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GABA CAMPUS – ELDORET

MAIN EXAMINATION

SEPTEMBER – DECEMBER 2021 TRIMESTER

SCHOOL OF BUSINESS

BACHELOR OF COMMERCE

DEPARTMENT OF ACCOUNTING AND FINANCE

CFI 421: SECURITY ANALYSIS

Date: December 2021	**Duration:** 2 Hours
Instructions: Answer Question **ONE** and any other **TWO** Questions	

QUESTION ONE

a) What factors might an individual investor take into account in determining his/her investment policy? **(5 marks)**

b) An investor is considering the purchase of Kshs 1000, 5yr bond with a coupon rate of 7% p.a. If the required rate of return is 8% p.a, how much should the investor pay for the bond if it matures at par?

(5marks)

i) What if the required rate of return is 6%; **(2 marks)**
ii) What is the value of the bond if the RRR is 7%? **(2 marks)**

c) If you buy a security for $100 that would pay $7 in cash to you and be worth $106 one year later. What would be the return? **(2 marks)**

d) Calculate the fair pricing of a bond which pays annual coupon with the following terms: N=10 years, M=$1,000 and

a) C=7%, r=5% **(2 marks)**
b) C=7%, r=7% **(2 marks)**
c) C=7%, r=8% **(2 marks)**

e) Why is economic analysis important in security analysis? **(5 marks)**

f) A company has a current dividend D0 of Kshs. 3.00 a share. The following are the expected annual growth rates for dividends.

Year	Dividend Growth Rate
1-3	25%
4-5	20%
6-8	15%
9 on	9%

The required rate of return for the stock (Company's cost of equity) is 14%. Calculate the total value of the stock **(3 marks)**

QUESTION TWO

a) Discuss the advantages of buying the following securities issued through public offering compared to private placement. i) ordinary shares; ii) Corporate bonds **(10 marks)**

b) Differentiate between a defensive company and a defensive stock **(5 marks)**

c) Distinguish between dividends and capital gains **(5 marks)**

QUESTION THREE

a) A share has a current divided of sh.2.30 which will grow a rate of 5% forever. Investor's RRR is 13%, what is the value of the share today, at the end of year 3 and 5? **(5 marks)**

b) Hampshire Products will pay a dividend of $4 per share a year from now. Financial analysts believe that dividends will rise at 6 percent per year for the foreseeable future. What is the dividend per share at the end of each of the first five years? **(5 marks)**

c) Suppose an investor is considering the purchase of a share of the Utah Mining Company. The stock will pay a $3 dividend a year from today. This dividend is expected to grow at 10 percent per year (g = 10%) for the foreseeable future. The investor thinks that the required return (r) on this stock is 15 percent, given her assessment of Utah Mining's risk. (We also refer to r as the discount rate of the stock.) What is the value of a share of Utah Mining Company's stock? **(5 marks)**

d) Consider the stock of Elixir Drug Company, which has a new back-rub ointment and is enjoying rapid growth. The dividend for a share of stock a year from today will be $1.15. During the next four years, the dividend will grow at 15 percent per year (g1 = 15%). After that, growth (g2) will be equal to 10 percent per year. Calculate the present value of the stock if the required return (r) is 15 percent?

(5 marks)

QUESTION FOUR

a) Clearly distinguish between a call and a put option. Under what circumstances might an investor want to buy each? **(6 marks)**

b) Calculate the value of a call option with the following characteristics: S0 = sh.60; E = sh. 50; t =6months; r = 6% p.a.; d1= 0.82 while d2= 0.74 **(8 marks)**

c) Suppose a 9 months call option has a strike price of sh 80. The market price of the underlying asset is sh 75. The risk-free rate is 1% monthly. The values of d1 and d2 are -0.70 and -0.76 respectively. How much is the option worth today?

(8 marks)

QUESTION FIVE

The possible rates of return for the common stock of X Ltd during the next year are

Possible return (Ri)	**Probability of possible return (Pi)**
-10%	25%
0%	15%
10%	35%
20%	25%

The possible rates of return for the common stock of y Ltd during the next year are

Return (Ri)	**Probability**	**Return**	**Probability**
-60%	0.15	20%	0.40
-30%	0.10	40%	0.20
-10%	0. 05	80%	0.10

a) Calculate the expected return, variance, standard deviation coefficient of variation. **(12 marks)**

b) On basis of the expected return alone which stock is preferable?
(3 marks)

c) On the basis of standard deviation alone which stock is preferable?
(3 Marks)

d) Which stock return series has the greatest relative dispersion? **(2 marks)**

END