

You can answer in Finnish, in Swedish or in English. Please keep your answers short and down to the facts.

1. Explain the following terms and discuss their roles in network measurements: (6 p)
 - a) Exploratory data analysis
 - b) Correlation
 - c) Stratified random sample
 - d) Time plot
 - e) Self-similarity
 - f) Association rule
2. Modeling measurement data with a probability distribution; the modeling process and methodology. (6 p)
3. Explain the difference between active and passive network measurements. Which one is more suitable for: (6 p)
 - a) Verifying that SLA targets are met for delay-critical application
 - b) Studying how many of network users use streaming media applications
 - c) Estimating traffic matrix and calculating traffic-weighted quality score
4. Describe methods for clock synchronisation. What kind of clock errors there exists? List four different type of network measurements and how important clock synchronisation is in those and what is required accuracy between clocks and between clock and UTC. (6 p)
5. How network performance can be measured based on TCP segment headers captured from the network? What are the limitations? (6 p)