**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU -27**

**B.Com–VI SEMESTER**

**SEMESTER EXAMINATION: APRIL 2023**

**(Examination conducted in May 2023)**

**BCDEF6618 : SECURITIES ANALYSIS AND PORTFOLIO MANAGEMENT**

**(For current batch students only)**

**Time: 2 ½ Hours Max Marks: 70**

**This paper contains \_\_\_\_\_\_ printed pages and four parts**

**Section A**

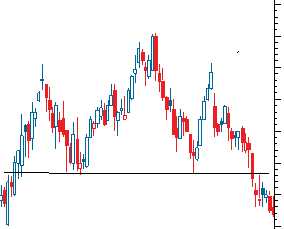
**I.** Answer ***any five*** of the following (**2 x 5 = 10 marks)**

1. What are crypto currencies? Give two examples.
2. Give the meaning of leading indicators
3. List any two assumptions of the CAPM model.
4. Diagrammatically depict the Efficient frontier.
5. State any two reasons for portfolio revision.
6. If, market variance is 250, security A variance is 100, Return of security A is 25% and CovA,M = 150, calculate the Beta of security A.

**Section B**

**II.** Answer ***any three*** of the following (**5 x 3 = 15 marks)**

1. Answer the following questions based on the chart depicted below



* 1. Identify the type of chart used and the chart pattern (1 mark)
  2. With the help of a diagram, state the characteristics of this type of chart. (2 marks)
  3. What can be interpreted from such a chart pattern? (2 marks)

1. Write a short note on portfolio management process.
2. Using CAPM, state which security is under-priced, overpriced and correctly priced.

| SECURITY | RETURN (%) | σ | β |
| --- | --- | --- | --- |
| A | 17 | 12% | 0.8 |
| B | 15.5 | 13% | 1.1 |
| C | 13.25 | 23% | 1.2 |
| D | 18 | 15% | 0.9 |
| SENSEX | 15 |  |  |
| T. BILLS | 10 |  |  |

1. Calculate the average return of stocks X and Y

| Period | Stock X | | Stock Y | |
| --- | --- | --- | --- | --- |
|  | Open | Close | Open | Close |
| 0 | 1900 | 2000 | 450.6 | 560 |
| 1 | 2110 | 2200 | 600 | 840 |
| 2 | 2250 | 2860 | 750.12 | 1008 |
| 3 | 2890 | 3146 | 1010.6 | 1108.8 |

**Section C**

**III.** Answer ***any two*** of the following (**15 x 2 = 30 marks)**

1. Answer the following
   1. Differentiate between CML and SML (5 marks)
   2. Explain Porter’s Five Forces with respect to an industry of your choice. (10 marks)
2. An investor has 5 portfolios yielding the following results during a five year period.

| Portfolio | Average annual return (%) | Standard deviation (%) | Beta |
| --- | --- | --- | --- |
| A | 15 | 27 | 0.82 |
| B | 11 | 18 | 0.53 |
| C | 9 | 14 | 0.40 |
| D | 18 | 19 | 0.73 |
| E | 10 | 7 | 0.44 |
| Market | 8 | 11 |  |
| 91 Day T-Bills | 5 |  |  |

Rank these portfolios using Sharp, Treynor and Jensen ratios.

1. Consider a portfolio of four securities with the following characteristics:

| Security | Weight | Alpha | Beta | Residual Variance |
| --- | --- | --- | --- | --- |
| A | 0.1 | 2 | 1.7 | 387 |
| B | 0.2 | 3.5 | 0.5 | 282 |
| C | 0.2 | 1.5 | 0.7 | 420 |
| D | 0.5 | 0.75 | 1.3 | 306 |

If the return on the market index is 15% and the market variance is 320, compute portfolio risk and return using the Sharpe Single Index Model.

**Section D**

**III. Answer the following (15marks)**

1. Given below are the returns of Stock A and B.

| Period | Stock A | Stock B |
| --- | --- | --- |
| 1 | 40% | 0 |
| 2 | 20% | 30% |
| 3 | 0 | 30% |

**Questions:**

* 1. Calculate individual stock risk and return. Which stock is a better investment opportunity?
  2. A client would like to invest Rs.1,00,00,000 in a portfolio of Stock A and B. Evaluate both options and state which investment option is better.

|  | Stock A | Stock B |
| --- | --- | --- |
| Option 1 | 60% | 40% |
| Option 2 | 40% | 60% |

**(8+7)**