

Final Exam

LATEST SUBMISSION GRADE

70%

1.

Question 1

What is the subfield of computer science that gives "computers the ability to learn without being explicitly programmed."?

1 / 1 point



Information management



Machine learning



Computational science



Graphics and visual computing

Correct

2.

Question 2

Regression/Estimation, Classification, Clustering, and Associations are all examples of what?

1 / 1 point



Machine Learning techniques



Fuzzy Logic Systems



Neural Networks



Support Vector Machines

Correct

3.

Question 3

Which of the following is true for **Multiple Linear Regression**?

1 / 1 point



Observational data are modeled by a function which is a nonlinear combination of the model parameters and depends on one or more independent variables.



Multiple independent variables are used to predict a dependent variable.



One independent variable is used to predict a dependent variable.



The relationship between the independent variable x and the dependent variable y is modeled as an n th degree polynomial in x .

Correct

4.

Question 4

Which of the following statements are **TRUE** about **Polynomial Regression**?

1 / 1 point



Polynomial regression fits a curve line to your data.

Correct



Polynomial regression models can fit using the Least Squares method.

Correct



Polynomial regression can use the same mechanism as Multiple Linear Regression to find the parameters.

Correct

5.

Question 5

Which of the below is a sample of classification problem?

0 / 1 point



To predict the category to which a customer belongs to.



To predict whether a customer switches to another provider/brand.



To predict whether a customer responds to a particular advertising campaign or not.



All of the above

Incorrect

6.

Question 6

Which of the following is FALSE for Logistic Regression?

0 / 1 point



Logistic regression models the relationship between two variables by fitting a linear equation to observe data, using an explanatory variable and a dependent variable.



Logistic regression is analogous to linear regression but takes a categorical/discrete target field instead of a numeric one.



In logistic regression, the dependent variable is binary.



Logistic regression can be used for both binary classification and multi-class classification.

Incorrect

7.

Question 7

Which of the following statements is false for k-means clustering?

1 / 1 point



None of the above.



k-means divides the data into non-overlapping clusters without any cluster-interval structure.



k-means clustering creates a tree of clusters



The object of k-means is to form clusters in such a way that similar samples go into a cluster, and dissimilar samples fall into different clusters.

Correct

8.

Question 8

Which of the following are characteristics of DBSCAN? Select all that apply.

1 / 1 point



DBSCAN can find arbitrarily shaped clusters.

Correct



DBSCAN can find a cluster completely surrounded by a different cluster.

Correct



DBSCAN has a notion of noise, and is robust to outliers.

Correct



DBSCAN does not require one to specify the number of clusters such as k in k-means

Correct

9.

Question 9

What captures the pattern of people's behavior and uses it to predict what else they might want or like?

0 / 1 point



Recommender Systems



Resource Management



Industrial Simulations



Reinforcement Systems

Incorrect

10.

Question 10

A _____ recommendation system tries to recommend items to the users based on their profile built upon their preferences and taste.

1 / 1 point



Utility-based



Collaborative



Demographic-based



Content-based

Correct