socrative

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✓ **1.** Logistic Regression Model is used to describe

- A Relationship between one categorical dependent variable and one or more (any) explanatory variables
- B Relationship between one numeric dependent variable and one or more (any) explanatory variables
- C Relationship between one categorical dependent variable and one explanatory variable
- D Relationship between one categorical dependent variable and one or more numeric explanatory variables
- E I do not know

✗ **2.** Why Linear Regression cannot be used to predict the binary response variable?

- A Some of the estimates might be outside the [0,1] interval
- B Coefficients of linear regression models do not exist
- C There will be the multicollinearity
- D All of the variants
- E I do not know

✓ **3.** The most common approach to estimate coefficients of logistic regression is

- A The Maximum Likelihood
- B Ordinary Least Squares
- C Generalized Method of Moments
- D I do not know

✓ **4.** The model of Logistic Regression is

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

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

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

✗ **6.** Which one of these is the correct interpretation of the coefficient of Logistic Regression?

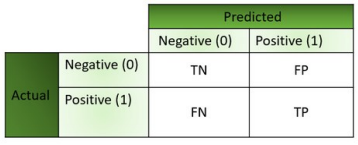
A For a 1-unit increase in X, we expect a b1 unit increase in Y.
B For a 1-unit increase in X, we expect b1 percentage increase in Y.
C For a 1-percentage increase in X, we expect b1 percentage increase in Y.
D Increasing X by one unit changes the log odds by b1
E I do not know

✗ **7.** Logistic Regression cannot be used to model the response variable which

A has two categories
B has more than two categories
C is ordinal
D is numeric
E I do not know

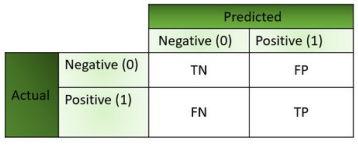
✓ **8.** Accuracy =

A (TP+TN)/Total
B TP/(TP+FN)
C TN/(TN+FP)
D I do not know



✓ **9.** Sensitivity =

A (TP+TN)/Total
B TP/(TP+FN)
C TN/(TN+FP)
D I do not know



✗ **10.** Your lecturer decided that you are cheating while you are not. It is

- A Type 1 error (false positive)
- B Type 2 error (false negative)
- C I do not know

✓ **11.** 1Suppose the data with the number of observations equals to 142, where 89 observations belong to class 1, and another part to 0. Let the level 1 is the positive case. We performed the logit model and obtained the accuracy = 60%. Does the model have a high predictive power?

- A Yes, because it is more than the non-information rate
- B No, because it is less than the non-information rate
- C Yes, because it is less than the non-information rate
- D No, as a result of other reasons.
- E The non-information rate? What is it?

✓ **12.** Is Logistic regression a supervised machine learning algorithm?

- A Yes
- B No
- C I do not know

✗ **13.** By using MLE for estimating the coefficient in the Logistic Regression model

- A we can obtain the unique formula for coefficients
- B we can obtain the unique formula for coefficients only for 1-D case
- C we cannot obtain the unique formula for coefficients
- D I do not know