ST222 2017

Test about Part III

1. • What does the local representativeness assumption mean for random sequences?

    • Give a property of random sequences under which this assumption is not valid.

    • What does belief in hot hand mean?

2. • Group A is given 5 seconds to estimate the product 8x7x6x5x4x3x2x1.
      Group B is given 5 seconds to estimate the product 1x2x3x4x5x6x7x8.
      For Group A the median guess is 2250, for Group B the median guess is 512.
      Give an explanation for the observed difference.

    • Give one other example for the same human bias.

3. A certain town is served by two hospitals. In the larger hospital about 45 babies are born each day, and in the smaller hospital about 15 babies are born each day. As you know, about 50% of all babies are boys. However, the exact percentage varies from day to day. Sometimes it may be higher than 50%, sometimes lower. For a period of 1 year, each hospital recorded the days on which more than 60% of the babies born were boys. Which hospital do you think recorded more such days? Explain why.

    THE LARGER HOSPITAL   THE SMALLER HOSPITAL

4. The Allais paradox points at a limitation of expected utility theory. Explain?

   The Ellsberg paradox also points at a limitation of expected utility theory. Explain?

5. Which rule of probability is hurt in empirical findings about the Linda problem?

   What is the name for the underlying human fallacy?

6. A cab was involved in a hit and run accident at night. Two cab companies, the Green and the Blue, operate in the city. 85% of the cabs in the city are Green and 15% are Blue. A witness identified the cab as Blue. The court tested the reliability of the witness under the same circumstances that existed on the night of the accident and concluded that the witness correctly identified each one of the two colours 80% of the time and failed 20% of the time. What is the probability that the cab involved in the accident was Blue rather than Green?

   Most people answer the probability for Blue is 50% to 80%. Why?

7. Briefly explain the definitions of normative and descriptive theory of decision making.

   Why is normative theory not enough?

8. Name the key ingredients of prospect theory and explain briefly what they are.

9. Name a major difference between a field study and a lab experiment.

10. Define *homo economicus.*

11. What is confirmation bias?