

Name \_\_\_\_\_

Student Number \_\_\_\_\_

TEST 2

MGF 301 Corporation Finance  
Fall 2009

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. The following arise out of a new project implemented by YT Inc. Which of the following does not represent a cash flow that should be taken into account for capital budgeting purposes?

- (a) An increase in required inventory levels
- (b) A decrease in income taxes paid to the government
- (c) Electricity costs to run the new machinery for the project
- (d) All of the above should be taken into account**

2. Anthony has earned actual returns of -3%, -12% and 6% the last three years on an investment he made three years ago. According to finance theory we discussed in class, which of the following must be true about the expected return on this investment?

- (a)  $E(r) > R_f$**
- (b)  $E(r) < R_f$
- (c)  $E(r) = R_f$
- (d)  $E(r) < 0$

3. You currently own only a single stock that has  $\beta = .5$ . If you form a portfolio by buying another stock with  $\beta = .5$ , are you reducing the expected level of market risk in your portfolio?

- (a) No, because the portfolio still has a  $\beta = .5$**
- (b) No, because all stocks have risk and you can only reduce risk by adding a bond
- (c) Yes, because the second stock will cancel out some of the variation in the first stock
- (d) Yes, because the portfolio will now have a  $\beta = .25$

4. Mark each statement about capital budgeting as true or false. (2 points each)

- a. F If your forecast of cash flows is not precise, you should reduce your cash flow estimates so that they are conservative estimates
- b. T The time value of money is included in the IRR analysis by discounting future cash flows to the present
- c. T The Payback method ignores cash flows after the required payback period
- d. F To find the IRR, you must first know the discount rate

5. If markets follow the strong form of efficient market theory, which is not true?

- (a) market prices should quickly reflect all private and public information
- (b) stock prices will only increase when there is news that is publicly announced**

- (c) if stock prices over-react to the announcement of information, the theory is violated  
 (d) all of the above are true

6. A proposed investment will cost \$100,000 in year 0. It will have a life of 5 years and the cost will be depreciated using straight-line to a zero salvage value. For year 1, the company expects sales of 16,000 units at \$5 each. The variable cost is \$2 per unit and the fixed costs will be \$15,000. Working capital in year 0 is \$12,000 and this increases to \$13,000 in year 1. If taxes are 35%, what is the incremental cash flow for year 1? Show your calculation. (8 points)

$$\text{Depreciation Expense} = 100,000/5 = 20,000 \text{ per year}$$

$$\text{Year 1 CF from net working capital} = 12,000 - 13,000 = -1,000$$

$$\text{Pre-Tax Income (year 1)} = 16,000 \times 5 - 16,000 \times 2 - 15,000 - 20,000 = 8,450$$

$$\begin{aligned} \text{Operating CF (year 1)} &= \text{pre-tax income} + \text{depreciation} + \text{CF from working capital} \\ &= 8,450 + 20,000 - 1,000 = 27,450 \end{aligned}$$

7. In question 6, which of the following formulas gives the accounting break-even point?

- (a)  $(20,000 + 15,000)/5$   
 (b)  $(12,000 + 16,000)/(5-2)$   
 (c)  $(16,000 + 15,000)/5$   
 (d)  $(20,000 + 15,000)/(5-2)$

8. Which of the following is true concerning the cash flow from net working capital?

- (a) there is a negative cash flow when the company reduces its inventory level  
 (b) **cash flows from net working capital are typically negative in early years and positive in later years**  
 (c) cash flows from net working capital can be ignored if they net to zero over time  
 (d) accounts receivable is not included in net working capital calculations

9. ABC stock has a price of \$40. You expect that one year from now the price will be one of three outcomes: \$13, \$42 or \$80. If each price is equally likely to occur (i.e., probability = .333), what is the expected return on the stock over the next year if you invest today? Show your work. (8 points)

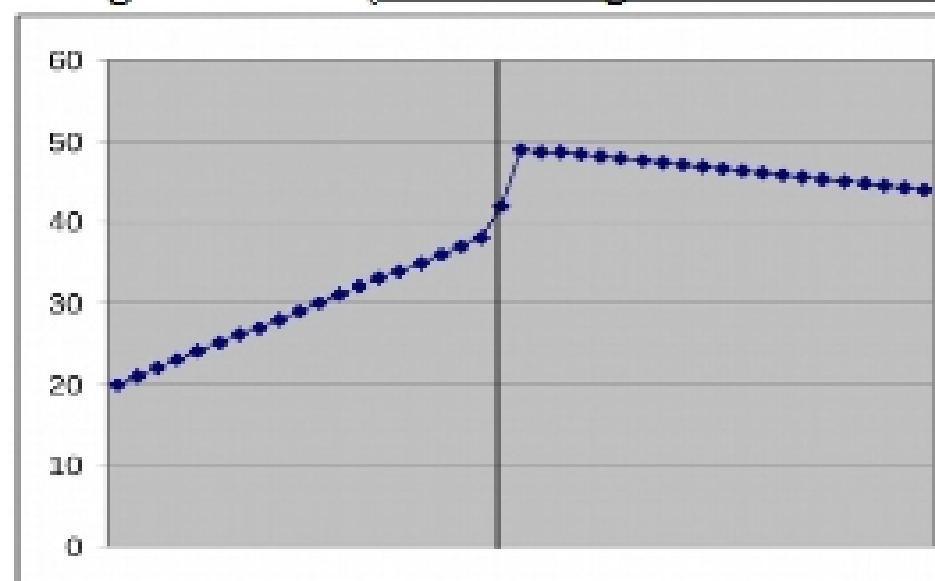
$$\begin{aligned} E(r) &= [1/3 \times (13-40)/40] + [1/3 \times (42-40)/40] + [1/3 \times (80-40)/40] = \\ &= -.2248 + .01665 + .3333 = .1249 \text{ or } 12.49\% \end{aligned}$$

10. If the Neptune Company has  $\beta = .8$ , the expected market risk premium ( $R_m - r_f$ ) is 8% and the risk free rate is 1%, what is the expected return on Neptune under CAPM? Show your work. (6 points)

$$E(r) = .01 + .8 (.08) = .074 \text{ or } 7.4\%$$

11. A company is replacing its main product with an updated version. This is a big gamble for the company because the new product will either be a big hit or a disaster. Which is true?
- (a) the increased risk from the new product is primarily market risk
  - (b) the increased risk from the new product is primarily unique risk**
  - (c) the increased risk cannot be reduced through diversification
  - (d) none of the above are true about the risk

12. FFR Co. announced on Wednesday before markets opened that revenues increased by 20% more than was previously forecast. Wednesday's stock price closed at 49, which was an increase of \$7 from the Tuesday close of \$42. The stock prices for FFR from 20 days before to 20 days after the announcement are given below. (Note: the large increase is the announcement day)



Are the price movements in the graph on the day of the announcement and the 20 days after consistent with the semi-strong form of the efficient market hypothesis? Explain. (6 points)

**The quick increase following the announcement is consistent with the semi-strong form of market efficiency, but the steady decrease over the 20 days after the announcement is not consistent with the theory. Overall, there appears to be an over-reaction to the announcement. In the semi-strong form of the theory there should be a flat line after the announcement.**

13. Sensitivity analysis is useful to NPV calculations because
- (a) It shows which individual assumptions are the most crucial**
  - (b) It shows how bad things will be if several bad events occur at the same time
  - (c) It shows where there are mistakes in the calculation
  - (d) None of the above
14. If markets follow semi-strong form efficiency, who would be more likely to beat the market: (i) a professional stock analyst or (ii) an uninformed investor who throws darts to pick stocks?
- (a) the professional because it takes a lot of knowledge to be successful at picking stocks
  - (b) they each have the same chance at beating the market**
  - (c) the professional will not be able to beat the market, but he will beat the uninformed investors' returns