

X


<https://swayam.gov.in>

[https://swayam.gov.in/nc\\_details/NPTEL](https://swayam.gov.in/nc_details/NPTEL)

sai.doc45@gmail.com ▾

NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » Business analytics and data mining  
Modeling using R (course)



## Course outline

How does an NPTEL online course work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

Week 9 ()

Week 10 ()

# 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**

- ☒ 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
- ☐ None of the above

Yes, the answer is correct.  
Score: 1

Accepted Answers:  
*Provide the basis for discrimination of records into classes*

**Week 11 ()****Week 12 ()**

● Lecture 56  
ARTIFICIAL  
NEURAL  
NETWORK  
PART-4 (unit?  
unit=98&lesson=99)

● Lecture 57  
ARTIFICIAL  
NEURAL  
NETWORK  
PART-5 (unit?  
unit=98&lesson=100)

● Lecture 58  
ARTIFICIAL  
NEURAL  
NETWORK  
PART-6 (unit?  
unit=98&lesson=101)

● Lecture 59  
DISCRIMINANT  
ANALYSIS  
(unit?  
unit=98&lesson=102)

● Lecture 60  
DISCRIMINANT  
ANALYSIS  
PART-2 (unit?  
unit=98&lesson=103)

● **Quiz: Week  
12 :  
Assignment  
12  
(assessment?  
name=136)**

○ Solution for  
week 12 :  
Assignment 12  
(unit?  
unit=98&lesson=104)

**Download  
Videos ()**

**Weekly  
Feedback ()**

*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*

**Text  
Transcripts ()**

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*

