

STA457H1: Time Series Analysis Assignment 3 - Question 6 Due data December 2, 2022

Student Name.....ID number.....

Instructions: *Show your answers in details.*

Q6 (5 points): Fit an $\text{ARIMA}(p, d, q)$ model to the sulfur dioxide series, *so2*, (in the package **astsa**) performing all of the necessary diagnostics. After deciding on an appropriate model, forecast the data into the future four time periods ahead (about one month) and calculate 95% prediction intervals for each of the four forecasts. Comment.