EASTERN UNIVERSITY, SRI LANKA

FACULTY OF COMMERCE AND MANAGEMENT

Final Year First Semester Examination in Bachelor of Commerce (Specialization in Accounting and Finance) - 2017/2018(January 2020)

(Proper/Repeat)

DAF 4043 Portfolio Investment Analysis

Answer All Questions **Time Allowed: 03 Hours**

Use of Non Programmable Calculator is permitted.

(I) Investment in financial assets differs from investment in physical assets in some important aspects. Briefly explain those aspects.

(05 Marks)

(II) Investment environment can be defined as the existing investment vehicles in the market available for investor and the places for transactions with these investment vehicles. Briefly state the different types of investment vehicles available for investors in the current market.

(05 Marks)

(III) Financial markets are designed to allow corporations and governments to raise new funds and to allow investors to execute their buying and selling orders. Financial markets could be classified on the bases of some characteristics. State the different classification of financial markets based on such characteristics.

(05 Marks)

(IV) The investment management process describes how an investor should go about making decisions. It can be disclosed by five-step procedure. Briefly explain those procedures.

(05 Marks)

(Total 20 Marks)

02. (I) The possible returns with associated probabilities of two securities, P and Q given below:

Probabilities	Possible Returns (%)	
	Security P	Security Q
0.3	12	07
0.4	14	22
0.3	11	08

Required:

Calculate the coefficient of variation of returns for both securities, and ident optimal security for investment based on the result.

(05

(II) Securities A, B and C have the following characteristics:

Probabilities	Possible Return (%)		
	Security A	Security B	Security C
0.25	- 10	22	04
0.20	12	16	07
0.30	42	-14	07
0.25	-10	10	06

(III

Required:

Calculate the following:

(a) The Co-Variance between returns of the Securities.

(b) The Correlation Coefficients between returns of the Securities

(c) The Expected Rate of Return and the Standard deviation of the re the portfolios of the securities combined as follow.

Portfolio	Combination		
	Security A	Security B	Security C
P_{AB}	½	½	-
P_{AC}	½	-	½
P_{BC}	-	½	½
P_{ABC}	1/3	1/3	1/3

(d) Find the optimal portfolio

(1

(Total 2

(I) Using following figures for the measurement of Expected Return and the Risk for three portfolio investments, explain how an investor choose among portfolios as explained by the Markowitz portfolio theory.

Portfolio	$E(R_P)$ (%)	σ_P (%)
P_X	15	18
P_Y	15	22
P_Z	12	18

(05 Marks)

(II) From the following information, find out the minimum risk portfolio:

$E(R_A) = 16\%$ $E(R_B) = 20\%$ $\sigma_A = 10\%$ $\sigma_B = 15\%$ $Cor_{AB} = -0.7$

(05 Marks)

(III) Two securities, M and N, have the following information:

	M	N
Expected Return (%)	22	24
Standard Deviation (%)	40	38
Beta Coefficient	0.86	1.24
Correlation Coefficient	0.72	
Market Standard Deviation	20 %	

Required:

(a) Is investing in N better than investing in M?

(b) If you invest 40% in N and 60% in M, what will be the expected rate of return and the portfolio standard deviation?

(c) What is the market portfolio's expected rate of return and how much is the risk-free rate?

(d) What is the beta of portfolio if M's weight is 60% and N is 40%?

(05 Marks)

(III) An Investor owns a portfolio of four securities. The characteristics of the securi and their amounts invested in the portfolio are presented below.

Security	Beta	Amount invested (Rs.000)	Expected Return (%)
A	2.50	3,750	20.57
B	1.50	4,375	16.00
C	1.00	1,875	12.50
D	-1.00	2,500	16.75

Required:

(a) What is the expected rate of return of this portfolio?

(b) How much is the market risk of the portfolio as measured by the beta?

(c) What would be your recommendation for the investor if he/she wan reduce the risk in the portfolio?

(05 Ma

(Total 20 Ma

04. (I) Measuring Risk in CAPM is based on the identification of two key components of risk. Explain those components. How are they measured?

(05 Ma

(II) State the interpretation of beta coefficients given below:

Beta	Interpretation
2.0	Example: Risk of security is twice higher than market risk
1.0	
0.5	
0	
-0.5	
-1.0	
-2.0	

(05 M

(III) The key point behind APT is the rational statement that the market return is determined by a number of different factors. State four examples of possible macroeconomic factors which could be included in the APT model. Write the equation for the APT model with those factors.

(05 Marks)

(IV) The key term in the concept of the market efficiency is the information available for investors trading in the market. Briefly explain the three forms of market efficiency under efficient market hypothesis.

(05 Marks)

(Total 20 Marks)

(I) The decision for investment in bond can be made on the bases of two alternative approaches: (1) using the comparison of yield-to-maturity and appropriate yield-to-maturity or (2) using the comparison of current market price and intrinsic value of the bond. State the decision rules for investing in bonds using those approaches.

(05 Marks)

(II) An investor is considering investing in a bond currently selling in the market for Rs.875. The bond has four years to maturity, a face value of Rs.1000 and a coupon rate of 7%. The next annual interest payment is due one year from today. The appropriate discount rate for the securities of similar risk is10%.

Required:

a) Estimate the intrinsic value of the bond. Based on the result of this estimation, should the investor purchase the bond? Explain.

b) Estimate the yield-to-maturity of the bond. Based on the result of this estimation, should the investor purchase the bond? Explain.

(05 Marks)

(III) Analysts and investors use two alternative approaches ("Top-down" forec approach and "Bottom-up" forecasting approach) for fundamental analysis to id the attractive potential investments in shares. Explain the difference between approaches.

(05 M

(IV) Two investors engaged in analyzing investments on equity shares of a compan company paid dividends of Rs.5 per share last year. The first investor forecast the company's dividend shall grow at 5% constantly in future. The second in expects the company may pay a dividend of Rs.5.50 at the end of the current and Rs.6.05 in the following year. After which he expects the dividend will grow rate of 5% for the indefinite period. The required rate of return for both invest 14%.

Required:

a) What is the intrinsic value of the share of the company according to the forec the first investor?

b) What is the intrinsic value of the share of the company according to the se investor's forecast?

c) If the shares of the company currently are selling in the market for Rs.50 per s what would be the respective decisions of the investors, based on forecasting? Is this share an attractive investment? Explain.

(05 M

(Total 20 M