



(Knowledge for Development)  
**KIBABII UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**2020/2021 ACADEMIC YEAR  
FOURTH YEAR SECOND SEMESTER**

**SPECIAL/SUPPLEMENTARY EXAMINATION**

**FOR THE DEGREE OF BACHELORS OF COMMERCE**

**COURSE CODE: BCF 429**

**COURSE TITLE: PORTFOLIO MANAGEMENT AND  
INVESTMENTS**

**DATE: 16<sup>TH</sup> FEBRUARY, 2021**

**TIME: 8.00AM - 10.00AM**

**INSTRUCTIONS TO CANDIDATES**

Answer Question **One** from section **A** and Any other **Two Questions** from section B

TIME: 2 Hours

KIBU observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.

**SECTION A COMPULSORY**

**QUESTION ONE (30 MARKS)**

- a. Financial managers use the concepts of capital asset pricing model(CAPM) in a number of financial decisions making such as valuation of securities investment in risk analysis. State any five assumptions of CAPM (5 marks)
- b. Differentiate systematic risk and unsystematic risk giving one examples for each. (4 marks)
- c. The expected return for securities X and Y are as shown below.

Economy	Probability	X	Y
1	0.2	-10	12
2	0.1	8	-6
3	0.4	6	-8
4	0.1	3	13
5	0.2	-6	18

Determine the risk of efficient portfolio or minimum variance portfolio when x and y are combined. (10marks)

d) Assume that you have just graduated with a degree in finance from MMUST and have just reported to work as an investment advisor at the Kabras brokerage firm. Jane, a retired civil servant who has received his pension, a huge investment of money, seeks your advice

Required:

- i. Explain to Jane any three differences between investment in financial assets and investment in physical assets (6 marks)
- ii. Critically evaluate assumptions of the capital asset pricing model. (5 marks)

**SECTION B ANSWER ANY TWO QUESTIONS**

**QUESTION TWO (20 MARKS)**

- a) Briefly describe each of the portfolio performance measures and explain how they are used:
- i) sharpe ratio (4marks)
- ii) Treynor's ratio (4 marks)
- iii) Jensen's Alpha (4marks)
- b) Malalu Gideon, a Kenyan investor bought the following combination of shares at the indicated prices I January 2018:

Share	No. share	Unit Prices(Ksh.)
Stanchart Bank	20000	165
Nation media Group	30000	72
Bamburi Cement	50000	150

At the end of the year, the prices had risen to Sh. 231, sh.196, Sh. 115Stanchart, Nation Media and bamburi respectively. None of the shares paid dividend during the year. Required: Compute the portfolio value weighted mean rate of return (8marks)

**QUESTION THREE (20 MARKS)**

- a) Charles H. Dow formulated a hypothesis that the stock market does not perform on a random basis but is influenced by three distinct cyclical trends that guide its general directions. This view contradicts the efficient markets hypothesis. Discuss the argument in favor and against market efficiency.(5 marks)

b) The returns of XYZ Ltd and ABC Ltd for the past six years are given below:

YEAR	XYZ Ltd	ABC Ltd
2014	9	10
2015	5	6
2016	3	12
2017	12	9
2018	16	15

Required:

Calculate the risk and return of a portfolio consisting of both securities where the proportion of funds invested in XYZ Ltd is 80% (10 marks).

- c) Discuss the implication of efficient market hypothesis on technical analysis. (2 marks)
- d) The risk free return of Shitanda PLC is 10% and the expected return of the NSE 20 Index (market portfolio) is 18%, and the risk measurement of the market portfolio by standard deviation is 5%.

Required: Construct an efficient portfolio to produce a 16% expected return and determine its risk. (3 marks)

**QUESTION FOUR (20 MARKS)**

- a) Many portfolios containing equities also contain other asset categories, so the management factors are not limited to equities. Explore any four asset allocation strategies. (8 marks)
- b) Describe the efficient market hypothesis theory. (3 marks)
- c) The following information relates to two securities X and Y which lie on the Security Market Line (SML)

Security	Required Rate of Return	Beta Coefficient
X	18%	1.0
Y	22%	1.5

Required:

Determine the risk free rate of return. (6 marks)

- d) Explain the significance of covariance in the estimation of the risk of a portfolio (3marks)