

Register No.: ..... Name.: .....

**SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)**

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

**THIRD SEMESTER MBA DEGREE EXAMINATION (S), FEBRUARY 2023****(2020 Scheme)****Course Code :** 20MBA281**Course Name:** Security Analysis and Portfolio Management**Max. Marks :** 60**Duration: 3 Hours***Candidates are permitted to use scientific calculators however programmable calculators and any hard copy tables are prohibited.***PART A***(Answer all questions. Each question carries 2 marks)*

1. What is relative strength index? Mention the formula to calculate relative strength index.
2. Differentiate systematic and unsystematic risk?
3. What is the meaning of alpha and beta in CAPM model?
4. What is intrinsic evaluation of a listed security?
5. List any two circumstances that an investor needs to revise his/her investment portfolio.

**PART B***(Answer any 3 questions. Each question carries 10 marks)*

6. Using probability distribution shown below, calculate the expected risk & return estimates of each stock and of a portfolio comprised of 40% of Stock A and 60% of Stock B:

Probability	A	B
0.3	-12%	20%
0.5	14%	12%
0.2	25%	-10%

7. Varun was able to generate a return of 17% for stock ABC. The historical data for the stock is as below

Period	Return of Stock ABC	Market Return	Risk Free Rate
1	16	15	7
2	-7	2	6.5
3	12	17	5
4	17	14	5.5
5	34	21	6
6	12	9	6

Using the SML equation can you evaluate if he was able to generate higher than the expected return?

8. Discuss the EIC framework to carry out fundamental analysis.
9. Calculate the 5-day EMA (exponential moving average) for the data given below

Day	1	2	3	4	5	6	7	8	9	10
Closing price (Rs.)	90	95	94	96	100	98	96	95	97	100

10. Explain the Markowitz Portfolio Theory by elaborating on the process to find the efficient frontier and the optimal portfolios. Show how an investor can generate returns higher than the efficient frontier using lending and borrowing of a risk free asset.

### PART C

*(Compulsory question, the question carries 20 marks)*

11. a) Rakesh is a mid-level executive in a leading MNC and has limited time to manage his investments. He wants to build a portfolio for his retirement and he believes that he is having good stock picking capability. He does not want to invest in an index portfolio and wants to time his entry into the market better. He does not want his portfolio to be affected by his emotions or moods and he believes that a mechanical approach to investing would serve him better. Can you suggest him any four formula plans to help him manage his portfolio?

Marks (10)

- b) The following information is provided regarding the performance of the investments namely Birla Advantage, Sundaram Growth and Templeton for a period of 6 months ending September 2021. The risk-free rate of return is assumed to be 9%. Rank them with the help of Sharpe's index and Treynor's index and justify.

Investments	Rp	$\sigma_p$	$\beta$
Birla advantage	25.38	4	0.23
Sundaram growth	25.11	9.01	0.56
Templeton	25.01	3.55	0.59

Marks (10)

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