**14 (ECO–4) 4076**

**2022**

# ECONOMICS

Paper : ECO–4076

***( Financial Operations and Management )***

*Full Marks : 80*

Time : Three hours

***The figures in the margin indicate full marks for the questions.***

1. Answer the following within **50** words : 5×4=20

   *(a)* What are systematic and unsystematic risks and how are they managed?

   *(b)* Interpret the BETA and ALPHA of a firm in the Market Model.

   *(c)* Highlight the underlying principle on which short sales is based.

   *(d)* What is meant by Credit Risk? How can it be measured? 2+3=5

2. Answer ***any three*** the following within **150** words each : 10×3=30

(a) Describe the hedging strategies available with Index Futures. 10

(b) Explain how the return and risk of a two-assent portfolio estimated. In this context illustrate how a minimum risk portfolio is constructed. 7+3=10

(c) Describe the various steps involved in the process of investing. 10

(d) Using the Zero Growth and Constant Growth Model, discuss how the Dividend Discount Model is used for valuation of stocks. 5+5=10

(e) Explain net interest margin. Illustrate how the composition of a bank's balance sheet determines its profitability when there are interest rate fluctuations. 3+7=10

3. Answer ***any two*** of the following : 15×2=30

(a) (i) Explain the Arbitrage Pricing Theory as opposed to the CAPM.

(ii) Where is the 'Arbitrage' in the APT ?

(iii) The following factors affect the stocks of Wipro :

| **Factors** | **BETA** | **Expected Value** | **Actual Value** |
|---|---|---|---|
| Inflation | 0.85 | 5.00 | 5.75 |
| Interest Rate | 1.20 | 7.50 | 8.00 |
| Industrial Production | 2.20 | 9.00 | 10.00 |
| Stock Market Index | 2.50 | 9.50 | 11.50 |
| GNP | 1.95 | 6.00 | 6.50 |

If the risk-free return on the share of Wipro is 7 %, then what is the expected return on the share ?

8+3+4=15

(b) (i) Describe strategies involving a single option and a stock.

(ii) Illustrate option strategies involving 'COMBINATIONS'.

*(iii)* An investor buys a European Call Option with a strike price of \$200/- to purchase 100 shares of Adani Port. What will be the net pay-offs of the investor under the following spot prices at delivery; if the option premium is \$5 per share and the current price is \$195/- ?

*(i)* $S_p = \$190/-$

*(ii)* $S_p = \$200/-$ $S_p = \$203/-$

*(iii)* $S_p = \$220/-$

6+5+4=15

(c) *(i)* State the Law of One Price. How does it get enforced by arbitrage?

*(ii)* Define Yield to Maturity. Assume a 2-year bond with a face value of Rs. 50,000/- and a coupon rate of 7%. The initial required rate of return is 5%, then it decreases to 3%. Estimate the bond price elasticity.

2+3+5+5=15

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