socrative

DM-Quiz-2020-Q4

20 Questions

1. Poisson distribution is specified by

3/8 **A** 1 parameter

4/8 **B** 2 parameters

0/8 **C** 3 parameters

0/8 **D** Poisson distribution does not have parameters

1/8 **E** I do not know

2. The type of dependent variable in Poisson Regression is

0/8 **A** Integer

3/8 **B** Count

2/8 **C** Ratio

2/8 **D** Interval

0/8 **E** I do not know

1/8 **F** Binary

3. Overdispersion in Poisson Regression occurs when

3/8 **A** var(Y|X)>var(Y)

3/8 **B** var(Y|X)>mean(Y|X)

1/8 **C** Variance is decreasing

1/8 **D** I do not know

4. The model of Poisson Regression is specified by the following formula

3/8 **A** ln(lambda)=xb

0/8 **B** ln(y)=e^(xb)

2/8 **C** ln(y)=e^(xb)/(1+e^(xb))

3/8 **D** ln(lambda)=e^(xb)/(1+e^(xb))

0/8 **E** I do not know

5. We can estimate Poisson Regression in R using function

0/8 **A** lm()

5/8 **B** glm()

1/8 **C** flm()

2/8 **D** poisson()

0/8 **E** I do not know

6. Which one of these is the measure for goodness of fit for Poisson Regression?

2/8 **A** Ordinal R^2

6/8 **B** Chi-square

0/8 **C** I do not know

0/8 **D** There are not measure for it

7. Which one of these is the correct interpretation of the coefficient of Poisson Regression?

2/8 **A** For a 1-unit increase in X, we expect a b1 unit increase in Y.

2/8 **B** For a 1-unit increase in X, we expect b1 percentage increase in Y.

0/8 **C** For a 1-percentage increase in X, we expect b1 percentage increase in Y.

3/8 **D** For a 1-percentage increase in X, we expect b1 unit increase in Y.

1/8 **E** I do not know

8. Count data is continuous

4/8 **A** Yes

4/8 **B** No

0/8 **C** I do not know

9. The logistic model is estimated by way of

1/8 **A** Ordinary least squares

6/8 **B** Maximum likelihood estimation

1/8 **C** Negative binomial distribution

0/8 **D** I do not know

10. As a result of estimation of coefficients

1/8 A We do not have the formula, an iterative algorithm must be used

1/8 B The explicit formula of coefficients exists

1/8 C I do not know

5/8 D We can obtain different values for coefficients

11. In Poisson regression...

1/9 A The asymptotic distribution of the maximum likelihood estimates is multivariate normal.

1/9 B The distribution of the maximum likelihood estimates is multivariate normal.

5/9 C The asymptotic distribution of the maximum likelihood estimates is multivariate Poisson distribution.

2/9 D I do not know

12. Pseudo R-Squared Measures are calculated based on (if any)

3/9 A Deviance

6/9 B Chi-squared value

0/9 C I do not know

13. The formula for the raw residual is

1/8 A The difference between the actual response and the estimated value from the model

1/8 B The squared difference between the actual response and the estimated value from the model

5/8 C The difference between the actual response and the estimated value from the model by dividing by the standard deviation

1/8 D I do not know

14. Which of these is NOT the type of residuals

2/8 A Deviance Residual

4/8 B Pearson Residual

1/8 C Raw Residual

0/8 D Poisson Residual

1/8 E I do not know

15. In the case of intercept-only model

4/8 **A** The mean of the dependent variable equals the exponential value of the intercept

3/8 **B** The mean of the dependent variable equals the intercept

0/8 **C** The mean of the dependent variable equals 0

1/8 **D** I do not know

16. ln(lambda) = 0.6 - 0.2* female [lamda = the average number of articles] Note: e^(-0.2)=0.78

1/8 **A** One unit increase in female brings a 0.2 decrease in ln(lambda).

3/8 **B** Being female decreases the average number of articles by 0.78 percent

2/8 **C** Being female decreases the average number of articles by 22%

2/8 **D** I do not know

17. While running the Poisson Regression we will have never faced with the value of lambda

4/8 **A** 0

2/8 **B** 1

1/8 **C** 2

1/8 **D** I do not know

18. Why does not quasi-Poisson model have AIC?

5/8 **A** Quasi-Poisson is used quasi-likelihood instead of log-likelihood estimates.

1/8 **B** Quasi-Poisson does not use iterative estimation

2/8 **C** I do not know

19. Why Poisson regression is called log-linear?

3/9 **A** Because we use a log link to estimate the logarithm of the average value of the dependent variable

2/9 **B** Because we use a log values of independent variable

3/9 **C** Because we use a log value of an independent variable is transformed to linear

1/9 **D** I do not know

20. Formulate the Null hypothesis for chi-squared and deviance test.

3/8 **A** The distance between actual and predicted values is insignificant

2/8 **B** The distance between actual and predicted values is 0

3/8 **C** There is a significant difference between actual and predicted values.

0/8 **D** I do not know