Name and Roll No.: Saloni Tayshete, 76

Prati Thakkar, 78

Krishangi Trivedi, 81

**TASK 6**

Part 1:

As per the data given and calculated; the expected return of Investor ‘B’ who invested in ONGC limited is the highest i.e., 0.001491308. The expected return of investor ‘C’ who invested in SpiceJet limited it the lowest at -0.00171566. And the expected return of investor ‘A’ who invested in HDFC limited is 0.000390633. These were the results of the investors who invested in a single asset portfolio. For investor ‘D’ who invested in both ONGC limited and HDFC limited the expected or the average return is 0.000941. The investor who invested in both SpiceJet limited and ONGC limited (investor ‘E’) gets an expected return of -0.00011. And finally investor ‘F’ who invested in both HDFC limited and SpiceJet limited has an expected return of -0.00066.

Now for the sharpe ratio, Investor A has a sharpe ratio of -3.545723901, whereas investor B has a sharpe ratio of -2.120186521 and investor C has a sharpe ratio of -2.000315159. Comparing these calculation we can conclude that by definition of sharpe ratio, Investor ‘C’ has the highest return amongst the single asset investors.

Investors D, E and F have invested in two assets and hence diversified their portfolios. Portfolio diversification with assets having low to negative correlation tends to reduce the overall portfolio risk and consequently increases the Sharpe ratio.

The two-asset investors have a similar sharpe ratio the same being -3.3552 for investor D, -2.66648 for investor E and finally -3.17784 for investor F. Similarly, the correlation of investor D, E and F is 0.21405, 0.186707, 0.212291134 respectively. Hence it is clear that amongst the two asset investors, investor ‘E’ has the highest return. Since the correlation of investor E is the lowest amongst the three its overall portfolio risk is lower and hence its sharpe ratio is higher.

Comparing the investments of all six investors A, B, C, D, E, and F the sharpe ratio of investor ‘C’ is the highest and therefore, investor ‘C’ gets the highest returns. Since the risk factor considered is the same for all the six investments the diversification hasn’t affected the sharpe ratio or the return on the investments.

Part 2:

There are three members of the group, Saloni Tayshete , Prati Thakkar and Krishangi Trivedi. We discussed the project over google meet and assigned the tasks accordingly.

Task 1 and Task 5 Investor ‘D’ part was completed by Krishangi Trivedi, 81.

Task 2 and Task 5 Investor ‘E’ part was completed by Saloni Tayshete, 76.

And Task 3 and Task 5 Investor ‘F’ part was completed by Prati Thakkar, 78.

Task 4 and Task 6 was completed together on google meet. Everybody was willing to participate and work together. Everybody cooperated in the project. There weren’t any complaints. All the group members were ready to help if one of the members was confused or had a doubt about anything.