Started on Monday, 11 March 2024, 3:25 PM

State Finished

Completed on Monday, 11 March 2024, 3:30 PM

Time taken 4 mins 55 secs

Marks 20.00/20.00

Grade 10.00 out of 10.00 (100%)

Review ante chaalu vachestharu sontha telivi vaadu

Question 1
Correct
Mark 1.00 out of 1.00

In k-Means Clustering, what is the initial step for assigning data points to clusters?

- a. Defining cluster centroids based on the mean of data points
- b. Determining the optimal number of clusters
- c. Calculating the distance between data points and cluster centers
- d. Randomly selecting cluster centers V

The correct answer is: Randomly selecting cluster centers

Question 2
Correct
Mark 1.00 out of 1.00

In natural language processing, what is stemming used for?

- a. Reducing words to their root forms V

Question
Correct

Mark 1.00 out of 1.00

- b. Identifying the syntactic structure of sentences
- c. Parsing sentences into individual words
- d. Removing punctuation marks from text data

The correct answer is: Reducing words to their root forms

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Regression techniques are primarily used for:

- a. Classification
- b. Clustering
- c. Dimensionality Reduction
- d. Predicting continuous values •-/

The correct answer is: Predicting continuous values

Question 4
Correct

Mark 1.00 out of 1.00

What does data cleaning involve?

- a. Removing outliers and noise from the dataset
- b. Handling missing or inconsistent data V
- c. Converting categorical variables into numerical format
- d. Normalizing the feature values

The correct answer is: Handling missing or inconsistent data

Question 5

The correct answer is:

Question
Correct

Mark 1.00 out of 1.00

What the

a.

Correct

Mark 1.00 out of 1.00

What does TF-IDF stand for in text analytics?

O a. Token Frequency-Inverse Data Field

b. Term Frequency-Inverse Document Frequency V

O c. Text Feature-Inverse Data Format

O d. Term Frequency-Indicative Document Feature

Term Frequency-Inverse Document Frequency

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is first step in data preprocessing?

o Feature Scaling o

b. Data Transformation

O c. Dimensionality Reduction

d. Data Cleaning V

The correct answer is: Data Cleaning

Question 7
Correct

Mark 1.00 out of 1.00

What is the importance of data visualization in data science?

The correct answer is:

Question
Correct

Mark 1.00 out of 1.00

- a. To hide information from stakeholders
- b. To simplify complex datasets and communicate insights effectively •-/
- c. To reduce the need for statistical analysis
- d. To make data look aesthetically pleasing

The correct answer is: To simplify complex datasets and communicate insights effectively

Question 8
Correct

Mark 1.00 out of 1.00

What is the main goal of Principal Component Analysis (PCA)?

- a. To predict future outcomes from historical data
- b. To cluster data points based on similarity
- c. To reduce the dimensionality of data while preserving its variance V
- d. To visualize high-dimensional data

To reduce the dimensionality of data while preserving its variance

The correct answer is:

Question
Correct

Mark 1.00 out of 1.00

What the

a.

9

is primary objective of k-Nearest Neighbors (k-NN) algorithm?

O Classification V

b. Clustering

O c. Dimensionality Reduction

O d. Regression

The correct answer is: Classification

Question I O
Correct

Mark 1.00 out of 1.00

What is the primary objective of using dropout regularization in neural networks?

O a. To increase the computational efficiency of training

b. To prevent overfitting by randomly dropping units during training V

O c. To initialize the weights of the neural network

O d. To speed up convergence during backpropagation

The correct answer is: To prevent overfitting by randomly dropping units during training

Question I I
Correct

Mark 1.00 out of 1.00

The correct answer is:

Question
Correct

Mark 1.00 of 1.00

What is the purpose of using padding in convolutional neural networks?

a. To increase the receptive field of the convolutional layers
b. To add noise to the input data
c. To prevent loss of information at the edges of the input image V
d. To reduce the size of the feature maps

To prevent loss of information at the edges of the input image

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out

is role of the learning rate in backpropagation?

It controls the speed at which weights are updated during training. V
b. It determines the number of iterations needed for convergence.
c. It defines the size of the neural network architecture.
d. It measures the amount of noise in the training data.

The correct answer is: It controls the speed at which weights are updated during training.

Question 13
Correct

Mark 1.00 out of 1.00

What type of data analysis focuses on summarizing and describing the characteristics of a dataset?

a. Predictive Analytics
b. Prescriptive Analytics
c. Descriptive Analytics V
d. Diagnostic Analytics

The correct answer is: Descriptive Analytics

Question
Correct
Mark 1.00 of 1.00

What the

a.

Question 14
Correct
Mark 1.00 out of 1.00

Which activation function is commonly used in the output layer of a binary classification neural network?

- a. Softmax
- b. Sigmoid ✓
- c. Tanh
- d. ReLU

Sigmoid

1 5

out

Which area of natural language processing involves understanding the meaning and context of text data?

- a. Named Entity Recognition
- b. Semantic Analysis ✓
- c. Text Classification
- d. Sentiment Analysis

The correct answer is: Semantic Analysis

Question 16
Correct
Mark 1.00 out of 1.00

The correct answer is:

Question
Correct

Mark 1.00 of 1.00

Which data science technique involves identifying patterns and relationships in data to make informed decisions about future outcomes?

- a. Prescriptive Analytics
- b. Predictive Analytics V
- c. Descriptive Analytics
- d. Diagnostic Analytics

The correct answer is: Predictive Analytics

Question 17
Correct

Mark 1.00 out of 1.00

Which popular library is commonly used for natural language processing tasks in Python?

- a. Scikit-learn
- b. NLT K (Natural Language Toolkit) V
- c. pyTorch
- d. TensorFlow

The correct answer is: NLT K (Natural Language Toolkit)

Question
Correct

Mark 1.00 of 1.00

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out

Which preprocessing technique aims to ensure that all features have the same scale?

- a. Feature Scaling
- b. Dimensionality Reduction
- c. Data Transformation
- d. Data Cleaning

The correct answer is: Feature Scaling

Question 19
Correct

Mark 1.00 out of 1.00

Which technique is used for feature extraction in text analytics?

- a. Bag-of-Words (BOW) V
- b. Singular Value Decomposition (SVD)
- c. k-Means Clustering
- d. Principal Component Analysis (PCA)

The correct answer is: Bag-of-Words (BOW)

Question 20
Correct

Mark 1.00 out of 1.00

Which tool is commonly used for interactive data visualization and exploration?

- a. Tableau
- b. Seaborn
- c. Plotly
- d. Matplotlib

The correct answer is: Tableau