



TECHNICAL UNIVERSITY OF MOMBASA

School of business

DEPARTMENT OF ACCOUNTING AND FINANCE

MASTER OF SCIENCE IN FINANCE

BFI 5206: INVESTMENT FINANCE

ORDINARY EXAMINATIONS

SERIES; AUGUST 2024

TIME; 3 HOURS

Instructions;

Answer question one and any other TWO questions

Do not write on this paper

Question One

(a) Daegu 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 at 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 an-amortized 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

(4 marks)

iv) Determine the incremental initial cash outlay required to issue the new bonds. (10 marks)

v) Calculate the annual cash-flow savings, if any, expected from the bond refunding. (8 marks)

vi) If the firm has a 14% after-tax cost of debt, would you recommend the proposed refunding and reissue? Explain. (4 marks)

b) TNT Ltd has a paid up share capital of 1.2 million shares of Sh.20 each. The current market price per share is Sh.36. The company has no loan capital. Maintainable earnings before tax are forecast at Sh.4.8 million. The company's effective tax rate is 40%. The company requires to raise a further Sh.15 million in order to achieve additional earnings of Sh.2.2 million per year and proposes doing this by means of a rights issue. Suggested alternative prices for the rights issue are Sh.32 and Sh.25 per share.

Required:

Calculate, when the price is Sh.32 per share, the theoretical market price per share of the enlarged capital after the issue (the ex-rights price) and also the market value of a right. (10 marks)

Question Two

(a) Explain the steps than multi-national firms can take to minimize political risks (4 marks)

(b) Define the term "Financial Engineering" and explain 3 main components of financial engineering. (6 marks)

c) Explain the main reasons why multi-national companies (MNC) seek foreign investment.

(5 marks)

d) Explain the types of political risks that face multi-national firms in foreign countries.

(5 marks)

Question Three

a) Kaluu Ltd is a listed company on the Ghana Stock Exchange Market and showed the following performance. The following information was made available to you: Current market price per share (as at 31/12/15) sh. 10 Dividend per share 2015 sh. 1 Expected growth rate of dividend 20% per annum The average market returns 27% The risk free government rate 24% The beta factor of Kaluu Ltd 1.4

Required:

i) What is the estimated cost of equity using the dividend growth model? (2 marks)

ii) What is the estimated cost of equity using the Capital Assets Pricing model? (2 marks)

c) i) Distinguish between repurchase agreement (repos) and reverse repos. (2 marks)

ii) A company enters into an agreement with a bank and it sells GH¢10million government bonds with an obligation to buy back the security in 60 days. If the rate is 8.2% what is the repurchase price of the bond? Assume 365 days in a year. (2 marks)

Discuss the main features of:

(i) Corporate share repurchases (buy-backs) (8 marks)

(ii) Share (stock) splits and justify its usage (4 marks)

Question Four

(a) Every year, you receive your entire annual salary at the end of the year. This year, your end-of-year salary will be sh. 50,000 (in nominal terms). In real terms, you expect your salary to increase at a rate of 2% per year in the future. You have decided to start saving for retirement by putting money in a savings account. You plan to retire in 35 years, and you expect to live for 25 years after that. You assess that a reasonable lifestyle during those 25 years will require you to have, at the end of every year, a disposable income of sh. 25,000 in real terms (i.e. the same purchasing power as sh. 25,000 today). The nominal interest rate on your savings account is 8%, and it is expected to stay at that rate forever. The real interest rate is also expected to stay at its current level of 3.5%.

a. What is the inflation rate? (5 marks)

b. How much money (in nominal terms) will you need to have in your savings account when you retire, in 35 years (end of year 35), in order to be able to enjoy the lifestyle that you find reasonable? (7 marks)

c. Suppose that you will start saving for retirement at the end of the current year. Suppose further that you plan to make 35 deposits (one at the end of every year). All deposits are a fixed fraction x of your salary. Find the fraction x that will allow you to reach your “reasonable lifestyle” objective. (8 marks)

Question Five

The following information is available in respect of a bond:

Market value = sh. 90,000

Face value = sh. 110,000

Coupon rate = 12%

Time to maturity = 7 years

Required:

- (i) Calculate the yield to maturity for this bond **(4 marks)**
- (ii) Assume Ruth bought this bond at sh. 100,000 and intends to sell it after three years, what would be the holding period rate of return? Assume that the interest is compounded **(5 marks)**
- (iii) Assume that this bond was issued as callable after three years, calculate the yield to call **(6 marks)**
- (iv) Dr. Oile is planning to purchase a bond having current price of sh. 9,500. The bond has a par value of sh. 10,000, with coupon rate of 11% and 3 years to maturity. Should he buy the bond if his required rate of return is 12%? Bond price if his required rate of return is 12% is to be calculated by the formula: **(5 marks)**