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KIRIRI WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2023/2024 ACADEMIC YEAR
FIRST YEAR, FOURTH SEMESTER EXAMINATION
FOR THE DIPLOMA IN ACCOUNTING
DBF 1106: INVESTMENT ANALYSIS

Date: 11TH DECEMBER 2023
Time: 11:30AM-1:30PM

INSTRUCTIONS TO CANDIDATES
ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS
QUESTION ONE (30 MARKS)

a) Describe three types of market anomalies that can disprove the efficiency of capital markets.
(6 Marks)

b) For accuracy purposes, the Black-Scholes Options Pricing model is based on a number of assumptions. List three of these assumptions. (6 Marks)

c) With the help of examples, identify the risk perceptions adopted by different investors. (6 Marks)

d) An analyst expects a risk-free return of 8% and market return of 15%. The betas for the stocks X and Y are 1.4 and 0.7 respectively.

Required;
   i. Using CAPM, estimate the values of these two stocks and make a comparison of your results in terms of their risk-return profiles. (4 Marks)
   ii. Determine whether X and Y are undervalued or overvalued and the actions to be recommended by the analyst if their prevailing returns in the market are 22% and 7% respectively. (2 Marks)

e) The beta is a commonly used measure in the analysis of asset performance. Highlight the applications of beta. (6 Marks)

QUESTION TWO (20 MARKS)

a) With the aid of an illustration, demonstrate how feasible portfolios, efficient portfolios, and optimal portfolios are identified. (10 Marks)

b) Investments are meant to earn a holder positive cash flows in the future. However, one needs to know the available options in order to make the right choice. Giving examples in each, evaluate the three main categories of investment types and their properties. (10 Marks)

QUESTION THREE (20 MARKS)

a) Companies have a wide range of financing options available to them and their source of finance depends on various factors. With the aid of appropriate examples, discuss the factors that determine a firm's choice of finance. (8 Marks)

b) Debentures are a form of debt finance commonly used by firms. Briefly examine the features of debentures. (6 Marks)

c) Chika Ltd is a publicly trading company at the NSE. They intend on raising more funds by conducting a rights issue. Their current share price is Ksh. 150 and the subscription price of a right is Ksh. 130. If five share are needed to buy one right;
   a. What is the theoretical value of one right? (3 Marks)
   b. What is the theoretical ex-rights value? (3 Marks)

QUESTION FOUR (20 MARKS)

a) Annalisa is an investor who wishes to invest her savings in the NSE and she has identified two possible assets, X and Y. She has obtained the following information regarding the asset returns and possible outcomes;

Economy	Asset X	Asset Y
Boom: 0.5	15%	-5%
Moderate: 0.3	-8%	25%
Recession: 0.2	25%	18%

Required:
i. Calculate the expected returns of assets X and Y. (4 Marks)
ii. Calculate the standard deviation of assets X and Y. (6 Marks)
iii. Calculate the portfolio expected return if she chose to invest equally in both assets. (2 Marks)
iv. Calculate the portfolio standard deviation. (5 Marks)
v. Interpret the correlation coefficient obtained. (3 Marks)

QUESTION FIVE (20 MARKS)

a) A stock trading at the Nairobi Securities Exchange declared dividends of Kshs. 5 for the year 2023. For the last 10 years, the stock's dividend has grown at an average annual rate of 10%. If the company's cost of capital is 15%;
   a. Calculate the stock's value. (3 Marks)
   b. What would be the stock's value if the company's dividends remained constant over the period into perpetuity? (3 Marks)
b) Explain why the Arbitrage Pricing Theory model is considered superior to the Capital Asset Prancing Model. (4 Marks)
c) Before the optimal investment is chosen, one needs to make some considerations given their situation. As such, discuss the steps taken in the decision making process when choosing an investment. (10 Marks)