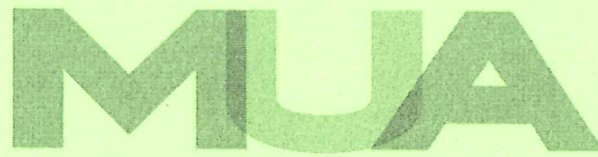


The
Management
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UNDERGRADUATE UNIVERSITY EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

DEGREE OF BACHELOR OF COMMERCE

FIN 421 : SECURITY ANALYSIS AND SECURITIZATION

DATE: 5TH AUGUST 2024

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **THREE** questions.
6. Question **ONE** carries **25 MARKS** and the rest carry **15 MARKS** each.
7. Write all your answers in the Examination answer booklet provided

QUESTION ONE

- a) Karim Ltd has annual earnings before interest and taxes of Sh.150 million. These earnings are expected to remain constant. The market price of the company's ordinary shares is Sh.8.60 per share cum dividend and of debentures sh.1055.0 per debenture ex. Interest. An interim dividend of Sh.0.60 per share has been declared. Corporate tax is at the rate of 30% and all available earnings are distributed as dividends.

Karim's long term capital structure is shown below:

	Sh.000
Ordinary share (Sh.2.5 par value)	125,000
Reserves	243,000
16% debenture 31.12.X4 (Sh.100 par)	<u>236,970</u>
	<u>604,970</u>

Required:

Calculate the cost of capital of Karim Ltd according to the traditional theory of capital structure. Assume it is now 31.12.X1 and the capital structure is optimal.

(10 marks)

- b) Analyze how behavioral factors, such as investor sentiment and cognitive biases, can impact return expectations. (10 marks)
- c) Discuss the importance of scenario analysis and stress testing in investment analysis. (5 marks)

QUESTION TWO

a) The following data have been provided with respect to three shares traded on the Nairobi Stock Exchange (NSE).

	Share A	Share B	Share C
Risk free rate of return	0.120	0.120	0.120
Beta coefficient	1.340	1.000	0.750
Return on the NSE index	0.185	0.185	0.185

Required:

- (i) What is the beta coefficient? **(2 marks)**
- (ii) Interpret the beta coefficient of shares A, B and C. **(3 marks)**
- (iii) Using the Capital Asset Pricing Model, compute the expected return on shares A, B and C. **(3 marks)**
- (iv) Can the beta coefficient be less than zero? Explain **(1 mark)**
- b) Discuss various forms of market hypothesis **(6 marks)**

QUESTION THREE

- a) Discuss some anomalies that have been observed in financial markets, contrary to the predictions of market efficiency. **(10 Marks)**
- b) Examine the relationship between risk and return when comparing different investment alternatives. **(5 marks)**

QUESTION FOUR

a) Chuma Company Ltd is considering various levels of debt. Currently it has no debt. It has a total market value of Sh.30 million. By undertaking debt, it believes that it can achieve a net tax advantage equal to 20% of the amount of debt. However, the company will incur bankruptcy and agency costs as well as lenders increasing their interest rate if it borrows too much. The company's managing director believes that the company can borrow up to Sh.10 million without incurring any of these costs. However, each additional Sh.10 million increment in borrowing is expected to result in the three costs cited being incurred. Moreover, the three costs

are expected to increase at an increasing rate with leverage. The present value cost of various levels of debt is as follows:

Debt in millions of shillings	PV cost of bankruptcy, agency and increased interest rate
10	0
20	0.6
30	2.4
40	4.0
50	6.4
60	10.0

Required:

Advise the managing director on the optimal amount of debt for Chuma Company. (10 marks)

- b) Examine the factors that an investor should consider when investing in high-yield bonds. (5 marks)

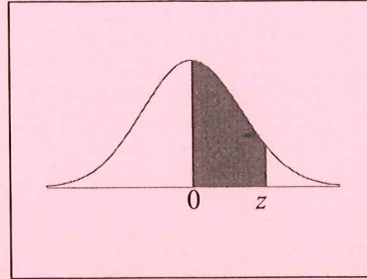
QUESTION FIVE

- a) Discuss the factors that can influence variations in P/E ratios across different industries. (10 marks)
- b) Examine how macroeconomic factors and market conditions impact the evaluation of common stocks. (5 marks)

QUESTION SIX

- a) Discuss any five principles of behavioral finance and how psychological factors influence security prices. (10 marks)
- b) Describe the term structure of interest rates and its impact on bond yields. (5 marks)

Standard Normal Distribution Table



z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.0000	.0040	.0080	.0120	.0160	.0199	.0239	.0279	.0319	.0359
0.1	.0398	.0438	.0478	.0517	.0557	.0596	.0636	.0675	.0714	.0753
0.2	.0793	.0832	.0871	.0910	.0948	.0987	.1026	.1064	.1103	.1141
0.3	.1179	.1217	.1255	.1293	.1331	.1368	.1406	.1443	.1480	.1517
0.4	.1554	.1591	.1628	.1664	.1700	.1736	.1772	.1808	.1844	.1879
0.5	.1915	.1950	.1985	.2019	.2054	.2088	.2123	.2157	.2190	.2224
0.6	.2257	.2291	.2324	.2357	.2389	.2422	.2454	.2486	.2517	.2549
0.7	.2580	.2611	.2642	.2673	.2704	.2734	.2764	.2794	.2823	.2852
0.8	.2881	.2910	.2939	.2967	.2995	.3023	.3051	.3078	.3106	.3133
0.9	.3159	.3186	.3212	.3238	.3264	.3289	.3315	.3340	.3365	.3389
1.0	.3413	.3438	.3461	.3485	.3508	.3531	.3554	.3577	.3599	.3621
1.1	.3643	.3665	.3686	.3708	.3729	.3749	.3770	.3790	.3810	.3830
1.2	.3849	.3869	.3888	.3907	.3925	.3944	.3962	.3980	.3997	.4015
1.3	.4032	.4049	.4066	.4082	.4099	.4115	.4131	.4147	.4162	.4177
1.4	.4192	.4207	.4222	.4236	.4251	.4265	.4279	.4292	.4306	.4319
1.5	.4332	.4345	.4357	.4370	.4382	.4394	.4406	.4418	.4429	.4441
1.6	.4452	.4463	.4474	.4484	.4495	.4505	.4515	.4525	.4535	.4545
1.7	.4554	.4564	.4573	.4582	.4591	.4599	.4608	.4616	.4625	.4633
1.8	.4641	.4649	.4656	.4664	.4671	.4678	.4686	.4693	.4699	.4706
1.9	.4713	.4719	.4726	.4732	.4738	.4744	.4750	.4756	.4761	.4767
2.0	.4772	.4778	.4783	.4788	.4793	.4798	.4803	.4808	.4812	.4817
2.1	.4821	.4826	.4830	.4834	.4838	.4842	.4846	.4850	.4854	.4857
2.2	.4861	.4864	.4868	.4871	.4875	.4878	.4881	.4884	.4887	.4890
2.3	.4893	.4896	.4898	.4901	.4904	.4906	.4909	.4911	.4913	.4916
2.4	.4918	.4920	.4922	.4925	.4927	.4929	.4931	.4932	.4934	.4936
2.5	.4938	.4940	.4941	.4943	.4945	.4946	.4948	.4949	.4951	.4952
2.6	.4953	.4955	.4956	.4957	.4959	.4960	.4961	.4962	.4963	.4964
2.7	.4965	.4966	.4967	.4968	.4969	.4970	.4971	.4972	.4973	.4974
2.8	.4974	.4975	.4976	.4977	.4977	.4978	.4979	.4979	.4980	.4981
2.9	.4981	.4982	.4982	.4983	.4984	.4984	.4985	.4985	.4986	.4986
3.0	.4987	.4987	.4987	.4988	.4988	.4989	.4989	.4989	.4990	.4990
3.1	.4990	.4991	.4991	.4991	.4992	.4992	.4992	.4992	.4993	.4993
3.2	.4993	.4993	.4994	.4994	.4994	.4994	.4994	.4995	.4995	.4995
3.3	.4995	.4995	.4995	.4996	.4996	.4996	.4996	.4996	.4996	.4997
3.4	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4998
3.5	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998

