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GABA CAMPUS – ELDORET

MAIN EXAMINATION

SEPTEMBER – DECEMBER 2022 TRIMESTER

SCHOOL OF BUSINESS

MASTER IN BUSINESS ADMINISTRATION

DEPARTMENT OF ACCOUNTING AND FINANCE

CFI 611: ADVANCED SECURITY AND PORTFOLIO MANAGEMENT

Date: December 2022   **Duration:** 3 Hours
Instructions: Answer Question **ONE** and any other **THREE** Questions

QUESTION ONE

a) Draw the differences between the Security Market Line (SML) and the Capital Market Line (CML)   **(6 Marks)**

b) The following information is available on stocks A to E.

Stock	Beta	Current Price (Ksh)	Expected Price(Ksh)	Expected Dividend Ksh)
A	0.67	25	27	0.50
B	1.00	18	20	1.20
C	1.25	33	36	0.80
D	1.40	54	57	1.10
E	0.30	50	53	0.90

Take RFR = 6%, R_M = 12%

Required:

a) Using the Capital Asset Pricing Model (CAPM), identify the overvalued and undervalued stocks and accordingly advise an investor who is keen benefiting from what s/he considers to be a Market mispricing   **(13 Marks)**

ISO 9001:2015 Certified by the Kenya Bureau of Standards.

b) Assets A and B have a mean return of 13.6% and 16.4% and standard deviations of 3.5% and 6.2% respectively. Assess the riskiness of the two assets using value at risk (VAR) measure at 98% confidence level

(Take $Z_\alpha = -1.75$)   (6 Marks)

QUESTION TWO

a) Briefly discuss any two strategies for

      i)   Active equity portfolio management   **(4 Marks)**

      ii) Passive bond portfolio management   **(4 Marks)**

b)   Asset A and the Market (M) have the following probability Distribution

Probability	Returns (%)	
	Asset A	M
0.42	12.50	14.30
0.28	11.90	9.80
0.30	14.20	15.40

Required:

    i) The beta coefficient for asset A   **(10 Marks)**

    ii) The required return on asset A if the risk-free rate is 6%

                                                                                  (4 Marks)

c) Distinguish between systematic and unsystematic risk   **(3 Marks)**

QUESTION THREE

a) Write short explanatory notes on the following types of securities

    i)   Bonds   **(2 Marks)**

    ii)   Ordinary stocks   **(2 Marks)**
    iii) Derivative securities   **(2 Marks)**
    iv) Hedge funds   **(2 Marks)**

b) Discuss the importance of portfolio measurement and evaluation

                                                                                  (3 Marks)

c) In a Market where the risk free rate of return is 6%, three assets and the Market have the following distribution of returns.

Probability	Return (%)			
	Asset 1	Asset 2	Asset 3	Market
0.24	14.20	16.60	15.90	14.00
0.32	16.30	15.30	14.60	16.20
0.44	11.70	18.20	13.60	15.00

Required:

i) Sharpe measure **(4 Marks)**

ii) Treynor measure **(4 Marks)**

iii) Jensen's alpha **(4 Marks)**

iv) Ranking (starting with the best performing) based on each of the measures

(2 Marks)

QUESTION FOUR

a) A stock's price changes according to the following price tree
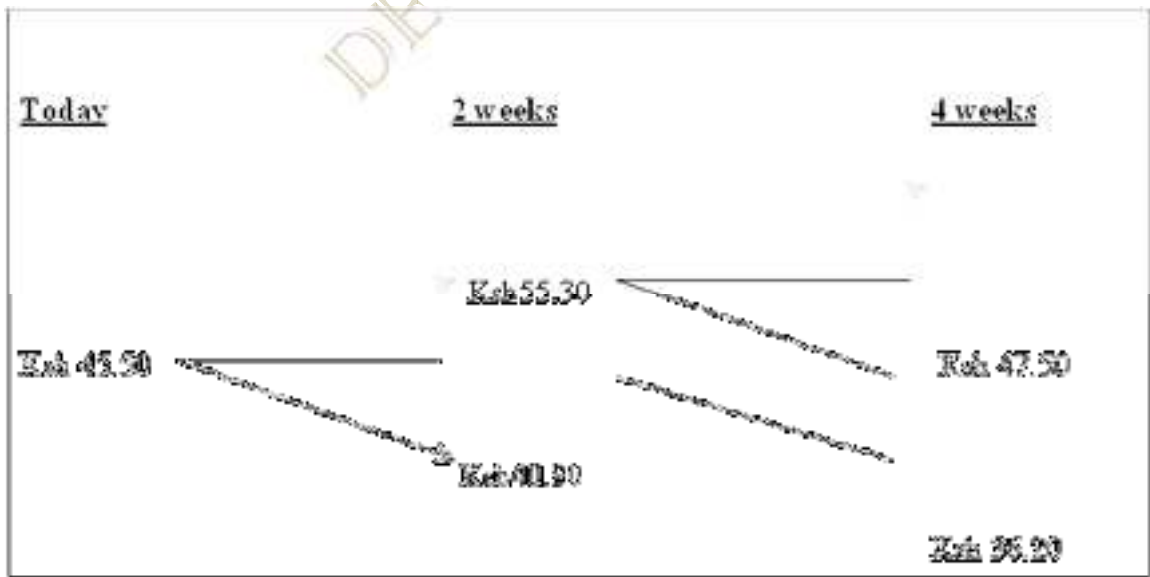
A put option with an exercise price of Ksh 53.50 expiring at the end of four weeks exists on the stock.

Required:

The price of the call option today if risk-free rate of return = 5% per annum and the calendar year is 52 weeks   **(17 Marks)**

b)   Briefly discuss any three Asset allocation strategies for an equity portfolio

(8 Marks)

QUESTION FIVE

b) Compare bond and common stock valuation   **(5 Marks)**

c) A semi-annual coupon bond with a coupon of 12% has face value Ksh 1000 and 20 years remaining till maturity. The current price of the bond isKsh 1210. Estimate the yield to maturity of the bond   **(10 Marks)**

d) The current dividend on a stock is Ksh 2.80 per share and investors require a rate of return of 12.8% p.a. Dividends are expected to grow at arate of 20% for the first year, 18% for year two and three and then at a rate of 8% per year from that point on. Find the price of the stock   **(10 Marks)**

END