MCQ ASSIGMENT 2

Question 21: 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?

Answer: (d) Both a & b

Question 22: What indicates that you have a perfect fit in linear regression?

Answer: (d) The value $R^2 = 1$, which corresponds to SSR = 0

Question 23: In simple linear regression, the value of what shows the point where the estimated regression line crosses the y axis?

Answer: (b) B0

Question 24: Check out these four linear regression plots: Which one represents an underfitted model?

Answer: (a)The bottom-left plot

Question 25: There are five basic steps when you're implementing linear regression: • a. Check the results of model fitting to know whether the model is satisfactory. • b. Provide data to work with, and eventually do appropriate transformations. • c. Apply the model for predictions. • d. Import the packages and classes that you need. • e. Create a regression model and fit it with existing data. However, those steps are currently listed in the wrong order. What's the correct order?

Answer: (d) d, b, e, a, c

Question 26: Which of the following are optional parameters to LinearRegression in scikit-learn?

Answer: (b) fit_intercept, (c) normalize, (d) copy_X, (e) n_jobs

Question 27: 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?

Answer: (c) Polynomial regression

Question 28: You should choose statsmodels over scikit-learn when:

Answer: (b) You're working with nonlinear terms.

Question 29: _____ 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.

Answer: (b) Numpy

Question 30: _____ 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.

Answer: (b) Seaborn