Assignment 8

The due date for submitting this assignment has passed. Due on 2018-03-21, 23:59 IST.

Submitted assignment

1) CART is a -
   (a) Non-linear technique
   (b) Non-parametric technique
   (c) Both a and b
   (d) None of the above

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

2) __________ is a decision support tool that uses a tree-like graph or model of decisions and their possible consequences, including chance event outcomes, resource costs, and utility.
   (a) Decision tree
   (b) Graphs
   (c) Trees
   (d) Networks

   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   (a) Decision tree

3) The complexity of a tree structure often decreases as the complexity of the node models:
   (a) Increases
   (b) Decreases
   (c) Medium
   (d) None of the above

   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   (a) Increases

4) Pruning is the inverse of:
   (a) Recursive
   (b) Splitting
   (c) Both a and B
   (d) None of the above
No, the answer is incorrect.
Score: 0
Accepted Answers:
(b) Splitting

5) After building the decision tree, a __________ step can be performed to reduce the size of the decision tree to avoid overfitting.

- (a) Tree-pruning
- (b) Splitting
- (c) Overfitting
- (d) None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a) Tree-pruning

6) Decision trees that are too large are susceptible to a phenomenon known as:

- (a) Overfitting
- (b) Pruning
- (c) Both a and b
- (d) None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a) Overfitting

7) In general, bigger tree means higher accuracy, but if the tree is too big, it overfits the data and results in:

- (a) Decreased accuracy
- (b) Increased accuracy
- (c) Decreased robustness
- (d) both (a) and (c)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(d) both (a) and (c)

8) __________ is a tree that at each inner node has a decision rule that assigns instances uniquely to child nodes of the actual node, and at each leaf node has a target value.

- (a) Classification Tree
- (b) Regression tree
- (c) Both a and b
- (d) None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
(b) Regression tree

9) In case of regression tree, performance measured by:

- (a) Root mean squared error (RMSE)
- (b) Sum of squared error (SSE)
- (c) Both a and b
- (d) None of the above

No, the answer is incorrect.
Score: 0
10) Which is the true assumptions that are made when building decision trees?

- (a) The data can be described by features, such as the features of Batman characters. Sometimes we assume these features are discrete, but we can also use decision trees when the features are continuous. Binary decisions are made on the basis of continuous features by determining a threshold that divides the range of values into intervals correlated with decisions.
- (b) The class label can be predicted using a logical set of decisions that can be summarized by the decision tree.
- (c) The greedy procedure will be effective on the data that we are given, where effectiveness is achieved by finding a small tree with low error.
- (d) All of the above

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