

Name _____

Student Number _____

MGF 301 Corporation Finance
Spring 2008

TEST 1 – Version II

Please sign name in box

Please tear off the answer sheet and answer all of the following questions on the answer sheet.
(Note: Total Points = 100; Multiple Choice = 4 points each unless otherwise indicated)

1. A company is considering raising money by selling bonds in the financial markets. Which of the following is true?
 - (a) once the bonds are sold, they cannot be resold by the investors who purchase them
 - (b) investors will not purchase bonds unless the price is below \$1,000 per bond
 - (c) the bonds can be sold by the company in either the primary or the secondary market
 - (d) none of the above is true.**

2. If the expected inflation rate is 5%, what nominal return must an investor earn to achieve a real return of 3%?
 - (a) approximately 7%
 - (b) approximately 2%
 - (c) approximately 8%**
 - (d) approximately 5%

3. If you owe \$5,000 on your credit card and are paying interest at an APR of 18%, which of the following would you prefer?
 - (a) the credit card company compounds interest twice a day (i.e., 730 times per year)
 - (b) the credit card company calculates interest monthly using simple interest**
 - (c) the credit card company compounds interest daily (i.e., 365 times per year)
 - (d) all result in the same effective annual rate

4. Ben is selling his car to his friend for two payments: \$3,000 today (time 0), and \$3,000 next year (time 1). If Ben immediately invests all the cash he receives and earns a 5% annual rate, how much will he have two years from today (time 2)? Show all work (7 points)

$$FV(\text{time } 2) = 3000 \times 1.05^2 + 3000 \times 1.05 = 3307.50 + 3150 = 6457.50$$

5. Julia plans to save \$10,000 at the end of each year for the next 10 years. Which calculation correctly finds how much her savings account will be worth in 50 years?
 - (a) = (10,000x50 year annuity factor)
 - (b) = (10,000/r)/(1+r)⁴⁹
 - (c) = (10,000x10) x (1+r)⁴⁰
 - (d) = (10,000x10 year annuity factor) x (1+r)⁵⁰**

6. Assume the lottery is currently paying a choice of: (a) \$1,000,000 in cash today (time 0); or (b) \$100,000 annually forever with the first payment in time 0. Calculate the discount rate where these two payment streams have equal present value. Show your work. (8 points)

$$1000000 = 100000 + 100000/r$$

$$r = 11.11\%$$

7. Apple Computer's earnings did not change in January 2008 and they did not pay any dividends, but their stock price fell by 33% during the month. Can this sudden decrease in price be explained using the stock estimation models we discussed in class? Explain. (6 points)

Yes, the sudden decrease can be explained if there is a change in the expected future cash flows or earnings of Apple. Because stock estimation models are based on discounting future cash flows or dividends, a change in expected future events or the expected growth rate can have a dramatic change on the expected stock price.

8. Which of the following is true about a 10 year bond with a face value of 1,000 that is selling for 950 and has a yield to maturity of 8%?

- (a) **the bond will pay less than \$80 each year as interest**
- (b) if the yield to maturity remains constant over the next year, the price will be lower next year
- (c) the yield to maturity is fixed throughout the life of the bond
- (d) none of the above is true

9. ABC Co. has \$100 million in 8% bonds outstanding that are selling at a premium. If interest rates fall in the overall economy, which of the following is true?

- (a) if ABC bond rating does not change, then ABC bonds will not be affected by the change in interest rates in the economy
- (b) ABC bonds will fall in value because of the decrease in interest rates
- (c) **ABC will benefit if the bonds are replaced with bonds with a coupon rate equal to the new yield to maturity on ABC bonds**
- (d) current investors in ABC bonds will prefer the company replace the existing bonds with bonds with a coupon rate equal to the new yield to maturity on ABC bonds

10. If a company does not pay a dividend, which of the following is true about attempting to estimate the stock price?

- (a) the lack of dividend is not a concern for publicly traded stocks because they are required to pay a dividend by the stock exchange so that their price can be readily established
- (b) there is no way to estimate a stock price if there is no dividend
- (c) any estimate of the stock price using some measure of value other than dividends will ignore expected growth in the firm
- (d) none of the above is true**

11. Generic Products Inc. has issued 200,000 shares of stock with par value \$.01/share. The stock was issued for \$20/share and is currently selling for \$25/share. If Generic Products, Inc. has long term debt with a market and book value of \$3 million, what is the book value of assets on the balance sheet? Show your calculation and your answer on the answer sheet. (5 points)

Book value of assets = book value of equity + book value of debt

Book value of equity = 200,000 x 20 = 4,000,000

Book value of assets = 4M + 3M = 7M

12. Mark each of the following as True (T) or False (F). (2 points each)

- F i. If a company has growth opportunities, then there is no way to estimate the stock price using a discounting model
- F ii. A higher par value on stock causes a higher book value of equity

13. Your aunt, in her will, left you \$50,000. If you have a choice of the following methods of receiving the money, which of the following has the lowest present value (assuming a positive discount rate)? (5 points)

- (a) agreeing that, instead of receiving the money now, \$50,000 should be paid to your 1 year old son on his 21st birthday.**
- (b) receiving 5 annual payments of \$10,000
- (c) receiving \$50,000 in 10 years.
- (d) cannot be determined

14. The average rate for recently issued corporate bonds is 7%. WXZ just issued bonds paying 7% interest, but investors were only willing to pay \$900 for each \$1000 bond. Which is a possible explanation for why these bonds sold at a discount?

- (a) investors will discount the price unless the coupon rate is at least one percent higher than the yield to maturity
- (b) the bonds were paying more interest than investors currently require given the risk
- (c) the risk of default is higher for WXZ than for the average corporation**
- (d) none of the above