Assignment 11

1. In a linear regression model, one of the following is not true:
   a. Dependent variable is continuous.
   b. Independent variable is binary.
   c. Independent variable is continuous.
   d. No need to follow any assumptions.

2. In a logistic regression model, one of the following is not true:
   a. Dependent variable is binary.
   b. Independent variable is continuous.
   c. Independent variable is binary.
   d. No need to follow any assumptions.

3. In a probit model, one of the following is not true:
   a. Dependent variable is continuous.
   b. Independent variable is binary.
   c. Independent variable is continuous.
   d. No need to follow any assumptions.

4. Which of the following is not true about logistic regression?
   a. The model is based on the logistic function.
   b. The model is not sensitive to the scale of the independent variables.
   c. The model assumes a linear relationship between the independent variables and the log-odds of the outcome.
   d. The model is used for classification tasks.

5. Which of the following is not true about probit regression?
   a. The model is based on the normal distribution.
   b. The model is sensitive to the scale of the independent variables.
   c. The model assumes a linear relationship between the independent variables and the standard normal distribution.
   d. The model is used for classification tasks.

6. Which of the following is not true about the probit and logit models?
   a. Both models assume a linear relationship between the independent variables and the probability of the outcome.
   b. Both models are used for binary outcomes.
   c. Both models are based on different probability distributions.
   d. Both models assume no multicollinearity among the independent variables.

7. Which of the following is not true about the normal distribution?
   a. The distribution is symmetric.
   b. The distribution is bell-shaped.
   c. The distribution is skewed to the right.
   d. The distribution is defined by two parameters: mean and standard deviation.

8. Which of the following is not true about the t-distribution?
   a. The distribution is symmetric.
   b. The distribution is bell-shaped.
   c. The distribution is skewed to the right.
   d. The distribution is defined by two parameters: mean and degrees of freedom.

9. Which of the following is not true about the chi-square distribution?
   a. The distribution is symmetric.
   b. The distribution is bell-shaped.
   c. The distribution is skewed to the right.
   d. The distribution is defined by two parameters: degrees of freedom and mean.

10. Which of the following is not true about the F-distribution?
    a. The distribution is symmetric.
    b. The distribution is bell-shaped.
    c. The distribution is skewed to the right.
    d. The distribution is defined by two parameters: degrees of freedom of the numerator and denominator.

11. Which of the following is not true about the t-distribution?
    a. The distribution is symmetric.
    b. The distribution is bell-shaped.
    c. The distribution is skewed to the right.
    d. The distribution is defined by two parameters: mean and degrees of freedom.