

The
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UNDERGRADUATE UNIVERSITY EXAMINATIONS
SCHOOL OF MANAGEMENT AND LEADERSHIP
DEGREE OF BACHELOR OF COMMERCE

FIN 414: PORTFOLIO ANALYSIS MANAGEMENT

DATE: 28TH JULY 2026

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

- 1. Write your registration number on the answer booklet.**
- 2. DO NOT write on this question paper.**
- 3. This paper contains SIX (6) questions.**
- 4. Question ONE is compulsory.**
- 5. Answer any other THREE questions.**
- 6. Question ONE carries 25 MARKS and the rest carry 15 MARKS each.**
- 7. Write all your answers in the Examination answer booklet provided.**

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow:

THE KENYAN SECURITIES MARKET EVOLUTION

The Nairobi Securities Exchange (NSE) has undergone significant transformation over the past decade. Once dominated by a few blue-chip companies, the NSE now hosts a diverse range of listed entities across banking, telecommunications, manufacturing, and services. The introduction of automated trading systems, the demutualization of the exchange, and regional integration within the East African Community have all contributed to increased market activity.

However, despite these advances, retail investor participation remains low compared to institutional investors. The Capital Markets Authority (CMA) has noted that many individual investors lack formal investment processes, often making decisions based on tips from friends or media speculation rather than systematic analysis. Ms. Achieng, a 32-year-old accountant, has recently inherited Ksh 500,000. She wants to invest in the securities market but is unsure how to proceed. She has approached you, a portfolio analyst, for guidance.

Required:

- a) Evaluate six primary functions that securities markets (like the NSE) provide to the Kenyan economy, and explain their importance to Ms. Achieng as a potential investor.

(6 marks)

- b) Analyze five contributing factors that explain why equity markets attract more attention than money markets in East Africa.

(10 marks)

- c) Explain the concept of financial disintermediation in your own words, using a practical example to show why a large Kenyan corporation might bypass banks and raise funds directly from the capital market.

(4 marks)

- d) Examine five principal securities market instruments Ms. Achieng could consider for her portfolio, describing each and indicating one key risk.

(5 marks)

QUESTION TWO

- a) Ms. Akili has decided to follow a systematic investment process rather than relying on tips. She has asked you to explain the key steps.

Required:

Examine the systematic investment decision-making framework by describing its three main stages, and for each stage, identify one specific action Ms. Akili should take.

(3 marks)

- b) Brian is considering investing in a perpetual bond (consol) issued by a reputable Kenyan company. The bond pays an annual coupon of Ksh 800 per year, and her required rate of return is 10%. Demonstrate mathematically that the value of this perpetual bond equals the coupon payment divided by the required yield.

(6 marks)

- c) Contrast the Arbitrage Pricing Theory (APT) with the Capital Asset Pricing Model (CAPM), highlighting three key differences between the two models.

(6

marks)

QUESTION THREE

- a) At an investment club meeting, two members disagree. Member A argues that "the market is efficient, so we should just buy an index fund and do nothing." Member B responds, "If everyone believed that, the market wouldn't be efficient!" Ms. June, listening to this debate, is confused about how market efficiency should influence her investment strategy.

Required:

- i. Evaluate whether the assumption of market efficiency fosters subpar portfolio management strategies, discussing two situations

where blindly believing in efficiency could lead to poor investment decisions. **(6 marks)**

- ii. Justify three practical applications of the Capital Asset Pricing Model (CAPM) in investment evaluation, providing a specific example of how Ms. June could use each.

(6 marks)

- b) Distinguish between bond credit risk and reinvestment risk, giving a real-world example of each that a bond investor might face.

(3 marks)

QUESTION FOUR

- a) Investor A is comparing two mutual funds. She has gathered the following data:

Fund	Portfolio Return (%)	Beta
Fund Alpha	18.2	1.15
Fund Beta	16.5	0.95

Additional Information:

- Risk-free rate = 3.0% per annum
- Market return = 12.5% per annum

Required:

Compute Jensen's Alpha for both Fund Alpha and Fund Beta, and based on your calculation, determine which fund has performed better on a risk-adjusted basis.

(5 marks)

- b) The following data has been provided for a technology company. An investor wants to analyze the data to potentially add it to her portfolio.

She has collected historical returns for TechNova and the market index over six years:

Year	TechNova Return (%)	Market Return (%)
1	42	18
2	12	15
3	-8	16
4	10	-7
5	14	14
6	6	11

Required:

- i. Compute the correlation coefficient between TechNova and the market and interpret the result.

(5 marks)

- ii. Determine TechNova's beta coefficient using the data provided, showing all workings, and explain what this beta value tells the investor about TechNova's systematic risk.

(5 marks)

QUESTION FIVE

- a) Mr. X. is considering purchasing a vanilla bond with the following characteristics:

Feature	Value
Face Value	Ksh 100,000
Annual Coupon Rate	5%

Feature	Value
Maturity	5 years
Required Yield to Maturity	4%

Required:

Determine the fair value of the bond, showing all workings, and decide whether Mr. X. should buy it if it is currently trading at Ksh 102,000. Justify your answer.

(6 marks)

b) Missy is analyzing the portfolio of Strata Investments, a medium-sized investment firm. The portfolio details are as follows:

Shares ('000)	Price per Share (Ksh)	Beta	Expected Return (%)
140	72.50	1.12	18.2
180	51.20	1.28	22.1
220	38.75	0.92	16.8
280	55.40	1.42	21.5

Additional Information:

- Treasury yield (risk-free rate) = 10.5%
- Market required return = 18.3%

Required:

Evaluate the Strata Investments portfolio using Markowitz optimization principles by:

- i. Computing the weight of each asset in the portfolio.
(3 marks)
 - ii. Calculating the portfolio's expected return. **(3 marks)**
 - iii. Calculating the portfolio's beta. **(3 marks)**
- c) Explain whether the portfolio is expected to outperform the market (required return 18.3%), based on your calculations, and provide reasoning. **(3 marks)**

QUESTION SIX

- a) GreenTech Ltd, a Kenyan renewable energy company, is planning to expand into East Africa. The firm is considering raising capital through both equity and debt markets. Ms. Smith, an investor, is evaluating whether to include GreenTech in her portfolio.

Required:

- i. Analyze three advantages and three disadvantages of GreenTech raising funds through equity compared to debt financing.
(6 marks)
 - ii. Evaluate the potential impact of including GreenTech shares in Ms. Achieng's portfolio, considering both risk and return characteristics of renewable energy firms.
(6 marks)
- b) Contrast active and passive investment strategies by identifying at least two differences between the two approaches, and then recommend which strategy an investor should adopt if he/she decides to invest in securities. **(3 marks)**