Max. Marks: 80



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IV Semester M.Com. Degree Examination, July 2013 (2007-08 (NS) Scheme)
COMMERCE

Paper - F-5 : Portfolio Management

Time: 3 Hours

Instruction: Answer all the Sections.

#### SECTION-A

- Answer any ten.of the following sqb-questions in about 4 to 6 lines each. Each sub-question carries two marks. (10x2=20)
  - a) What is Zero-Coupon Bonds?
  - b) What is single index model?
  - ்) What is portfolio revision ?
  - d) What is run test?
  - e) What is simple diversification?
  - (f) What is the significance of beta in portfolio?
  - g) What is security market line?
  - h) What is efficient market hypothesis?
  - ن) What is full covariance modal?
    - j) Define investor life cycle.
  - k) What do you mean by stochastic oscillators?
  - I) What is portfolio analysis?

## SECTION-B

Answer any three of the following (in about a page each in case of theory questions).

(3×5=15)

- 2. Explain the assumptions of CAPM.
- 3, What is the relationship between risk and return for efficient portfolio?

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- 4. Explain bond portfolio management strategies.
- 5. Explain the emerging opportunities in international fund management.
- 6. Manohar owns a portfolio with the following characteristics:

| Security | Factor 1<br>Sensitivity | Factor 2<br>Sensitivity | Proportion | Expected return 13% |  |
|----------|-------------------------|-------------------------|------------|---------------------|--|
| Α        | 1.40                    | 2.50                    | .30        |                     |  |
| В        | 0.90                    | 1.60                    | .30        |                     |  |
| C        | 1.00                    | 08.0                    | .20        | 10%                 |  |
| D 1.30   |                         | 2.00                    | .20        | 12%                 |  |

Assume that returns are generated by two factor model and Manohar decides to create an arbitrage portfolio by increasing the holding a security B by 0.05.

- a) What must be the weights of the other three securities in Manohar's portfolio?
- b) What is the expected return on the arbitrage portfolio?

# SECTION-C

Answer any three of the following (in about three pages in case of theory questions).

Each question carries fifteen marks.

(3x15: 5)

- 7. Explain how does Markowitz theory help in planning an investor's portfolio with suitable examples.
- 8. What is random walk theory? What does it project in its weak form, semi strong form and strong form?
- Explain portfolio management of funds in banks and insurance companies in detail.
- 10. Explain various techniques of portfolio revision.

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The performance of three portfolios' and the market index is represented by X composite. The actual results of portfolios' and the market index in the last three years were as follows:

| Portfolio                     | Return on Portfolio (Rp) | Portfolio<br>Beta (p) | Risk free interest rate |  |  |
|-------------------------------|--------------------------|-----------------------|-------------------------|--|--|
| 1                             | 13% 0 %                  | 1.2                   | 5%                      |  |  |
| · 2                           | 10%                      | 0.8                   | 5%                      |  |  |
| 3                             | 16%                      | 1.5                   | 5%                      |  |  |
| Market index of XYZ Composite | 11%                      | 1.0                   | 5%                      |  |  |

Compare the performance of all the three portfolios based on Jenson's approach and Treynor's approach.

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IV Semester M.Com. Degree Examination, June/July 2014

(NS) (2007-08 Scheme)

## COMMERCE

F-5: Portfolio Management

Time: 3 Hours

Max. Marks: 80

Instruction: Answer all the Sections.

### SECTION - A

 $(10 \times 2 = 20)$ 

- 1. Answer any ten of the following sub-questions in about 4 to 6 lines each. Each sub-question carries 2 marks.
  - a) What do you mean by levered portfolio?
  - b) Illustrate call option.
  - c) Mention limitations of Markowitz model.
  - d) What is the importance of security Beta?
  - e) What is unsystematic risk?
  - f) What is the utility of Trenor's measure?
  - g) What do you mean by sector rotation?
  - h) Mention any two principles of effective portfolio management.
- i) What is optimal active portfolio?
  - j) What do you mean by pension fund?
  - k) What do you mean-efficient frontier?
    - I) Differentiate between CML and SML.



#### SECTION - B

 $(3 \times 5 = 15)$ 

Answer any three of the following in about a page each (in case of theory questions). Each question carries 5 marks.

- 2. Discuss various strategies of portfolio revision.
- 3. Explain portfolio management of funds in Banks.
- 4. What is investor life cycle? Bringout its importance.
- 5. What is International investing? Discuss different ways of international investing.
- 6. A client is holding the following securities. Assuming a risk-free rate of 15% calculate:
  - i) Average return of the portfolio
  - ii) Expected rate of return in each, using CAPM.

|                              |           | And the second of the second o |             |      |
|------------------------------|-----------|--|-------------|------|
| Particulars of<br>Investment | Cost<br>₹ | Dividend<br>₹  | Market rate | BETA |
| Equity Shares:               |           |  |             |      |
| Infosys                      | 8,000     | 800  | 8,200       | 8.0  |
| TCS                          | 10,000    | 800  | 10,500      | 0.7  |
| Metro                        | 16,000    | 800  | 22,000      | 0.5  |
| PSU Bonds                    | 34,000    | 3,400  | 32,300      | 1.0  |

SECTION-C

 $(3 \times 15 = 45)$ .

Answer any three questions in about three pages each (in case of theory questions). Each question carries 15 marks.

7. What is CAPM? Comment on the validity of its assumption. How does it help in portfolio risk measurement?



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- 8. Discuss arbitrage pricing theory with and multifactor models.
- 9. a) Explain the portfolio management process in detail
  - b) A portfolio consists of three securities P, Q and R. The proportion of these securities are 0.5, 0.3 and 0.2. The standard deviation of returns of these securities (in percentage terms) are  $\sigma_P = 9$ ,  $\sigma_Q = 6$ ,  $\sigma_R = 10$ . The correlation co-efficients among the security returns are  $r_{PQ} = 0.4$ ,  $r_{PR} = 0.6$ ,  $r_{QR} = 0.7$ . The mere return earned by the individual securities are 12%, 10% and 15%. Find out the portfolio return and portfolio risk.
- 10. The rates of return on the security of company X and Y for 10 years is given below:

| Year        | 1  | 2  | 3  | 4. | 5  | 6   | 7  | 8  | 9 | 10 |
|-------------|----|----|----|----|----|-----|----|----|---|----|
| Return on X | 20 | 22 | 25 | 21 | 18 | - 5 | 17 | 19 | 7 | 20 |
| Return on Y | 20 | 20 | 18 | 16 | 20 | 8   | 6  | 5  | 6 | 11 |

- i) Calculate Beta of security X
- ii) What is the characteristic line for security X?
- iii) Compute the return on security X when the market return is 25%.
- 11. The following information regarding growth funds is available to an investor. Rank the mutual funds in the order of superior performance. Assume risk free rate to be 8%.

| Fund               | Α    | В    | С    | D    | E    | F    | G    | Н    | ı    | J    |
|--------------------|------|------|------|------|------|------|------|------|------|------|
| Return             | 8%   | 10%  | 11%  | 12%  | 15%  | 18%  | 14%  | 11%  | 16%  | 7%   |
| Standard deviation | 15%  | 20%  | 30%  | 25.% | 38%  | 34%  | 32%  | 28%  | 21%  | 12%  |
| Beta               | 0.67 | 1.21 | 1.30 | 1.05 | 1.52 | 2.10 | 1.32 | 1.41 | 1.10 | 1.02 |