



## Examination

*Kurssi:* E7310 Routing and SDN / Period II -2017  
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*Opettaja:* Prof. Raimo Kantola  
*Pvm:* 13.12. 2017

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 four (4) questions. Be specific, if you can.

1. Kysymys/Question

Which metrics can be used to calculate optimal routes? When is each of these metrics useful? Can each node choose freely which metric to use? Which metrics make most sense in case of provisioning paths over a large meshed network?

2. Kysymys/Question

Describe the methods of link failure detection for routing when the underlying infra is PDH, SDH, Ethernet or any sort? How is failure information learned/distributed and used in packet/circuit switched networks?

3. Kysymys/Question

Describe the role and operation of the Hello protocol in OSPF.

4. Kysymys/Question

Compare advantages and drawbacks of distributed routing to centralized routing.

5. Kysymys/Question

Give the Reverse Path forwarding algorithm. Why is it needed and what is its impact?