PFA File-2

21. When implementing linear regression of some dependent variable y on the set of independent variables $\mathbf{x} = (x_1, ..., x_r)$, where r is the number of predictors, which of the following statements will be true?

Answer : d) both a & b

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

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

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

Answer : b) B0

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

Answer : d) The top-left plot

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

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

Answer: b ,c,d,e

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

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

Answer : c) You need more detailed results.

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

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