# University of Swaziland <br> Department of Accounting <br> Supplementary / Re-sit Exam Paper - Semester - I 

| Programme of Study | $:$ | Bachelor of Commerce |
| :--- | :--- | :--- |
| Year of Study | $:$ | Year Three / Level Four and Five |
| Title of Paper | $:$ | Intermediate Business Finance |
| Course Code | $:$ | ACF319/AC322 |
| Time Allowed | $:$ | $\mathbf{3}$ 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 if you deposit E700 in an account at the end of this year, E250 at the end of next year, and E750 at the end of the following year. If your opportunity cost rate is 8.5 percent, how much will be in the account immediately after the third 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?
b. The interest rate on one-year treasury bonds is 0.5 percent, the rate on two-year treasury bonds 1 percent, and the rate on three-year treasury bonds 1.2 percent. Using the expectations theory, compute the expected one-year interest rates in
a) the second year (Year 2 only)
b) the third year (Year 3 only)
(5 marks)
c. Three years ago, Brenda Automotives issued a 20-year callable bond with a E1000 maturity value and a 7.5 percent coupon rate of interest. Interest is paid semiannually. The bond is currently selling for E1080.

## Required:

i) What is the bond's yield to maturity?
ii) If the bond can be called in 5 years for a redemption price of E1,120, what is the bond's yield to call?
(6 marks)
d. ABC Corp's outstanding bond, which has a coupon rate equal to 8 percent and a E1,000 face value, matures in 7 years. If investors require a rate of return equal to 12 percent on similar bonds and interest is paid semiannually, what should be the market price of ABC 's bond? At what price will you be willing to buy this bond?
(3 marks)
e. Since it has been in business, DSP Jewelers has paid a E1 per share annual dividend. The company plans to pay a E1 dividend for the next two years. Beginning in three years, however, DSP Jewelers plans to increase the dividend by 8 percent each year for the remainder of the company's life. If investors require a 17 percent rate of return to purchase DSP Jewelers' Common stock, what should be the market value of its stock today?

## QUESTION 2:

a. Of the E50,000 invested in a two-stock portfolio, 40 percent is invested in stock $A$ and 60 percent in stock $B$. If stock $A$ has a beta coefficient equal to 1.60 and the beta of the portfolio is 2.1 , what is the beta coefficient of stock $B$.
b. Consider the following information:

| Probability | $\mathbf{r}_{\text {RSS }}$ | $\mathbf{r}_{\mathrm{NB}}$ |
| :---: | :---: | :---: |
| 0.1 | $22.0 \%$ | $-2.0 \%$ |
| 0.6 | 12.0 | 12.0 |
| 0.3 | 2.0 | 30.0 |

## Required:

i) Compute the expected return of RSS and NB.
ii) Compute the standard deviation of RSS and NB.
iii) Suppose if you form a portfolio that consists of 60 percent investment in RSS and 40 percent investment in NB. Compute the expected return and standard deviation of the portfolio.
(10 marks)
iv) Compare the portfolio's standard deviation with the individual investment's standard deviation. Comment.

## QUESTION 3:

Write short notes on the following:
i) The determinants of market interest rates
ii) What is meant by the term structure of interest rates? Explain how long and short term interest rates are related to each other?
iii) Systematic and unsystematic risks

## QUESTION 4:

Savelots Stores' current financial statements are shown below:

| Inventories | E 500 | Accounts payable | E 100 |
| :---: | :---: | :---: | :---: |
| Other current assets | 400 | Short-term notes payable | 370 |
| Fixed assets | 370 | Common equity | 800 |
| Total assets | E1,270 | Total liabilities. and equity | E1,270 |
| Sales |  |  | E2,000 |
| Operating costs |  |  | 1,843 |
| EBIT |  |  | 157 |
| Less: Interest |  |  | 37 |
| EBT |  |  | 120 |
| Less: Taxes (40\%) |  |  | 48 |
| Net income |  |  | 72 |

A recently released report indicates that Savelots' current ratio of 1.9 is in line with the industry average. However, its accounts payable, which have no interest cost and which are due entirely to purchases of inventories, amount to only $20 \%$ of inventory versus an industry average of $60 \%$. Suppose Savelots took actions to increase its accounts payable to inventories ratio to the $60 \%$ industry average, but it (1) kept all of its assets at their present levels (that is, the asset side of the balance sheet remains constant) and (2) also held its current ratio constant at 1.9. Assume that Savelots' tax rate is $40 \%$, that its cost of short-term debt is $10 \%$, and that the change in payments will not affect operations. In addition, common equity would not change. With the changes, what would be Savelots' new ROE?

## End of Question Paper

