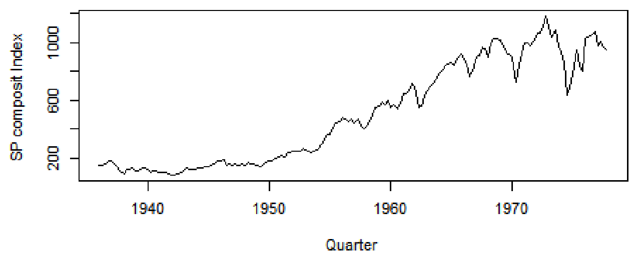
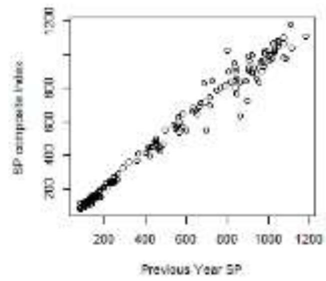
King **F**ahd **U**niversity for **P**etroleum and **M**inerals
Department of Mathematics & Statistics
Term 162 Quiz#1 (chap 1 & 2) STAT 460 (1)

Full Name: ID# **Ser#**

Q1. **Using** the following **plots** of SP index from 1936 to 1978, describe any noticeable patterns.





Q2. Suppose $Y_t = 6 + 2.4t + X_t$ where $\{X_t\}$ is a white noise process with $\sigma_e^2 = 1$.

a) Compute the **autocovariance** function for this model
b) Is $\{Y_t\}$ **stationary**? Why or why not?

Form