## UNIVERSITY OF COLOMBO, SRI LANKA

## FACULTY OF MANAGEMENT AND FINANCE

Bachelor of Business Administration (Level II-Semester VI) ExaminationDecember, 2017

## ACT 2305-Investment Analysis \& Portfolio Management

Three (03) Hours

## Instructions to Candidates

Answer any four (04) questions
Use of Calculators is permitted
1.
i. "At investments, you sacrifice something of value now, expecting to benefit later from that sacrifice"

Do you agree with the above statement? Explain.
ii. There is a relationship between "financial assets" and the "real assets" that actually produce goods and services for consumers, and it is considered that the "financial assets" are important to the functioning of a developed economy.
a. Differentiate between "real assets" and "Financial assets".
(05 Marks)
b. Are the following assets "Real" or "Financial"?
a) Lease obligations
b) Patents
c) Company goodwill
d) University education
e) Rs. 1000/= note
f) Mortgage loan
iii. Provide three examples for financial and services intermediaries and explain how they engage in the intermediation process by bridging the gap between the surplus and deficit spending units.
(06 Marks)
iv. Do you agree with the following two statements? Explain.
a. Well-diversified portfolio bears higher risk.
b. As security prices reflect the value of security, there are no underpriced or overpriced securities in the market.
(05 Marks)
(Total 25 Marks)
2.
i. Describe the steps in identifying a "better investment" with the help of a graph. (05 Marks)
ii. Explain how an investor faces risk when he is buying and selling shares around the world.
(05 Marks)
iii. What are the important factors an individual investor has to take into account in determining his or her investment policy?
(05 Marks)
iv.
a. Explain why Geometric Mean (GM) is superior to Arithmetic Mean (AM) when computing historical rates of returns of securities.
(03 Marks)
b. Consider an investment of Rs. $200,000 /=$ held only for 6 months that earned a return of Rs. $100,000 /=$. Calculate the Holding Period Yield (HPY) for this investment.
(02 Marks)
v. How do you justify the existence of security markets in the context that they do not help in generating capital for the issuers of securities?
(05 Marks)
(Total 25 Marks)
3.
i. You want to buy shares of "Company A" to diversify your portfolio. You believe the share price is approximately at the fair value, and you want the trade done quickly and cheaply.
a. What type of order might you give to your broker at this moment?
(04 Marks)
b. Do you think that giving a "limit order" is suitable her? Explain why.
(03 Marks)
ii. Amal has borrowed Rs. $200,000 /=$ on margin to buy shares in ABC Ltd, which is now selling at Rs. 40/= per share. His account starts at the initial margin requirement of $50 \%$. The maintenance margin is $35 \%$. Five days later, the stock price falls to Rs. $35 /=$ per share.
a. Will Amal receive a margin call?
(06 Marks)
b. How low should the price of ABC Ltd fall before he receives a margin call?
(04 Marks)
iii. You are bullish on XYZ stock. The current market price is Rs. $50 /=$ per share, and you have Rs. $5,000 /=$ of your own to invest. You borrow an additional Rs. $5,000 /=$ from your broker at an interest rate of $8 \%$ per year and invest Rs. $10,000 /=$ in the stock. What will be your rate of return if the price of XYZ goes up by $10 \%$ during the next year? The stock currently pays no dividend.
(03 Marks)
iv. Illustrate the process of short seliing with the help of an example under following three main phases:
a. Before the short sale
(01 Marks)
b. The short sale
(02 Marks)
c. After the short sale
4.
i. Given the following information about four stocks comprising a portfolio, calculate each stock's expected return. Then using these individual securities' expected returns, calculate the expected return of the portfolio.

| Stock | Initial <br> Investment <br> Value | Expected End- <br> of-period <br> Investment <br> value | Proportion <br> of portfolio <br> Initial <br> Market <br> Value |
| :---: | :--- | :--- | :--- |
| A | Rs. 500.00 | Rs. 700.00 | $19.2 \%$ |
| B | Rs. 200.00 | Rs. 300.00 | $07.7 \%$ |
| C | Rs. 1000.00 | Rs. 1000.00 | $38.5 \%$ |
| D | Rs. 900.00 | Rs. 1500.00 | $34.6 \%$ |

(07 Marks)
ii. What are the two main assumptions in the Markowitz approach?
iii. Draw indifference curves for the following types of risk-averse investors:
a. Highly risk-averse investor
b. Risk- neutral investor
(05 Marks)
iv. Consider two securities, T and N , with standard deviation of $30 \%$ and $40 \%$ respectively. Calculate the standard deviation of a portfolio weighted equally between the two securities if the correlation coefficient between two securities is:
a. 0.9
b. 0.0
c. -0.9
5.
i. What are the five steps in the investment process and explain the importance of each step to the entire process.
(06 Marks)
ii. Compare and contrast between following types of orders:
a. Market order (buy) and Market order (sell)
b. Limit order (buy) and limit order (sell)
iii. Distinguish between an investor receiving a margin call and having his or her margin account restricted.
iv. What does a set of convex indifference curves imply about an investor's trade-off between risk and return as the amount of risk varies?
(05 Marks)
v. Why would you expect individual securities generally lie in the South- eastern portion of the feasible set, whereas portfolios would generally lie in the North- western portion of it ?
(05 Marks)

