Unit 13 - Week 12

Course outline

How does an NPTEL online course work?

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Week 12

- Hierarchical method of clustering- II
- Classification and Regression Trees (CART : I)
- Measures of attribute selection
- Attribute selection Measures in CART : II
- Classification and Regression Trees (CART) - III
- Important data files
- Quiz : Assignment 12
- Solution : Assignment 12
- Python code files

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Assignment 12

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-04-22, 23:59 IST.

1) Which clustering algorithm works well when the shape of the clusters is hyper-spherical ? *1 point*

- K Means
- Agglomerative hierarchical clustering
- Divisive hierarchical clustering
- All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
K Means

2) Single linkage and complete linkage are defined as – *1 point*

- Minimum and average distances respectively
- Minimum and maximum distances respectively
- Maximum and minimum distances respectively
- Average and maximum distances respectively

No, the answer is incorrect.
Score: 0
Accepted Answers:
Minimum and maximum distances respectively

3) Affinity option in the python is used for – *1 point*

- Selecting the linkage option
- Selecting the distance option
- Selecting a particular method option
- Selecting the number of clusters

No, the answer is incorrect.
Score: 0
Accepted Answers:
Selecting the distance option

4) In decision tree, an internal node represents – *1 point*

- A test on an attribute
- An outcome of the test
- Entire sample population
- Holds a class label

No, the answer is incorrect.
Score: 0
Accepted Answers:
A test on an attribute

5) Choose the correct statement about the CART model – *1 point*

- CART follows unsupervised learning technique
- CART follows a supervised learning technique
- CART adopt a greedy approach
- Both (b) and (c)

No, the answer is incorrect.
Score: 0
Accepted Answers:
Both (b) and (c)

6) Which attribute selection measure are used by the CART model – *1 point*

- Information Gain
- Gain ratio
- Gini Index
- All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Gini Index

7) Select the correct statement – *1 point*

- Gini index is used to find the splitting criterion for each attribute in the tuple in Database
- The attribute with the maximum gain ratio is selected as the splitting attribute
- Gain ratio and information gain are the same
- Both (a) and (b)

No, the answer is incorrect.
Score: 0
Accepted Answers:
Both (a) and (b)

8) Fit_transform () method is used to – *1 point*

- Fit label encoder and return encoded labels
- Normalize the labels
- Transform non-numerical labels to numerical labels
- All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
All of the above

9) Drop () method is used to – *1 point*

- Remove rows by specifying label names and corresponding axis by specifying index or column names directly
- Remove columns by defining label names and the corresponding axis
- Remove rows by specifying index or column names directly
- All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
All of the above

10) Which library is used to build the decision tree model – *0 points*

- Decisiontreeclassifier
- DecisionTreeClassifier
- Decision_Tree_Classifier
- Decision_tree_classifier

No, the answer is incorrect.
Score: 0
Accepted Answers:
DecisionTreeClassifier