socrative

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DM-Quiz-2020-Q4

30% (6/20)

✗ **1.** Poisson distribution is specified by

- A 1 parameter
- B 2 parameters
- C 3 parameters
- D Poisson distribution does not have parameters
- E I do not know

✗ **2.** The type of dependent variable in Poisson Regression is

- A Integer
- B Count
- C Ratio
- D Interval
- E I do not know
- F Binary

✗ **3.** Overdispersion in Poisson Regression occurs when

- A var(Y|X)>var(Y)
- B var(Y|X)>mean(Y|X)
- C Variance is decreasing
- D I do not know

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

- A ln(lambda)=xb
- B ln(y)=e^(xb)
- C ln(y)=e^(xb)/(1+e^(xb))
- D ln(lambda)=e^(xb)/(1+e^(xb))
- E I do not know

✗ **5.** We can estimate Poisson Regression in R using function

A lm()
B glm()
C flm()
D poisson()
E I do not know

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

A Ordinal R^2
B Chi-square
C I do not know
D There are not measure for it

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

A For a 1-unit increase in X, we expect a b1 unit increase in Y.
B For a 1-unit increase in X, we expect b1 percentage increase in Y.
C For a 1-percentage increase in X, we expect b1 percentage increase in Y.
D For a 1-percentage increase in X, we expect b1 unit increase in Y.
E I do not know

✓ **8.** Count data is continuous

A Yes
B No
C I do not know

✓ **9.** The logistic model is estimated by way of

A Ordinary least squares
B Maximum likelihood estimation
C Negative binomial distribution
D I do not know

10. As a result of estimation of coefficients

- A We do not have the formula, an iterative algorithm must be used
- B The explicit formula of coefficients exists
- C I do not know
- D We can obtain different values for coefficients

11. In Poisson regression...

- A The asymptotic distribution of the maximum likelihood estimates is multivariate normal.
- B The distribution of the maximum likelihood estimates is multivariate normal.
- C The asymptotic distribution of the maximum likelihood estimates is multivariate Poisson distribution.
- D I do not know

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

- A Deviance
- B Chi-squared value
- C I do not know

13. The formula for the raw residual is

- A The difference between the actual response and the estimated value from the model
- B The squared difference between the actual response and the estimated value from the model
- C The difference between the actual response and the estimated value from the model by dividing by the standard deviation
- D I do not know

14. Which of these is NOT the type of residuals

- A Deviance Residual
- B Pearson Residual
- C Raw Residual
- D Poisson Residual
- E I do not know

✗ **15.** In the case of intercept-only model

A The mean of the dependent variable equals the exponential value of the intercept

B The mean of the dependent variable equals the intercept

C The mean of the dependent variable equals 0

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

A One unit increase in female brings a 0.2 decrease in ln(lambda).

B Being female decreases the average number of articles by 0.78 percent

C Being female decreases the average number of articles by 22%

D I do not know

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

A 0

B 1

C 2

D I do not know

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

A Quasi-Poisson is used quasi-likelihood instead of log-likelihood estimates.

B Quasi-Poisson does not use iterative estimation

C I do not know

✗ **19.** Why Poisson regression is called log-linear?

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

B Because we use a log values of independent variable

C Because we use a log value of an independent variable is transformed to linear

D I do not know

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

A The distance between actual and predicted values is insignificant

B The distance between actual and predicted values is 0

C There is a significant difference between actual and predicted values.

D I do not know