

**University of Swaziland**  
**Department of Accounting**  
**Main Exam Paper - Semester - I**

Programme of Study	:	Bachelor of Commerce
Year of Study	:	Year Three / Level Four
Title of Paper	:	Intermediate Business Finance
Course Code	:	AC 322/415
Time Allowed	:	3 Hours.

- Instructions:
1. Total number of questions on this paper is four (4).
  2. Answer all the questions.
  3. The marks awarded for a question / part is indicated at the end of each question / part of question.
  4. Where applicable, submit all workings and calculations on the answer sheet alongside the case.
  5. Calculations are to be made to two decimal places of accuracy unless otherwise instructed.

**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 the layout and presentation of your final answer.

Special requirement : Financial Calculator

This paper is not to be opened until permission has been granted by the invigilator.

## QUESTION 1:

- a) Suppose Joyce Shongwe deposits E500 in an account at the end of this year, E600 at the end of next year and E700 at the end of the following year. If her opportunity cost is 10%, how much will be in the account immediately after the deposit is made? How much will be in the account at the end of three years if the deposits are made at the beginning of each year?

(5 marks)

- b) Mfundo wants to take a trip that costs E7,500, but currently he has only E3,000 saved. If Mfundo invests this money at 7.5 percent compounded annually, how long will it take for his investment to grow to E7,500?

(3 marks)

- c) The interest rate on one-year Treasury bonds is 0.9 percent, the rate on two-year T-bonds is 0.8 percent, and the rate on three-year T-bonds is 0.7 percent. Using expectations theory, compute the expected interest rates in i) the second year (year 2 only), and ii) the third year (year 3 only).

(5 marks)

- d) Royal Sugar Corp.'s outstanding bond, which has a coupon rate equal to 9 percent and E1,000 face value, matures in 5 years. If investors required rate of return is equal to 11 percent on similar bonds and interest is paid semiannually, what should be the market value of the Royal Sugar's bond?

Will you buy the bond if it is offered at a price of E930? Why or why not?

(6 marks)

- e) Six years ago, Sonam Insurance issued a 15-year bond with a E1,000 maturity value and a 9% coupon rate of interest. Interest is paid semiannually. The bond is currently selling for E1,050.

- i) Calculate the bond's yield to maturity (YTM)?  
Will you buy the bond if your required rate of return from the bond is 7 percent?  
Why or why not?
- ii) If the bond can be called in four years for a redemption price of E1,100, what is the bond's yield to call (YTC)?

(8 marks)

Total (27 marks)

## QUESTION 2:

- a) Swarna Company's stock is currently selling for E25.20 per share. At the end of the year, the company plans to pay a dividend equal to E2 per share. For the remainder of the company's life, dividends are expected to grow at a constant rate, and investors are expected to require a 15% return to invest in Swarna's stock, what should be the value of Swarna's stock five years from now?

(6 marks)

- b) NJ Diamonds expects to pay dividends (per share) of E0.5, E0.7, E2.5, and E3.2 during the next four years. Beginning in the fifth year, the dividend is expected to grow at a rate of 5 percent indefinitely. If investors require an 18 percent return to purchase NJ's stock, what is the current value of the company's stock?

(6 marks)

- c) Stocks X and Y have the following probability distributions of expected future returns:

Probability	$r_X$	$r_Y$
0.1	-10%	-35 %
0.2	2	0
0.4	12	20
0.2	20	25
0.1	38	45

- i) Calculate the expected rate of return for Stock Y,  $\hat{r}_Y$ . ( $\hat{r}_X = 12\%$ )  
 ii) Calculate the standard deviation of expected returns for Stock X. ( $\sigma_Y = 20.35\%$ ). Also, calculate the coefficient of variation for Stock X and Y. Is it possible that most investors might regard Stock Y as being less risky than Stock X? Explain.

(10 marks)

- d) Suppose, the risk-free rate of return is 4.5 percent and the market risk premium is 6 percent. Stock U, which has a beta co-efficient equal to 0.95, is currently selling for E30 per share. The company is expected to grow at a 5 percent rate forever, and the most recent dividend paid to stockholders was E1.55 per share. Is stock U correctly priced? Explain.

(8 marks)

Total (30 marks)

**QUESTION 3:**

- a) Sudoku Manufacturers generated the following information from its financial statements. (1) common-stock market price per share (MPS) is E25, (2) current liabilities equal E250,000, (3) P/E ratio equals 12, (4) fixed asset turnover equals 7.5, (5) net profit margin equals 4 percent, (6) current ratio equals 5.5, (7) 70,000 of common stock are outstanding.

**Required:**

- i) What is Sudoku's return on assets (ROA)?
- ii) What is its total asset turnover?

**(14 marks)**

- b) Bakers Choice is examining its cash conversion cycle. The company expects its cost of goods sold, which equals 80 percent of sales to be E320,000 this year. Its inventory turnover is 22 times per year, accounts receivable are turned over 16 times per year, and the accounts payable turnover is 3.5.

**Required: Calculate**

- i) The cash conversion cycle and
- ii) The average balance in accounts receivable, accounts payable and inventory.

**(8 marks)****Total (22 marks)****QUESTION 4:**

Write short notes on the following:

- a) What does it mean to maximize the value of a firm? How is value measured? What three factors determine and affect value? **(6 marks)**
- b) What economic functions do financial intermediaries perform? **(5 marks)**
- c) Sources of short-term financing **(5 marks)**
- d) DuPont analysis **(5 marks)**

**Total (21 marks)****End of exam question paper**