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MAIN EXAMINATION

AUGUST - DECEMBER 2018 TRIMESTER

FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTING AND FINANCE

REGULAR PROGRAMME

CFI 421: SECURITY ANALYSIS

Date: DECEMBER 2018	**Duration: 2 Hours**
INSTRUCTIONS: Answer Question ONE and ANY OTHER TWO Questions	

Q1. a) Bentos Ltd's stock has a beta of 2 and trading at a Price – Earnings (PE) ratio of 12. Stocks from the same industry are trading at an average PE of 8. The return on the market portfolio is 15% while the return on government securities is 5%. The expected return on corporate bonds is 7%.

i) Calculate the required return on the stock of Bentos Ltd. **(5marks)**

ii) Compare the risk of Bentos Ltd's stock with the market portfolio. **(2 marks)**

b) A zero-coupon bond with a par value of sh 1,000 with an original term to maturity of 9 years was issued 6 years ago. The required return has changed from 12% at the time of issue to 10% today.

Required:

i) Calculate the value of the bond today. **(3 marks)**

ii) What is the highest price an investor should be willing to pay for this bond and why? **(2marks)**

c) KP Ltd intends to issue preference shares with a par value of sh 100 and paying a dividend rate of 11% p.a. The cost of capital is 10% p.a. The selling price is sh. 115.

Required:

i) Calculate the dividend per share **(3 marks)**

ii) Calculate the value per share today if dividends are paid till infinity **(3 marks)**

iii) if the share will be redeemed at the end of 12 years, what would you advice an investor who wants to buy this share today? **(6 marks)**

d) Explain the meaning of the following terms:

i) Money markets **(2 marks)**

ii) Security trading **(2 marks)**

iii) Value stocks **(2 marks)**

Q2. An investor is considering buying a 10-year, sh 1000 par value bond bearing a coupon rate of 13% p.a. Interest payment will be made twice per year. The bond has a call provision with possible call prices of sh.1,080, sh.1,050 and sh. 1,030 in years 5, 7, and 8 respectively. The yield to maturity is 10% p.a. while the yiled to call is 12% p.a.

a) Why are bonds referred to as fixed income securities yet the yield to maturity varies? **(3 marks)**

b) i) How much is the bond worth today if it is held until maturity and will mature at par? **(7 marks)**

ii) If the bond will be held till maturity what should an investor be willing to pay today for this bond? **(2 marks)**

c) i) Calculate the value of the bond assuming it is called at the end of year 7. **(5 marks)**

ii) How much is the call penalty if the bond is called at the end of year 7? **(3marks)**

Q3. a) ABC Ltd has 40 million shares currently trading at sh 20 each. The firm generated sales revenues of sh 600 million and net profit of sh 200 million in the just concluded financial year. Next year the company expects revenues to grow by 5% while profits will increase by 10%. The firm has a payout ratio of 40%. Dividends are expected to continue growing at 10% into the foreseeable future. Investors require a return of 16%.

Required:

i) Calculate the Current total dividends. **(3 marks)**

ii) Calculate the Current Dividend per share. **(3 marks)**

iii) Calculate the Current Market capitalisation. **(3 marks)**

b) ABC Ltd in (*a)* above has convertible bonds which if converted would result to 10 million ordinary shares.

Required:

i) Calculate the current diluted earnings per share. **(4marks)**

ii) Calculate the price earnings ratio based on earnings per share calculated in (*i)* above. **(4 marks)**

c) Giving a relevant example, explain the meaning of defensive industries. **(3 marks)**

Q4. a) John is interested in the stock of TLC Ltd which is currently selling at sh 35. He feels that it is going to have two very good years due to a government contract, but may not do well after that. He thinks that the stock will pay a dividend of sh 2 next year and sh 2.80 the year after. By then he believes it will be selling at sh 75 each, at which price he will sell anything he buys now. People who have invested in shares like TLC currently require a minimum return of 10%. All cash flows occur at the end of the period.

Required:

i) Calculate the value of the share today. **(4 marks)**

ii) What is the most he should be willing to pay per share today? **(2 marks)**

iii) What would you advice John and why? **(2 marks)**

b) Assume that the TLC Ltd has just paid a dividend per share of sh 2. Investors require a return of 15% per period. Required

i) Value per share today if the dividend per share will remain the same till infinity. **(3marks)**

ii) Value per share today if dividends will grow at rate of 5% per period till infinity. **(6marks)**

c) Explain any two reasons why equity securities are more risky compared to debt securities. **(3 marks)**

<u>Present value interest factors</u>

1) Present value interest factor for an annuity = $\frac{1-(1+r)^{-n}}{r}$

2) Present value factor for a single amount = $(1+r)^{-n}$

END