Sample Mid Term

1. Jones Men's Wear would like to expand the firm's operations but needs $3.5 million in additional funding. It has opted to raise the necessary funds through a rights offering at a subscription price of $27.50 a share. The current market price of their stock is $34 a share. How many shares of stock will the firm need to sell through the rights offering to fund the expansion?

A) 101,867 shares
B) 102,942 shares
C) 113,689 shares
D) 127,273 shares
E) 131,408 shares

2. T.J. Warehouses wants to raise $22 million through a rights offering. The subscription price is set at $44. Currently, the company has 4.5 million shares outstanding with a current market price of $48 a share. Each shareholder will receive one right for each share of stock they currently own. How many rights will be needed to purchase one new share of stock in this offering?

A) 5 rights
B) 7 rights
C) 9 rights
D) 13 rights
E) 15 rights

3. Summit Health Care is sponsoring a rights offering wherein every shareholder will receive one right for each share of stock they own. The new shares in this offering are priced at $42 plus 8 rights. The current market price of Summit stock is $48 a share. What is the value of one right?

A) $.50
B) $.58
C) $.63
D) $.67
E) $.75

4. Stephen owns 5,000 shares of ABNC stock. Currently, there are 1.2 million shares outstanding. The company has just announced a rights offering whereby 300,000 shares are being offered for sale at a subscription price of $24 a share. The current stock price is $27 a share. Assume that Stephen sells his rights and that all rights are exercised. What will his ownership percentage be in ABNC after the rights are exercised?

A) .17 percent
B) .22 percent
C) .33 percent
D) .38 percent
E) .42 percent

5. Sun Lee Importers has a cost of debt of 9 percent, a cost of equity of 14 percent, and a cost of preferred stock of 10 percent. The firm has 87,000 shares of common stock outstanding at a market price of $27 a share. There are 30,000 shares of preferred stock outstanding at a market price of $41 a share. The bond issue has a total face value of $750,000 and sells at 99 percent of face value. The company's tax rate is 35 percent. What is the weighted average cost of capital for Sun Lee Importers?

A) 11.38 percent
B) 11.46 percent
C) 11.89 percent
D) 11.93 percent

E) 12.00 percent

6. The outstanding bonds of Frank's Recycled Goods are priced at $987 and mature in 11 years. These bonds have a 6.5 percent coupon and pay interest annually. The firm's tax rate is 34 percent. What is Frank's aftertax cost of debt?

A) 2.27 percent
B) 2.43 percent
C) 4.40 percent
D) 5.48 percent
E) 6.68 percent

7. Don's Travel Trailers has a beta of 1.34 and a growth rate of 4.5 percent. The firm's stock is currently selling for $46.20 a share. The overall stock market has a 12.5 percent rate of return and a risk premium of 8.2 percent. What is the expected rate of return on this stock?

A) 13.96 percent
B) 14.80 percent
C) 15.29 percent
D) 18.47 percent
E) 20.70 percent

8. The percentage change in firm (or project) operating cash flow relative to the percentage change in quantity sold is called (the):

A) Cash flow marginal profit.
B) Degree of operating leverage.
C) Gross profit.
D) Net profit.
E) Financial break-even.

9. Which of the following is NOT a component of cash flow from assets?

I.	Net new borrowings
II.	Operating cash flow
III.	Additions to net working capital

A) I only
B) II only
C) II and III only
D) I and III only
E) III only

10. What is the proper measure of cash flow to creditors in a given year?

A) Interest paid
B) Operating cash flow minus net new borrowing
C) Interest paid plus changes in long-term debt
D) Interest paid plus net new borrowing minus additions to net fixed assets
E) Interest paid minus net new borrowing

11. Which of the following is a component of cash flow to stockholders?

I.	Net new equity raised
II.	New common stock sold
III.	Dividends paid

A) I only
B) I and III only
C) II and III only
D) I and II only
E) I, II, and III

12. A firm has recently purchased Class 10 equipment for $100,000 with a CCA rate of 30%. Under the half-year rule, what is the amount of depreciation that the firm can claim as a tax-deductible expense in the second year?

A) $30,000
B) $15,000
C) $42,000
D) $25,500
E) $45,000

13. The Justus Center is analyzing a project with an initial cost of $197,000 and cash inflows of $65,000 a year for 4 years. This project is an extension of the firm's current operations and thus is equally as risky as the current firm. The firm uses only debt and common stock to finance its operations and maintains a debt-equity ratio of .55. The pre-tax cost of debt is 9 percent, the cost of equity is 14 percent, and the tax rate is 35 percent. What is the net present value of this project?
    A) $4,194
    B) $7,807
    C) $9,911
    D) $12,407
    E) $16,873

14. Your company wants to bid on the sale of 10 customized machines per year for five years. The initial costs for the project are $1.6 million with a salvage value of $800,000 after five years. The manufacturing equipment belongs in a 30% CCA class. Annual fixed costs are estimated at $700,001. Variable cost per machine is $81,501. The project requires net working capital of $120,001. The company has a 34% tax rate and desires a 15% return on the project. What is the minimum price that the company should bid per single machine?
    A) $197,320
    B) $212,028
    C) $219,887
    D) $221,009
    E) $223,619

Answers:

1. D
2. C
3. D
4. C
5. B
6. C
7. C
8. B
9. A
10. E
11. E

12. D
13. A
14. A

Section II:
Suppose a firm has the following information:

- Present debt, with a face value of $50 million (par of $1,000) has 15 years to maturity with an annual coupon of 8%, payable semi-annually. These bonds are presently trading at 102.35, and the firm expects to raise new debt with the exact same maturity and the exact same yield as their present debt. Flotation costs on new debt will be 1% of par.

- There are 2,500,000 shares trading at $38 each. Dividends just paid this morning were $2.15 per share, and are expected to grow at 3.5% indefinitely. If the firm is to issue any new shares, floatation costs will be assessed at $1.50 per share.

The firm is contemplating investing in new equipment at a cost of $150 million. They plan on using the exact same proportions of debt and equity that they presently have.

a) What is the present capital structure?

b) What will be the new cost of debt?

c) What will be the cost of issuing new equity?

d) What will be the new weighted average cost of capital?

Now consider the following expansion; You are contemplating whether to purchase the new equipment for $150 million. The equipment is expected to have a useful life of 3 years. The CCA rate is 30%, and the remaining un-depreciated amount at the end of year 3 is what you expect to salvage the asset for. The new equipment is expected to generate an increase in sales of $70,000,000 per year, and an increase in costs of $2,000,000 per year. Taxes are 34%, and there are no required adjustments to working capital.

a) Use the NPV to determine whether you should purchase the new machine.
b) At what required return will you break even?

Useful Formulae

$$P_0 = \frac{D_1}{r - g}$$

$$R_i = R_f + (R_m - R_f)\beta_i$$

$$\beta_a = \frac{\text{cov}(a, m)}{\text{var}(m)}$$

$$\frac{TdC}{k + d} * \left(\frac{1 + \frac{1}{2}k}{1 + k}\right) - \frac{TdSV}{k + d} * (1 + k)^{-n}$$