

STAT 157: Sampling Plans Exercises

1. What survey design is used in the following situations?
 - a) A few electoral districts are chosen at random, and every voter in that district is contacted. _____
 - b) The 17th person and then every 100th person thereafter on the list of registered voters in BC is contacted and asked a question. _____
 - c) Every registered voter's name is written on paper and put into a really, really big hat. The hat is shaken and 1000 papers are selected. _____
 - d) The voters' list is divided up into electoral districts, and 100 names are chosen randomly from each district. _____

2. A manager at the Ford Motor Company wants to do some testing for quality control. In the factory, a number of different assembly lines all produce the same car, the Ford Fiesta. For the following situations, identify the survey method used to pick the samples.
 - a) The serial numbers of all cars manufactured on all assembly lines are recorded and twenty of them are randomly selected for testing. _____
 - b) For each assembly line, a certain number of cars are chosen at random from the ones manufactured that day. _____
 - c) A certain number of assembly lines are chosen at random and then all cars manufactured that day from those lines are tested. _____

Answers

1. a) cluster b) 1-in-100 systematic c) simple random d) stratified random
2. a) simple random b) stratified c) cluster