

Name: _____

Score: _____ / _____

Quiz #2

Part 1

Which of the following is a primary reason to use log transformation on a feature?

- A.
To handle missing values.
- B.
To linearize a non-linear relationship.
- C.
To ensure all features have the same unit.
- D.
To convert a continuous feature into a categorical one.

Answer Point Value: 2.0 points

Answer Key: B

Which feature transformation technique is commonly used to convert categorical variables into a format that can be provided to machine learning algorithms?

- A.
Z-score transformation.
- B.
Normalization.
- C.
One-hot encoding.
- D.
Box-Cox transformation.

Answer Point Value: 2.0 points

Answer Key: C

The parameters estimated through maximum likelihood regression of Y on X describe

- A.
the joint distribution of X and Y
- B.
the conditional distribution of $Y|X = x$
- C.
the conditional distribution of $X|Y = y$
- D.
the marginal distribution of X
- E. the marginal distribution of Y

Answer Point Value: 2.0 points

Answer Key: B

L1 regularization in logistic regression tends to:

- A.
Provide probabilistic model outcomes.
- B.
Make some coefficient estimates exactly zero.
- C.
Lead to multicollinearity.
- D.
Increase model bias.

Answer Point Value: 2.0 points

Answer Key: B

What does the output of a logistic regression model represent?

- A.
A categorical label.
- B.
The variance of the predictors.
- C.
A probability between 0 and 1.
- D.
A continuous value between $-\infty$ and ∞ .

Answer Point Value: 2.0 points

Answer Key: C