

1. During the Severe Acute Respiratory Syndrome (SARS) outbreak of 2003, some researchers believed that the treatment Ribavirin may be helpful in preventing death due to SARS. Consider a statistical model with the dosage level of Ribavirin as a continuous predictor and fatality ("Death" or "No Death") as a response. This model violates the standard linear regression assumptions.

True

False

2. Generalized linear models (GLMs) extend the linear regression framework to allow for non-normal responses, such as counts.

True

False

3. Standard linear regression is a type of generalized linear model (GLM).

True

False

4. The response of a generalized linear model (GLM) is the random component.

True

False

5. The link function in a generalized linear model (GLM) connects the random response to a linear combination of predictor variables.

True

False

6. A generalized linear model (GLM) includes:

A systematic component consisting of a linear combination of discrete predictors and fixed parameters.

A link function.

A random response component.

A systematic component consisting of a linear combination of discrete or continuous predictors, and fixed parameters.

A systematic component consisting of a linear combination of continuous predictors and fixed parameters.

7. Generalized linear models require that the response comes from the exponential distribution.

True

False