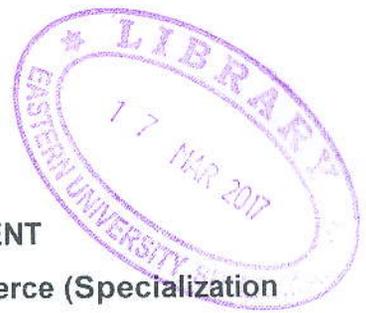


EASTERN UNIVERSITY, SRI LANKA
FACULTY OF COMMERCE AND MANAGEMENT



Final Year First Semester Examination in Bachelor of Commerce (Specialization
in Accounting and Finance)-2013/2014(January 2016) (Proper)

DAF 4043 Portfolio Investment Analysis

Answer All Questions

Time Allowed: 03 Hours

Non Programmable Calculator and Time Value Tables are permitted.

1. (I) What do understand by the term "Portfolio Investment" (05 Marks)
 - (II) Explain the types of investors. (05 Marks)
 - (III) Briefly describe the speculative investment vehicles. (05 Marks)
 - (IV) Distinguish between financial investment and real investment. (05 Marks)
 - (V) Briefly explain the steps in investment management process. (05 Marks)
- (Total 25 Marks)

02. (I) Distinguish between historical returns and expected returns. (03 Marks)
- (II) What does covariance measure? If two assets are said to have negative covariance, what does it mean? (03 Marks)

(III) Calculate the Expected Rate of Return and the Standard Deviation of the Returns for an asset which has the following possible returns with associated probabilities.

| | | | | | | | | |
|----------------------|------|------|------|------|------|------|------|------|
| Possible Returns (%) | 20 | 13 | 10 | 02 | -06 | 15 | 05 | -09 |
| Probabilities | 0.05 | 0.15 | 0.25 | 0.10 | 0.15 | 0.10 | 0.15 | 0.05 |

(04 Marks)

(IV) Securities X and Y have the following characteristics:

| Probability | Possible Return (%) | |
|-------------|---------------------|------------|
| | Security X | Security Y |
| 0.55 | -20 | 15 |
| 0.25 | 05 | 10 |
| 0.20 | 35 | -10 |

Required:

Calculate the following:

- The Co-Variance between returns of Securities X and Y
- The Correlation Coefficient between returns of Securities X and Y
- The Expected Rate of Return and the Standard deviation of the returns for the portfolio of X and Y, combined with weights of 60% and 40% respectively..

(15 Marks)

(Total 25 Marks)

03. (I) If the expected return on an asset having a Beta of 1.5 is 20% and the return on the market portfolio is 12% what is the risk-free rate of return according to the CAPM?

(05 Marks)

(II) Using Markowitz portfolio theory, explain how an investor makes portfolio investment decisions.

(05 Marks)

- (III) An investor has an investment of Rs.500,000 in the portfolio composed of three companies' shares. The Betas of these stocks and the amount of investment made in portfolio are shown below. What is the Beta of the investor's portfolio?

| Company | Beta | Amount of Investment in Portfolio (Rs.) |
|---------|------|---|
| A | 1.5 | 200,000 |
| B | 1.0 | 250,000 |
| C | 2.5 | 50,000 |

(05 Marks)

- (IV) Distinguish between Systematic Risk and Unsystematic Risk.

(05 Marks)

- (V) Describe how the APT model explains the determinants of return of an investment

(05 Marks)

(Total 25 Marks)

04. (I) The following are returns of a share of a company, P, and the market (M) for the last 5 years.

| Year | Return (%) | |
|------|------------|----|
| | P | M |
| 2010 | 20 | 18 |
| 2011 | 17 | 15 |
| 2012 | 25 | 22 |
| 2013 | -02 | 02 |
| 2014 | 14 | 15 |

Required:

- (a) Calculate the covariance and correlation coefficient of returns
- (b) Determine the beta coefficient for P
- (c) What is P's total risk?
- (d) How much is systematic risk?

(15 Marks)

(II) An investor holds an investment on the bonds of CAN plc having a par value of Rs.1000 each with coupon rate of 12% per annum payable semi annually and the maturity of 10 years.

- (i) What is the value of a bond today if the market rate of return is 12%?
- (ii) What will be the value of the bond if the market interest rate increases to 16% at the end of one year?
- (iii) What will be the value of the bond if the market interest rate decreases to 10% at the end of five years?
- (iv) If the value of the bond is Rs.1200 after two years from the date of issue, what would be the YTM of the bond?

(10 Marks)

(Total 25 Marks)