Final Exam

Latest Submission Grade 100%

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

   1/1 point

   ○ Graphics and visual computing

   ○ Computational science
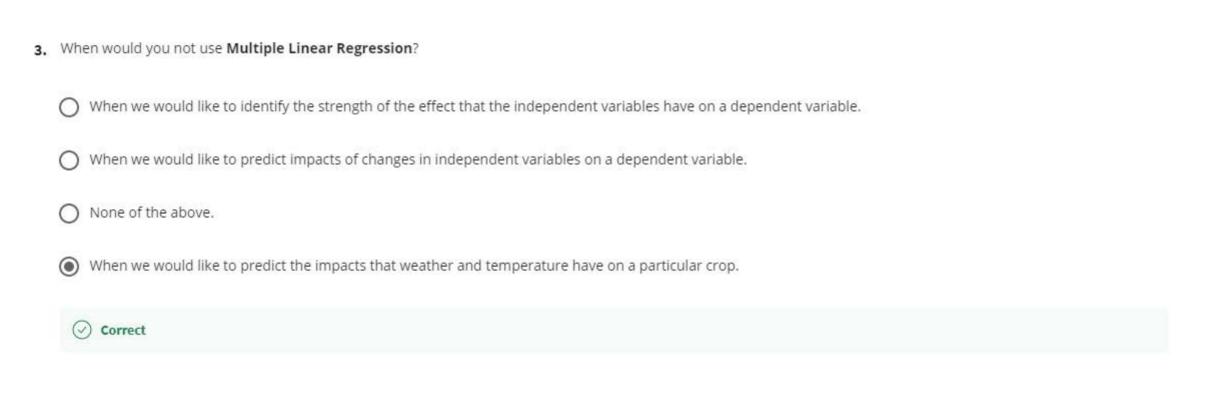
   ⦿ Machine learning

   ○ Information management

   ✓ **Correct**

2. Which of the following is a Machine Learning technique?

   1/1 point

2. Which of the following is a Machine Learning technique?

1 / 1 point

○ Clustering

○ Classification

○ Regression/Estimation

○ Associations

◉ All of the above

✓ **Correct**

3. When would you not use **Multiple Linear Regression**?

1 / 1 point

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1 / 1 point

○ When we would like to identify the strength of the effect that the independent variables have on a dependent variable.

○ When we would like to predict impacts of changes in independent variables on a dependent variable.

○ None of the above.

◉ When we would like to predict the impacts that weather and temperature have on a particular crop.

✓ **Correct**

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

1 / 1 point

☑ Polynomial regression fits a curve line to your data.

✓ **Correct**

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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. Which of the below is a sample of classification problem?

1 / 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

✓ **Correct**

6. Which of the following statements are **TRUE** about Logistic Regression? (select all that apply)

1 / 1 point

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

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1 / 1 point

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

✓ **Correct**

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

✓ **Correct**

☑ In logistic regression, the dependent variable is binary.

✓ **Correct**

7. What type of clustering divides the data into non-overlapping subsets without any cluster-internal structure?

1 / 1 point

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1 / 1 point

- 🔘 k-mean clustering

- ⚪ None of the above

- ⚪ DBSCAN clustering

- ⚪ Hierarchical clustering

✓ **Correct**

8. What are the two parameters for DBSCAN?

1 / 1 point

- ⚪ Epsilon and Maximum Points

- 🔘 Epsilon and Minimum Points

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1 / 1 point

- ○ Epsilon and Maximum Points
- ◉ Epsilon and Minimum Points
- ○ Clusters and Epsilon
- ○ Clusters and Minimum Points

> ✓ **Correct**

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

1 / 1 point

- ◉ Recommender Systems

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1 / 1 point

◉ Recommender Systems

○ Reinforcement Systems

○ Industrial Simulations

○ Resource Management

✓ **Correct**

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

1 / 1 point

○ Collaborative

○ Resource Management

✓ **Correct**

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

1 / 1 point

○ Collaborative

○ Demographic-based

◉ Content-based

○ Utility-based

✓ **Correct**