

## Quiz Questions and Answers

### Question 1:

Which statistical test is used to account for seasonality by computing the Mann-Kendall test on each of the seasons separately and then combining the results?

- A) OLS Regression
- B) Seasonal Kendall Test
- C) ARMA Process
- D) Multiple Regression with Periodic Functions

**Answer:** B) Seasonal Kendall Test

### Question 2:

What is one advantage of the Seasonal Kendall test over the ordinary Mann-Kendall approach?

- A) It compares data across different seasons.
- B) It requires fewer data points.
- C) It does not make comparisons across season boundaries.
- D) It only uses monthly data.

**Answer:** C) It does not make comparisons across season boundaries.

### Question 3:

What does long-term persistence (LTP) in hydrologic variables often manifest as?

- A) Linear trends
- B) Regular periodic oscillations
- C) Quasi-periodic oscillations
- D) Random noise

**Answer:** C) Quasi-periodic oscillations

### Question 4:

What is a key reason to use graphics in presenting trend results?

- A) They are easier to produce than tables.
- B) They help in capturing and interpreting major patterns of change.
- C) They are more statistically robust than numerical methods.
- D) They always ensure statistical significance.

**Answer:** B) They help in capturing and interpreting major patterns of change.

### Question 5:

Which method is specifically designed to adjust for cross-correlation between nearby monitoring sites in trend analysis?

- A) Ordinary Least Squares (OLS) Regression
- B) Prewhitened Nonlinear Trend Analysis
- C) Regional Kendall Test
- D) Theil-Sen Slope Estimator

**Answer:** C) Regional Kendall Test