



**JARAMOGIOGINGAODINGA UNIVERSITY OF SCIENCE AND
TECHNOLOGY**

SCHOOL OF BUSINESS ECONOMICS

**UNIVERSITY EXAMINATION 2022/23 (SEPT- DEC
2022)**

**FOR DEGREE OF BACHELOR OF BUSINESS
ADMINISTRATIONS**

YR3S2 2021/22 EXAMINATION DRAFT

KISUMU CAMPUS

COURSECODE: BAB 1316

COURSE TITLE: INVESTMENT AND PORTFOLIO MANAGEMENT

DATE: 14/12/2022

SESSION: 15.00-17.00PM

TIME:2:00HOURS

INSTRUCTIONS

1. Answer question ONE(COMPULSORY) and ANY other two questions.
2. Candidates are advised not to write on the question paper.
3. Candidates must hand in their answer booklets to the invigilator while in the examination room.

QUESTION ONE

- a) Using a clear example, define an investment highlighting its characteristics. (5marks)
- b) ABC Ltd is considering an investment in one or both of two securities, A and B. The company seeks the advice of a financial analyst who gives the following data.

Security	Possible rates of return	Probability of occurrence
A	30	0.3
	25	0.4
	20	0.3
B	50	0.2
	30	0.6
	10	0.2

Suppose the correlation coefficient between returns A and B is 0.24.

Required

- a) Calculate the required return and standard deviation of each of the following portfolios.
(i) 35% A and 65% B (6marks)
(ii) 10% A and 90% B (6marks)
- b) Differentiate between systematic and unsystematic risk. Illustrate this with the help of a diagram (4 marks)
- c) Discuss the common errors in investment management (4marks)

QUESTION TWO

- a) Explain the uses of the capital asset pricing model (CAPM) in financial decisions in modern enterprise. (5marks)
- b) What assumptions underlie capital asset pricing model (CAPM)(5marks)
- c) The managing director of ARM cement Ltd a company quoted on the Nairobi Securities Exchange (NSE) has asked you to assist in estimating the firm's equity Beta Coefficient.

The firm is all equity financed and listed in the NSE five years ago. You have gathered the following information from the NSE for the last four years

Bidco Ltd			NSE		
Year	Average share price (Kshs)	Dividend per share (Kshs)	Average NSE Index	NSE Dividend Yield	Return on Govt stock (%)
2018	69.5	3.5	2600	3	7
2019	73.5	4.25	2990	5	9
2020	81.5	4.50	3040	5.5	8
2021	92.5	5.0	3280	5.5	8

Required

Use the capital asset pricing model (CAPM) to estimate the beta of ARM Ltd.

(5marks)

QUESTION THREE

a) In relation to the investment management process explain the steps used, highlighting the importance of each step in portfolio management (7marks)

b) A financial analysts has provided you with the following information relating to a call .option

P = Kshs 20

X = Kshs 20

t = 3 months

KRF = 12%

$\delta^2 = 0.16$

Determine the value of the option

(8marks)

QUESTION FOUR

a) In relation to the real estate investment theory, explain the term sales comparison approach (2marks)

b) Discuss the implications of efficient market hypothesis for investments policy as it relates to

(i) Technical Analysis (2marks)

(ii) Fundamental Analysis (2marks)

c) Describe the following types of foreign currency risk exposure

(i) Transaction exposure (2marks)

(ii) Translation exposure (2marks)

(iii) Economic exposure (2marks)

- d) Explain two ways in which a firm can hedge against a currency transaction exposure
(3marks)

QUESTION FIVE

- a) State and briefly explain the relationship between a call option's price and the following determinants:

- (i) The underlying stocks price (2marks)
- (ii) The exercise price (2marks)
- (iii) The time to maturity (2marks)
- (iv) The risk-free rate (2marks)

- b) The risk free rate is 15% and the expected rate of return of the market portfolio is 20%. The expected returns for four securities are listed below together with their expected betas.

Security	Expected return	Expected Beta
A	17%	1.2
B	15%	0.8
C	15.5%	1.1
D	17%	1.6

REQUIRED

- With support of relevant computations, identify the securities that are over-valued and undervalued.
(7marks)