UNIVERSITY OF SWAZILAND

DEPARTMENT OF ACCOUNTING AND FINANCE

EXAMINATION PAPER MAY 2016 ACADEMIC YEAR 2015/2016

PROGRAMME OF STUDY	**Bachelor of Commerce**
YEAR OF STUDY	**Year 7 (Part Time)**
TITLE OF THE PAPER	**Corporate Finance II**
COURSE CODE	**AC 514**
TIME ALLOWED	**Three (3) Hours**

INSTRUCTIONS

1. There are Four (4) questions, ANSWER ALL.
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 workings were necessary.

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.

QUESTION ONE

(a) You are considering buying a share of stock in a firm that has the following two possible pay offs 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? **(8 marks)**

(b) Ndosi Graphics is adding a new magazine project to the company portfolio and has the following information: the expected market return is 12%, the risk-free rate is 4%, and the expected return on the new project is 20%. What is the beta of the project? **(4 marks)**

(c) Sydney Mabuza works for a firm that is expanding into a completely new line of business. He has been asked to determine an appropriate WACC for an average-risk project in the expansion division. Sydney finds two publicly traded stand-alone firms that produce the same products as his new division. The average of the two firms' betas is 1.25. Further, he determines that the expected return on the market portfolio is 13.00% and the risk-free rate of return is 4.00%. Sydney's firm finances 50% of its projects with equity and 50% with debt, and has a before-tax cost of debt of 9% and a corporate tax rate of 30%. What is the WACC for the new line of business? **(4 marks)**

(d) Mzimkhulu Corporation has had returns of -6%, 16%, 18%, and 28% for the past four years. Calculate the standard deviation of the returns. **(5 marks)**

(e) Stock Mpho and Stock Nhlonipho have had the following returns for the past three years: -12%, 10%, 32%; and 15%, 6%, 24%, respectively. Calculate the covariance between the two securities. **(4 marks)**

Total 25 Marks

QUESTION TWO

(a) What does Modigliani and Miller's 1958 theorem imply about a firm's optimal capital structure? ***Your answer should address:***

i. The Modigliani and Miller models of capital structure without corporate income taxes. **(6 marks)**

ii. The Modigliani and Miller models of capital structure with corporate income taxes, including how the introduction of corporate taxes affects the firm's choice of financing. **(6 marks)**

(b) Explain one advantage of issuing a convertible bond? **(2 Marks)**

(c) A bond was issued 15 years ago with a par value of E100 and offering a coupon of 11 per cent annually. The bond will be redeemed in three years' time and is currently trading at E109.50. What rate of return is this bond offering investors in the secondary market? **(3 marks)**

(d) Assume a par value of E100. Suppose that the market interest rate rises overnight from 3.5% to 8%. Calculate the present values of the 5.5 percent, 3-year bond and of the 5.5 percent, 30-year bond both before and after this change in interest rates. How much was the percent decline for each bond? **(8 marks)**

Total 25 Marks

QUESTION THREE

a) The Basket Weavers Company in Swaziland has 100,000 bonds outstanding that are selling at par value (E1000). Bonds with similar characteristics are yielding 7.5 percent. The company also has 1 million shares of 10.5 percent preferred stock outstanding with a par value of E 100 and 5 million shares of common stock outstanding. The preferred stock sells for E56 per share. The common stock has a beta of 1.2 and sells for E38 a share. The Swaziland Treasury bill is yielding 3 percent and the return on the market is 12 percent. The corporate tax rate is 34 percent.

Required

Calculate the weighted average cost of capital? (10 Marks)

b) VW Woods Company a subsidiary of an international company operating in Swaziland has expected earnings before interest and taxes of E25 million. It has an unlevered cost of capital of 12%, and debt with both a book and face value of E75 million. The debt has an annual 9% percent coupon. The tax rate is 35 percent.

Required

i. What is the value of the unleveraged firm? **(5 marks)**

ii. What is the value of the leveraged firm? **(5 marks)**

iii. What is the value of equity? **(5 marks)**

Total 25 Marks

QUESTION FOUR

a) On 12 November 2012 a UK exporter sold goods to a customer in France invoiced at €5,000,000. Payment was due three months later. Spot rate of exchange was at €1.17871£.

   i. If the pound strengthened against the euro and the rate was then €1.40/£, did the exporter make a profit or loss from this forward contract? **(3 marks)**

   ii. If sterling weakens to €1.1 0/£, did the exporter make a profit or loss from this forward contract? **(3 marks)**

b) A Calculate the exporter's profit/loss under each scenario if it uses a forward contract to hedge its revenue. **(8 marks)**

c) Galp Energia is concerned about potential increases in the price of heavy crude oil which is one of its major inputs from its supplier, Onnex Inc. To protect itself against such increases Galp buys 6-month call options to purchase 1000 barrels of crude oil at an exercise price of $40. These options cost $1 per barrel.

   i. If the price of crude is $35 when the options expire, calculate the profit/loss on options and whether Galp should exercise it or not. **(6 marks)**

   ii. What is a currency option? Explain the two types of currency options. **(5 marks)**

Total (25 Marks)

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