Quiz 1.7 | Data Reduction and Feature Extraction

Due No due date **Points** 9 **Questions** 8 **Time Limit** None

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	19 minutes	6 out of 9 *

* Some questions not yet graded

Score for this quiz: **6** out of 9 *
Submitted Oct 1 at 10:11pm
This attempt took 19 minutes.

Question 1

1 / 1 pts

Feature extraction method involves:

Correct! ☑ Principal component analysis (PCA)

Correct! ☑ Factor Analysis (FA)

☐ Supervised Machine learning methods

☐ Extracting valuable features from the dataset

Question 2

1 / 1 pts

Chi-square test is used to find:

○ New variable after reducing the data

Correct!

- (●) Measures the relationship strength between two variables
- ( ) New subset of features
- ( ) Applicable to only discrete values

Question 3

1 / 1 pts

Which methods are used to reduce the Multivariate data?

Correct!

- [x] Regression method
- [ ] Chi-square data

Correct!

- [x] Wrapper Method
- [ ] Pearson Coefficient

Question 4

1 / 1 pts

Principal component analysis (PCA) and Factor Analyses are kind of _____ techniques?

- ( ) Data Transformation
- ( ) Data reduction

Correct!

- (●) Feature extraction
- ( ) Data visualization

Question 5

1 / 1 pts

While implementing PCA, the features are arranged in ____ order of their variance.

- Ascending
- Descending

Correct!

Question 6

1 / 1 pts

In order to measure the distance between the binary attributes, which of the following method/s are used?

- Euclidean distance
- Jaccard
- Cosine
- None of the above

Correct!

Question 7

Not yet graded / 1 pts

Where can we use Euclidean Distance?

Your Answer:

The usage of Euclidean distance is given as:

1. The Euclidean distance is used when the given data is dense and continuous.
2. Efficiency is a concern.

- The triangle inequality property reduces the number of proximity calculations.

3. Euclidean distance is a very useful metric in clustering and classification tasks.

Question 8

Not yet graded / 2 pts

Write any two applications of proximity measures.

Your Answer:

The applications of proximity measures are given as:

1. It is used by K-Nearest Neighbour Algorithm for classification purposes.
2. It is used by clustering algorithms such as K-Means Clustering, Agglomerative Hierarchical Clustering Algorithms, etc. to find the groups of similar characteristics in a given dataset.
3. It is used by Anomaly detection algorithms to find out the most dissimilar objects in a given dataset.

Quiz Score: **6** out of 9