SECTION I Questions 1-5 are worth 2 marks each

Answer TRUE (T) or FALSE (F) by circling the appropriate letter

1) By using a firm's WACC to analyze all potential investments, there is
no risk of T F *
incorrectly accepting some unsuitable projects

2) It is considered likely that the dividend growth and the SML approaches
will result in T F *
the same estimates of the cost of equity for a given firm

3) Ignoring financial distress costs, borrowing money decreases the value
of the firm by T F *
increasing the firm's tax liability

4) Direct bankruptcy costs are those costs that are directly associated
with bankruptcy. T * F
Examples include legal and administrative costs

5) All else equal, more time to expiration increases the value of both a
call option and a put option T * F

SECTION II Questions 6-9 are worth 3 marks each

Indicate your answer by circling the appropriate letter

6) Advantages of using the SML approach as opposed to the dividend growth
approach to estimate the cost of equity include:
I. We must estimate the firm's equity beta; II. We can adjust for
differences in risk; III. A firm need not maintain a constant growth rate
in dividends

a) I only
b) II only
c) I and III only
d) II and III only *
e) I, II, and III

7) The cost of debt is generally lower than the cost of equity; however,
according to , replacing equity with debt will not
change the value of the firm because the savings attributable to the lower
cost of debt financing will be offset by the higher required return on the

remaining equity.

a) M&M Proposition I with taxes
b) M&M Proposition I without taxes *
c) the static theory of capital structure
d) M&M Proposition II with taxes
e) M&M Proposition II without taxes

8) All else equal, which of the following would alter the capital structure of a firm?

a) A firm sells bonds and uses the proceeds to buy back stock *
b) A firm uses the proceeds from a new bond sale to redeem outstanding bonds
c) A firm uses the funds from the sale of bonds to pay off bank debt
d) A firm pays all of its earnings out to stockholders in the form of dividends, retaining nothing
e) A firm makes an interest payment on its bonds

9) Which of the following is true?

a) The lower the underlying share price, the higher the value of a call option
b) The lower the exercise price, the lower the value of a call option
c) The longer the time to expiration, the lower the value of a call option
d) The greater the interest rate, the lower the value of a call option
e) The lower the risk of the underlying security, the lower the value of a call option *

SECTION III Questions 10-16 are worth 4 marks each

10) Your firm is considering a project which has an initial investment of $5 million. Your target D/E ratio is 0.67. Flotation costs on equity are 8% and flotation costs on debt are 2%. Including flotation costs, how much money does the company need to raise in order to accept the project?

a) $5.00 million f(A) = the weighted average flotation cost = (1/0.67)(0.08) + (0.67/1.67)(0.02) = 0.0559
b) $5.28 million $ Needed = (5,000,000)/(1-0.0559) = $5,296,049 = $5.30 million
c) $5.30 million *
d) $5.57 million
e) $5.61 million

11) Apart from its common equity, a company has only zero-coupon bonds in

its capital structure. The zero-coupon bonds mature in 22 years, have a yield to maturity of 12.01% and a face value of $1,000. There are 2,000 bonds outstanding. If the market value of the company's equity is $1,000,000, what capital structure weight for debt should be used in estimating the WACC?

a) 11.9% Find the market value of the zero-coupon bonds and compare to the value of debt plus equity
b) 14.2% * Value of one zero-coupon bond = 1,000PV(12.01%, 22) = $82.48
c) 15.8% The value of 2,000 bonds = (2,000)(82.48) = $164,961
d) 18.9% Debt weight = (164,961)/(1,164,961) = 14.16%
e) 66.7%

12) What is the cost of equity for a firm for which the required return on assets (R(A)) is 14%, the cost of debt is 11%, and the target debt/equity ratio is 0.5? Ignore taxes.

a) 11.0% R(E) = 0.14 + (0.14 - 0.11)(0.5) = 0.155
b) 12.5%
c) 14.0%
d) 15.5% *
e) 16.0%

13) A firm has 10,000 bonds outstanding, each with a face value of $1,000 and a coupon payment of $55 every six months. If the corporate tax rate is 34%, what is the interest tax shield each year?

a) $187,000 Interest tax shield = (Tax rate)*(Interest paid/year)
b) $374,000 * = (0.34)(10,000)(110) = $374,000
c) $748,000
d) $976,000
e) $1,240,000

14) A company has expected EBIT of $910, debt with face and market value of $2,000 paying an 8.5% annual coupon, and an unlevered cost of capital of 12%. If the tax rate is 34%, what is the value of the equity of the company?

a) $3,258 V(L) = V(U) + TD
b) $3,685 * = [EBIT(1 - T)]/R(E) + TD

c) $5,685 = [910(1 - 0.34)]/(0.12) + (0.34)(2,000)$
d) $6,325 = $5,685
e) $7,005 V = E + D therefore E = V - D = 5,685 - 2,000 = $3,685

Use the following information to answer the next two questions

Option Type #1 Option Type #2
Closing Strike April April
Stock Price Price Bid Ask Bid Ask

Corel 25.00 6.05 6.55 1.60 1.85
20.30

15) Suppose you buy two option contracts that (each) give you the right to sell 100 shares of Corel stock before the third Friday in April. At the same time you sell five option contracts that give the buyer the right to buy 100 shares of Corel stock before the third Friday in April. Based on the above quotes, how much do you collect or (pay)? Ignore commissions.

a) $800 S < E since 20.30 < 25.00 so the put option is in-the-money and must have the higher quotes
b) ($800) The put option is Option Type #1 and the call option is Option Type #2.
c) ($510) * Buy two put option contracts at the Ask price of $6.55. Pay: (2)(100)(6.55) = $1,310
d) $510 Sell five call contracts at the Bid price of $1.60. Collect: (5)(100)(1.60) = $800
e) $1,310 Net = 800 - 1,310 = ($510)

16) Now suppose you buy three option contracts that (each) give you the right to buy 100 shares of Corel stock before the third Friday in April. Just before the options expire, the stock is trading at $30.00. Based on the above quotes, what is your profit or (loss)? Ignore commissions.

a) ($555) Cost of 3 call contracts = (3)(100)(1.85) = $555
b) $555 Payoff at maturity = (3)(100)Max[0,30 - 25] = $1,500
c) ($945) Profit = $1,500 - 555 = $945
d) $945 *
e) $1,500