KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2014/2015
DIGITAL SCHOOL OF VIRTUAL AND OPEN LEARNING
SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF COMMERCE

BAC 204: BUSINESS FINANCE II

DATE: Saturday, 2nd May, 2015 TIME: 2.00 p.m. – 4.00 p.m.

INSTRUCTIONS: Answer **ALL** questions.

QUESTION ONE (20 marks)

Win ltd has a cost of equity of 10%. Currently it has 250,000 ordinary shares which are quoted at the Stock Exchange at sh.120 per share. The company's earnings per share is sh.10 and it intends to maintain a dividend payout ratio of 50% at the end of the current financial year.
The expected net income for the current year is sh.3 million and the available investment proposals are estimated to cost sh.6 million.
Required:

i. Using the MM model, show that the payment of dividends does not affect the value of the firm.(Determine the value of firm if it pays dividends and if it does not dividends). **15 marks**
ii. What are the assumptions inherent in the Modigliani and Miller (MM) model? **5 marks**

QUESTION TWO (15 marks)

Dorcas ltd is considering replacing production machinery at its Kaiti plant. The existing machinery at the plant was bought three years ago at a cost of sh.50 million. It is expected to have a useful life of 5 more years with no scrap value at the end of this period. The machinery could be disposed of immediately with net proceeds of sh.35 million after tax.
The new machinery will cost sh.80 million with a useful life of 5 years and expected terminal value of sh.5 million. With the introduction of the new machinery, sales are expected to increase by sh. 25 million per annum over the next 5 years. Variable costs are 60 percent of sales and the corporate tax rate is at 30% p.a.
The operation of the new machinery will also require an immediate investment of sh. 8 million in working capital which will be recovered at the end of its useful life. Installation costs of the new machinery will amount to sh.6 million.
Assume that capital allowances are to be provided for on a straight line basis and Doche limited's cost of capital is 12% p.a.

Required:

i.	The incremental initial cash flow for the replacement decision.	**5 marks**
ii.	The annual incremental after tax operating cash flows.	**5 marks**
iii.	The terminal cash flows.	**2 marks**
iv.	Advise Doche ltd on whether to replace the machinery.	**3 marks**

QUESTION THREE (20 marks)

a. D Ltd, an unlevered firm, generates average earnings before interest and tax (EBIT) of sh. 20 million per annum. The market value of the company as at 31st October 2014, (financial year end), was sh.120 million.

The management of the company is considering the use of debt finance and has provided the following additional information:

i. The estimated present value of the future financial distress costs is sh. 80 million.

ii. The probability of financial distress would increase the leverage according to the following schedule:

Value of debt(sh.)	probability of financial distress
25 m	0.0
50 m	0.0125
75 m	0.0250
100 m	0.0625
125 m	0.1250
150 m	0.3125
200 m	0.750

iii. The corporation tax rate is 30 percent.

Required:

i. The company's cost of equity (with tax) and weighted average cost of capital (WACC) as at 31st October 2014. **3 marks**

ii. The company's optimal level of debt finance using the MM with tax model incorporating financial distress cost. **4 marks**

b. Alfred Ltd has approached you for advice on an equipment to be purchased for use in a a five year project.

The investment will involve an initial capital outlay of sh.1.4 million and expected cash flows are given below:

year	cash inflows sh.	cash outflows Sh.
1	800,000	65,000
2	750,000	80,000
3	900,000	50,000
4	1,200,000	55,000
5	1,100,000	70,000

The equipment is to be depreciated on a straight line basis over the duration of the project with nil salvage value.

The cost of capital is 12% and the tax rate is 30 % respectively.

Required:

i. The net present value of the investment. 7 marks

ii. The internal rate of return of the project. 6 marks

QUESTION FOUR. (15 marks)

a. Explain briefly the meaning of the term overtrading giving three major signs of overtrading. **5 marks**

b. Jeran Ltd maintains a minimum cash balance of sh.500,000. The standard deviation of the company's daily cash changes is sh. 200,000. The annual interest rate is 14%. The transaction cost of buying or selling securities is sh.150 per transaction. Take 1 year=365 days

Required:

Using Miller-Orr cash management model, determine the following:

i. Upper cash limit. **4 marks**

ii. Average cash balance. **4 marks**

iii. The return point. **2 marks**