

UNIVERSITY OF SWAZILAND

DEPARTMENT OF ACCOUNTING AND FINANCE

SUPPLEMENTARY EXAMINATION QUESTION PAPER

JULY 2014

ACADEMIC YEAR 2013/2014

PROGRAMME OF STUDY	:	Bachelor of Commerce
YEAR OF STUDY	:	Year 4 & 5 (Full Time)
TITLE OF THE PAPER	:	Corporate Finance II
COURSE CODE	:	AC 426 / AC 514 (S)
TIME ALLOWED	:	Three (3) Hours
TOTAL MARKS	:	100
INSTRUCTIONS	1	There are FOUR (4) questions, <u>ANSWER ALL.</u>
	2	Begin the solution to each question on a new page.
	3	The marks awarded for a question are indicated at the end of each question.
	4	Show your necessary workings.

NOTE: You are reminded that in assessing your work, account will be taken of accuracy of the language and the general quality of expression, together with layout and presentation of your answer.

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR / SUPERVISOR.

SPECIAL REQUIREMENT: FINANCIAL CALCULATOR

QUESTION 1

- (a) Define risk. Give an example of a risk-free investment and explain why you claim it has no risk. Give an example of a risky investment and explain why you claim the investment to be risky. (6 marks)
- (b) (i) Siphesihle bought a share of stock for E31.50 that paid a dividend of E0.85 and sold six months later for E27.65. What was his profit or loss and holding period return? (3 marks)
- (ii) Sicebile bought a share of stock for E64.50 that paid a dividend of E0.50 and sold nine months later for E64.00. What was her profit or loss and holding period return? (3 marks)
- (iii) Find the variance for a security that has three one-year returns of -5%, 15%, and 20%. (3 marks)
- (iv) Stocks A, B, C, and D have returns of 5%, 15%, 30%, and 110%, respectively. What is their standard deviation? (4 marks)
- (v) You are considering buying a share of stock in a firm that has the following two possible payoffs with the corresponding probability of occurring. The stock has a purchase price of E50.00. You forecast that there is a 40% chance that the stock will sell for E70.00 at the end of one year. The alternative expectation is that there is a 60% chance that the stock will sell for E30.00 at the end of one year. What is the expected percentage return on this stock, and what is the return variance? (4 marks)
- (vi) Mvuyo estimates that there are three possible return outcomes for a stock he is considering for purchase. He thinks that there is a 45% chance the economy will boom and his stock will return 25%, a 50% chance the economy will continue at its current pace and the stock will return 8%, and finally, that there is a 5% chance that the economy will falter and the expected return on his stock will be -10%. Given these probabilities and conditional expected returns, what is Mvuyo's expected return on the stock he is considering for purchase? (2 marks)

(Question 1 – Total marks : 25)

QUESTION 2

- (a) Differentiate between the current yield and the yield to maturity. (3 marks)
- (a) (i) Bongani Construction has issued 20-year E1,000 face value, 8% annual coupon bonds, with a yield to maturity of 10%. What is the current price of the bond? (2 marks)
- (ii) Five years ago, Andile Mkhonta Ltd issued twenty-five-year 10% annual coupon bonds with a E1,000 face value each. Since then, interest rates in general have risen and the yield to maturity on the Andile bonds is now 12%. Given this information, what is the price today for an Andile Mkhonta Ltd bond? (2 marks)

- (iii) Ten years ago Sikhumbuzo Construction issued twenty-five-year 8% annual coupon bonds with a E1,000 face value each. Since then, interest rates in general have risen and the yield to maturity on the Sikhumbuzo bonds is now 9%. Given this information, what is the price today for a Sikhumbuzo bond? **(2 marks)**
- (iv) Mancoba Supermarket has issued 30-year semiannual coupon bonds with a face value of E1,000. If the annual coupon rate is 14% and the current yield to maturity is 8%, what is the firm's current price per bond? **(2 marks)**
- (v) Pick 'N Pay just issued zero-coupon bonds with a par value of E1,000. If the bond has a maturity of 15 years and a yield to maturity of 10%, what is the current price of the bond if it is priced in the conventional manner? **(2 marks)**
- (vi) Woolworths wishes to issue new bonds but is uncertain how the market would set the yield to maturity. The bonds would be 20-year, 7% annual coupon bonds with a E1,000 par value. Woolworths has determined that these bonds would sell for E1,050 each. What is the yield to maturity for these bonds? **(3 marks)**
- (vii) Shoprite has outstanding E1,000 face value 8% coupon bonds that make semiannual payments, and have 14 years remaining to maturity. If the current price for these bonds is E1,118.74, what is the annualized yield to maturity? **(3 marks)**
- (viii) Sifiso Construction has outstanding E1,000 face value 8% coupon bonds that make semiannual payments, and have 14 years remaining to maturity. If the current price for these bonds is E987.24, what is the annualized yield to maturity? **(3 marks)**
- (ix) Saverite Supermarket has E1,000 par value, twenty-year, 6% annual coupon bonds, outstanding currently selling for E696.25. What is the yield to maturity on these bonds?(1 mark)
- (x) The Swaziland Treasury bill is currently selling at a discount basis of 4.25%. The par value of the bill is E100,000, and will mature in ninety days. What is the price of this Treasury bill? **(2 marks)**

(Question 2 – Total marks : 25)

QUESTION 3

- (a) (i) Most companies do not have the resident expertise to complete an initial public offering (IPO), so they hire an investment banker to help accomplish the sale. Describe three significant tasks that an investment banker provides. **(3 marks)**
- (ii) Part of the negotiation with the investment banker during the selection process has to do with how the investment banker will be compensated for taking the company public. Discuss the two standard compensation packages. **(3 marks)**

- (iii) Differentiate between an ask price and a bid price in the context of securities dealings. Explain how dealers make money. (3 marks)
- (iv) Differentiate between a bull market and a bear market. (2 marks)
- (b) (i) You want to invest in a stock that pays E6.00 annual cash dividends for the next five years. At the end of the five years, you will sell the stock for E30.00. If you want to earn 10% on this investment, what is a fair price for this stock if you buy it today? (2 marks)
- (ii) Walker Laboratories, Inc. pays a E1.37 dividend every quarter and will maintain this policy forever. What price should you pay for one share of common stock if you want an annual return of 12.5% on your investment? (2 marks)
- (iii) Kwak Motors, Inc. pays a E1.77 preferred dividend every quarter and will maintain this policy forever. What price should you pay for one share of preferred stock if you want an annual return of 9.25% on your investment? (2 marks)
- (iv) You buy a stock for which you expect to receive an annual dividend of E2.10 for the fifteen years that you plan on holding it. After 15 years, you expect to sell the stock for E32.25. What is the present value of a share for this company if you want a 10% return? (2 marks)
- (v) The next dividend (Div_1) is E1.80, the growth rate (g) is 6%, and the required rate of return (r) is 12%. What is the stock price, according to the constant growth dividend model? (2 marks)
- (vi) The last dividend (Div_0) is E1.80, the growth rate (g) is 6%, and the required rate of return (r) is 12%. What is the stock price according to the constant growth dividend model? (2 marks)
- (vii) In a stream of past dividends, the initial dividend is E0.75 and the most recent dividend is E1.25. The number of years between these two dividends (n) is 8 years. What is the average growth rate during this eight-year period? (2 marks)
- (Question 3 – Total marks : 25)**

QUESTION 4

- (a) (i) Assume you just bought a new home and now have a mortgage on the home. The amount of the principal is E200,000, the loan is at 8.10% APR, and the monthly payments are spread out over 25 years. What is the loan payment? (2 marks)
- (ii) You just bought a home for E250,000 and are scheduled to make monthly payments of E1,834.41 for 30 years at 8% APR. Suppose you add E400 each month to the E1,834.41 house payment, making your monthly payment E2,234.41. This extra amount is applied to the principal. How long will it take you to pay off your loan of E250,000? (2 marks)

(iii) Your company just sold a product with the following payment plan: E50,000 today, E25,000 next year, and E10,000 the following year. If your firm places the payments into an account earning 10% per year, how much money will be in the account after collecting the last payment? (2 marks)

(iv) Which of the following choices will result in a greater future value at age 65? Choice number 1 is to invest E3,000 per year from ages 20 through 26 (a total of seven investments) into an account and then leave it untouched until you are 65 (another 39 years). Choice number 2 is to begin at age 27 and make E3,000 deposits into an investment account every year until you are 65 years old (a total of 39 investments). Each account earns an average of 10% per year. (The investments are end-of-year payments.) (5 marks)

(v) If you borrow E50,000 at an annual interest rate of 12% for six years, what is the annual payment (prior to maturity) on a fully amortized loan? (3 marks)

(vi) Your firm intends to finance the purchase of a new construction crane. The cost is E1,500,000. How large is the payment at the end of year ten if the crane is financed at a rate of 8.50% as a discount loan? (3 marks)

(b) Precious Vilakati is 23 years old and plans to retire in 32 years when she is 55 years old. Precious just graduated from the University of Swaziland. Upon graduation, she took a job with a starting annual salary of E50,000. Precious asks you to answer the following two questions:

1. If her salary increases at a rate roughly equal to the Swaziland long-run average annual rate of inflation over the past 80 years (about 3% per year), how large will her annual salary be in her last year before retirement? (Use 32 years.)
2. If her salary increases at a rate roughly equal to the Swaziland long-run average annual rate of return on common stocks over the past 80 years (about 10.5% per year), how large will her annual salary be in her last year before retirement? (Use 32 years.)

After hearing your answers, Precious says, "WOW! That's quite a difference." She decides that she would like an income of E500,000 per year each year in retirement, provided in equal annual end-of-the-year cash flows. These cash flows need to last for 40 years, and her investments would earn an annual rate of return of 7% during her retirement.

Precious' final question to you is how much money must she save in equal annual end-of-the-year cash flows for the next 32 years to provide for her desired retirement, if her investments earn roughly the same rate of return as those earned by Swazi small stocks over the last 80 years (geometric average is about 12% per year). (8 marks)

(Question 4 – Total marks : 25)

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END OF PAPER

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