



Examination

Course: E7310 Routing and SDN / Period II -2019
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Teacher: Prof. Raimo Kantola
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Give compact answers to four (4) questions. Be specific, if you can. You may answer in English or in Finnish. Vastaa tiiviisti neljään (4) kysymykseen. Kirjoita spesifisesti, mikäli mahdollista. Voit vastata suomeksi tai englanniksi.

1. Kysymys/Question
Describe MAC learning. When is it used and not used in Ethernet? What are its limitations? What is its relation to Carrier Grade Ethernet?
2. Kysymys/Question
How does OSPF reduce flooding in highly or fully meshed networks?
3. Kysymys/Question
Give the Reverse Path forwarding algorithm. Why is it needed and what is its impact?
4. Kysymys/Question
In graphs $G = (V, E)$, **define** terms: degree of a node, network, self-loop, cycle, simple cycle, path, tree and spanning tree. Describe the properties of different spanning trees in graphs.
5. Kysymys/Question
Describe the AODV routing protocol for MANET. Give some advantages and drawbacks. Is it economically viable to offer public services using AODV? Justify using Prisoner's Dilemma game.

