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Quiz 2 - Dimensionality reduction

Type	:	Graded Quiz
Attempts	:	1/1
Questions	:	10
Time	:	15m
Due Date	:	Nov 17, 11:59 PM IST
Your Marks	:	10/10

Instructions

▼

Attempt History

Attempt #1

Nov 08, 6:57 AM

Marks: 10

▲

Q No: 1

Correct Answer

Marks: 1/1

Principal components are always ____ to each other.

☒ Orthogonal

You Selected

☐ Parallel

☐ Horizontal

☐ None of the above

Q No: 2

Correct Answer

Marks: 1/1

_____ is described as a dimensionality reduction technique.

☒ Both PCA and LDA

You Selected

☐ PCA

☐ LDA

☐ LDC

Q No: 3

Correct Answer

Marks: 1/1

A characteristic equation is defined as:

☒ $|A - \lambda I| = 0$

You Selected

☐ $|A| = \lambda I$

☐ $|A - I| = \lambda$

☐ None of the given options

Q No: 4

Correct Answer

Marks: 1/1

PCA takes care of multi co-linearity in data.

☒ True

You Selected

☐ False

☐ No answer text provided.

☐ No answer text provided.

Q No: 5

Correct Answer

Marks: 1/1

When to use PCA?

☒ You want to find latent features and reduce dimensionality

You Selected

☐ When my data is small and with a few features

☐ When I have a overfit case

☐ Everytime before uses a Machine Learning algorithm

Q No: 6

Correct Answer

Marks: 1/1

Which of the following statement is TRUE about Linear Discriminative Analysis ?

☒ LDA objective is to maximize the distance between the target classes and minimize the distance within classes

You Selected

☐ minimize both distance between class and distance within class

☐ maximize both distance between class and distance within class

☐ LDA objective is to minimize the distance between the target classes and maximize the distance within classes

Q No: 7

Correct Answer

Marks: 1/1

PCA can be used for projecting and visualizing data in lower dimensions.

☒ True

You Selected

☐ False

☐ No answer text provided.

☐ No answer text provided.

Q No: 8

Correct Answer

Marks: 1/1

Which of the following are the different criterias to select the best principal components?

☒ Both Scree Plot and Kaiser Criterion

You Selected

☐ Scree Plot

☐ Kaiser Criterion

☐ None of the given options

Q No: 9

Correct Answer

Marks: 1/1

Which of the following statements are TRUE about PCA?

1. PCA is unsupervised approach
2. PCA select only the significant features from all the features
3. PCA helps in removing redundant feature dimensions and select the unique features
4. PCA can be used for prediction

☒ A and C

You Selected

☐ A and B

☐ A, B and C

☐ B and C

Q No: 10

Correct Answer

Marks: 1/1

_____ is known to have a practical use as a binary as well as multiclass classifier.

☒ LDA

You Selected

☐ PCA

☐ Both PCA and LDA

☐ None

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