RAMAKRISHNA MISSION VIDYAMANDIRA
(Residential Autonomous College affiliated to University of Calcutta)
B.A./B.Sc. FIFTH SEMESTER EXAMINATION, MARCH 2022
THIRD YEAR [BATCH 2019-22]

Date : 03/03/2022   **ECONOMICS (HONOURS)**

Time : 11 am – 1 pm   **PAPER : DSE1**   Full Marks : 50

Answer **<u>any three</u>** questions of the following: [3×4]

1. Find the value of a bond whose Face Value is Q and periodic coupon payment is ϕ proportion of the face value.

2. What do you mean by Yield to Maturity? Explain.

3. What is immunization?

4. Explain the concept of Market Portfolio with example.

5. Distinguish between systematic and non-systematic risks.

6. Describe the difference between the payoff and profit functions of Put option and Call option.

Answer **<u>any one</u>** question of the following: [1×8]

7. Consider a trader who, at time 0, enters into a long position in a forward contract with settlement at date T. Find the value of the contract at date t ,where $0 < t < T$.

8. A stock currently trades at Rs. 50. It can worth either Rs. 60 or Rs. 40 in the next year. The strike price of a call option on the stock is Rs. 50. If the risk free rate of interest is 10%, find the value of the call option.

Answer **<u>any two</u>** questions of the following: [2×15]

9. What is yield curve? How does unbiased Expectation Theory and Liquidity Preference Theory explain its positive slope? [5+(5+5)]

10. a) What do you mean by Bond Duration? What is the importance of the concept of Macaulay Duration in this regard?

    b) How do we measure Risk of a portfolio? Derive the expression for risk of a portfolio containing three assets. [(6+3)+6]

11. Describe the Capital Asset Pricing model stating its inherent assumptions and implications. (15)

12. Describe the Payoff functions of the following option strategies:

    a) Bullish Spread

    b) Bottom Stradle

    c) Box Spread

    d) Strip (4+4+4+3)

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