EXST7015 : Daily Design Question 14

Carefully read the description of the experiment below. Be prepared to answer the questions that follow the design description as a class quiz.

An agricultural site in Tennessee was initially prepared in April for corn using conventional tillage and fertilizer (600 lb/A of 15-15-15) techniques. For this experiment, a "plot" consisted of one 20 ft row, and rows were 30 inches apart. The rows were seeded by hand in early May with two seeds per hill at hill spacing that represented 19k, 22k, 25k, 28k plants / acre. Plants were later thinned to one plant per hill in late June. There were 5 replicate plots for each row spacing. The variable of interest was the weight of the grain from each plot at harvest.

Questions:

What is the treatment arrangement for this experiment?

    (a) single factor   (b) factorial   (c) nested

What is the experimental design for this experiment?

    (a) CRD   (b) RBD   (c) LSD   (e) Split-plot   (d) Repeated Measures

Does it seem to you that the treatments are fixed or random?

    (a) fixed   (b) random

What is the experimental unit for this experiment?

    (a) site   (b) month   (c) plot   (d) hill   (e) spacing   (f) weight

What is the sampling unit for this experiment?

    (a) site   (b) month   (c) plot   (d) hill   (e) spacing   (f) weight

What is the dependent variable for this experiment?

    (a) site   (b) month   (c) plot   (d) hill   (e) spacing   (f) weight

If the design is RBD, what are the blocks?

    (a) site   (b) month   (c) plot   (d) hill   (e) spacing   (f) weight

How many degrees of freedom are available for testing the treatments?

    Enter the correct value here: _____