

DSC630-T301 Predictive Analytics (2231-1) Weeks 11 & 12: Final Projects

Review Test Submission: 12.3 Quiz: Model Selection and Evaluation Extra Credit Quiz

Review Test Submission: 12.3 Quiz: Model Selection and Evaluation Extra Credit Quiz

User	Akila Selvaraj
Course	DSC630-T301 Predictive Analytics (2231-1)
Test	12.3 Quiz: Model Selection and Evaluation Extra Credit Quiz
Started	11/17/22 10:09 PM
Submitted	11/17/22 10:13 PM
Status	Completed
Attempt Score	12 out of 12 points
Time Elapsed	4 minutes
Results Displayed	All Answers, Submitted Answers, Correct Answers


Question 1

1 out of 1 points

Using labeled data, a model is trained to predict the total revenue generated by an upcoming movie based on various features of the movie. This model can best be characterized as what type of model?

Selected Answer:  Regression Model

Answers:

-  Regression Model
- Classification Model
- Ensemble Model
- Clustering Model


Question 2

1 out of 1 points

You are working on a project with labeled data to predict if a credit card transaction is fraudulent. Of the following types of models, which one is the most appropriate choice to make this prediction?

Selected Answer:  Logistic Regression

Answers:

- Linear Regression
-  Logistic Regression

Lasso Regression

Ridge Regression

Question 3

1 out of 1 points

You have built a regression model to predict the selling price of homes in a metropolitan area. Of the following, which one is the most appropriate metric to evaluate the regression model?

Selected Answer: ☒ R^2

Answers: Accuracy

Precision

Recall

☒ R^2 **Question 4**

1 out of 1 points

Based on the age, height, weight, and activity level of an adult woman, you would like to build a model to predict optimum daily caloric intake using labeled data. Which of the following types (pick all that apply) would be an appropriate model choice?

Selected Answers: ☒ Linear Regression☒ Lasso Regression☒ KNNAnswers: ☒ Linear Regression
Logistic Regression☒ Lasso Regression☒ KNN**Question 5**

1 out of 1 points

You have built a classification model to predict handwritten alphabetic characters. Which of the following metrics (select all that apply) would be appropriate to evaluate the model?

Selected Answers: ☒ Accuracy☒ F1-score☒ ROC AUCAnswers: ☒ Accuracy


RMSE

☒ F1-score


R^2  ROC AUC**Question 6**

1 out of 1 points

You have numerical data on a group of customers with no specific target value, and you would like to segment the customers into similar groups. Which one of the following types of models would be the most appropriate choice?

Selected Answer:  K-Means




Answers:

- Linear Regression
- Logistic Regression
-  K-Means
- KNN




Question 7

1 out of 1 points

A random forest model can be characterized as which of the following? Select all that apply.

Selected Answers:  Regression Model
 Classification Model
 Ensemble Model




Answers:

-  Regression Model
-  Classification Model
-  Ensemble Model
- Clustering Model




Question 8

1 out of 1 points

Which of the following functions (select all that apply) are commonly used as activation function in artificial neural networks (ANNs)?

Selected Answers:  ReLU
 Sigmoid
 Hyperbolic Tangent

Answers:

-  ReLU
-  Sigmoid
- Cosine
- Natural Log
-  Hyperbolic Tangent

Question 9

1 out of 1 points

You are building a model to predict whether a tweet has a positive, negative, or neutral sentiment. Which of the following steps should be performed when building this model? Select all that apply.

- Selected Answers: ☒ Text Preprocessing
☒ Numerically Encode the Text
☒ Train the Model
☒ Evaluate the Model
- Answers: ☒ Text Preprocessing
☒ Numerically Encode the Text
☒ Train the Model
☐ Read Every Tweet
☒ Evaluate the Model

Question 10

1 out of 1 points

Some common methods to encode text data into numerical data include which of the following. Select all that apply.

- Selected Answers: ☒ TFIDF-vectorization
☒ n-gram Vectorization
☒ Word Count Vectorization
- Answers: ☐ One-hot Encoding
☒ TFIDF-vectorization
☒ n-gram Vectorization
☒ Word Count Vectorization
☐ Decision Trees

Question 11

1 out of 1 points

Which of the following types of neural network is commonly used in image recognition?

- Selected Answer: ☒ Convolutional Neural Network (CNN)
- Answers: ☐ Artificial Neural Network (ANN)
☐ LSTM
☒ Convolutional Neural Network (CNN)

Recurrent Neural Network (RNN)

Question 12

1 out of 1 points

Which of the following are methods to reduce data dimensionality? Select all that apply.

Selected Answers: ☒ Principal Component Analysis (PCA)

☒ Variance Threshold

☒ Recursive Feature Elimination

Answers: ☐ One-hot Encoding

☒ Principal Component Analysis (PCA)

☐ Random Forest

☒ Variance Threshold

☐ Support Vector Machines

☒ Recursive Feature Elimination

[← OK](#)