. zero   C. a positive value
    D. the price of the contract
    E. the price of the contract minus the delivery costs

19. Ownership of a _____ option gives the holder the right to sell a particular good at a specified price at any time before the expiration date.
    A. call   B. futures   C. swap   D. put   E. repurchase agreement

20. Other things equal, value of a call option is positively related to ____.
    A. its time to expiration   B. the risk-free rate of interest
    D. the stock's volatility   D. the stock price
    E. all of the above

II. Short-essays (40 %)

1. Consider a bond with annual coupon payment of $100, a principle payment of $1000 in 3 years, and a price of $1000. Assume the yield curve is a flat 10%. What is the duration of the bond.

2. "Hedging is to convert price risk into basis risk." Do you agree with the above statement ? Explain your answer.

3. a. Define REPO (repurchase agreement).
   b. Define weak-form of efficient market hypothesis.

4. Do you agree with the following statements? Explain your answers.
   a. When you include about 30 to 40 stocks in your portfolio, you could almost eliminate all uncertainty.
   b. If you are bullish, you should buy a call. Therefore, it implies that you should sell an uncovered call when you are bearish.