UNIVERSITY OF SWAZILAND

DEPARTMENT OF ACCOUNTING

SUPPLEMENTARY/ RE-SIT EXAMINATION PAPER 2018

DEGREE/ DIPLOMA AND

YEAR OF STUDY   :   B. COM 111/ B.COM LEVEL 5

TITLE OF PAPER   :   INVESTMENT ANALYSIS AND PORTFOLIO
                                 MANAGEMENT

COURSE CODE   :   ACF317/ AC321 (S/ RESIT) JULY 2018

TOTAL MARKS   :   100 MARKS

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 all the necessary workings.

                       5   Round off as you deem appropriate.

Note: You are reminded that in assessing your work, account will be taken of accuracy
       of the language and 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 INVILATOR OR SUPERVISOR.

SPECIAL REQUIREMENTS: CALCULATOR

QUESTION 1

a)   You are considering acquiring shares of common stock in the Mandison Beer Corporation. Your rate of return expectations are as follows:

MANDISON BEER CORP.

Possible rate of return	Probability
-0.10	0.30
0.00	0.10
0.10	0.30
0.25	0.30

Compute the expected return [E (R_i) on your investment in Mandison Beer Corporation. (5 Marks)

b)   A stockbroker calls you and suggests that you invest in the Louis Computer Company. After analyzing the firm's annual report and other material, you believe that the distribution of expected rates of return is as follows:

LOUIS COMPUTER COMPANY

Possible rate of return	Probability
-0.60	0.05
-0.30	0.20
-0.10	0.10
0.20	0.30
0.40	0.20
0.80	0.15

Compute the expected return [E (R_i)] on Louis Computer Stock. (5 Marks)

c)   Without any formal computations, do you consider Mandison Beer Corporation in problem (a) or Louis Computer Company in problem (b) to present greater risk? Discuss your reasoning. (2 Marks)

d)   During the past year, you had a portfolio that contained Swaziland government T-Bills, long term government bonds and common stocks. The rates of return on each of them were as follows:

Swaziland Government T-bills   5.50%

Swaziland Government Long term bonds   7.50%

Swaziland Common Stocks   11.60

During the year, the consumer price index, which measures the rate of inflation, went from 160 to 172. Compute the rate of inflation during this year.

Compute the real rates of return on each of the investments in your portfolio based on the inflation rate. (8 Marks)

e) Distinguish between systematic risk and non-systematic risk. Which of these risks is possible to eliminate and how can it be eliminated? (5 Marks)

Total: (25 Marks)

QUESTION 2

a) Discuss how an individual's investment strategy may change as he or she goes through the accumulation, consolidation, spending and gifting phases of life? (15 Marks)

b) Why is a policy statement important in the portfolio management process? (5 Marks)

Total: (20 Marks)

QUESTION 3

a) Discuss why international diversification reduces portfolio risk. Specifically, why would you expect low correlation in the rates of return for domestic and foreign securities? (5 Marks)

b) When you invest in Japanese or German bonds, what major additional risks must you consider besides yield changes within the country? (6Marks)

c) What are stock warrants and call options? How do they differ? (6 Marks)

d) The following information is available concerning the historical risk and return relationships in the Swaziland Stock Exchange:

SWAZILAND STOCK EXCHANGE TOTAL ANNUAL RETURNS, 2005 - 2015

Investment Category	Arithmetic mean	Geometric Mean	Standard Deviation of returns
Common stocks	10.28%	8.81%	16.9%
Treasury bill	3.54	3.49	3.2
Long term government bonds	5.10	4.91	6.4
Long term corporate bonds	5.95	5.65	9.6 ·
Real estate	9.49	9.44	4.5

The standard deviation is based on arithmetic mean.

  i. Explain why the geometric and arithmetic mean returns are not equal and whether one or the other may be more useful for investment decision making. (3 Marks)

  ii. For the time period indicated, rank these investments on a relative basis using the coefficient of variation from most to lease desirable. Explain your rationale. (10 Marks)

Total: (30Marks)

QUESTION 4

Alice Smith has been left with E100,000 by her Great Aunt Matilda, which she wants to invest on the stock market. She has studied books on investing and knows all about diversification. Her broker charges according to the number of buys and sells she makes, therefore she feels spreading her Aunts legacy too thinly would be the wrong strategy, with only a E100,000 to invest she has decided to concentrate on two companies.

She feels that the following scenario reflects her perception of future probabilities for the two companies' fortunes. Using historical data, she has calculated that the two companies have a correlation of 0.4.

State of the economy	Probability	Return on A	Return on B
Favorable	40%	30%	20%
Stable	40%	10%	5%
Detrimental	20%	-15%	-5%

a) Using these figures what is expected return and standard deviation for the two companies? (10 Marks)

Alice cannot make up her mind about to split the E100 000 between the two assets; does she simply go for a 50/50 split or some other allocation?

b) What would be the expected return and standard deviation from the equally weighted portfolio? (10 Marks)

c) An investor is considering adding another investment to a portfolio. To achieve the maximum diversification benefits, the investor should add, if possible, an investment that has which of the following correlation coefficients with other investment in the portfolio? (2 Marks)

    a.   -1.0

    b.   -0.5

    c.   0.0

    d.   +1.0

d) A three asset portfolio has the following characteristic.

Asset	Expected return	Standard deviation	Weight
X	0.15	0.22	0.50
Y	0.10	0.08	0.40
Z	0.06	0.03	0.10

What is the expected return on the three asset portfolio? (3 Marks)

a. 10.3%

b. 11.0%

c. 12.1%

d. 14.8%

Total (25 Marks)