

## CAV Important Questions

### Two marks

- a. List any three application of CV Technology  
<https://www.digi.com/blog/post/what-is-connected-vehicle-technology-and-use-cases>  
<https://www.acko.com/car-guide/connected-cars-features-benefits/>  
[https://www.its.dot.gov/cv\\_basics/cv\\_basics\\_what.htm](https://www.its.dot.gov/cv_basics/cv_basics_what.htm)
- b. Discuss shortly on Vehicle based sensors  
<https://studentlesson.com/car-sensors-definition-functions-diagram-types-working/>
- c. State any two Vehicle-to-Infrastructure Applications  
[https://www.techtarget.com/whatis/definition/vehicle-to-infrastructure-V2I-or-V2X#:~:text=Vehicle%2Dto%2Dinfrastructure%20\(V2I,streetlights%2C%20signage%20and%20parking%20meters.](https://www.techtarget.com/whatis/definition/vehicle-to-infrastructure-V2I-or-V2X#:~:text=Vehicle%2Dto%2Dinfrastructure%20(V2I,streetlights%2C%20signage%20and%20parking%20meters.)
- d. What is Connected vehicle? discuss on need of the day of it.  
<https://www.digi.com/blog/post/what-is-connected-vehicle-technology-and-use-cases>
- e. Distinguish Vehicle based and Infrastructure based CV Devices  
[https://www.researchgate.net/publication/301246542\\_Vehicle-to-vehicle\\_V2V\\_and\\_vehicle-to-infrastructure\\_V2I\\_communication\\_in\\_a\\_heterogeneous\\_wireless\\_network\\_-\\_Performance\\_evaluation](https://www.researchgate.net/publication/301246542_Vehicle-to-vehicle_V2V_and_vehicle-to-infrastructure_V2I_communication_in_a_heterogeneous_wireless_network_-_Performance_evaluation)
- f. Write short note on challenges of traffic control system in CV  
<https://www.hindawi.com/journals/wcmc/2020/8841893/>
- g. How do you interface traffic control with the CV  
<https://www.hindawi.com/journals/jat/2021/3584569/>
- h. List any two data standard  
<https://core.ac.uk/download/pdf/141667172.pdf>

### Big Questions

- a. Discuss Value creation structure for the future  
<https://www.diva-portal.org/smash/get/diva2:949408/FULLTEXT01.pdf>
- b. Explain Fundamentals of traffic control systems.  
<https://www.britannica.com/technology/traffic-control>
- c. Write Case study on Vehicle-to-Infrastructure Applications (V2I)  
[https://rosap.ntl.bts.gov/view/dot/32031/dot\\_32031\\_DS1.pdf?](https://rosap.ntl.bts.gov/view/dot/32031/dot_32031_DS1.pdf?)
- d. What does mean by Infrastructure-Based CV Devices  
<https://www.transportation.gov/research-and-technology/how-connected-vehicles-work>

[https://www.techtarget.com/whatis/definition/vehicle-to-infrastructure-V2I-or-V2X#:~:text=Vehicle%2Dto%2Dinfrastructure%20\(V2I,streetlights%2C%20signage%20and%20parking%20meters.](https://www.techtarget.com/whatis/definition/vehicle-to-infrastructure-V2I-or-V2X#:~:text=Vehicle%2Dto%2Dinfrastructure%20(V2I,streetlights%2C%20signage%20and%20parking%20meters.)

- e. Discuss on Deployments of Connected Vehicle Technology  
<https://www.transportation.gov/briefing-room/us-dot-advances-deployment-connected-vehicle-technology-prevent-hundreds-thousands>
- f. Write elaborately on Fuel injector for intake-manifold injection  
Refer Bosh material shared
- g. Elaborate the need of traffic control systems, Discuss  
<https://www.hindawi.com/journals/wcmc/2020/8841893/>
- h. What is an autonomous vehicle? How does it work? Relate it with data standards.  
<https://core.ac.uk/download/pdf/141667172.pdf>
- i. Discuss on Data standards with possible applications using reliable case studies.  
<https://core.ac.uk/download/pdf/141667172.pdf>
- j. Write Case study on Automotive security applications  
[https://resources.sei.cmu.edu/asset\\_files/webinar/2016\\_018\\_100\\_465585.pdf](https://resources.sei.cmu.edu/asset_files/webinar/2016_018_100_465585.pdf)
- k. Discuss about Data standards  
<https://core.ac.uk/download/pdf/141667172.pdf>
- l. Discuss on Motronic engine-management system  
<https://avtotachki.com/en/chto-takoe-sistema-motronic/>