

TLT-2756, Ad hoc networks

1. Large scale and small scale propagation models: what are the differences
2. What are the differences between CSMA/CA and CSMA/CD?
3. Why CSMA/CD is not appropriate for wireless networks?
4. Explain the hidden terminal problem, support answer with picture.
5. Explain the exposed terminal problem, support answer with picture.
6. Name some applications of ad hoc networks.
7. Please state what is MAC protocol, explain basic features
8. What are specifics of MAC protocols with scheduling?
9. What are specifics of MAC protocols with reservation?
10. Explain principle of reactive routing protocols
11. Explain principle of proactive routing protocols
12. Is it better to modify TCP or use another transport protocol? Explain.
13. Why performance of TCP is bad in ad hoc environment?
14. Why not to use UDP for ad hoc networks?
15. Motivate the need of energy management in ad hoc networks.
16. Explain the idea of relay traffic blocking approach.
17. What is system power management (SPM)?
18. What specifics make ad hoc wireless network vulnerable?
19. Classify security attacks.
20. Network layer attacks. Please provide ideas and how to cope with.
21. List QoS parameters used in IP networks
22. Why the existent QoS frameworks are not applicable to ad hoc networks?
23. Provide your view at relations between ad hoc networks and WSNs.
24. What are the technical issues in WSN design?
25. Please list the main features for sensor OS design