130

(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN /BUNGOMA /WEBUYE CAMPUS

UNIVERSITY EXAMINATIONS 2022/2023 ACADEMIC YEAR

THIRD YEAR SEMESTER ONE EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF COMMERCE

COURSE CODE: **BCF 303**

COURSE TITLE: **CORPORATE FINANCE**

DATE: THURSDAY 22ND DECEMBER 2022 **TIME: 3.00-5.00PM**

INSTRUCTIONS TO CANDIDATES

Attempt **QUESTION ONE** and any **other two** questions

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.

QUESTION ONE (30 MARKS)

a) Explain the three forms of efficient market hypothesis **(6 marks)**

b) A Project has the following cash flows over its useful life of 5 years. The market value (Abandonment value) has also been given. The initial outlay is Sh 90 000

Year	1	2	3	4	5
Cash flows	Sh 20 000	Sh 15 000	Sh 10 000	Sh 30 000	Sh 50 000
Abandonment value	Sh 25 000	Sh 18 000	Sh 12 000	Sh 8 000	Sh 0

Required: Determine when to abandon the project assuming a discount rate of 10%. (6 Marks)

c) A company intends to invest Sh 100 000 in a project with the following expected cash flows.

Year	1	2	3	4	5
Cash flows	Sh 40 000	Sh 37 000	Sh 30 000	Sh 20 000	Sh 16 000

The firm's cost of capital is 10%, compute modified internal rate of return (6 Marks)

d) The Empire Ltd belongs to a risk class for which the appropriate required equity return is 15 percent. It currently has 100,000 outstanding shares selling at KShs. 100 each. Empire is contemplating the declaration of a KShs.5.00 dividend at the end of the current financial year, which just began. Using MM hypothesis and the assumption of no taxes, answer the following questions:

i. What will be the price of the stock at the end of the year if a dividend is not declared? (2 Marks)

ii. What will it be if a dividend is declared? (2 Marks)

iii. Assuming that the firm pays a dividend, has net income of KShs.1 million and makes new investments of KShs. 2 million during the period, how many new shares must be issued? (2 Marks)

e) The risk free rate is 10% and the expected return on the market portfolio is 15%. The expected returns for 4 securities are listed below together with their expected betas

Security	Expected return	Expected Beta
A	17.0%	1.3
B	14.5%	0.8
C	15.5%	1.1
D	18.0%	1.7

Required: On the basis of these expectations, which securities are overvalued? Which are undervalued? (6 Marks)

QUESTION TWO (20 MARKS)

a) The equation (1) below represents a partial adjustment dividend model for a particular industry, suppose the $R^2 = 0.77$, interpret this regression result with respect to;

i) Target payout ratio **(3marks)**

ii) Speed of adjustment **(3marks)**

iii) Minimum dividends paid. **(3marks)**

$Div_t - Div_{t-1} = 1.66 + 0.77(0.35\ EPS_t - Div_{t-1})$…………………………………… (1)

b) Many companies use stock repurchase to increase earnings per share, suppose a company has the following information.

Net profit	shs.	10 million
Number of shares before repurchase		1 million
Earnings per share	shs.	10
Price- earnings ratio		20

Share price shs. 200

The company now repurchases 200,000 shares at shs.200 a share and EPS increase to shs. 12.50. If the P/E ratio stays at 20, what will be the share price? **(5marks)**

c) In corporate mergers and acquisitions, the price offered to the target company may reduce post-merger EPS of the enlarged company. Explain what this statement means when making merger decisions. **(6marks)**

QUESTION THREE (20 MARKS)

a) Jumbo Ltd. is considering acquiring Jambo Ltd. The following information relates to Jambo Ltd. for the next five years. The projected financial data are for the post-merger period. The corporate tax rate is 30% for both companies.

Year	2023	2024	2025	2026	2027
Net sales	Sh 1 050 000	1 260 000	1 510 000	1 740 000	1 910 000
Cost of sales	Sh 735 000	882 000	1 057 000	1 218 000	1 337 000
Selling&admin. Expenses	Sh 100 000	120 000	130 000	150 000	160 000
Interest expenses	Sh 40 000	50 000	70 000	90 000	110 000

Other information

i. After the fifth year the cash flows available to XYZ from ABC is expected to grow by 8% p.a in perpetuity.

ii. Jambo will retain Shs 50,000 for internal expansion every year.

iii. The cost of capital can be assumed to be 12%.

Required: Determine the maximum amount Jumbo would be willing to acquire Jambo at (8 Marks)

b) Why might the dividend decision be said to be relevant? (6 Marks)

c) For XYZ Ltd It costs Sh90 on average every time securities are sold for cash. The cash manager estimates that the variance of change in the daily cash flow balance is Sh 300,000. He also establishes that the lower cash limit is Sh 12,000. Using the Miller-Orr model calculate the Zero point and the upper cash limit if the short term investment rate is 5% p.a. (6 Marks)

QUESTION FOUR (20 MARKS)

a) Discuss five factors that influence dividend policy of publicly listed firms. **(5 Marks)**

b) Distinguish between wealth maximization and value maximization objectives of a firm**[2 marks]**

c) Critique the profit maximization objective of a firm. **[3 marks**

d) You have been provided with the following information regarding proposals to source for funds by Maxim Ltd a financial consultant in Down Town City::

Interest = 10%

Tax rate = 30%

Company	A	B
	Sh.'000'	Sh.'000'
10% debt	1,000	-
Equity	-	1,000
	1,000	1,000

The earnings before interest and tax amount to Ksh.400,000. All earnings are paid out as dividends.

Required:

Compute the cost of each firm and comment on your findings **[6 marks]**

e) Jamhuri Commercial bank has entered into a loan agreement with Madaraka Manufacturing limited. The bank has advanced a loan of Kshs 100 million to Jamhuri at an annual interest rate of 10% payable within four year period.

Required:

Calculate the annual amount which Madaraka manufacturing should pay so as to enable Jamhuri bank recover the loan. **[4 marks]**

QUESTION FIVE (20 MARKS)

a) The following are the historical returns for Flexx Ltd

Year	Flexx Ltd [%]	General Index [%]
1	12	10
2	18	15
3	5	8
4	-7	2
5	9	6

Required: Compute the beta for Flexx Ltd (8 marks)

b) A financial analyst has modeled the stock of the company using a Fama-French three-factor model. The risk-free rate is 5%; the market return is 10%; the return on the SMB portfolio (rSMB) is 3.8%; and the return on the HML portfolio (rHML) is 4.7%. $\alpha it = 0$, $\beta 1 = 1.2$, $\beta 2 = - 0.4$, and $\beta 3= 1.3$, what is the stock's predicted return? (6 Marks)

c) Explain three properties of capital asset pricing model (CAPM) (6 Marks)