

(2)

**Instruction:** There are 26 multiple-choice questions and two short-essay questions in this exam. Multiple question is 2.5 points each. You have one hour and forty minutes to finish it.

**I. Multiple Choice:(65%, choose the best answer.)**

1. A \$1000 face value bond will mature in 10 years. If the current market price of this bond is \$1067.95 and investors require a nominal annual return of 8 percent, what will be this bond's semi-annual coupon payment?  
A. 35 B. 40 C. 45 D. 50 E. none of the above.
2. A share of stock has a current dividend payment of \$1. The dividend is expected to grow at a 20% annual rate for the next 20 years, and then stop growing forever. If the appropriate required rate of return for this stock is 16%, what is its current price?  
A. \$70.232 B. \$100.51 C. \$55 D. \$60 E. none of the above
3. The liquidity premium hypothesis argues that a flat yield curve implies  
A. a rising interest rate B. a decreasing interest rate  
C. an unchanging interest rate D. a recession  
E. an increasing GNP
4. If stock ABC's closing price is \$50 at expiration day, Which of the following May options should have the lowest premium?  
A. Call ABC May 65 B. Call ABC May 50 C. Call ABC May 60  
D. Put ABC May 45 E. Put ABC May 40
5. The pattern of yields across bonds with the same default risk and different maturity is known as the \_\_\_\_\_.  
A. term structure of interest rates  
B. security market line  
C. marketability structure of interest rates  
D. risk structure of interest rates  
E. bond capital market line
6. The ABC company is considering a project with a initial investment of \$1000 and inflows of \$300 at year 1-5. If cost of capital for ABC company is 10%, what is the project's modified internal rate of return?  
A. 10.9% B. 11.9% C. 12.9% D. 13.9% E. 14.9%
7. The most important difference between money market and bond market instruments lies in their different \_\_\_\_\_.  
A. default risks B. terms to maturity C. current yields  
D. indentures E. tax status
8. Pure discount instruments and coupon bonds differ in that, coupon bonds \_\_\_\_\_.  
A. pay face value at maturity  
B. are issued only by corporations  
C. make interim interest payments  
D. are not subject to Federal income taxation  
E. are quoted in terms of discount yield

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9. Project A and B are mutually exclusive and project A has a higher IRR than that of B. If your goal is to maximize wealth, then, you should  
A. take project A only B. take project B only C. reject both  
D. take both E. not have enough information to make decision
10. The process of predicting future price movements by predicting changes in sales, earnings and discount rates is known as \_\_\_\_\_ analysis.  
A. technical B. market C. fundamental  
D. portfolio E. regression
11. The trading of existing securities takes place in the \_\_\_\_\_.  
A. lead bank B. public offering C. primary market  
D. secondary market E. syndicate
12. The intrinsic value of a put option with a strike price of \$30 when the stock is trading at \$35 is \$ \_\_\_\_\_.  
A. 0 B. 5 C. 35 D. 40 E. 75
13. When spot price is less than future price, it is referred as  
A. efficient market B. arbitrage condition C. backwardation  
D. contango E. long hedge
14. The term \_\_\_\_\_ refers to investment strategies that are designed to guarantee a minimum specified return on the portfolio while allowing the portfolio to substantially participate in favorable market movement.  
A. portfolio theory B. index arbitrage C. asset allocation  
D. portfolio insurance E. immunization
15. If investors worry about yield may fall between now and the time when cash flows are available, they can "lock in" the high yield through \_\_\_\_\_.  
A. warrants B. short hedge C. long hedge D. program trading  
E. speculation
16. The separation theorem divides \_\_\_\_\_ decision from \_\_\_\_\_ decision.  
A. consumption, financing B. lending, borrowing  
C. investing, financing D. risk, return  
E. stock purchasing, bond purchasing
17. The options market is a zero-sum game because \_\_\_\_\_.  
A. the Options Clearing Corporation stands as one side of every trade  
B. one trader's profit is exactly equal to another trader's loss  
C. options can expire worthless  
D. the intrinsic value of any option is zero at expiration  
E. options traders must pay transactions costs
18. The statistical hypothesis that stocks exhibit uncorrelated returns in all periods is known as the \_\_\_\_\_ hypothesis.  
A. diversification B. beneficial C. efficient markets  
D. arbitrage E. random walk

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19. The risk measures for the Capital Market Line and the Security Market Line are, respectively, \_\_\_\_\_.  
A. variance and beta                      B. beta and alpha  
C. standard deviation and beta          D. beta and alpha  
E. variance and standard deviation
20. The linear relationship between the returns on a given security and the returns on the market portfolio is known as the \_\_\_\_\_.  
A. Capital Market Line                      B. Security Characteristic Line  
C. Security Market Line                    D. Efficient Frontier  
E. Indifference Curve
21. Junk bond are high yield bond rated below  
A. CCC   B. AAA   C. BBB   D. AA   E. none of the above
22. The tradeoff theory of capital structure predicts that:  
A. increasing financing increases firm value.  
B. capital structure does not affect firm value.  
C. Safe firms should borrow more than risky ones.  
D. High growing firms should more than mature firms.  
E. Small firms should borrow more than large ones.
23. If you allocate 50% of your money into T-Bills and the rest into market portfolio, the beta of your portfolio will be  
A. 1   B. 1.5   C. 0   D. 0.75   E. none of the above
24. Inflation, recession and threat of war are \_\_\_\_\_ risk.  
A. unsystematic                              B. diversifiable                              C. non-market  
D. market    E. operating
25. Assuming stock does not pay cash dividend and all options have same expiration days and striking prices, the relationship between American and European option premiums will be:  
A. American call option > European call option  
B. American call option < European call option  
C. American put option = European put option  
D. American put option < European put option  
E. American call option = European call option
26. A bond with a \$1000 face value carries an annual coupon rate of 5%, with annual payments, and matures in 4 years. If its price is \$775, its current yield is \_\_\_\_\_.  
A. 6.45      B. 7.75      C. 12.48      D. 12.90      E. 15.50

II. (15%)

Do you agree with the following Statements? Explain your answer.

- (a) The NPV and IRR always lead to the same decisions, when the projects are conventional and independent.
- (b) The NPV and IRR always lead to the same decisions, even when the projects are mutually exclusive.
- (c) The NPV and IRR methods both assume reinvestment at the internal rate of return.

III. (20%)

You live in a world where there are only five possible risky asset portfolios that you can purchase. The risk and the expected return of each portfolio is shown below.

portfolio	expected return	standard deviation
A	20%	30%
B	12%	18%
C	18%	32%
D	10%	19%
E	15%	21%

- (a) If you are a risk-neutral investor, can you immediately eliminate any of those portfolios from further consideration? explain your answer.
- (b) If you are a risk-averse investor, can you immediately eliminate any of those portfolios from further consideration? explain your answer.
- (c) Referring to (b) above, suppose you can lend and borrow at rate of 8%, which portfolio will you choose? Use a diagram to support your answer.
- (d) Given your choice of portfolio in part (c), assume you place 1/2 of your money in the risky asset portfolio and 1/2 in risk-free asset, what is the expected return and standard deviation of your portfolio?