



# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

**A. M. E. C. E. A**

**MAIN EXAMINATION**

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**AUGUST - DECEMBER 2018 TRIMESTER**

**FACULTY OF COMMERCE**

**DEPARTMENT OF ACCOUNTING AND FINANCE**

**REGULAR PROGRAMME**

**CFI 411: PORTFOLIO MANAGEMENT**

**Date: DECEMBER 2018**

**Duration: 2 Hours**

**INSTRUCTIONS: Answer Question ONE and ANY OTHER TWO Questions**

- Q1. a) Define a portfolio and explain why it is preferable to investment in a single asset. **[3marks]**
- b) The table below shows the monthly closing prices (Ksh.) for two stocks, ABC Ltd and XYZ Ltd at the local Security Exchange.

Month	Dec	Jan	Feb	Mar	April	May	June
Stock ABC Ltd	9.10	11.30	9.00	12.30	14.50	16.00	15.8
Stock XYZ Ltd	72.00	69.50	70.60	69.20	68.80	67.50	66.00

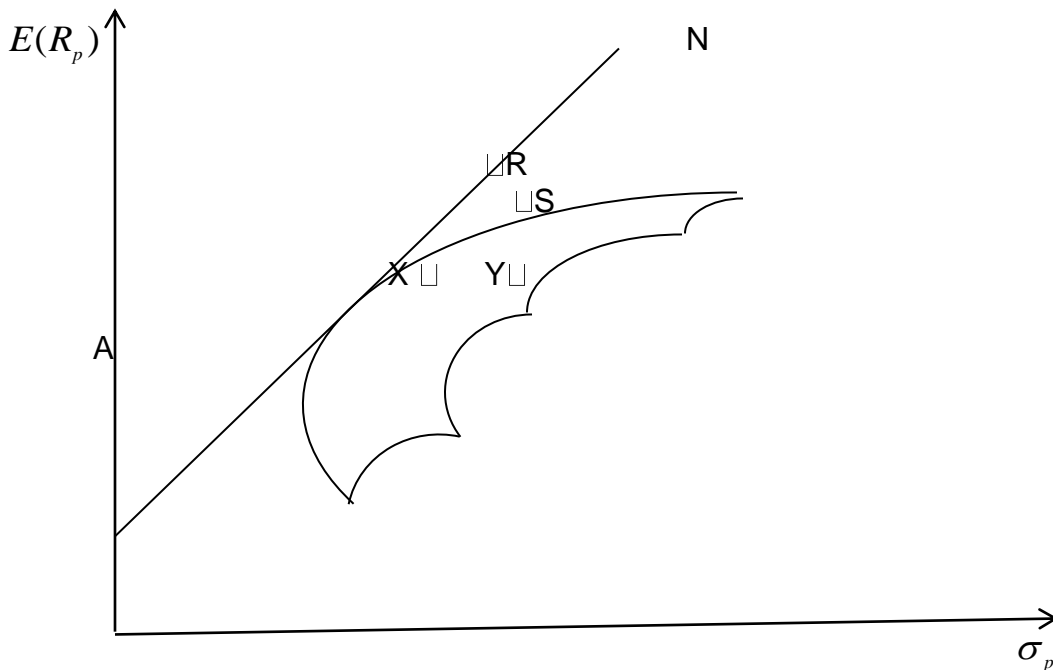
Additional information

Stock ABC Ltd paid a dividend of Ksh 0.70 in the month of March

**Required**

Calculate the correlation between the returns of the two stocks. Comment on the suitability of the two stocks to be combined into a portfolio. **[13marks]**

- c) The figure below shows certain concepts of portfolio management



**Required**

- i) State the significance of point A [1mark]
- ii) Compare and comment on points X and Y [2marks]
- iii) Compare and comment on points S and Y [2marks]
- iv) Discuss the importance of line AN [2marks]

d) Assets A and B have the following characteristics

Asset	Expected Return (%)	Standard deviation (%)
A	15.20	3.20
B	10.80	1.40

**Required**

Value at risk for each asset at 96 % confidence level ( $Z_{96\%} = 1.75$ ). Interpret your answers [7marks]

- Q2. a) i) Draw the differences between the Security Market Line (SML) and the Capital Market Line (CML) **[6marks]**
- ii) Briefly explain the measure for portfolio diversification **[2marks]**

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**

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 **[12marks]**

- Q3. a) Explain the following terms as used in portfolio management
- i) Passive portfolio management **[2marks]**
  - ii) Active portfolio management **[2marks]**
  - iii) Long and short position in asset trading **[2marks]**
  - iv) Short selling **[2marks]**
- b) With the aid of a diagram
- i) Explain the difference between systematic and unsystematic risks **[4marks]**
  - ii) Explain the meaning of an optimal portfolio. **[3marks]**

c) The returns on shares X and Y vary depending on the state of economic growth as shown below.

State of the economy	Probability of economic state occurring	Return on X Share (%)	Return on Y Share (%)
Boom	0.30	30	20
Recovery	0.60	24	18
Recession	0.10	4	14

**Required**

Determine the portfolio expected return and standard deviation if 20% of an investment is devoted to X and the rest to Y **[5marks]**

- Q4. a) Briefly discuss the importance of portfolio performance measurement and evaluation **[5marks]**
- b) Two portfolios and the market have the following characteristics in a market where the risk free rate of return is 4%

Probability	Return (%)		
	Portfolio 1	Portfolio 2	Market
0.20	14.20	15.90	14.00
0.62	16.30	14.60	12.20
0.18	11.70	13.60	15.00

**Required**

- i) Calculate the Treynor measure for portfolio 1 and 2. Which portfolio has a better manager? **[9marks]**
- ii) Calculate the Jensen's measure for portfolio 1 and 2. Which portfolio has a better manager? **[6marks]**

**\*END\***