CHUKA UNIVERSITY

UNIVERSITY EXAMINATIONS
ODEL

EXAMINATION FOR THE AWARD OF DEGREE OF DEGREE OF BACHELOR OF COMMERCE

BCOM 337: FINANCIAL MANAGEMENT I

STREAMS:BCOM Y3S2 **TIME: 2 HOURS**

DAY/DATE: WEDNESDAY 4/12/2019 **8.30 A.M – 10.30 A.M**

INSTRUCTIONS:
Answer question one and any other two questions

QUESTION ONE

(a) The company is considering buying an equipment for a new process. The equipment will cost ksh 245,000. The company has made the following estimates of the after tax cash flows over the equipment's possible life of 2 years.

Year 1		Year two	
Net cash flow	Probability	Net cash flow	Probability
153,500	0.5	122,800	0.7
		184,300	0.30
125,000	0.5	240,500	0.4
		307,000	0.6

The cost capital is 12%

Required :

(i) Use a decision tree to determine the expected NPV of the equipment. [8 marks]

(ii) State two advantages of decision tree as a method of incorporating risk in capital budget decisions. [2 marks]

(b) A part from decision tree, explain any other five methods of incorporating risk in capital budgeting. [10 marks]

(c) Explain the causes of agency problems between managers and shareholders and provide solutions to theses problems. [10 marks]

QUESTION TWO

(a) The information obtained from the books of havebley and Edwin ltd indicated that ;

(i) The company sold 10,000 ordinary shares at ksh 100 per share.

(ii) It sold 5,000 preference shares of ksh 100 at ksh 150 each which carry a dividend of 16%

(iii) It sold 5,000 ksh 100 10% debentures at ksh 80 each.

(iv) It sold 10,000 ksh 50,12% debentures at ksh 55 each.

The company hopes to earns a return on the above finances of 18%.

Required :

(b) Explain any five uses of weighted average cost of capital. [5 marks]

(c) X ltd wants to diversity into fertilizer business and organize it as a new division. The company formed a comparable fertilizer company of roughly the same characteristics as the proposed division. It has an equity beta of 1.35 and a debt ratio of 0.70. The corporate tax rate is 30%. X ltd will have a debt ratio of 0.5 for the proposed fertilizer business. The risk free rate is 8% and the risk premium is 10% .

Required :

Calculate the cost of equity of the proposed new division. [5 marks]

QUESTION THREE

(a) Kahawa ltd intends to replace on old machine with a new machine which the management believes to be more efficient. The old machines was purchased two years ago and has three more years of economic life a salvage value of 850,000 at the end of its useful life.

Additional information

1. The current net book value of the old machine is ksh 2,950,000 while its current market price is ksh 3,700,000.
2. The new machine costs ksh 11,000,000 and has a useful life of three years it is estimated to have a salvage value of ksh 3,500,000

3. The purchase of the new machine would result in the following changes.
   - Sales would increase by ksh 1,200,000 p.a
   - Expenses would decrease by ksh 1,200,000 p.a
   - Stocks and creditors would increase by ksh 3,000,000 and ksh 1,000,000 respectively in the first year of the new machines working life. However in the final year of the machines usages stocks and creditors would decrease by ksh 3,000,000 and ksh 1,000,000 respectively.
4. The cost of capital is 12% and corporation tax rate is 30%

Required :

Using suitable computations , advised the management of kahawa ldt on whether the two machine should be replaced. [18 marks]

(b) Claculate the value of a call option using black and scholes model, given the folloiwng information:

(i) Current market price of the share ksh 75

(ii) Standard deviation of returns on the share 0.45

(iii) Exercise price ksh 80

(iv) Risk free rate ksh 0.12

(v) Time to expiration 6 months . [7 marks]

QUESTION FOUR

(a) The following data is provided for firm A

Quantity	20,000 units
Selling price per unit	ksh 20
Variable cost per unit	ksh 15
Fixed costs	ksh 40,000
Interest	ksh 10,000
Preference dividend	ksh 5,000
Tax rate	30%

Required; calculate the following

(i) Degree of operating leverage [3 marks]

(ii) Degree of financial leverage [3 marks]

(iii) Degree of combined leverage [2 marks]

(b) XYZ ltd has a current dividend of ksh 2 per share. The following are expected annual growth rates for dividends.

Year	**dividend growth rate (%)**
1 -3	25
4 -6	20
7 – 9	15
10 and thereafter	9

The required rate of return for the ordinary share is 10% .

Required :

Determine the intrinsic value of the ordinary share. [10 marks]

(c) Explain the term bond duration. [2 marks]
