

**STA457H1: Time Series Analysis**  
**Assignment 3 - Question 9** **Due data December 2, 2022**

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

**Instructions:** *Show your answers in details.*

**Q9 (2 points):** Generate  $n = 100$  observations from the three models ARMA(0, 1), ARMA(1, 0), and ARMA(1, 1). Use the same parameters that are given in Question 1, parts 3, 1, and 5 respectively.

1. Compute the sample ACF for each model and compare it to the theoretical values.
2. Compute the sample PACF for each of the generated series and compare it to the theoretical values.