Data Analyst - Assignment

We are working as a quant researcher in the Stock Market, based on a certain strategy we have received following trades in historical data(Tradelog on the historical data is attached in the csv format) and we have to calculate the following parameters using **Python** to identify whether to execute the strategy or not.
Note: For the parameters calculation consider the initial portfolio value of Rs 6500 and the risk-free interest rate of 5%.

Parameters required

1. Total Trades
2. Profitable Trades
3. Loss-Making Trades
4. Win rate: Win Rate is the ratio of profitable trades to all trades
5. Average Profit per trade
6. Average Loss per trade
7. Risk Reward ratio: Risk Reward Ratio is the ratio of average profit to average loss.
8. Expectancy : (Win Rate x Average Profit) - (Loss Rate x Average Loss), where Loss Rate = 1 - (Win Rate)
9. Average ROR per trade: The ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk. Volatility is a measure of the price fluctuations of an asset or portfolio.
10. Sharpe Ratio:
    Sharpe Ratio = (Rate of Return - Risk-Free Rate) / (Standard deviation of the asset or portfolio)
11. Max Drawdown: A maximum drawdown is the maximum observed loss from the peak of the portfolio in the given duration.
12. Max Drawdown Percentage
13. CAGR
    The CAGR formula is equal to (Ending Value/Beginning Value) ^ (1/No. of Periods) – 1.
14. Calmar Ratio: Measures the performance of a strategy or fund, compared to its risk

Attach the Python file and the results in CSV format while submitting.