Moderated

23/01/2020

KENYATTA UNIVERSITY

DEPARTMENT OF APPLIED ECONOMICS

EAE 403: FINANCIAL ECONOMICS

2019/2020 SEMESTER II EXAM

INSTRUCTIONS

Answer QUESTION ONE (compulsory) and any other TWO questions. Question one carries 30 marks and the rest carry 20 marks each.

Question One

a) Highlight four differences between Capital Asset Pricing Model and Arbitrage Pricing Theory (10 Marks)

b) Kenyatta University has established two hotels under different company names at the Coast namely North Coast Beach Hotel Limited and South Coast Beach Hotel Limited. The North Coast Beach Hotel Limited is an unlevered company while for South Coast Beach Hotel Limited a debt of Ksh.2 million carrying an interest rate of 9.5 percent per annum is issued. Both hotels are generating an operating income of Ksh.200,000 per month. The stockholders of both hotels have a Return on equity (RoE) of 10 percent.

i) State and proof the Modigliani and Miller Hypothesis proposition 1 for the two companies (8 Marks)

ii) Highlight the important assumptions that are necessary for the above proposition to hold true (4 Marks)

c) You need KES 5,000,000 five years from now. You budget to make equal payments at the end of every month into an account that pays an annual interest rate of 12 percent compounded monthly.

i) What are your monthly payments? (4 marks)

ii) Your friend endows you with Kshs.2, 000, 000. How much of it must you put into the same account as a lump sum today to meet your goal? (4 marks)

Question Two

a) Explain the Gordon Growth model is applied when valuing a business under the income approach (6 Marks)

b) Explain with examples the difference between systematic and unsystematic risk (4 Marks)

c) 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 that 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. (10 Marks)

Question Three

a) Explain three important features of firm valuation that describes the business entity (10 Marks)

b) Two companies Haram Ltd and Halal Ltd are identical in every respect except that Halal Ltd is unlevered while Haram 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 Haram Ltd, how does your result in part (a) change if we assume that the operating income is infinite. (4 marks)

Question Four

a) The net cash flow is the preferred measure of economic benefit in the income approach, discuss (6 Marks).

b) Generally individuals show a time preference for money, give three reasons for that preference (3 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) Use PVIFA to determine the monthly housing mortgage payment necessary to repay a Kshs 8 million loan over 25 years. Interest is 18% p.a compounded monthly (5 marks)