# Seminar 4

## A. Multiple Choice Questions

**A1.** XYZ Corporation is planning to issue 5 million shares of preferred stock. These shares will pay a perpetual dividend of $5.00 per share. The current risk-free rate of interest is 3.33% and XYZ is able to issue new bonds at a 10% yield-to-maturity. XYZ is a high-quality company and preferred stocks of similar quality companies are yielding 5%. The per share value of XYZ Corporation's preferred stock is:

**a.** $5.00
**b.** $50.00
**c.** $100.00
**d.** $150.00

**A2.** Dunlap Corporation is expected to earn $2.00, $2.20, and $2.40 per share in each of the next three years. At the end of the third year, the stock is expected to sell at a current yield of 3%. It is Dunlap's policy of employing a dividend payout ratio of 25%. If an investor demands a 15% return for investing in Dunlap stock, how much should the investor be willing to pay for the shares today?

**a.** $12.68
**b.** $14.40
**c.** $16.67
**d.** $57.58

**A3.** An analyst is considering acquiring a common stock that will be held for one year. The analyst expects to receive $1.50 in dividends and $26.00 from the sale of stock at the end of the year. Using a dividend discount model, the maximum price the analyst should pay for the stock today if the required return is 15% is *closest* to:

**a.** $23.91
**b.** $22.61
**c.** $25.22
**d.** 27.50

**A4.** Suggs Corporation currently pays a $1.00 dividend. This dividend is expected to grow at a 5% rate for the next two years and the shares are expected to trade at a 2% yield at the end of this two-year period. If an investor requires a 10% return on Suggs' shares, how much should he or she be willing to pay for the stock?

**a.** $47.32
**b.** $45.17
**c.** $55.00
**d.** $52.50

**A5.** Stevens Inc.'s dividend is assumed to grow at the same rate of 4% forever. The dividend is currently $2.00 per share. The risk-free rate is currently 2%, the 10-year treasury is 6%, and the investor's required return is 9%. What is the value of Stevens Inc.'s common stock?
**a.** $33.33
**b.** $40.00
**c.** $41.60
**d.** 52.00

## B. Short Answer Questions

**B1.** Explain how the price earnings ratio of a stock will change if each of the following factors changes as indicated, assuming other factors are unchanged.

a. The dividend growth rate increases.
b. The retention rate increases.
c. The earnings per share increases.

**B2.** At Litchfield Chemical Corp. (LCC), a director of the company said that the use of dividend discount models by investors is "proof" that the higher the dividend, the higher the stock price.

a. Using a constant-growth dividend discount model as a basis of reference, evaluate the director's statement.
b. Explain how an increase in dividend payout would affect each of the following (holding all other factors constant):
    i. Sustainable growth rate.
    ii. Growth in book value.

## C. Problems

**C1.** DCF Valuation Model (Lecture notes)
**Information for first five years**
Payout ratio: 58.44% (average last 5 years)
ROE = 16%
EPS (year zero) = $1.54
Dividend per share (year zero) = $0.90
Risk Free rate (Long term bond rate in USD) = 4.95%
Company's Beta = 0.95
US Market Risk Premium = 4.00%
Country Risk = 0%

**Information Terminal Value**
Company's Beta = 1.00
Expected growth = 4.00%

Calculate the intrinsic value of the stock today?