

1. What is the V2X communication?
2. What is the role of ITS/C-ITS?
3. List two applications which used I2V for the information dissemination and provide a brief description of these applications
4. Outline the challenges faced by the Emergency Electronic Brake Lights (EEBL)
5. List the steps performed within the Vehicle Merging assistant
6. Why is V2X-Standardization important?
7. List the different layers of the ITS reference architecture
8. What is the role of the management and security entity?
9. List the class of applications based on collision type running at the applications layer
10. Explain the functionality of the facilities layer
11. What is the purpose of the Basic Transport Protocol (BTP)?
12. Explain the difference between the control and service channel
13. List the main entities of the facilities layer
14. What is the task of the station positioning?
15. What is the task of the service management entity?
16. What is the content of the Local Dynamic Map (LDM)?
17. What is the requirement of the time management?
18. What is the purpose of Cooperative Awareness Messages (CAMs)?
19. Outline the task of CA basic service
20. Why does a received CAM shall not be forwarded to other stations?
21. On which channel are CAMs disseminated?
22. Outline the CAM generation rules and provide a motivation behind
23. Give the maximum and minimum of CAM generation rate
24. What is the reason of CAM timestamping?
25. Outline the structure of a CAM
26. Which information is mandatory in CAM?

27. Briefly explain the function of each container inside the CAM
28. What is the reason behind considering a container concept when building a CAM?
29. List two use cases based on CAM
30. Consider a car driving at a constant speed on a straight road. Derive the message generation rate of CAMs when driving at 100 km/h and 180 km/h according to the message generation rules
31. What is the purpose of Decentralized Environmental Notification Message (DENM)?
32. How does the destination area is represented in a DENM?
33. Why does a received DENM shall be forwarded to other stations?
34. List the types of DENM
35. Outline the difference between a cancellation DENM and a negation DENM
36. Draw the structure of a DENM
37. Why does the location container is mandatory when the situation container is present in a DENM?
38. What is the purpose of SPAT message?
39. List two I2V/V2I applications using SPAT messages
40. What is the purpose of MAP message?