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(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN/BUNGOMA/NAIROBI/WEBUYE CAMPUS

UNIVERSITY EXAMINATIONS 2021/2022 ACADEMIC YEAR

THIRD YEAR SPECIAL/ SUPPLIMENTARY EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF COMMERCE

COURSE CODE: BCF 407

COURSE TITLE: SECURITY ANALYSIS AND SECURITIZATION

DATE: TEUSDAY, 26TH JULY 2022 **TIME:** 11-1 PM

INSTRUCTIONS TO CANDIDATES

Answer **QUESTION ONE** and **ANY OTHER TWO (2)** questions

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.

QUESTION ONE (30 MARKS)

A. The following financial information relating to Swan Telecom and Cload Telecom. Calculate and interpret the following multiples: price to earnings, price to an estimate of operating cash flow, price to sales, and price to book value. (12 Marks)

Price Multiples for TelTel Telcom and Glotim Telekom

	TelTel Telcom			Glotim Telekom		
	2008	2007	2006	2008	2007	2006
(1) Total assets (€ billions)	99.9	105.9	109.0	123.1	120.7	130.2
Asset growth	−5.7%	−2.8%	--	2.0%	−7.3%	--
(2) Net revenues (€ billions)	57.9	56.4	52.9	61.7	62.5	61.3
Revenue growth	2.7%	6.6%	--	−1.3%	2.0%	--
(3) Net cash flow from operating activities (€ billions)	16.4	15.6	15.4	15.4	13.7	14.2
Cash flow growth	5.1%	1.3%	--	12.4%	−3.5%	--
(4) Book value of common shareholders' equity (€ billions)	19.6	22.9	20.0	43.1	45.2	49.7
Debt ratio: $1 - [(4) \div (1)]$	80.4%	78.4%	81.7%	65.0%	62.6%	61.8%
(5) Net profit (€ billions)	7.8	9.1	6.6	1.5	0.6	3.2
Earnings growth	−14.3%	37.9%	--	150.0%	−81.3%	--
(6) Weighted average number of shares outstanding (millions)	4,646	4,759	4,779	4,340	4,339	4,353
(7) Price per share (€)	15.85	22.22	16.22	10.75	15.02	13.84

B. The treasury spot rates (expressed as semiannual-pay yields to maturity) are as follows:
6 months = 4%,
1 year = 5%,
1 1/2 years = 6%
A one and a half year, 4%, 1000 par value Treasury note is currently trading at sh.965. Determine the arbitrage trade and arbitrage profit or loss. Briefly advice an investor whether it is a good buy or not. (8 Marks)

C. Discuss the main risks associated with a securitization process and how an organization can effectively manage them. (10 Marks)

QUESTION TWO (20 MARKS)

A. Tamasha purchases on margin 2000 shares of Sotoka stock for Ksh.65 per share with an initial margin requirement of 50%. The interest rate on margin purchases is 15%. Since the market for securities depends on available information he believes that it can either increase in value by Ksh.20 or depreciate in value by Ksh.15.

Required:

i. Calculate the rate return for both a cash purchaser and a margin purchaser. What do they imply? (6 marks)
ii. How much can the share price drop before Tommy receives a margin call? (8 Marks)

B. The spot price of a market index is sh.900. The annual rate of interest on treasuries is 4.8% (0.4% per month). After 3 months the market index is priced at sh.920. An investor has a long call option on the index at a strike price of sh.930. What profit or loss will the writer of the call option earn if the option premium is sh.2.00? (6 Marks)

QUESTION THREE (20 MARKS

A. What do you understand by the term 'moneyness' in option trading? Highlight the instances in which it is profitable to exercise a call and a put option. (5 Marks)

B. Due to the highly specialized nature of the electronic industry, Barrett Industries invests a lot of money in R&D on prospective products. Consequently, it retains all of its earnings and reinvests them into the firm. (In other words, it does not pay any dividends.) At this time, Barrett does not have plans to pay any dividends in the near future. A major pension fund is interested in purchasing Barrett's stock, which is traded on the NYSE. The treasurer of the pension fund has done a great deal of research on the company and realizes that its valuation must be based on the total company model (free cash flows approach). The pension fund's treasurer has estimated Barrett's free cash flows for the next 4 years as follows: sh.3 million, sh.6 million, sh.10 million, and sh.15 million. After the fourth year, free cash flow is projected to grow at a constant 7 percent. Barrett's WACC is 12 percent; it has sh.60 million of total debt and preferred stock, and 10 million shares of common stock.

Required:

a. Determine the present value of Barrett's free cash flows during the next 4 years and its terminal value? (8 Marks)

b. What is the total value of the firm today and its price per share? (7 Marks)

QUESTION FOUR (20 MARKS)

Victor is considering the purchase of a bond currently selling at Shs 1,198.50.The bond has four years to maturity, with a face value of Shs 1,300 and 9 percent Coupon rate. The next annual interest payment is due after one year. The required rate of return is 12 percent.

Required.

(a) Calculate the intrinsic value of the bond. Should Victor buy the bond? **(10 Marks).**

(b) Calculate the Yield to Maturity of the bond. **(10 Marks).**

QUESTION FIVE (20 MARKS)

(a) Explain in detail the Dow Theory and how it is used to determine the direction of the Stock market. **(10 Marks).**

(b) Explain the importance of Company analysis in predicting stock prices and investor returns. **(10 Marks).**