

## SAPM Assignment

### Group Assignment (4 members-4Assets)

**Assignment Part A** (Domestic Individual Assets) – Each group has to consider Four Domestic Assets (Individual Stocks/Bonds/Currency/Commodities -) and You need to make a portfolio of 4 these assets or stocks with equal weights.

**Note:** Assets can be complete domestic. You can also take Four stocks/Bonds/Derivatives/or Mix of all these asset classes for one-year time period from NSE/BSE/Yahoo finance.

Calculate the

**Portfolio Return,**

**Risk and Sharpe ratio**

for selected **time** horizon (one year). By using the Solver tool in MS Excel, calculate optimal weights by maximising Sharpe ratio. Optimization process in MS Excel solver must be done by maximising the Sharpe ratio.

**Part B: Back testing for these four stocks by considering next year data.**

**Assignment Part C (Indices either Domestic or International)** – Every group has to take Four Indices. You need make a portfolio of these four Indices with equal weights for one- year time period.

Again Calculate the Portfolio Return, Risk and Sharpe ratio for selected **time** horizon (one year). By using the Solver tool in MS Excel, calculate optimal weights by maximising Sharpe ratio. Optimization process in MS Excel solver must be done by maximising the Sharpe ratio.

**Part D: Back testing for these four indices by considering next year data.**

**Final Report (PART E)** – Final report about findings of Part A, B, C, and D regarding Portfolio returns, weights, standard deviations with final concluding remarks including Back testing results.

### Guidelines:

- Each individual in Group must contribute.
- Submission format: One Excel file with different work sheets.
  - MS Excel work sheets which contains data and calculations in different worksheets – Individual Stocks Portfolio –**PART A**.

- MS Excel worksheets which contains data and calculations in different worksheets – Back testing of Individual Stocks **PART B**.
- MS Excel worksheets which contains data and calculations in different worksheets – Indices Portfolio **PART C**.
- Worksheets Back testing of Indices Portfolio **PART D**
- MS Word file/PDF- Report which contains your observations, comments and Final conclusions – **PART E**.

**Submission Date:** Submit your assignment in **CMS by 11:59 pm, 14<sup>th</sup> April, 2024.**

**Academic Honesty and Integrity Policy:** *Academic honesty and integrity are to be maintained by all the students and no type of academic dishonesty is acceptable.*

**Note:** You can voluntarily select your group and work together. Mention your names and Ids in first excel sheet and word file.

**The Assignment can be submitted by any one group member. The Name of file should be on the name and id of submitted member**

**IC-SAPM**