



Examination

Kurssi: E7310 Routing and SDN / Period II -2015
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Vastaa tiiviisti neljään (4) kysymykseen. Kirjoita spesifisesti, mikäli mahdollista. Voit vastata suomeksi tai englanniksi. You may answer in English or in Finnish. Give compact answers to the four (4) questions. Be specific, if you can.

1. Kysymys/Question

When is connection state needed in network nodes? Explain how the connection state, in principle, can be established and removed and how is it used. How can you avoid having connection state in network nodes? Why is avoiding connection state a popular idea?

2. Kysymys/Question

Compare the addressing in IP and Ethernet. Describe the impact on scalability of the routing system in both networks.

3. Kysymys/Question

How is it possible that transient routing loops are formed in networks where routing is based on the distance vector principle? Give an example. What kind of heuristic mechanisms are used in RIP to reduce the likelihood of loops? What better mechanisms are used in MANET routing for the same reason?

4. Kysymys/Question

Describe the Exchange protocol in OSPF.

5. Kysymys/Question

Describe the different types of tree structures used in IP multicast routing. Discuss suitability of the different tree structures for IP network conditions.