Quiz 1: Purpose of the Kruskal-Wallis Test

Question: What is the main objective of the Kruskal-Wallis test? **Choices:** A) To determine if one or more groups differ significantly in their distribution. B) To compare the mean scores of two groups. C) To assess the correlation between two variables. D) To determine the normality of the data across multiple groups.

Correct Answer: A) To determine if one or more groups differ significantly in their distribution.

Quiz 2: Characteristics of Nonparametric Tests

Question: Why might a researcher choose to use the Kruskal-Wallis test instead of a parametric test? **Choices:** A) When the data distributions are known to be normal. B) When the data are ordinal or do not meet the assumptions necessary for parametric tests. C) When the sample sizes are extremely large. D) When analyzing the relationship between two continuous variables.

Correct Answer: B) When the data are ordinal or do not meet the assumptions necessary for parametric tests.

Quiz 3: Interpretation of Kruskal-Wallis Test Results

Question: What can be concluded if the Kruskal-Wallis test results in a significant p-value? **Choices:** A) All groups have identical distributions. B) There is no difference among the groups. C) At least one group's distribution differs from the others. D) The data must be transformed to normality.

Correct Answer: C) At least one group's distribution differs from the others.

Quiz 4: Assumptions of the Kruskal-Wallis Test

Question: Which statement correctly describes an assumption of the Kruskal-Wallis test? **Choices:** A) The test requires the data to follow a normal distribution. B) All groups must have equal variances. C) No assumptions about the distributional shape of the data are required. D) The sample sizes for all groups must be the same.

Correct Answer: C) No assumptions about the distributional shape of the data are required.

Quiz 5: Using Results from Kruskal-Wallis Test

Question: Following a significant Kruskal-Wallis test, what is typically needed to determine which specific groups differ? **Choices:** A) A larger sample size for a new test. B) A follow-up test such as multiple comparison tests. C) Conversion of all data to a normal distribution. D) Recalculation using only the groups with the largest samples.

Correct Answer: B) A follow-up test such as multiple comparison tests.