BS 851

Homework 2

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**Question 1**

Part A

334 permuted blocks are needed.

Part B

84 permuted blocks are needed in each of the 4 strata.

Part C

For a given stratum, you’d need a minimum of 5 participants in a single block to guarantee at least 2 participants are randomized to both arms.

Obs 1 trt A

Obs 2 trt A

Obs 3 trt A

Obs 4 trt B

Obs 5 trt B

Obs 6 trt B

Part D

Additionally stratifying by centers will create 60 strata with 34 participants each. Too many small strata will cause imbalances in randomization that cancel out the intended beneficial effects of blocking. It is suggested to use a limited number of strata by only stratifying on the important variables, age, and hepatitis B DNA level.