



MOI UNIVERSITY

OFFICE OF THE DEPUTY VICE CHANCELLOR
(ACADEMICS, RESEARCH, EXTENSION & STUDENT AFFAIRS)

UNIVERSITY EXAMINATIONS 2023/2024 ACADEMIC YEAR FOURTH YEAR FIRST SEMESTER EXAMINATION

FOR THE DEGREE OF

BACHELOR

OF

BUSINESS MANAGEMENT

COURSE CODE: BBM 414/BSM 306/BHR 305

COURSE TITLE: FINANCIAL MANAGEMENT

DATE: 13TH DECEMBER, 2023 TIME: 9.00 A.M. - 12.00 NOON.

INSTRUCTION TO CANDIDATES

- SEE INSIDE.

THIS PAPER CONSISTS OF (3) PRINTED PAGES

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**BBM 414/BHR 305: FINANCIAL MANAGEMENT
MAIN EXAMINATION**

INSTRUCTIONS TO THE CANDIDATES: ANSWER ALL QUESTIONS IN SECTION A AND ANY TWO QUESTIONS IN SECTION B. ALL QUESTIONS CARRY EQUAL MARKS.

SECTION A: COMPULSORY.

Q1 (a) "A finance manager is anybody incharge of making 4 specific decisions in modern finance. Outline the 4 key decisions areas in finance citing the importance of each to the firm. (8mks)

(b) From the corporate finance point of view explain the following terminologies:

- i. AGENCY THEORY (3mks)
- ii. CORPORATE GOVERNANCE (3mks)
- iii. CORPORATE SOCIAL RESPONSIBILITY (CSR) (3mks)
- c) Give the basic assumptions underlying MARKOWITZ PORTFOLIO THEORY
CAPITAL ASSET PRICING MODEL (CAPM) (8mks)

Q2 (a) A firm intends to undertake a risky project whose particulars are as outlined below:

- i. INITIAL CASH OUTLAY KSH 10,000,000
- ii. AFTER TAX NET CASHFLOWS Ksh 3,000,000 per annum for the five years economic life of the project.
- iii. Covariance of project returns and market returns of 2%.
- iv. Return on government securities is 10%
- v. Return on the aggregate market economy of 20%
- vi. Variance of market returns 1%

Determine viability of the project under:

- Risky situation (5mks)
- Certainty equivalent (15mks)
- (b) What is the relationship between risk and certainty equivalent (ceq) as a function of risk? (5mks)

SECTION B: ATTEMPT ANY TWO QUESTIONS

Q3(a) Describe the capital asset pricing model as a financial tool for evaluating risky individual assets and risky portfolios, citing the various formulations of CAPM, their conceptual differences and logic of CAPM (22mks)

(b) What are the conceptual differences between CAPM and arbitrage Pricing Theory (APT)? (3mks)

Q4(a) A firms dividend policy is 50% payout. Its last years earnings per share (EPS_0) is ksh 10. Internal rate of return is 18% Equity capitalization rate is 12%. Determine the companys present value per share under:

- i. GORDON'S MODEL (2 mks)
- ii. WALTER'S MODEL (2 mks)

(b) Determine the main influences to valuation of American call options (6mks)

(c) The following information pertains to a given American call option:

- i. MARKET PRICE Ksh 100
- ii. EXERCISE PRICE 90
- iii. MATURITY PERIOD 90 DAYS
- iv. VOLATILITY OF ASSET 50%
- v. RISK FREE INTEREST RATE 10%

1. What is the value of the above call option? (8mks)
2. What would be the value of a put option with same features as the above call option? (3mks)
3. Cite atleast 4 basic assumptions underlying valuation of options (4mks)

Q5 (a) A firm has earnings before interest and tax of Ksh 1,000,000, equity capitalization rate of 12%. It has a gearing level of Ksh 5,000,000 at 8% debt. What is the market value of the firm (VL) and its weighted average cost of capital ($K=WACC$) under the net income (NI) approach? (6mks)

(b) Suppose that the above firm has a WACC = 10%. All other data remain unchanged. What would be its market value and its equity capitalization rate (K_e) under the net operating income approach? (6mks)

(c) DISCUSS THREE THEORIES that have been advanced to explain the relationship between COST OF CAPITAL, CAPITAL STRUCTURE and VALUATION OF THE FIRM. (13mks)

Q6(a) Highlight the DISTINCTIVE CHARACTERISTICS of the following forms of financing:

- i. OPERATING LEASE (4mks)
- ii. FULL PAYMENT LEASE (4mks)
- iii. NON-CANCELLABLE LEASE (4mks)

b) What do you understand by TERM STRUCTURE OF INTEREST RATES? Describe various EXPLANATORY THEORIES that have been advanced to explain the shape of a curve. (13mks).

**BBM 414: FINANCIAL MANAGEMENT
SPECIAL/SUPPLEMENTARY EXAM**

Instructions: Answer question ONE and any other THREE questions

QUESTION ONE

- a) Briefly discuss the objectives of financial management (4 marks)
 - b) Explain the relationship between financial management and social responsibility (4 marks)
 - c) Explain the term corporate governance? Describe the role a corporation's financial manager plays in corporate governance? (5 marks)
 - d) Contrast the objective of maximizing earnings with that of maximizing wealth (4 marks)
 - e) Determine the net present value (NPV) for a project that costs Kshs. 10,400,000 and would yield after-tax cash flows of Kshs. 1,600,000 the first year, Kshs. 1,800,000 the second year, Kshs. 2,100,000 the third year, Kshs. 2,300,000 the fourth year, Kshs. 2,700,000 the fifth year, and Kshs. 3,300,000 the sixth year. The firm's cost of capital is 12.00%. (8 marks)
- (Total: 25marks)

QUESTION TWO

- a) Critically assess the agency problem in financial management. (6 marks)
 - b) Briefly discuss
 - i. Sources of conflicts between shareholders and management. (3 marks)
 - ii. Sources of conflicts between management and creditors. (3 marks)
 - c) What are the possibly resolutions to conflicts between shareholders and management (3mark)
- (Total: 15marks)

QUESTION THREE

- a) What are basic financial decisions? How do they involve risk-return trade-off? (6 marks)
- b) Explain the differences between systematic risk and unsystematic risk, giving examples of both (5 marks)
- c) You have been provided with the following information about project A

State	Probability	Return %
Recession	0.3	10
Stable	0.4	15
Expansion	0.3	10

Determine the risk of the project

(4 marks)
(Total: 15marks)

QUESTION FOUR

The following information relates to various proposed projects and evaluation results of Zadora Company.

PROJECT	INITIAL CASH OUTFLOW KSHS.	IRR %	NPV KSHS.	PI
A	5,000,000	15	1,200,000	1.24
B	3,500,000	19	1,500,000	1.43
C	3,000,000	28	4,200,000	2.40
D	2,500,000	26	100,000	1.04
E	1,500,000	20	1,000,000	1.67
F	1,000,000	37	1,100,000	2.10
G	1,000,000	25	1,300,000	2.30
H	100,000	18	10,000	1.10

The budget ceiling for initial cash outflows during the present period is Kshs.6,500,000 and the proposals are independent of each other.

Required:
Based on the information provided above, select the combination of proposals that would provide the greatest increase in firm value. Justify your selected combination. (15 marks)

(Total: 15marks)

QUESTION FIVE

a) 'The Modigliani-Miller hypothesis is based on unrealistic assumptions.' Evaluate the reality of the assumptions made by Modigliani-Miller hypothesis. (6 marks)

b) 'The primary purpose for which a firm exists is the payment of dividends. Therefore,

irrespective of the firm's needs and the desires of shareholders, a firm should follow a policy of very high dividend payout! Discuss. (9 marks)

(Total: 15marks)

QUESTION SIX

(6 marks)

a) Discuss major determinants of interest rates

b) Briefly explain the following terms as used in financial management

- Sensitivity analysis
- Capital rationing
- Opportunity cost of capital

(3 marks)

(3 marks)

(3 marks)

(Total: 15marks)

BBM 414: FINANCIAL MANAGEMENT
ANSWER QUESTION ONE AND ANY OTHER THREE QUESTIONS

QUESTION ONE

- a) With appropriate examples distinguish UNIQUE RISK from SYSTEMATIC RISK and explain how the two types of risks can be managed in practice. (6 marks)
- b) Discuss the CAPITAL ASSET PRICING MODEL (CAPM) as a financial tool for evaluating individual risky assets and risky portfolios and state at least five basic assumptions underlying this model. (8 marks)
- c) You are given the following 5 projects a firm intends to undertake but is worry of the risky situation of the investments. Information pertaining to the assets is as follows:

PROJECT A	EXPECTED RETURN (%)
A	25
B	20
C	15
D	10
E	12

The risk free rate of return is 10% and risk premium pertaining to the projects is 5%.

Advice the firm on the likely market risk of each investment and deduce the relationship between the expected return and the undiversifiable risk of each investment. (6 marks)

- d) Describe the conceptual differences between capital asset pricing model (CAPM) and arbitrage pricing theory (APT) and give at least 3 major assumptions underlying the APT. (5marks)
- e) Consider the following information pertaining to two assets and a two factors model.
 - i. Factor 1: changes in the rate of inflation. The risk premium related to this factor is 1% for every 1% change in the rate.
 - ii. Factor 2: percentage growth in real GNP. The average risk premium related to this factor is 2% for every 1% change in this rate.
 - iii. The risk free rate of return is 3%. The two assets, X and Y have the following response coefficients to these factors:
Bx1: the response of asset X to changes in the rate of inflation is 50%.
By2: the response of asset Y to changes in the rate of inflation is 200%.
Bx2: the response of asset X to changes in the growth rate of real GNP is 150%.
By2: the response of asset Y to changes in the growth rate of real GNP is 175%.
You are required to determine the expected rate of return of the two assets using APT model. Which is the riskier asset and why? (15marks)

QUESTION TWO

JUBILEE ALLIANCE PARTY (JAP) is focused to win the 2017 general elections and thus intends to undertake an ICT project expected to cost Ksh 100million and the expected net cash inflows for the 5 years of the project life is Ksh 50 million p.a. the sensitivity of asset returns to market returns is 2.0. The average return on the aggregate market portfolio is 20%. The risk-free

of return is 10%. You are required to determine the viability of the project under the following scenarios:

- (i) RISKY SITUATION (5marks)
- (ii) CERTAINTY EQUIVALENT (15marks)

QUESTION THREE

- a. Discuss the FUNCTIONS and the IMPORTANCE of working capital management. (6marks)
- b. Explain the major determinants of the level of debtors and enumerate the 5Cs of credit and highlight the factors to consider when formulating a credible credit policy. (10marks)
- c. Describe one cash management model that you are familiar with. (4marks)

QUESTION FOUR

- a. Discuss THREE THEORIES that have been advanced to explain the relationship between the cost of capital, valuation of the firm and capital structure. (10marks)
- b. You are provided with the following information regarding a hypothetical firm.
 - i. Expected net operating income Ksh 100million.
 - ii. 5-year loan of Ksh 500million at 6%
 - iii. Cost of equity capital 10%What are the weighted average cost of capital (WACC) and the value of the firm under the net income approach? (5marks)
- c. A firm has the following particulars:
 - i. Expected net operating income Ksh 1,000,000
 - ii. Composite cost of capital 10%
 - iii. Debt to the tune of Ksh 5,000,000 at 6%

What is the value of the firm and cost of equity capital under the Modigliani & Miller (MM) approach? (5marks)

QUESTION FIVE

- a. Highlight the main influences to an American call option. (6marks)
- b. An American option (both call and put) has the following features:
 - i. TIME TO MATURITY 60days
 - ii. MARKET PRICE Ksh 100
 - iii. EXERCISE PRICE Ksh 80
 - iv. VOLATILITY OF ASSET PRICE =40%
 - v. RISK-FREE RATE OF RETURN 10%Determine the value of both the call and put option. (10marks)
- c. Underscore at least 4 basic assumptions underlying valuation of options. (4marks)

MM414 FINANCIAL MANAGEMENT

MAIN EXAMINATION

**INSTRUCTIONS TO THE CANDIDATES: SECTION A IS COMPULSORY
ANSWER ANY TWO QUESTIONS FROM SECTION B**

SECTION A: COMPULSORY

QUESTION ONE

- Define Capital Rationing and differentiate between SOFT Capital Rationing . What are some of the reasons that may prompt a firm resorting to Capital Rationing?
- A business firm has the following viable projects at its disposal but constrained by financial year.
(7mks)

PROJECT	INITIAL CASH OUT LAY	PRESENT VALUE OF BENEFITS
A	20,000,000	(KSh)
B	12,000,000	32,000,000
C	15,000,000	17,000,000
D	9,000,000	20,700,000
E	36,000,000	11,250,000
F	3,000,000	42,480,000
G	5,000,000	3,420,000
		420,000
		400,000

- You are required to determine which projects should be undertaken to accommodate the capital expenditure budget ceiling of ksh 60,000,000
- What will be the effect on the value of the firm after undertaking the priority projects above
(3mks)

(Total: 25 marks)

QUESTION TWO

- (a) Define and explain the following financial jargons (2MKS)
- (i) FINANCIAL STRUCTURE (2MKS)
 - (ii) CAPITAL STRUCTURE (2MKS)
 - (iii) OPTIMAL CAPITAL STRUCTURE (2MKS)
 - (iv) CAPITAL RESTRUCTURING (2MKS)
 - (v) YIELD CURVE (2MKS)
- (b) Outline the DISTINCTIVE characteristics of the following types of leases: (4MKS)
- (I) OPERATING LEASE (4MKS)
 - (II) FULL PAYOUT LEASE (4MKS)
 - (III) NON- CANCELABLE LEASE (4MKS)
 - (IV) SALE AND LEASE BACK TRANSACTION (3MKS)
- (Total: 25 marks)

SECTION B: ANSWER ANY TWO QUESTIONS.

QUESTION THREE

Consider two alternative capital structures for NASA CORPORATION, when it is LEVERED and UNLEVERED.

NASA CORPORATION- LEVERED	NASA
CORPORATION- UNLEVERED	
TOATAL ASSETS KSH 100,000,000	KSH 100,000,000
TOTAL EQUITY KSH 50,000,000	KSH 100,000,000
TOTAL DEBT @ 10% 50,000,000	

INCOME STATEMENTS

EBIT	KSH 20,000,000	KSH 20,000,000
COST OF DEBT	5,000,000	—
PRE- TAX EARNINGS	15,000,000	20,000,000
TAX @ 40%	6,000,000	8,000,000
POST-TAX EARNINGS	9,000,000	12,000,000

Cost of capital of unlevered firm is 12%

Using the famous Modigliani and Miller propositions proof the following:

- (a) Value of un geared firm (3mks)
- (b) Value of the geared firm (3mks)
- (c) Market value of equity capital (3mks)
- (d) Cost of equity capital of the geared firm (4mks)

- (e) Weighted average cost of capital of the levered firm using three different formulations
(f) Weighted average cost of capital of the unlevered firm
(g) What deductions can be drawn on MM propositions using the above calculations

(Total: 25 mks)

QUESTION FOUR

- (a) Define Term Structure of Interest Rates and explain the underlying theories attempted to explain the yield curve
(b)(i) Explain the nature of efficiency in an efficient capital market and discuss the various forms /degrees of efficiency in such a market
(ii) what lessons can a believer in Efficient market hypothesis (EMH) learn?

QUESTION FIVE

(Total: 25 mks)

(a) A firm's dividend policy is 50% Retention and 50% payout. Last year's EPS(0) was ksh 12. Its internal rate of return is 20%. Shareholders' capitalization is 15%. Determine the firm's present value of its ordinary share under:

(i) GORDON'S MODEL

(ii) WALTER'S MODEL

- (a) The following pertinent features pertain to a hypothetical American option.

(I) STRIKE PRICE KSH 90

(II) EXERCISE PRICE KSH 60

(III) TIME TO MATURITY 90 DAYS

(IV) VOLATILITY OF ASSET 40%

(V) RISK -FREE INTEREST RATE 10%

- (a) Determine the value of the call option (14mks)
(b) Determine the value of the put option (5mks)

Table A.5

Cumulative normal distribution

<i>d</i>	<i>N(d)</i>										
-3.00	.0013	-1.58	.0571	-0.76	.2236	0.06	.5239	0.86	.8051	1.66	.9515
-2.95	.0016	-1.56	.0594	-0.74	.2297	0.08	.5319	0.88	.8106	1.68	.9535
-2.90	.0019	-1.54	.0618	-0.72	.2358	0.10	.5398	0.90	.8159	1.70	.9554
-2.85	.0022	-1.52	.0643	-0.70	.2420	0.12	.5478	0.92	.8212	1.72	.9573
-2.80	.0026	-1.50	.0668	-0.68	.2483	0.14	.5557	0.94	.8264	1.74	.9591
-2.75	.0030	-1.48	.0694	-0.66	.2546	0.16	.5636	0.96	.8315	1.76	.9606
-2.70	.0035	-1.46	.0721	-0.64	.2611	0.18	.5714	0.98	.8365	1.78	.9625
-2.65	.0040	-1.44	.0749	-0.62	.2676	0.20	.5793	1.00	.8414	1.80	.9641
-2.60	.0047	-1.42	.0778	-0.60	.2743	0.22	.5871	1.02	.8461	1.82	.9656
-2.55	.0054	-1.40	.0808	-0.58	.2810	0.24	.5948	1.04	.8508	1.84	.9671
-2.50	.0062	-1.38	.0838	-0.56	.2877	0.26	.6026	1.06	.8554	1.86	.9686
-2.45	.0071	-1.36	.0869	-0.54	.2946	0.28	.6103	1.08	.8599	1.88	.9699
-2.40	.0082	-1.34	.0901	-0.52	.3015	0.30	.6179	1.10	.8643	1.90	.9713
-2.35	.0094	-1.32	.0934	-0.50	.3085	0.32	.6255	1.12	.8686	1.92	.9726
-2.30	.0107	-1.30	.0968	-0.48	.3156	0.34	.6331	1.14	.8729	1.94	.9738
-2.25	.0122	-1.28	.1003	-0.46	.3228	0.36	.6406	1.16	.8770	1.96	.9750
-2.20	.0139	-1.26	.1038	-0.44	.3300	0.38	.6480	1.18	.8810	1.98	.9761
-2.15	.0158	-1.24	.1075	-0.42	.3373	0.40	.6554	1.20	.8849	2.00	.9772
-2.10	.0179	-1.22	.1112	-0.40	.3446	0.42	.6628	1.22	.8888	2.05	.9798
-2.05	.0202	-1.20	.1151	-0.38	.3520	0.44	.6700	1.24	.8925	2.10	.9821
-2.00	.0228	-1.18	.1190	-0.36	.3594	0.46	.6773	1.26	.8962	2.15	.9842
-1.98	.0239	-1.16	.1230	-0.34	.3669	0.48	.6844	1.28	.8997	2.20	.9861
-1.96	.0250	-1.14	.1271	-0.32	.3745	0.50	.6915	1.30	.9032	2.25	.9878
-1.94	.0262	-1.12	.1314	-0.30	.3821	0.52	.6985	1.32	.9066	2.30	.9893
-1.92	.0274	-1.10	.1357	-0.28	.3897	0.54	.7054	1.34	.9099	2.35	.9906
-1.90	.0287	-1.08	.1401	-0.26	.3974	0.56	.7123	1.36	.9131	2.40	.9918
-1.88	.0301	-1.06	.1446	-0.24	.4052	0.58	.7191	1.38	.9162	2.45	.9929
-1.86	.0314	-1.04	.1492	-0.22	.4129	0.60	.7258	1.40	.9192	2.50	.9938
-1.84	.0329	-1.02	.1539	-0.20	.4207	0.62	.7324	1.42	.9222	2.55	.9946
-1.82	.0344	-1.00	.1587	-0.18	.4286	0.64	.7389	1.44	.9251	2.60	.9953
-1.80	.0359	-0.98	.1635	-0.16	.4365	0.66	.7454	1.46	.9279	2.65	.9960
-1.78	.0375	-0.96	.1685	-0.14	.4443	0.68	.7518	1.48	.9306	2.70	.9965
-1.76	.0392	-0.94	.1736	-0.12	.4523	0.70	.7580	1.50	.9332	2.75	.9970
-1.74	.0409	-0.92	.1788	-0.10	.4602	0.72	.7642	1.52	.9357	2.80	.9974
-1.72	.0427	-0.90	.1841	-0.08	.4681	0.74	.7704	1.54	.9382	2.85	.9978
-1.70	.0446	-0.88	.1894	-0.06	.4761	0.76	.7764	1.56	.9406	2.90	.9981
-1.68	.0465	-0.86	.1949	-0.04	.4841	0.78	.7823	1.58	.9429	2.95	.9984
-1.66	.0485	-0.84	.2005	-0.02	.4920	0.80	.7882	1.60	.9452	3.00	.9986
-1.64	.0505	-0.82	.2061	0.00	.5000	0.82	.7939	1.62	.9474	3.05	.9989
-1.62	.0526	-0.80	.2119	0.02	.5080	0.84	.7996	1.64	.9495		
-1.60	.0548	-0.78	.2177	0.04	.5160						

This table shows the probability [*N(d)*] of observing a value less than or equal to *d*. For example, as illustrated, if *d* is -2.4, then *N(d)* is .9052.

MAIN EXAMINATION

Instructions: Answer Question ONE and any other THREE Questions

QUESTION ONE

- a) Explain the role of finance managers and four key decisions that are made by financial managers (6 marks)
- b) Giving examples and how they are sourced, explain the differences between short term financing and long term financing (7 marks)
- c) Describe derivative markets, types and role in financial management practices (7 marks)
- d) Explain the discounted techniques used in capital budgeting. What are the assumptions and advantages of using such approaches (5 marks)
- (Total: 25 marks)**

QUESTION TWO

- a) Identify and explain four types of projects that may be subjected to investment evaluation in financial management practice. (5 marks)
- b) A firm has two alternative investment projects, A and B. As a result of capital rationing policy, the management is contemplating which project they should undertake. The following information is available about the two projects

	Project A	Project B
Initial cost	Sh. 15 million	Sh. 15 million
Cash flow per year	Sh. 5.5 million	Sh. 3.2 million
Economic life	4 years	8 years
Cost of capital	12%	12%

You are required to calculate the Net Present Value (NPV) and Internal Rate of Return (IRR) and advice (10 marks)

(Total: 15 marks)

QUESTION THREE

- a) Explain the differences between Capital Market Line (CML) and Security Market Line (SML) (4 marks)
- b) Mukoswa Ltd has a total capital of Kshs.360 Million invested in three stocks as below;

	Stock's beta coefficient	
A	160M	0.5
B	120M	2.0
C	80M	4.0

Using CAPM and assuming that risk free rate is 5% and expected return in the market is 9%. Calculate;

- i) Expected return for each stock (5 marks)

- ii) Expected return for Mukoswa Ltd investment fund portfolio (6 marks)
(Total: 15 marks)

QUESTION FOUR

(a) Briefly explain the provisions and assumptions of Walter's dividend relevancy model (5 marks)

(b) The earnings per share of company are and the rate of capitalization applicable to the company is 10%. The company has before it an option of adopting a payout ratio of 25% or 50% or 75%. Using Walter's formula of dividend payout, compute the market value of the company's share if the productivity of retained earnings is (i) 15% (ii) 10% and (iii) 5%. (10 marks)

(Total: 15 marks)

QUESTION FIVE

Discuss working capital management policy and decisions under the following headings

- a) Working capital components (4 marks)
- b) Working capital cycle (4 marks)
- c) Working capital management models (7 marks)

(Total: 15 marks)

QUESTION SIX

- a) Briefly explain capital rationing, its justifications and the management decision process (7 marks)
- b) Identify and explain the two capital structure theories, and the considerations in making capital structure decisions by management (8 marks)

(Total: 15 marks)

BBM 414: FINANCIAL MANAGEMENT MAIN EXAMINATION

MAIN EXAMINATIONS

INSTRUCTIONS: SECTION A IS COMPULSORY, ANSWER ANY TWO QUESTIONS IN SECTION B.

SECTION A

1. (a) What is CAPITAL RATIONING? Distinguish the various forms of capital rationing and suggest some basic reasons which may force a firm to result to capital rationing. (3 mks)

- (b) ABC Corporation has the following viable projects at its disposal but due to the prevailing economic crunch, it has been forced to limit its current development expenditure to ksh 60 million. Its composite cost of capital is 10%. (3 mks)

PROJECT	INITIAL COST KSH	I.R.R	PRESENT VALUE OF BENEFITS	N.P.V
A	36,000,000	13%	42,480,000	4,480,000
B	3,000,000	12%	3,420,000	420,000
C	15,000,000	17%	20,700,000	5,700,000
D	20,000,000	23%	32,000,000	12,000,000
E	5,000,000	11%	5,400,000	400,000
F	9,000,000	16%	11,250,000	2,250,000
G	12,000,000	19%	17,400,000	5,400,000

- (i) Which projects should be undertaken in order to accommodate the capital expenditure budget ceiling of ksh 60,000,000? (12 mks)

- (ii) What will be the effect on the value of the firm after undertaking the selected project? (5 mks)

2. (a) What is CAPITAL ASSET PRICING MODEL (CAPM)? Distinguish the various formulations of CAPM, citing their logic and conceptual differences between them. (4 mks)

- (b) Explain the conceptual difference between CAPM and ARBITRAGE PRICING THEORY (APT) and provide their basic assumptions. (4 mks)

- (c) AZIMIO PLC is faced with the following five projects to undertake in the current financial year. Their basic information is as follows:

PROJECT	BETA	WEIGHT
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1	5	20,000,000
2	2	10,000,000
3	1.0	5,000,000
4	0.9	10,000,000
5	-0.8	5,000,000

Data from the Central Bank of Kenya reveals that the average return on the aggregate domestic market economy is 20%. The basic return on the money market instruments is 10%.

- (i) Determine the expected return from each project. (5 mks)
- (ii) Determine the expected return from the 5-asset portfolio. (5 mks)
- (iii) What is the market risk of the 5-asset portfolio? (5 mks)
- (iv) From the above calculation, what is the relationship between expected return of an asset and its respective market risk? (2 mks)

SECTION B: ATTEMPT ANY TWO QUESTIONS.

3. "DIVIDEND POLICY that a firm may adopt may or may not affect the value of the firm." In the light of this discuss various schools of thought on Dividend policy and valuation of the firm. Clearly state the basic assumptions, share valuation formula and the optimal dividend policy of each model. (25 mks)
4. KENYA MBELE CORPORATION is to invest in a project to boost its chances of winning the forthcoming general elections on 9th August 2022. Data pertaining to the project is as follows;

INITIAL COST:	KSH 20,000,000
NET CASH INFLOWS:	KSH 5,000,000
ECONOMIC LIFE:	5 YEARS
COVARIANCE OF ASSET AND MARKET RETURN:	4%
MARKET RETURN VARIANCE	3%
RISK-FREE RATE OF RETURN	10%
RETURN ON AGGREGATE MARKET ECONOMY:	20%

- (a) Determine viability of the project under risky situation. (5 mks)
- (b) Determine viability of the project under CERTAINTY EQUIVALENT. (18mks)
- (c) What is the relationship between RISK and CERTAINTY EQUIVALENT as a function of time? (2 mks)

5. The following pertinent features pertain to a particular AMERICAN CALL OPTION:

EXERCISE PRICE: KSH 150

VOLATILITY:

50 %

RISKLESS RETURN:

10 %

TIME TO MATURITY:

90 DAYS

(a) Determine the value of the above call option.

(b) Assuming that a PUT option has the same features as the above call option, what would its value?

(c) Highlight the main determinants of an American Call Option, indicating the relationship between each factor and the value of the call option.

(d) Cite at least three major basic assumptions of underlying the valuation method used above.

6 (a) Define the following financial terminologies.

(i) CAPITAL STRUCTURE

(1 MK)

(ii) FINANCIAL STRUCTURE

(1 MK)

(iii) OPTIMAL CAPITAL STRUCTURE

(1 MK)

(iv) UNIQUE RISK

(1 MK)

(v) SYSTEMATIC RISK

(1 MK)

(b) Highlight the DISTINCTIVE CHARACTERISTICS/ FEATURES of the following forms of long-term financing.

(i) SERVICE LEASE

(4 MKS)

(ii) FINANCE LEASE

(4 MKS)

(iii) NON-CANCELABLE LEASE

(4 MKS)

(c) Describe one cash management model you are familiar with.

(8 mks)

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Appendix A Mathematical Tables

Table A.6

Cumulative normal distribution

d	$N(d)$	d	$N(d)$	d	$N(d)$	d	$N(d)$	d	$N(d)$	d	$N(d)$
-3.00	.0013	-1.58	.0571	-0.76	.2236	0.08	.5239	0.26	.8051	1.66	.9515
-2.95	.0016	-1.56	.0594	-0.74	.2297	0.08	.5319	0.28	.8106	1.68	.9535
-2.90	.0019	-1.54	.0618	-0.72	.2358	0.10	.5398	0.30	.8159	1.70	.9554
-2.85	.0022	-1.52	.0643	-0.70	.2420	0.12	.5478	0.32	.8212	1.72	.9573
-2.80	.0026	-1.50	.0668	-0.68	.2483	0.14	.5557	0.34	.8264	1.74	.9591
-2.75	.0030	-1.48	.0694	-0.66	.2546	0.16	.5636	0.36	.8315	1.76	.9608
-2.70	.0035	-1.46	.0721	-0.64	.2611	0.18	.5714	0.38	.8365	1.78	.9625
-2.65	.0040	-1.44	.0749	-0.62	.2676	0.20	.5793	1.00	.8414	1.80	.9641
-2.60	.0047	-1.42	.0778	-0.60	.2743	0.22	.5871	1.02	.8461	1.82	.9656
-2.55	.0054	-1.40	.0808	-0.58	.2810	0.24	.5948	1.04	.8508	1.84	.9671
-2.50	.0062	-1.38	.0838	-0.56	.2877	0.26	.6026	1.06	.8554	1.86	.9686
-2.45	.0071	-1.36	.0869	-0.54	.2946	0.28	.6103	1.08	.8599	1.88	.9699
-2.40	.0082	-1.34	.0901	-0.52	.3015	0.30	.6179	1.10	.8643	1.90	.9713
-2.35	.0094	-1.32	.0934	-0.50	.3085	0.32	.6255	1.12	.8686	1.92	.9726
-2.30	.0107	-1.30	.0968	-0.48	.3156	0.34	.6331	1.14	.8729	1.94	.9738
-2.25	.0122	-1.28	.1003	-0.46	.3228	0.36	.6406	1.16	.8770	1.96	.9750
-2.20	.0139	-1.26	.1038	-0.44	.3300	0.38	.6480	1.18	.8810	1.98	.9761
-2.15	.0158	-1.24	.1075	-0.42	.3373	0.40	.6554	1.20	.8849	2.00	.9772
-2.10	.0179	-1.22	.1112	-0.40	.3446	0.42	.6628	1.22	.8888	2.05	.9798
-2.05	.0202	-1.20	.1151	-0.38	.3520	0.44	.6700	1.24	.8925	2.10	.9821
-2.00	.0228	-1.18	.1190	-0.36	.3594	0.46	.6773	1.26	.8962	2.15	.9842
-1.98	.0239	-1.16	.1230	-0.34	.3669	0.48	.6844	1.28	.8997	2.20	.9861
-1.96	.0250	-1.14	.1271	-0.32	.3745	0.50	.6915	1.30	.9032	2.25	.9878
-1.94	.0262	-1.12	.1314	-0.30	.3821	0.52	.6985	1.32	.9066	2.30	.9893
-1.92	.0274	-1.10	.1357	-0.28	.3897	0.54	.7054	1.34	.9099	2.35	.9906
-1.90	.0287	-1.08	.1401	-0.26	.3974	0.56	.7123	1.36	.9131	2.40	.9918
-1.88	.0301	-1.06	.1446	-0.24	.4052	0.58	.7191	1.38	.9162	2.45	.9929
-1.86	.0314	-1.04	.1492	-0.22	.4129	0.60	.7258	1.40	.9192	2.50	.9938
-1.84	.0329	-1.02	.1539	-0.20	.4207	0.62	.7324	1.42	.9222	2.55	.9946
-1.82	.0344	-1.00	.1587	-0.18	.4286	0.64	.7389	1.44	.9251	2.60	.9953
-1.80	.0359	-0.98	.1635	-0.16	.4365	0.66	.7454	1.46	.9279	2.65	.9960
-1.78	.0375	-0.96	.1685	-0.14	.4443	0.68	.7518	1.48	.9306	2.70	.9965
-1.76	.0392	-0.94	.1736	-0.12	.4523	0.70	.7580	1.50	.9332	2.75	.9970
-1.74	.0409	-0.92	.1788	-0.10	.4602	0.72	.7642	1.52	.9357	2.80	.9974
-1.72	.0427	-0.90	.1841	-0.08	.4681	0.74	.7704	1.54	.9382	2.85	.9978
-1.70	.0446	-0.88	.1894	-0.06	.4761	0.76	.7764	1.56	.9406	2.90	.9981
-1.68	.0465	-0.86	.1949	-0.04	.4841	0.78	.7823	1.58	.9429	2.95	.9984
-1.66	.0485	-0.84	.2005	-0.02	.4920	0.80	.7882	1.60	.9452	3.00	.9986
-1.64	.0505	-0.82	.2061	0.00	.5000	0.82	.7939	1.62	.9474	3.05	.9989
-1.62	.0526	-0.80	.2119	0.02	.5080	0.84	.7996	1.64	.9495		
-1.60	.0548	-0.78	.2177	0.04	.5160						

This table shows the probability [$N(d)$] of observing a value less than or equal to d . For example, as illustrated, if d is -0.24, then $N(d)$ is .4052.