

## Answers to MCQs

21. (b) - Linear regression is about determining the **best predicted weights** by using the **method of ordinary least squares**.
22. (d) - The value  $R^2 = 1$ , which corresponds to  $SSR = 0$  indicates a perfect fit in linear regression.
23. (b) -  $\beta_0$  represent the point where the estimated **regression line** crosses the  $y$  axis.
24. (d) - **Top-left plot** shows the under-fitted model because  $R^2 = 0.09$
25. (d) is the correct order for **implementing linear regression**
26. (b, c, d, e) - **fit\_intercept, normalize, copy\_X, n\_jobs** are **optional parameters** to linear regression in scikit learn.
27. (c) - **Polynomial regression** includes nonlinear terms such as  $x^2$ .
28. (c) – we should choose stats-models over scikit-learn if want more detailed results.
29. (b) - **NumPy** is a fundamental package for scientific computing with Python
30. (b) - **Seaborn** is a Python data visualization library based on Matplotlib.