BA (Honours) Examination 2023

Semester VI

Economics

Course DSE 3

(Group B. Financial Economics)

Time 3 hrs

Full Marks 60

Questions are of value as indicated in the margin

Answer ***any four*** questions

1. Explain briefly the characteristics of the Money Market. Why is the interest rate in the Money Market typically low? Explain the difference between Treasury Bills and Commercial Paper. Which of these two will have a lower interest rate and why? (5+2+3+5)

2. Distinguish between a Coupon Bond and a Perpetuity. Calculate the present value of a 3 year Coupon Bond with a Face Value of Rs.10000/-and coupon rate of 6% if the current market interest is 8%. How is the Value affected if the market interest rate goes up to 9%. (5+6+4)

3. Discuss some of the factors that affect the demand and supply of bonds. How does an increase in expected inflation affect the rate of interest? Distinguish between default risk and interest rate risk. (5+5+5)

4. Stock Market Find the Mean and Variance of a Portfolio composed of 3 stocks with mean returns $\overline{r_i}$, $i = 1, 2, 3$,variances $\sigma_i, i = 1, 2, 3$, co-variances$\sigma_{12}, \sigma_{23}. \sigma_{31}$and weights, w_i, $i =$ 1,2,3.What is the Efficient Portfolio Frontier and why is the efficient portfolio frontier positively sloped (9+6)

5. Briefly discuss the Markowitz model. Solve the Markowitz problem with two assets where $\overline{r_1} = 12, \overline{r_2} = 15, \sigma_1 = 20, \ \sigma_2 = 18, \sigma_{12} = .01.$ (6+9)

6. What is the capital market line? Explain in this context what you mean by the price of risk. (8+7)

7. Discuss the Capital Asset Pricing Model. In this context explain the role of Asset β in making investment decisions regarding the asset. (10+5)

8. Consider a very large number (N) of risk averse customers insuring their house property valued at W against theft. The loss from theft is estimated at Rs 1 Lakh. The probability of theft (which is independent of each other) is estimated to be 2%. Show that a risk neutral and competitive insurance company would set the premium rate at 2%. How much insurance would the customers buy in this case? (6+9)