# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600034 

## M.A. DEGREE EXAMINATION - ECONOMICS

FOURTH SEMESTER - APRIL 2013
EC 4813 - PORTFOLIO THEORY AND INVESTMENT ANALYSIS

Date: 30/04/2013
Time : 1:00-4:00 $\square$ Max. : 100 Marks

## Part - A

## Answer any five questions not exceeding 75 words each.

1. List out the reasons for investment in certificate of deposits.
2. List out the assumptions of Treynor Black Model.
3. Give an example of the non-market financial assets.
4. What is risk identification?
5. From the following information for an equity stock calculate the total return on the stock: Price at the beginning of the year: Rs. 90.00 , Dividend paid at the end of the year: Rs. 3.40, Price at the end of the year: 110.00.
6. What is 'Repo' and 'Reverse Repo'?
7. What is marginal trading?
Part - B

Answer any four questions in about $\mathbf{2 5 0}$ words each.
8. Distinguish between 'Forward and Future Contracts'.
9. Discuss the role of RBI in Indian Money market.
10. Estimate expected return and risk from the following data

| State of Nature | $\mathbf{1}$ | 2 | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Probability | $\mathbf{0 . 1}$ | $\mathbf{0 . 3}$ | $\mathbf{0 . 3}$ | $\mathbf{0 . 2}$ | $\mathbf{0 . 1}$ |
| Return on Security | $\mathbf{- 1 0 \%}$ | $\mathbf{1 5 \%}$ | $\mathbf{1 8 \%}$ | $\mathbf{2 2 \%}$ | $\mathbf{2 7 \%}$ |

11. What is financial market? Discuss the purpose and types of it.
12. What is risk projection? Discuss the steps involved in risk projection. Given an example.
13. What is market efficiency? Discuss different types of it.
14. Discuss the different steps of risk management.
Part - C

Answer any two questions in about 900 words each.
15. Define money market and capital market. Discuss the different instruments of the same.
16. (a) Calculate cumulative wealth index from the given data:

Consider a stock which earns the following returns over a five year period:
$R_{1}=0.15, R_{2}=0.12, R_{3}=0.10, R_{4}=-0.05$ and $R_{5}=0.04$
(b) Estimate the variance and the standard deviation of a historical return series from the given data:

Consider the returns from a stock over a 6 year period:
$\mathrm{R}_{1}=15 \%, \mathrm{R}_{2}=12 \%, \mathrm{R}_{3}=20 \%, \mathrm{R}_{4}=-10 \%, \mathrm{R}_{5}=14 \%$, and $\mathrm{R}_{6}=9 \%$.
(c) Calculate arithmetic and geometric mean from the given data:

Suppose the total return from stock A over a five year period are as follows:

| Year | Total Return (\%) |
| :--- | :--- |
| 1 | 19.0 |
| 2 | 14.0 |
| 3 | 22.0 |
| 4 | -12.0 |
| 5 | 5.0 |

17. Discuss the concept of Risk Mitigation, Monitoring, and Management principles.
18. Estimate portfolio risk, return, covariance and coefficient of correlation from the given data:

| State of Nature | Probability | Return on Security 1 | Return on Security 2 |
| :---: | :---: | :---: | :---: |
| 1 | 0.10 | $-20 \%$ | $10 \%$ |
| 2 | 0.30 | $10 \%$ | $15 \%$ |
| 3 | 0.30 | $15 \%$ | $12 \%$ |
| 4 | 0.20 | $25 \%$ | $14 \%$ |
| 5 |  | $22 \%$ | $10 \%$ |

