Strathmore UNIVERSITY

SIMS/AFFE
END OF SEMESTER EXAMINATION
BSF 1204 – CORPORATE FINANCE

DATE: 20th November 2018 Time: 2 Hours

Instructions

1. This examination consists of **FIVE** questions.
2. Answer **Question ONE (COMPULSORY)** and any other **TWO** questions.

QUESTION ONE

a) Cantrina Motors is considering a project with the following expected cash flows. The project's WACC is 10 percent. What is the project's discounted payback? (5 Marks)

Year	Project Cash Flow
0	-$700 million
1	200 million
2	370 million
3	225 million
4	700 million

b) State the three factors that would contribute to a conflict between IRR and NPV in the decision-making process of two mutually exclusive projects. (5 marks)

c) Discuss briefly five ways of resolving agency conflict between shareholders and lenders (5 marks)

d) Compute, the expected return and the variance Unga Limited and Barclays Bank, given that both companies have the same probability of outcome (State of economy probability)

State of Economy	Probability of the State of the Economy	Returns if state occurs	
		Unga Limited	Barclays Bank
Boom	40%	12%	20%
Normal	60%	6%	4%

(5 Marks)

e) Dinla Co has the following capital structure.

	Kshs.000	Kshs.000
Equity and reserves		
Ordinary shares	23,000	
Reserves	247,000	270,000
Non-current liabilities		
5% Preference shares	5,000	
6% Loan notes	11,000	
Bank loan	3,000	19,000
		289,000

The ordinary shares of Dinla Co are currently trading at Kshs.4·26 per share on an ex dividend basis and have a nominal value of Kshs.0·25 per share. Ordinary dividends are expected to grow in the future by 4% per year and a dividend of Kshs.0·25 per share has just been paid.

The 5% preference shares have an ex dividend market value of Kshs.0·56 per share and a nominal value of Kshs.1·00 per share. These shares are irredeemable.

The 6% loan notes of Dinla Co are currently trading at Kshs.95·45 per loan note on an ex interest basis and will be redeemed at their nominal value of Kshs.100 per loan note in five years' time.

The bank loan has a fixed interest rate of 7% per year.

Dinla Co pays corporation tax at a rate of 25%.

Required:

Calculate the after-tax weighted average cost of capital of Dinla Co on a market value basis.(10 marks)

QUESTION TWO [20 marks]

a) Differentiate between the following Corporate Finance Terminologies: (5 Marks)

i. Capital Structure and Cost of Capital
ii. Coefficient of Variation and Standard Deviation
iii. Invoice Discounting and Debt Factoring
iv. Zero Coupon Bond and Convertible Bond
v. Ordinary stock and Preferred Stock

b) The following information relates to a certain company:

- Currently is all-equity financed.
- Expected EBIT = $500,000.
- Firm expects zero growth.
- 100,000 shares outstanding; Ke = 12%; P_0 = $25; T = 40%; Unlevered Beta = 1.0; Risk free rate = 6%; RP_M = 6%.

Percent financed with debt,

W_d	K_d
0%	-
20%	8.0%
30%	8.5%
40%	10.0%
50%	12.0%

Required

i. Determine the levered beta for each of the different debt structures of the company (5 Marks)
ii. Determine the cost of equity for each of the different debt structures of the company (5 Marks)
iii. Determine the weighted average cost of capital for each of the different debt structures of the company (5 Marks)

QUESTION THREE

a) The directors of Pelta Co are considering Ringo a planned investment project costing Kshs.25m, payable at the start of the first year of operation. The following information relates to the investment project:

	Year 1	**Year 2**	**Year 3**	**Year 4**
Sales volume (units/year)	520,000	624,000	717,000	788,000
Selling price (Kshs./unit)	30·00	30·00	30·00	30·00
Variable costs (Kshs./unit)	10·00	10·20	10·61	10·93
Fixed costs (Kshs./year)	700,000	735,000	779,000	841,000

The fixed costs, which are incremental and related to the investment project. The year 4 sales volume is expected to continue for the foreseeable future.

Pelta Co pays corporation tax of 30% one year in arrears. The company can claim tax-allowable depreciation on a 25% reducing balance basis.

The views of the directors of Pelta Co are that all investment projects must be evaluated over four years of operations, with an assumed terminal value at the end of the fourth year of 5% of the initial investment cost. Both net present value and discounted payback must be used, with a maximum discounted payback period of two years. The cost of capital Pelta Co is 12%.

Required:

i) Calculate the net present value of the planned investment project. (10 marks)

ii) Calculate the discounted payback period of the planned investment project. (2 marks)

iii) Discuss the financial acceptability of the investment project. (3 marks)

(b) Discuss the limitations of the dividend growth model as a way of valuing the ordinary shares of a company (5 marks)

QUESTION FOUR

a) Sude Co has credit sales of Kshs.45 million per year and on average settles accounts with trade payables after 60 days. One of its suppliers has offered the company an early settlement discount of 0·5% for payment within 30 days. Administration costs will be increased by Kshs.500 per year if the early settlement discount is taken. Sude Co buys components worth Kshs.1·5 million per year from this supplier.

From a different supplier, Sude Co purchases Kshs.2·4 million per year of Component K at a price of Kshs.5 per component. Consumption of Component K can be assumed to be at a constant rate throughout the year. The company orders components at the start of each month in order to meet demand and the cost of placing each order is Kshs.248·44. The holding cost for Component K is Kshs.1·06 per unit per year.

The finance director of Sude Co is concerned that approximately 1% of credit sales turn into irrecoverable debts. In addition, she has been advised that customers of the company take an average of 65 days to settle their accounts, even though Sude Co requires settlement within 40 days.

Sude Co finances working capital from an overdraft costing 4% per year. Assume there are 360 days in a year.

Required:

i) Evaluate whether Sude Co should accept the early settlement discount offered by its supplier. (4 marks)

ii) Evaluate whether Sude Co should adopt an economic order quantity approach to order Ringo Component K. (6 marks)

b) Is it possible for a company to achieve an optimal capital structure? (10 marks)

QUESTION FIVE

a) Ringo Co has in issue ordinary shares with a nominal value of Kshs.0·25 per share. These shares are traded on an efficient capital market. It is now 20X6 and the company has just paid a dividend of Kshs.0·450 per share. Recent dividends of the company are as follows:

Year	20X6	20X5	20X4	20X3	20 X 2
Dividend per share	Kshs.0·450	Kshs.0·428	Kshs.0·408	Kshs.0·389	Kshs.0·370

Ringo Co also has in issue loan notes which are redeemable in seven years' time at their nominal value of Kshs.100 per loan note and which pay interest of 6% per year.

The finance director of Ringo Co wishes to determine the value of the company.

Ringo Co has a cost of equity of 10% per year and a before-tax cost of debt of 4% per year. The company pays corporation tax of 25% per year.

Mr Kisikeu made the following statements about valuation methods;

1) The earnings yield method multiplies earnings by the earnings yield to obtain the stock value
2) The equity market value is number of shares multiplied by share price, plus the market value of debt
3) The dividend valuation model makes the unreasonable assumption that average dividend growth is constant
4) The price/earnings ratio method divides earnings by the price/earnings ratio

Required:

i) Using the dividend growth model, what is the market value of each ordinary share? (3 Marks)
ii) What is the market value of each loan note? (3 Marks)
iii) Critique Mr Kisikeu statements (6 Marks)

b) Discuss the different theoretical backing of dividend policies that can be adopted by a firm (8 marks)