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2015

MBA 3rd Semester Examination

PORTFOLIO MANAGEMENT

(Specialisation : Financial Management)

PAPER—F-305

Full Marks : 100

Time : 3 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Write the answers to Questions of each Half in separate books.

(First Half)

[Marks : 50]

1. Answer any four questions : 4×5

- (a) Calculate the proportion to be invested in stock A and B, so that the variance of the portfolio is minimum, given

(Turn Over)

$E(r_A) = 12\%$, $E(r_B) = 20\%$, $\sigma_A = .20$, $\sigma_B = .40$ and correlation coefficient $r_{AB} = -1$.

- (b) Write a short note on diversification in reducing portfolio risk.
- (c) The correlation coefficient between a stock A and the market index is $-.8$, the standard deviation of the returns of the stock is 16% and that of the index is 12% . Compute the Beta of the stock.
- (d) The returns of a security for the past 6 years are given below

Years	Security Return %
2010	15
2011	12
2012	20
2013	-10
2014	14
2015	09

Compute the variance of the stock.

- (e) State the limitations of Markowitz Model.
- (f) Write a short note on Single Index Model.

2. Answer any *two* questions :

2×10

(a) Calculate the portfolio risk from the following information :

The portfolio is consisting of 4 securities. The investor holds these securities in the following weights $W_1 = .30$, $W_2 = .30$, $W_3 = .15$ and $W_4 = .25$

The standard deviation of the return of the securities (in percentage terms) are 4%, 8%, 12% and 14%. The correlation co-efficient among security returns are $r_{12} = .3$, $r_{13} = .5$, $r_{14} = .4$, $r_{23} = .6$, $r_{24} = .8$ and $r_{34} = .7$.

(b) Write a note on the Markowitz Efficient Frontier.

(c) Define risk. Differentiate between systematic risk and unsystematic risk.

[Internal Assessment : 10]

(Second Half)

[Marks : 50]

3. Answer any *four* of the following : 4×5

- (a) Explain the Security Market Line (SML).
- (b) Write a short note on Capital Market Line (CML).
- (c) Write a short note on portfolio revision.
- (d) What are the assumptions of Capital Asset Pricing Model ?
- (e) Write a short note on risk adjusted measures for portfolio performance evaluation.
- (f) Mr Buffet has invested in three different mutual funds the details of which are given below :

Fund	Beta	Return %
A	1.5	24
B	1.25	22
C	1.10	18

The risk free return is 8% and market return is 16%.

Rank the funds using Jhensen Measure.

4. Answer any *two* of the following questions : 10×2

- (a) Discuss in brief the structure of the Mutual Fund organization. Distinguish between open ended mutual funds and close ended mutual funds. What is NAV and how it is computed ? 4+4+2
- (b) Discuss in details the Efficient Frontier with riskless lending and borrowing.
- (c) (i) An investor has an initial portfolio of Rs. 40,00,000, which has been equally divided into aggressive and conservative portfolios. The aggressive portfolio consists of 100000 shares of Rs. 20 each. He wants to rebalance the portfolio each time the value of the aggressive portfolio moves up or down by 20%. Discuss the strategy of the investor with regard to portfolio revision, applying constant rupee plan on the basis of the following given information :

Day	Rs.
0	20.00
1	22.00
2	24.00
3	23.00
4	20.00
5	19.20

(ii) What are the advantages of Mutual Funds. 6+4

[Internal Assessment : 10]
