

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

JANUARY – APRIL 2014 TRIMESTER

FACULTY OF COMMERCE

MBA- PROGRAMME

CFI 611: ADVANCED SECURITY AND PORTFOLIO MANAGEMENT

Date: APRIL 2014

Duration: 3 Hours

**INSTRUCTIONS: Answer Question ONE and ANY OTHER THREE Questions.
All working must clearly be shown.**

Q1. a) Briefly discuss the investment environment. **(8 marks)**

b) Two securities A and B have the following historical prices:

Month ending	Price (Kshs)	
	A	B
December 31	20.20	36.60
January 31	22.80	37.10
February 28	25.00	35.20
March 31	23.30	38.30
April 30	24.50	39.20

Both securities pay no dividend during the period.

Required;

i) Estimate the mean return for each security. **(6 marks)**

- ii) Analyze the securities and state whether they are suitable to be combined into a portfolio. **(6 marks)**
- c) Explain the steps in international bond portfolio management. **(5 marks)**
- Q2. a) By using a diagram explain the meaning of the terms opportunity set, efficient portfolio and efficient frontier. **(6 marks)**
- b) Securities 1 and 2 have the following characteristics:
 $E(R_1) = 10\%$ $\delta_1 = 8\%$
 $E(R_2) = 15\%$ $\delta_2 = 11\%$
 $Cor_{12} = -0.60$
- The securities are combined into a portfolio. Calculate the mean return and standard deviation of the minimum – variance portfolio that can be obtained. **(13 marks)**
- c) Explain any **THREE** assumptions of the mean-variance portfolio theory. **(6 marks)**
- Q3. a) Discuss any **THREE** valuation principles for securities. **(6 marks)**
- b) Explain why valuation of stocks is considered more difficult than valuation of bonds. **(4 marks)**
- c) The current dividend on a stock is Sh. 2 per share and investors require a rate of return of 12%. Dividends are expected to grow at a rate of 20% per year over the next three years and then at a rate of 5% per year from that point on.

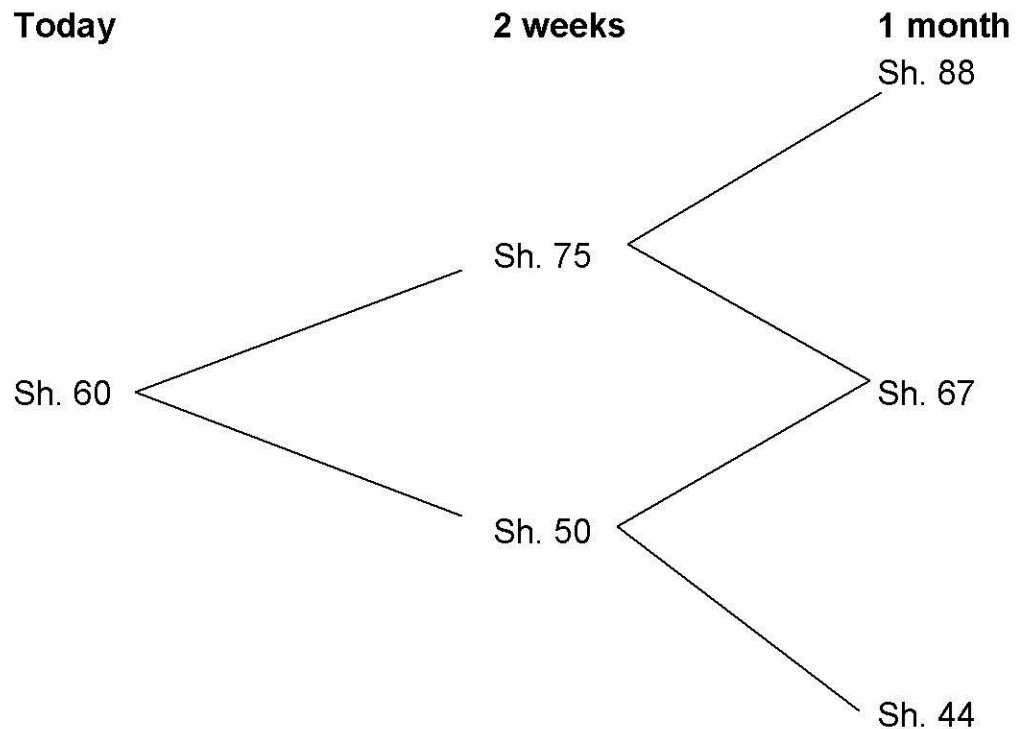
Required:

Calculate the current price of the stock. **(15 marks)**

- Q4. a) Distinguish between passive and active portfolio management. **(8 marks)**
- b) Explain how CAPM differs from APT. **(5 marks)**
- c) Discuss the various portfolio performance measures. **(6 marks)**
- d) Discuss any **TWO** types of asset allocation. **(6 marks)**

- Q5. a) i) Explain the factors considered in option valuation using the Black – Scholes model. **(5 marks)**
- ii) Discuss the assumptions of the Black – Scholes model. **(5 marks)**
- iii) Distinguish between the in-the-money and out-of-the money options. **(4 marks)**

- b) A stock has the following price tree:



A call option expiring at the end of the month has an exercise price of Sh. 62. Calculate the fair value of the call option today if the risk free rate is 8% p.a. **(11 marks)**

END