



BRAINWARE UNIVERSITY

Course – MBA

Security Analysis and Portfolio Management (FM303)

(Semester – 3)

Time allotted: 3 Hours

Full Marks: 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

(Multiple Choice Type Question)

1. Choose the correct alternatives for the following:

10 x 1 = 10

- I. The growth rate of dividend can be measured as
 - a. ROE x Retention ratio
 - b. ROE / Retention ratio
 - c. ROE + Retention ratio
 - d. ROE – Retention ratio
- II. The risk of a security is more than market risk if beta is
 - a. More than 1
 - b. Less than 1
 - c. Equal to 1
 - d. Equal to 0
- III. The price of a Rs.1,000 par bond carrying a coupon rate of 8 percent and maturing after 5 years is Rs.1020. The approximate YTM is
 - a. 7.51%
 - b. 8.51%
 - c. 8%
 - d. None
- IV. Beta is the measurement of
 - a. Firm specific risk
 - b. Political risk only
 - c. Market risk
 - d. All of the above
- V. The return of a portfolio is independent on
 - a. Proportion of money invested in individual security
 - b. Return of individual security
 - c. Standard deviation of return of individual security
 - d. All of the above

- VI. The alpha value of a share is + ve, this means the security is
- Under valued
 - Over valued
 - At par
 - None
- VII. If the shape the yield curve is normally
- convex to origin
 - concave to origin
 - linear
 - downward
- VIII. In aggressive bond portfolio management, the investors take advantage of bond
- Duration
 - Convexity
 - Price change
 - All of the above
- IX. The SML shows whether the security is
- Overvalued or under valued
 - Risky or safe
 - As per market approach
 - None of the above
- X. The actual return of a bond till to maturity is measured by
- Yield to maturity
 - Coupon rate
 - Redemption Premium
 - All of the above

Group -B

(Short Answer Type Questions)

Answer any three of the following

3 x 5 = 15

- A Rs.1000 par value bond bears a coupon rate of 10 percent and matures after 5 years. Interest is payable semi-annually. Compute the value of the bond if the required rate of return is 18 percent.
- The share of a certain stock paid a dividend of Rs.3.00 last year. The dividend is expected to grow at a constant rate of 8 percent in the future. The required rate of return on this stock is considered to be 15 percent. How much should this stock sell for now? Assuming that the expected growth rate and required rate of return remain the same, at what price should the stock sell 3 years hence? [2.5+2.5]
- State the difference between SML and CML.
- State the implication of Price Earning ratio in equity valuation.

Group- C
(Long Answer Type Questions)

Answer any three of the following

3 x 15 = 45

6. A portfolio consists of 4 securities, 1, 2, 3, and 4. The proportions of these securities are: $w_1=0.3$, $w_2=0.2$, $w_3=0.2$, and $w_4=0.3$. The standard deviations of returns on these securities (in percentage terms) are: $\sigma_1=5$, $\sigma_2=6$, $\sigma_3=12$, and $\sigma_4=8$. The correlation coefficients among security returns are: $\rho_{12}=0.2$, $\rho_{13}=0.6$, $\rho_{14}=0.3$, $\rho_{23}=0.4$, $\rho_{24}=0.6$, and $\rho_{34}=0.5$. What is the standard deviation of portfolio return?

[15]

7. The balance sheet of Cosmos Limited at the end of year 0 (the present point of time) is as follows.

Liabilities	Assets	Rs. in crore
	• Net fixed assets	550
• Equity capital (20 crore shares of Rs. 10 each)	• Net working capital	200
• Reserves and surplus		
Shareholder's Fund		
• Loan funds (rate 10 percent)		
750		750

The return on assets (NOPAT) is expected to be 18 percent of the asset value at the beginning of each year. The growth rate in assets and revenues will be 30 percent for the first three years, 18 percent for the next two years, and 10 percent thereafter.

The effective tax rate of the firm is 34 percent, the pre-tax cost of debt is 10 percent and the cost of equity is 24 percent. The debt-equity ratio of the firm will be maintained at 1:2. Calculate the intrinsic value of the equity share.

8. The rate of return on the stock of Omega Electronics and on the market portfolio for 6 periods has been as follows:

<i>Period</i>	<i>Return on the stock of Omega Electronics(%)</i>	<i>Return on the market portfolio (%)</i>
1	18%	15%
2	10%	12%
3	-5%	5%
4	20%	14%
5	9%	-2%
6	18%	16%

(i) What is the beta of the stock of Omega Electronics?

(ii) Establish the characteristic line for the stock of Omega Electronics.

[7.5+7.5]

9. Write short note on the following:

- Valuation ratios
- Assumptions of CAPM
- Qualitative analysis of a company

[3x5=15]