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**KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATION, 2018/2019 ACADEMIC YEAR**  
**DIPLOMA IN BANKING AND FINANCE**

**DBF 1106 – INVESTMENT ANALYSIS**

Date: 12<sup>th</sup> April, 2018  
Time: 2.30pm – 4.30pm

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

- a) The Arbitrage Pricing Theory (APT) and the Capital Asset Pricing Model (CAPM) have received much attention from practitioners and academicians for use in asset pricing and valuation. Required: Explain the conceptual difference between the APT and CAPM. (6 Marks)
- b) Moon Ltd has 900,000 shares outstanding at current market price of Sh 130 per share. The company needs Sh 22,500,000 to finance its proposed expansion. The board of directors has decided to issue rights for raising the required funds. The subscription price has been fixed at Sh 75 per share.

Required;

- i) How many rights are required to purchase one new share? (2 Marks)
- ii) What is the price of one share after the rights issue? (2 Marks)
- iii) Compute the theoretical value of each right (1Mark)
- c) Assume a shareholder(owns 3 shares and has Sh 75 cash In hand).The shareholder argues that he will suffer a loss in his personal wealth due to this rights issue, because the new shares are being offered at a price lower than the current market value. The chairman assures him that his wealth will not be reduced because of the rights issue, as long as the shareholder takes appropriate action.

Required:

- i) Explain whether the chairman is correct. What should the shareholder do? (2 Marks)
- ii) Show the effect of the rights issue on the shareholders' wealth under the three options available to the shareholders. (6 Marks)
- vi) Are there any real circumstances which might lend support to the shareholder's claim? (2Marks)
- d) Explain the following terms
- i) Yield curve (2 Marks)
- ii) Investment (2 Marks)
- iii) Efficient portfolios (2 Marks)
- e) Identify any 3 types of efficiency in capital markets (3 Marks)

**QUESTION TWO (20 MARKS)**

- a) If stock is to be sold to raise new capital, explain how the new shares may be sold (8 Marks)
- b) You are given the following returns of stock A and the market under five possible states of the economy

<b>Economic Condition</b>	<b>Probability</b>	<b>Market Return</b>	<b>Stock A</b>
Rapid Expansion	0.12	0.23	0.12
Moderate Expansion	0.40	0.18	0.09
No growth	0.25	0.15	0.05
Moderate contraction	0.15	0.09	0.01
Serious contraction	0.08	0.03	-0.02

Required:

- i) What is the expected return of Stock A?(1 Marks)ii) what is the correlation between the returns on the market with the return on Stock A? (8 Marks)
- iii) Comment on the results obtained in (ii) above(1 Marks)iv) You thinking of undertaking an alternative project but similar to stock A. If the Risk Free rate of return is 8%, what will be the expected return of this project? (2 Marks)

**QUESTION THREE (20 MARKS)**

- a) The risk free rate is 10% and the expected return on the market portfolio is 15%. The expected returns for 4 securities are listed below together with their expected betas

<u>Security</u>	<u>Expected Return</u>	<u>Expected Beta</u>
A	17.0%	1.3
B	14.5%	0.8
C	15.5%	1.1
D	18.0%	1.7

Required:

- i) On the basis of these expectations, which securities are overvalued? Which are undervalued? (8 Marks)
  - ii). If the risk-free rate was to rise to 12% and the expected return on the market portfolio rose to 16%, which securities would be overvalued? Which would be under-valued? (Assume the expected returns and the betas remain the same). (8 Marks)
- b) With the aid of diagram differentiate between systematic risk and unsystematic risk (4 Marks)

**QUESTION FOUR (20 MARKS)**

- a) i) Define efficiency in capital markets (2 Marks)
- ii) Explain three forms of efficient market hypothesis (6 Marks)
- b) Explain the implications of efficient market hypothesis (EMH) (8 Marks)
- c) Describe how a capital market facilitates the following;
  - i) Liquidity (2 Marks)
  - ii) Fair price of securities (2 Marks)

**QUESTION FIVE (20 MARKS)**

Pricing of loans is a key factor to investments in a country, hence the need to focus on interest rate determination.

Required;

- a) Analyze the "term structure of interest rates" and describe the theories that relate to term structure of interest rates (8 Marks)
- b) Describe briefly any two types of yield curve with the aid of a diagram. (4 Marks)c) Explain the main features of debentures (8 Marks)