**CDX Distance Learning**

**Exercise #7**

**Composite Vehicle Diagnosis**

**Estimated Completion Time:** 60 mins.

This exercise uses the L1 exam ASE Composite Vehicle Type 4. Click this [**link**](https://www.ase.com/MediaLibrary/Images/PDF%20folder/L1_CV4_Web_2019-(Blue-Book).pdf) or copy and paste the address below to download the information needed to answer the following questions.

<https://www.ase.com/MediaLibrary/Images/PDF%20folder/L1_CV4_Web_2019-(Blue-Book).pdf>

1. The composite vehicle has a fault for the EGR valve. The technician is attempting to perform an output test on the EGR valve, but it is not operating. Which of the following is most likely the cause?
   1. A poor connection at ECM pin 1
   2. An open wire at ECM pin 108
   3. An open connection at ECM pin 28
   4. Fuse #4 is open
2. The composite vehicle has a misfire on cylinder #6. The technician measures the battery voltage at injector #6, terminal “A” when the vehicle ignition is in the start or run position. Technician A says that this indicates normal voltage to the injector. Technician B says that this indicates a faulty ECM ground. Who is correct?
   1. Technician A
   2. Technician B
   3. Both Technician A and Technician B
   4. Neither Technician A nor Technician B
3. A technician has installed a scan tool to the data link connector (DLC) of the composite vehicle, but the scan tool does not power up. What is the most likely cause?
   1. There is no voltage at DLC pin #4
   2. Pin #5 is shorted to ground
   3. Pin #14 is shorted to power
   4. There is no voltage at DLC pin #16
4. The composite vehicle sometimes starts and stalls or cranks over but will not start. A scan tool is installed and the technician notices that both the coolant temperature sensor (CTS) and the intake air temperature sensor (IAT) are reading -40° F. What is the most likely cause?
   1. An open circuit at ECM pin 50
   2. An open circuit at ECM pin 35
   3. A short to ground at ECM pin 1
   4. A short to ground at ECM pin 60
5. An emission repair was performed on the composite vehicle, and the technician is setting the readiness monitors to verify all repairs. All of the monitors have been set *except* the EVAP system, which will not run. What is most likely the cause?
   1. The cold start temperature was 74° F.
   2. The ambient air temperature is 88° F.
   3. The fuel tank is completely full.
   4. The vehicle has been driven for 60 minutes.