KENYATTA UNIVERSITY

EXAMINATION FOR THE DEGREE OF BACHELOR OF ECONOMICS AND FINANCE

EAE 403: FINANCIAL ECONOMICS

3RD SEMESTER 2024/2025 **TIME: 2 HOURS**

INSTRUCTIONS: ANSWER QUESTION ONE (COMPUSLORY) AND ANY OTHER TWO QUESTIONS. QUESTION ONE CARRIES 30 MARKS AND THE REST CARRY 20 MARKS EACH.

QUESTION ONE

(a) List FIVE subsectors that form the Kenyan financial market, their respective regulatory bodies and explain the major functions of financial markets in the economy. [12 Marks]

(b) The net cash flow is the preferred measure of economic benefit in the income approach. Discuss. [6 Marks]

(c) Portfolio choice requires that investors consider risk and return in their investment decisions. Explain SIX assumptions associated with portfolio choice. [6 Marks]

(d) Explain THREE features of firm valuation that describes the business entity. [6 Marks]

QUESTION TWO

(a) Weston Industries has debt-to-equity ratio of 1.5. The firm's WACC is 15% and the cost of debt is 12%. If the corporate tax rate is 30%.

(i) What is the firms cost of equity? [4 Marks]

(ii) State the assumption applied and estimate the firms unlevered cost of equity. [Hint: use the Modgliani & Miller Proposition II]. [8 Marks]

(iii) What is the cost of equity for an equivalent firm that is:

(a) Highly levered (D/E=2)

(b) Less leveraged (D/E =1) [8 Marks]

QUESTION THREE

(a) Determine the monthly mortgage payment necessary to repay a Kshs.25 million loan if the interest is computed at 12% per year compounded monthly if the period of the loan is 15 years.

(i) What will be the amount of interest paid over the three years. [4 Mars]

(ii) Suppose the payment is done at the beginning, will your result change in part (a) above? Show. [4 Marks]

(b) McAmby Corporation currently has no debt in its capital structure. The firm is considering issuing debt to buy back some of its equity. The firm's assets are Ksh.20 million with 2 million shares of all-equity firm. The proposed debt issue is for Ksh. 10 million. The interest payment is 13 percent. Assume the there are three economic conditions, recession, expected and expansion with gross earnings as 1.2 million, Ksh. 2 million and Ksh.3.6 million for the respective conditions. Show the variability in Earnings per Share (EPS) and Return on Equity (ROE) in the two capital structures. [12 Marks]

QUESTION FOUR

(a) Explain how the Gordon Growth Model is applied when valuing a business under the income approach. [10 Marks]

(b) Two companies: Kash Ltd and Tango Ltd are identical in every respect except that Kash Ltd is unlevered while Tango is levered with a debt of Kshs.50,000,000 carrying 6% interest. Both firms have an annual operating income of Kshs.10,000,000. Both firms have a Return on Equity (ROE) of 10%.

(i) Assuming absence of taxes, show that the value of both firms will be equal when certain market conditions exist. [6 Marks]

(ii) Suppose we now assume that a corporate tax of 30% exists for Tango Ltd, how does your result in part (bi) change if we assume that the operating income is infinite? [4 Marks]

QUESTION FIVE

(a) Explain the basic functions of corporate finance. [10 Marks]

(b) Newby Inc. has outstanding shares of 2500. The total market value is Ksh.1,500,000 and the firm has no outstanding debt. Earnings before interest and Taxes [EBIT] are projected to be Ksh.140,000, if the economic environment is normal, 30 percent higher under an expansionary economic environment. If there is a recession, EBIT is projected to be 60 percent lower than normal. Mode Inc. is considering borrowing a debt of Ksh.600,000 at 5% interest to buy back shares.

Required:

Calculate the earnings per share [EPS] under the three scenarios after recapitalization [assume that the tax rate is 30 percent]. [10 Marks]