

Quiz 6: Time Series Analysis

Name: _____ Grade: ____/5

1. Which of the following is a defining characteristic of time series data?
 - a. Observations are collected from different units at the same time point.
 - b. Observations are collected from the same unit at different time points.
 - c. Observations are collected from different units at different time points.
 - d. Observations are collected randomly without any time consideration.
2. The chapter recommends aggregating data to a lower frequency when:
 - a. The time series frequencies of the dependent and independent variables are different.
 - b. There are too many data points, making analysis computationally expensive.
 - c. The data exhibits high levels of noise.
 - d. The research question requires a long-term perspective.
3. Which of the following is an example of seasonality in time series data?
 - a. A gradual increase in average temperature over several decades
 - b. A sudden spike in stock prices due to unexpected news
 - c. Higher sales of ice cream during the summer months
 - d. A long-term decline in the value of a currency
4. Why is it important to understand trends and seasonality in time series data before conducting regression analysis?
 - a. They can introduce spurious correlations between variables.
 - b. They improve the accuracy of regression coefficient estimates.
 - c. They simplify the interpretation of regression results.
 - d. They are required assumptions for most regression models.
5. What does stationarity mean in the context of time series data?
 - a. The variable has a constant mean, variance, and autocorrelation structure over time.
 - b. The variable exhibits a clear upward or downward trend.
 - c. The variable follows a repeating pattern at regular intervals.
 - d. The variable is independent of its past values.
6. What is a spurious regression?
 - a. A regression that shows a statistically significant relationship between variables that are not truly related.
 - b. A regression that fails to meet the assumptions of linearity and normality.
 - c. A regression that includes too many irrelevant variables.
 - d. A regression that uses data with measurement errors.