

Third Semester MBA Degree Examination, June/July 2013 Security Analysis and Portfolio Management

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FOUR full questions from Q.No.1 to 7. 2. Q.No. 8 is compulsory.

1 a. Distinguish between investment and speculation.

(03 Marks)

b. What is Risk? Explain the various types of risk.

(07 Marks)

c. Describe the various investment avenues available to investors in India.

(10 Marks)

2 a. What is free float market capitalization?

(03 Marks)

b. Explain the trading and settlement procedure in NSE.

(07 Marks)

c. Mr. Basava owns a portfolio composed of four securities with the following characteristics:

| | Security | Beta | Standard deviation of | Proportion |
|----------|----------|------|-----------------------|------------|
| | | | Random error term. | |
| ge. | ACC | 1.05 | 12 | 0.30 |
| er er | ABB | 0.90 | 10 | 0.30 |
| | ITC | 1.20 | 15 | 0.25 |
| 3, | /L&T | 1.00 | | 0.15 |

If the standard deviation of the market index is 20%, what is the total risk of Basava's portfolio? (10 Marks)

- 3 a. The preference shares of X Ltd., are selling for ₹44 per share in the market and pay a ₹4.40 annual dividend. If an investor required rate of return is 12%, what is the value of preference share for that investor? (03 Marks)
 - b. Explain the key indicators of industry analysis.

(07 Marks)

c. The stock of Wipro performs well relative to other stocks during recessionary periods. The stocks of Infosys, on the other hand do well during growth period. Both the stocks are currently selling for ₹50 per share. The rupee returns (dividend plus price change) of these shares for the next year would be as follows:

| (| Economic Condition | | | |
|-------------------|--------------------|------------|------------|-----------|
| | High Growth | Low Growth | Stagnation | Recession |
| Probability | 0.30 | 0.30 | 0.20 | 0.20 |
| Return on Wipro | ₹55 | ₹50 | ₹60 | ₹70 |
| Return on Infosys | ₹75 | ₹65 | ₹50 < | ₹40 |

Calculate the expected return and standard deviation of: (i) ₹500 in the equity stock of Wipro and ₹500 in the stock of Infosys. (ii) ₹700 in the stock of Wipro and ₹300 in the equity stock of Infosys. Which of the above option would you choose? (10 Marks)

4 a. What is efficient frontier?

(03 Marks)

b. Calculate the expected rate of return from the following information:

Risk free rate of return: 9%

Expected market return: 15%

Standard deviation of the security: 2.4% M

Market standard deviation: 2.0%

Correlation coefficient of the security with the market 0.9.

(07 Marks)

c. What is an efficient market? Explain the forms of market efficiency? Describe the tests of different forms of market efficiency. (10 Marks)

5 a. What is an Asset Management company?

(03 Marks)

b. Explain the basic tenets of Dow theory.

(07 Marks)

c. You are an investor in fixed income securities. Your portfolio of bond does not have bonds from AAA rated companies. You are considering purchase of an AAA rated bond. Two such bonds from AAA rated companies; Bond A and Bond B are available in the market that have the following features.

c.

| _ | Bond A | Bond B |
|-----------------------|-------------|-------------|
| Face value | ₹100 | ₹120 |
| Coupon Rate | 15% | 12% |
| Periodicity of coupon | Semi annual | Semi annual |
| Time of maturity | 3 years | 4 years |
| Current Market Price | ₹110 | ₹130 |

Your expectation of return from the investment in AAA rated bond is 10%. Which bond should you buy and why? Assume that you are indifferent to the investment horizon of 3 or 4 years.

(10 Marks)

6 a. What is yield to maturity?

(03 Marks)

- b. Discuss the key economic variables that an investor must consider as part of the fundamental analysis. (07 Marks)
- c. A chemical company paid a dividend of ₹2.75 during the current year. Forecast suggests that earnings and dividend of the company are likely to grow at the rate of 8% over the next five years and at the rate of 5% thereafter. Investors have traditionally required a rate of return of 20% on these shares. What is the present value of the share? (10 Marks)
- 7 a. What is Japanese candlestick chart?

(03 Marks)

b. The owners of Y Ltd., are extremely risk averse; therefore they will choose the least risky of the alternatives. Data of four possible securities is given below:

| Security | Expected Return % | Standard Deviation | |
|----------|-------------------|--------------------|--|
| Α | 12.00 | 0.029 | |
| В | 12.50 | 0.032 | |
| C | 13.00 | 0.035 | |
| D | 12.80 | 0.030 | |

Required: (i) Which is least risky in terms of standard deviation?

- (ii) Which is least risky in terms of coefficient of variation?
- (iii) Which is preferable as a measure of risk in the above case? (07 Marks)
- c. The following information is available regarding the three mutual funds and the market.

| | $R_p(\%)$ | $\sigma_{\mathfrak{p}}$ | β |
|-----------------|-----------|-------------------------|------|
| Birla Advantage | 25.38 | 4.00 | 0.23 |
| ICICI Growth | 36.28 | 6.86 | 0.52 |
| Sundaram Growth | 45.56 | 4.31 | 0.63 |
| S&P CNX Nifty | 36.74 | 3.69 | 1.00 |

The risk free rate of interest is assumed to be 9%. Rank the above funds using Sharpe, Jensen and Trynor measures. (10 Marks)

8 Case Study: (Compulsory)

Consider the following information of various securities and the market.

| Security | Expected Return % | Beta |
|----------|-------------------|------|
| A | 22.20 | 1.75 |
| В | 15.80 | 1.90 |
| С | 18.00 | 1.10 |
| D | 9.00 | 0.95 |
| Е | 28.80 | 2.00 |
| T-Bills | 8.00 | - |
| Sensex | 15.00 | 1.00 |

Find out:

a. Which of the securities are underpriced or overpriced?

(08 Marks)

- b. What expected return an investor would have if an equally weighted portfolio is constructed of all risky securities from A to E? (04 Marks)
- c. What is the implied beta for the investor for the portfolio constructed in (b)? (04 Marks)
- d. If the investor choses to invest only in underpriced securities, what excess returns as compared to CAPM are expected to realize? (04 Marks)

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