



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS CAMPUS

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

FIRST YEAR SEMESTER TWO EXAMINATIONS

**FOR THE DEGREE
OF
MASTER OF BUSINESS ADMINISTRATION**

COURSE CODE: MBA 808

COURSE TITLE: FINANCIAL MANAGEMENT

DATE: Tuesday, 26th July 2022

TIME: 2 – 5pm

INSTRUCTIONS TO CANDIDATES

Attempt all questions

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

QUESTION ONE (30 MARKS)

- i. Consider two firms that are identical in every respect EXCEPT:
 - a. Company A has no leverage
 - b. Company B has Sh 30 million, 12% debt
 - c. Market value of debt for company B equals its par value
 - d. Required return on equity
 - Company A is 15%
 - Company B is 16%
 - e. Net operating income for each firm is Sh 10 million.

Assuming you own 1% of the stock of company B complete an arbitrage transaction to demonstrate that “all capital structures are equally as acceptable” (Modigliani & Miller, 1958) (10 Marks)

- ii. Claudia must determine what investment opportunities to undertake for ABC Ltd. She is limited to a maximum expenditure of Sh 32.5 million only for the capital budgeting period

Project	Initial cash outlay “Millions of shillings”	IRR	NPV “Millions of shillings”	PI
A	0.5	18%	0.05	1.10
B	5	25	6.5	2.30
C	5	37	5.5	2.10
D	7.5	20	5	1.67
E	12.5	26	0.5	1.04
F	15	28	21	2.40
G	17.5	19	7.5	1.43
H	25	15	6	1.24

Required: select the best combination of investment options subject to the capital constraints (10 Marks)

- iii. Describe the concept of “bond rating” and its importance (5 Marks)
- iv. Why equity is considered a more risky investment than debt? (5 marks)

QUESTION TWO (20 MARKS)

- i. A company has 50,000,000 per year in total cash disbursements. It costs Sh750 on average every time securities are sold for cash. Using the Baumol’s model, calculate the Zero point, the number of transfers each year, the frequency of transfers and the average cash holdings, if the current short term investment rate is 5%. (9 Marks)
- ii. A company intends to invest Sh 10 million in a project with the following expected cash flows

End of year	Net cash flows
1	Sh 4 200 000
2	3 500 000
3	2 800 000
4	2 000 000
5	1 800 000

The firm’s cost of capital is 10%.

Required: compute modified internal rate of return (MIRR)

(8 Marks)

iii. Explain the importance of inventory control

(3 Marks)

QUESTION THREE(20 MARKS)

i. The following information is supplied to you:

	Sh
Total earnings	2 000 000
No. of equity shares (each Sh 100)	200 000
Dividend paid	1 500 000
Price/earnings ratio	125

Applying the Walter's Model, ascertain whether the company is following optimal dividend policy (10 Marks)

ii. Jumuia Ltd issued 5 year bonds worth Ksh 5 billion. The expected average rate of return for the next five years is 12% p.a. Determine the annual amount that the firm should channel to the sinking fund to ensure orderly retirement of the bond (5 Marks)

iii. An investor intends to place Ksh 12,000,000 in the 91 days Treasury bill at a quoted rate/yield of 7.65% p.a. What is his/her return, if s/he is withholding tax-payer. Withholding tax rate is 15% (5 Marks)

QUESTION FOUR(20 MARKS)

i. Security returns depend on only three risk factors: inflation, industrial production and aggregate degree of risk aversion. The risk free rate is 8%, the required rate of return on a portfolio with unit sensitivity inflation and zero-sensitivity to other factors is 13.0%; the required rate of return on a portfolio with unit sensitivity to industrial production and zero sensitivity to inflation and other factors is 10%; and the required return with unit sensitivity to the degree of risk aversion and zero sensitivity to other factors is 6%. Security x has betas of 0.9 with the inflation portfolio, 1.2 with the industrial production and -0.7 with risk bearing portfolio – (risk aversion). Assume also that required rate of return on the market is 15% and stock x has CAPM beta of 1.1

Required: compute security x's required rate of return using

a. CAPM

(4 Marks)

b. APT

(6 Marks)

ii. Determine the yield to maturity for a corporate bond which is currently trading at Sh 927 000. It has a par value of Sh 1 million, coupon rate of 10% paid annually and 6 years remaining to maturity (5 Marks)

iii. Consider two investments, A and B each having the following characteristics

<u>Investment</u>	<u>standard deviation (%)</u>	<u>proportion</u>
A	10	2/3
B	20	1/3

Required: Compute the portfolio standard deviation if the correlation coefficient between the assets return is 0.35 (5 Marks)