1. False

2. a) Central Limit Theorem

3. b) Modeling bounded count data

4. c) The square of a standard normal random variable follows a chi-squared distribution

5. c) Poisson

6. b) False

7. b) Hypothesis

8. a) 0

9. c) Outliers cannot conform to the regression relationship

10. Normal Distribution: Symmetric bell-shaped probability distribution used to model continuous random variables.

11. Missing Data Handling: Imputation techniques like mean, median, or predictive models can be used, with multiple imputation (e.g., MICE) recommended for robustness.

12. A/B Testing: Statistical method comparing two versions (A and B) to determine performance differences.

13. Mean Imputation: Not ideal due to potential bias and underestimation of variability, especially if missingness isn't random.

14. Linear Regression: Statistical method modelling the relationship between dependent and independent variables with a linear equation.

15. Branches of Statistics: Descriptive, inferential, probability theory, Bayesian, multivariate, nonparametric, time series analysis, and experimental design.