

# *Diesel Equipment Technology*

Quiz

10/28/02

Name \_\_\_\_\_

1. Open circuit digital voltmeter reading of a fully charged battery at 75 F should be:  
A. 12.65v  
B. 13.56v  
C. 12v  
D. 12.83v
2. Open circuit digital voltmeter reading of a fully charged battery at 30 F should be:  
A. 12.65v  
B. 13.56v  
C. 12v  
D. 12.53v
3. CCA are the discharge load measured in amps that a new, fully charged battery, operating at 0° F (-17.8° C), can deliver for 30 seconds and while maintaining the voltage above 7.2. **T or F**
4. Reserve capacity is:  
A. the number of minutes a fully charged battery at 80° F (26.7° C) can be discharged at 25 amps until the voltage falls below 10.5 volts.  
B. the discharge load measured in amps that a new, fully charged battery, operating at 0° F (-17.8° C), can deliver for 30 seconds and while maintaining the voltage above 7.2.
5. **Never** disconnect a battery cable from a car with the engine off, because the battery acts like a filter for the electrical system. Unfiltered (*pulsating DC*) electricity sometimes exceeding 40 volts and can damage expensive electrical components such as computers, radio, charging system, etc. **T or F**
6. Generally, idling the engine or short stop-and-go trips during bad weather or at night might **not** fully recharge the battery. **T or F**
7. Depending on the type of battery and temperature, batteries have a natural self-discharge or internal electrochemical "leakage" at a 1% to 25% rate per year. **T or F**
8. Car batteries last an average of two thirds as long in **hot** climates as **cold** ones. **T or F**
9. What is the best way to prevent battery sulfation?