21 When implementing linear regression of some dependent variable 𝑦 on the set of independent

variables 𝐱 = (𝑥₁, …, 𝑥ᵣ), where 𝑟 is the number of predictors, which of the following statements will

be true?

d) Both and b

22 )

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

d) The value 𝑅² = 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?

b) B0

24)

Check out these four linear regression plots:

Which one represents an **underfitted** model?

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?

d) d, b, e, a, c

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

c) normalize

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 𝑥²?

c) Polynomial regression

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

A)You want graphical representations of your data.

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.

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.

b) Seaborn