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Week 12 : Assignment 12

The due date for submitting this assignment has passed.

Due on 2023-04-19, 23:59 IST.

Assignment submitted on 2023-04-19, 23:18 IST

1) Which of the following data mining tasks should not be conducted using discriminant analysis? ***1 point***

- (•) Prediction
- ( ) Classification
- ( ) Clustering
- ( ) None of the above

Yes, the answer is correct.
Score: 1
Accepted Answers:
Prediction

2) Which of the following is true about linear classification functions used in discriminant analysis? ***1 point***

- [x] Provide the basis for discrimination of records into classes
- [x] Linear functions of predictors that maximize ratio of between-class variability to within-class variability
- [x] Coefficients of linear discriminant are optimized w.r.t class separation
- [ ] None of the above

Yes, the answer is correct.
Score: 1
Accepted Answers:
Provide the basis for discrimination of records into classes

Linear functions of predictors that maximize ratio of between-class variability to within-class variability
Coefficients of linear discriminant are optimized w.r.t class separation

3) Which of the following plot can be helpful in assessing class separation for discriminant analysis? ***1 point***

- Histogram
- Scatter plot
- Bar chart
- None of the above

Yes, the answer is correct.
Score: 1
Accepted Answers:
Scatter plot

4) What is the maximum number of needed discriminant functions when m classes are present? ***1 point***

- m
- m-1
- m/2
- None of the above

Yes, the answer is correct.
Score: 1
Accepted Answers:
m-1

5) Which of the following is true assumption about correlation structure between predictors in discriminant analysis? ***1 point***

- Different for each class
- Same for each class
- Does not matter
- None of the above

Yes, the answer is correct.
Score: 1
Accepted Answers:
Same for each class

6) Which of the following are true about discriminant analysis and linear regression? ***1 point***

- Same estimation technique
- Coefficients are optimized using same mechanism
- Different estimation technique
- None of the above

Yes, the answer is correct.
Score: 1
Accepted Answers:
Same estimation technique

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7) Which of the following updating mechanisms yields more accurate results in neural networks? ***1 point***

- ○ Batch updating
- ○ Both a and b
- ◉ Case updating
- ○ None of the above

Yes, the answer is correct.
Score: 1

Accepted Answers:
Case updating

8) Which of the following is true about updating mechanisms in neural networks? ***1 point***

- ☑ Case updating is done after each case or record is run through the network.
- ☐ Batch updating is done after each case or record is run through the network.
- ☑ Batch updating is done after all records are run through the network.
- ☐ None of the above

Yes, the answer is correct.
Score: 1

Accepted Answers:
Case updating is done after each case or record is run through the network.
Batch updating is done after all records are run through the network.

9) What is the basic advantage of data normalization step? ***1 point***

- ○ Smaller values improve the model
- ○ Values falling in a smaller range improve the model
- ◉ Computing performance is better
- ○ None of the above

Yes, the answer is correct.
Score: 1

Accepted Answers:
Computing performance is better

10) Which stopping criteria are typically used in the training of neural networks? ***1 point***

- ☑ Small incremental change in bias and weight values
- ☑ Rate of change of error function values reaches a required threshold
- ☑ Limit on no. of runs is reached
- ☐ None of the above

Yes, the answer is correct.
Score: 1

Accepted Answers:
Small incremental change in bias and weight values
Rate of change of error function values reaches a required threshold
Limit on no. of runs is reached