

UNIVERSITY OF SWAZILAND

DEPARTMENT OF ACCOUNTING AND FINANCE

EXAMINATION PAPER DECEMBER 2016 ACADEMIC YEAR 2016/2017

PROGRAMME OF STUDY	Bachelor of Commerce
YEAR OF STUDY	Year 3 (Full Time/Part Time)
TITLE OF THE PAPER	Investment Analysis and Portfolio Management
COURSE CODE	AC 321
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 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 ONE

- a) When estimating the spread of possible outcomes from investing in the stock market, most financial analysts start by assuming that the spread of returns in the past is a reasonable indication of what could happen in the future. Therefore, they calculate the standard deviation of past returns.

A share of stock of Maziya Incorporated is now selling for E94.00. A financial analyst summarizes the uncertainty about next year's holding-period return on the stock by specifying three possible scenarios:

Business conditions

	Scenarios, s	Probability, p	End-of-year Price	Annual Dividend
High growth	1	0.25	E140	E17.60
Normal growth	2	0.50	E108	E16.00
No growth	3	0.25	E60	E16.00

- What are the annual holding-period returns of Maziya Incorporated stock for each of the three scenarios? **(3 marks)**
 - Calculate the expected HPR and the standard deviation of the HPR. **(6 marks)**
- b) Consider the following scenario analysis:

Scenerio	Probability	Return on stocks	Return on Bonds
Recession	0.2	-5%	14%
Normal	0.6	15%	8%
Boom	0.2	25%	4%

- Calculate the expected rate of return and standard deviation for each investment. **(6 marks)**
- Suppose you invest 75 percent in stocks and 25 percent in bonds, what is the portfolio expected rate of return? What can you conclude? **(5 marks)**
- What is the portfolio's standard deviation? What can you conclude? **(5 marks)**

Total 25 Marks

QUESTION TWO

- a) What is buying on margin? (4 marks)
- b) What is short-selling (4 Marks)
- c) Siphesihle Mndzebele is bullish on SRRC stock, which is selling for E120 per share. He has E15, 000 to invest and expects RSSC to go up in price by 25% during the next year. Assume Siphesihle borrows another E15, 000 from a broker and invests it in RSSC too. Assuming an interest rate on the margin loan of 10% per year, what will Siphesihle's rate of return be now (ignoring dividends) if RSSC stock
- Goes up 25% by year's end? (4 Marks)
 - If it goes down by 25%? (4 Marks)
 - If it remains unchanged? (4 Marks)
- d) Distinguish between systematic and unsystematic risk. Which of the two is significant according to portfolio theory? (5 Marks)
- (Total 25 Marks)**

QUESTION THREE

- a) Bonds of Kensol Corporation with a par value of E1000 sell for E960, mature in five years and have a 7% annual coupon rate paid semi-annually

Calculate the

- i) Current yield (2 Marks)
 - ii) YTM to the nearest whole percent e.g. 2%, 3%,4% etc (2 Marks)
 - iii) Realised Compound Yield for an investor with a 3 year holding period and a reinvestment rate of 6% over the period. At the end of the three years, the 7% coupon bonds with two years remaining will sell to yield 7%. (3 Marks)
- (7 Marks)**
- b) Cite any short-coming of each of the following fixed income yield measures
- i) Current yield (2 Marks)
 - ii) Yield to Maturity (2 Marks)
 - iii) Realised Compound Yield (2 Marks)
- (6 Marks)**

- c) You are considering investing in a bond currently selling for E8, 785.07. The bond has four years to maturity, E10, 000 face value, and 8% coupon rate. The next annual interest payment is due one year from today. The approximate discount factor for investments of similar risk is 10%.
- i. Calculate the intrinsic value of the bond. Based on this calculation, should you purchase the bond? (6 marks)
 - ii. Calculate the YTM of the bond. Based on this calculation, should you purchase the bond? (6 marks)

Total 25 Marks

QUESTION FOUR

- a) Briefly explain the following terms and indicate how useful each can be to financial managers
- i. The Degree of Operating Leverage (6 Marks)
 - ii. The Degree of Financial Leverage (6 Marks)
 - iii. The Degree of Combined Leverage (6 Marks)
- b) Assume General Motors long-run average return is 17.0%. Treasury bills average return over same period was 2.3% and the current TB rate is 3%
- Required
- i. Calculate the Historical Premium (3 Marks)
 - ii. Calculate the Expected Return using the historical method (4 Marks)

Total 25 Marks

END OF PAPER
