CSP 571 Data Preparation and Analysis

Quiz - 2

Question 1

Resampling methods can be used for the following:

- a. Model selection
- b. Neither model assessment nor model selection.
- c. Model assessment
- d. Both model assessment and model selection.

Question 2

In logistic regression, the log-odds ratio of the response variable is modeled as:

- Non-Parametric
- Linear
- None of the Above
- Non-Linear

Question 3

Linear regression models cannot be applied to qualitative response variables directly as categorical responses lack:

- Distance Measures
- Coloring
- None of the Above
- Ordering

Question 4

Estimation of coefficients β_0, β_1 within simple logistic regression involves a likelihood function that is subsequently:

- Set to 0
- None of the Above
- Maximized
- Minimized

Question 5

The LDA classifier attempts to use a linear discriminant function to approximate the following decision boundary (and associated classifier):

- kNN
- Both of the Above
- Bayes
- None of the Above

Question 6

Linear Discriminant Analysis (LDA) allows for separation of observations into K classes, all of which have a shared:

- ○ Skewness
- ○ μ
- ○ Kurtosis
- ◉ σ^2

Question 7

The bootstrap method involves sampling from a set of observations

- ○ a. in the original order of the observations.
- ◉ b. with replacement.
- ○ c. without any values appearing more than once.
- ○ d. without replacement.

Question 8

When using leave-one-out cross-validation (LOOCV) for a data set consisting of n observations with d features, the size of each training set for the procedure will be:

- ○ a. $n+1$
- ○ b. $d-1$
- ○ c. $d+1$
- ◉ d. $n-1$

Question 9

The estimate of test error from leave-one-out cross-validation will have a lower bias than k-fold cross-validation, but will also have a higher variance due to all trained models being highly

- ○ a. biased.
- ◉ b. correlated.
- ○ c. optimal.
- ○ d. diversified.

Question 10

For k-fold cross-validation, each training set will be the following size:

- ○ a. k
- ○ b. $\frac{n}{k}$
- ◉ c. $\frac{n}{k}(k-1)$
- ○ d. $n-k$