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**KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY**
**UNIVERSITY EXAMINATION, 2019/2020 ACADEMIC YEAR**
**THIRD YEAR, SECOND SEMESTER EXAMINATION**
**FOR THE DEGREE OF BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION**

**KFI 302: INVESTMENT ANALYSIS I**
**MAIN EXAMINATION**

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

**QUESTION ONE (30 MARKS)**

a. Ujuzi Limited wishes to raise finance to cater for the purchase of new fixed assets, as its sales level has greatly increased in the recent years, and the demand for its products is expected to increase for the foreseeable future. The company has 900,000 outstanding shares, which are currently trading in the stock exchange at Sh.130 a share. The finance manager estimates that the fixed assets will cost Sh.22, 500,000 and he has convinced the board of directors to raise the money through a rights issue. The board has set the subscription price at Sh.75 per share.

**Required:**

i. The number of rights required to purchase a new share. (3 marks)
ii. The price of one share after the rights issue. (4 marks)
iii. The theoretical value of the rights if the shares are sold ex-right. (2 marks)
iv. The effect on a shareholder's wealth if he decides neither to exercise nor sell the right. (3 marks)

b. The dividend per share of Mavazi Limited as at 31 December 2018 was Sh.2.50. The company's financial analyst has predicted that dividends would grow at 20% for five years after which growth would fall to a constant rate of 7%. The analyst has also projected a required rate of return of 10% for the equity market. Mavazi's shares have a similar risk to the typical equity market.

**Required:** The intrinsic value of shares of Mavazi Ltd. As at 31 December 2018. (8 marks)

c. Explain the assumptions that must be made in deriving the Capital Asset Pricing Model (CAPM)? (10 marks)

**QUESTION TWO (20 MARKS)**

In recent years, there has been a trend towards "cross-border" listing of securities of quoted companies. This has reduced the over-reliance by companies on domestic capital markets.

**Required:**

i. Explain the meaning of "cross-border" listing. (3 marks)

ii. Identify and explain six reasons why companies in your country may seek "cross-border" listing. (12 marks)

iii. Identify five barriers to "cross-border" listing. (5 marks)

**QUESTION THREE (20 MARKS)**

a. Briefly explain the main ways of classifying leases. (4 marks)

b. Gathura Ltd. is evaluating the acquisition of a heady duty forklift. The company can either purchase the equipment through the use of its normal financing mix (30% debt and 70% equity) or lease it.

The following additional information is available:

| | | |
|---|---|---|
| 1. | Acquisition price | Sh.8, 000,000 |
| 2. | Useful life | 4 years |
| 3. | Salvage value | Sh.1, 600,000 |
| | Depreciation method – straight line | |
| | Annual (before tax and depreciation) cash savings | Sh.2, 400,000 |
| | Rate of interest on a four year period | 10% |
| | Marginal tax rate | 10% |
| | Annual lease rentals | Sh.2, 400,000 |
| | Annual operating expenses | Sh. 400,000 |
| | Cost of capital | 12% |

**Required:**

i. Evaluate whether acquisition of the forklift through purchase is justified. (5 marks)

ii. Should Gathura Ltd. lease the asset? (11 marks)

**QUESTION FOUR (20 MARKS)**

Dove Construction Company Ltd made a Sh.100 million bondage 5 years ago when interest rates were substantially high. The interest rates have now fallen and the firm wishes to retire this old debt and replace it with a new and cheaper one. Given here below are the details about the two bond issues:

**Old Bonds:** The outstanding bonds have a nominal value of Sh.1, 000 and 24% coupon interest rate. They were issued 5 years ago with a 15-year maturity. They were initially sold a their nominal value of Sh.1, 000 and the firm incurred Sh.390, 000 in floatation costs. They are callable at Sh.1, 120.

**New Bonds:** The new bonds would have a Sh.1, 000 nominal value and a 20% coupon interest rate. They would have a 10-year maturity and could be sold at their par value. The issuance cost of the new bonds would be Sh.525, 000.

Assume the firm does not expect to have any overlapping interest and is in the 35% tax bracket.

**Required:**

i) Calculate the after-tax cash inflows expected from the unamortized portion of the old bond's issuance cost. (2 marks)

ii) Calculate the annual after-tax cash inflows from the issuance of the new bonds assuming the 10-year amortization. (2 marks)

iii) Calculate the after-tax cash outflow from the call premium required to retire the old bonds. (2 marks

iv) Determine the incremental initial cash outlay required to issue the new bonds. (6 marks)

v) Calculate the annual cash-flow savings, if any, expected from the bond refunding. (6 marks)

vi) If the firm has a 14% after-tax cost of debt, would you recommend the proposed refunding and reissue? Explain. (2 marks)

**QUESTION FIVE (20 MARKS)**

Rodfin plc is considering investing in one of two short-term portfolios of four short-term financial investments in diverse industries. The correlation between the returns of the individual components of these investments is believed to be negligible.

**Portfolio 1**

| Investment | Beta | Expected return % | Standard deviation of return | Amount invested Sh. million |
|---|---|---|---|---|
| A | 1.4 | 16 | 7 | 3.8 |
| B | 0 | 6 | 2 | 5.2 |
| C | 0.7 | 10 | 5 | 6.1 |
| D | 1.1 | 13 | 13 | 2.9 |

**Portfolio 2**

| Investment | Beta | Expected return % | Standard deviation of return | Amount invested Sh. million |
|---|---|---|---|---|
| A | 1.2 | 14 | 9 | 7.1 |
| B | 0.8 | 11 | 4 | 2.7 |
| C | 0.2 | 7 | 3 | 5.4 |
| D | 1.5 | 17 | 14 | 2.8 |

The managers of Rodfin are not sure of how to estimate the risk of these portfolios, as it has been suggested to them that either portfolio theory or the capital asset pricing model (CAPM) will give the same measure of risk. The market return is estimated to be 12.5% and the risk free rate 5.5%.

**Required:**

i. Discuss whether or not portfolio theory and CAPM give the same portfolio risk measure. (10 marks)

ii. Using the above data estimate the risk and return of the two portfolios and recommend which one should be selected. (10 marks)