1. What is the motivation behind congestion control for V2X communication?
2. What are the reasons of performance degradation?
3. List some performance degradations due to high channel load
4. What is the main objective of congestion control?
5. What is the main objective of awareness control?
6. Describe the transition phase from congestion avoidance to congestion control
7. Give a comparison of open and closed loop controller
8. Briefly explain the aim of proactive congestion control
9. Give a comparison of awareness control and congestion control
10. What is flow control?
11. What is the aim of congestion avoidance?
12. How does the TCP congestion detection work?
13. Explain the TCP rate adaptation
14. What is the motivation behind the slow start in TCP?
15. List four channel load measures
16. Consider a 4-lane highway scenario with a vehicle density of 20 veh/km/lane. Suppose each vehicle on the highway periodically transmits packets of length 800 Byte with a rate of 5 Hz over a broadcast channel of capacity $C = 6$ Mbit/s. Assume a carrier sense range of 800 meter.
    (a) Calculate the beaconing load (BL)
    (b) Determine the channel load achieved in this scenario
    (c) Calculate the transmission rate generating a maximum channel load of 15%
17. How to derive the channel busy ratio?
18. Give the main causes of packet losses
19. When does the exposed station problem lead to packet losses?
20. What is the purpose of Decentralized Congestion Control (DCC)?
21. Describe the role of Network Design Limits (NDL) in DCC
22. How does the Transmit Power Control (TPC) work?

23. What is the side effect of increasing the transmission power?
24. Describe how the congestion control algorithm LIMERIC works
25. List the three main states of DCC access control loop