

180



*(Knowledge for Development)*

**KIBABII UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**2021/2022 ACADEMIC YEAR**

**FOURTH YEAR FIRST SEMESTER**

**MAIN EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF COMMERCE**

**COURSE CODE : BCF 411**

**COURSE TITLE : ASSET MANAGEMENT.**

**DATE: 17<sup>TH</sup> MAY, 2022**

**TIME: 2.00PM – 4.00PM**

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**INSTRUCTIONS TO CANDIDATES**

Answer Question One in Section A and Any other TWO (2) Questions in Section B

TIME: 2 HOURS

KIBU observes ZERO tolerance to examination cheating

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## SECTION A

### QUESTION ONE.

(a) **Wafubwa**, an Investment advisor working ABC Ltd, a Mutual Fund and Asset Management Firm based in Nairobi Kenya. **Kamau, Otieno** and **Wambua** visit the firm to enquire about invest opportunities in the same.

**Kamau** is 62 years and is retired but has available a bank balance of Kshs 6 Million in his account that he had saved over the period he was working, bulk of which he wishes to invest in securities with ABC Ltd. **Otieno** is 26 years old and plays professional football in Europe earning an equivalent of Kshs 800,000 per Week. **Wambua** on the other hand works as a Financial Controller for a bank with a strong cash base. **Wambua** has been authorized by the Bank's Board to invest the Bank's excess cash in a variety of securities with ABC LTD.

What advise in terms of best and viable investment avenues would you expect **Wafubwa** to accord the three individuals/investors i.e. **Kamau, Otieno** and **Wambua** going forward? Justify your answer(s). **(6 Marks).**

(b) A Pension Fund starts the year with Kshs 500 Million. By Midyear it has appreciated to Kshs 600 Million, at which point it pays out pensions of Kshs 200 Million. In the second half of the year, the fund appreciates by a further 50 percent.

#### Required.

(i) What is the annually compounded time-weighted rate of return? - **(2 Marks)**

(ii) Calculate the annually compounded shilling weighted rate of return. - **(2 Marks).**

(iii) Suppose that the fund had a midyear cash inflow of Kshs 200 Million rather than an outflow. Would this increase or reduce the time weighted rate of return? **(2 Marks)**

(iv) Referring to (c) above, would it increase or reduce the shilling weighted rate of return? **(2 Marks).**

(c) An analyst wants to evaluate portfolio X consisting entirely of common stocks using both Jensen's and  $M^2$  measures of portfolio performance. The following table provides the average annual rate of return for portfolio X, the Market Portfolio (as measured by the NSE) and Treasury B's during the past 8 years.

Particulars	Average Annual Rate of return	Standard Deviation of return	Beta
Portfolio X	10%	18%	0.60
NSE	12%	13%	1.00
Treasury Bills	6%	N/A	N/A

#### Required.

Calculate the Jensen's and  $M^2$  measures for both portfolio X and the NSE. Briefly explain whether portfolio X underperformed, equaled or outperformed the NSE on a risk adjusted basis using both the Jensen's and  $M^2$  ratios. **(6 Marks).**

(d) Consider a Mutual Fund with Kshs 200 Million in assets at the start of the year and with 10 Million shares outstanding. The Fund invests in a portfolio of stocks that



provides dividend income at the end of the year of Kshs 2 million. The Stocks included in the fund's portfolio increase in price by 8%, but no securities are sold and there are no capital gains distributions. The Fund charges a fee of 1%, which are deducted from portfolio assets at year-end.

**Required.**

- (i) Calculate the Net Asset Value at the start and end of the year. - (3 Marks).
  - (ii) What is the rate of return for an investor in the fund? - (3 Marks).
- (e) Most mortgage loans once had balloon payments; now most current loans fully amortize. Explain the difference between a balloon loan and an amortizing loan. (4 Marks).

**QUESTION TWO.**

- (a) What features of Mutual Funds and Investment environment have led to Mutual Funds' rapid growth in the last two decades? (5 Marks).
- (b) What is a Real Estate Investment Trust? Explain the limitations on the types of assets REITs may own and manage. (6 Marks).
- (c) Explain the growing popularity of Sovereign Wealth Funds worldwide. (5 Marks).
- (d) When is a Pension fund said to be underfunded? Highlight three things that can lead to underfunding. (4 Marks).

**QUESTION THREE.**

- (a) What is a mortgage sale? How does a mortgage sale differ from the securitization of a mortgage? (4 Marks).
- (b) **Dominic** is to obtain a loan facility of Kshs 3,000,000 to purchase a house. This loan is to be repaid over a period of 20 years at an annual interest rate of 12%.  
Help Dominic to:
  - (i) Compute the monthly mortgage payment for this loan. - (2 Marks).
  - (ii) Amortize the mortgage loan for the first one year. - (6 Marks).
  - (iii) Suppose the mortgage is paid off after one year, how much will be paid to clear the mortgage. - (2 Marks).
- (c) What is a Mortgage –backed bond? Why do financial institutions issue Mortgage backed bonds (MBBs)? (4 Marks).

**QUESTION FOUR.**

Write short notes on the following:

- (a) Advantages of defined contribution pension plans. - (5 Marks).
- (b) Distinction between Hedge Funds and Private Equity Funds. - (5 Marks).
- (c) Role of Financial Intermediaries in the capital formation process. - (5 Marks).
- (d) Reasons for underperformance by Fund Managers. - (5 Marks).

**QUESTION FIVE.**

- (a) A Closed-end fund starts the year with a net asset value of Kshs 20.00. By the year end, NAV equals Kshs 20.40. At the beginning of the year, the fund was selling at a 3%

premium to NAV. By the end of the year, the fund is selling at a 8% discount to NAV. The Fund paid year-end distributions of income and capital gains of Shs 2.50.

**Required.**

- (i) What is the rate of return to an investor in the fund during the year? **(4 Marks)**
- (ii) What would have been the rate of return to an investor who held the same securities as the fund manager during the year? **(4 Marks).**
- (b) The Dow Theory is a common tool used by asset Managers for technical analysis of share price movements in the stock market. Draw trends in the bull and bear market and suggest timings for buying and selling of shares. **(6 Marks).**
- (c) James, an asset manager has observed that the average return on common stock was 12 percent, 6 percent of treasury bills and 10 percent on the firm's pension fund. The market return has an annual standard deviation of 16 percent and the fund return has a beta of 0.80 and annual standard deviation of 14 percent.

**Required.**

- (i) What is the risk premium on the Pension Fund? - **(3 Marks).**
- (ii) What is the total gain from selecting stocks? - **(3 Marks).**