When implementing linear regression of some dependent variable $y$ on the set of independent variables $\mathbf{x} = (x_1, \ldots, x_r)$, where $r$ is the number of predictors, which of the following statements will
be true?
Ans:Linear regression is about determining the best predicted weights by using the ordinary least squares

What indicates that you have a ***perfect fit*** in linear regression?
Ans:The value $R^2 = 1$, which corresponds to SSR = 0

In simple linear regression, the value of ***what*** shows the point where the estimated regression line
crosses the $y$ axis?
Ans:b) B0

Which one represents an ***underfitted*** model?

Ans:The top-right plot

There are five basic steps when you're implementing linear regression:
Ans:e, d, b, a, c

Which of the following are optional parameters to LinearRegression in scikit-learn?
Ans:fit_intercept

While working with scikit-learn, in which type of regression do you need to transform the array of
inputs to include nonlinear terms such as $x^2$?
Ans:Polynomial regression

You should choose statsmodels over scikit-learn when:
Ans:You're working with nonlinear terms.

is a fundamental package for scientific computing with Python. It offers
comprehensive mathematical functions, random number generators, linear algebra routines, Fourier
transforms, and more. It provides a high-level syntax that makes it accessible and productive.
Ans:Numpy

is a Python data visualization library based on Matplotlib. It provides a high-level
interface for drawing attractive and informative statistical graphics that allow you to explore and
understand your data. It integrates closely with pandas data structures.
Ans:Matplotlib

Among the following identify the one in which dimensionality reduction reduces.
Ans:d) Collinearity

Which of the following machine learning algorithm is based upon the idea of bagging?
Ans:b) Random Forest

Choose a disadvantage of decision trees among the following.
Ans:Decision tree robust to outliers

What is the term known as on which the machine learning algorithms build a model based on sample data?
Ans:Data Training

Which of the following machine learning techniques helps in detecting the outliers in data?
Ans:Anamoly detection

Identify the incorrect numerical functions in the various function representation of machine learning.
Ans:Classification

Analysis of ML algorithm needs
Ans:Statistical learning theory

Identify the difficulties with the k-nearest neighbor algorithm
Ans: b) Calculate the distance of test case for all training case

The total types of the layer in radial basis function neural networks is
Ans:3

Which of the following is not a supervised learning
Ans:PCA