

EV EDUCATION RALLY

Quiz Bowl Sample Questions

ROUND ONE

1. What are the electrical units for current?
(amperes or amps)
2. Which of the following is not considered an alternative fuel?
A. Diesel
B. Ethanol
C. Methanol
D. Natural gas
(A - Diesel)
3. What should you use to most effectively neutralize an acid spill from a lead acid battery? Sulfuric acid or baking soda?
(baking soda)
4. What is the name of an electrode through which current enters an electric device; in electrolysis, it is the positive electrode in the electrolytic cell.
(anode)
5. Name the device that stores energy and produces electric current by chemical action.
(battery)
6. What unit is used to measure electric potential?
(volts)
7. Six 12-volt batteries are connected in series. What is the nominal voltage of the battery pack?
(72 volts)
8. When you weight your EV, what force are you actually measuring?
(gravity)
9. What do we call any of several dozen heat-trapping trace gases in the earth's atmosphere which absorb infrared radiation?
(greenhouse gases)
10. A potentiometer used in an electrical circuit can change what measurable value in circuit?
(resistance)
11. What does LED stand for?
(light emitting diode)

12. Name the colorless, odorless, highly poisonous gas made up of carbon and oxygen molecules formed by incomplete combustion of carbon or carbonaceous materials?
(carbon monoxide CO)
13. An atom consists of protons, electrons, and neutrons. Which of these particles are directly involved in the flow of electricity?
(electrons)
14. A 96 volt battery pack produces 24 amps of current in a simple circuit. What is the resistance of the circuit?
(4 ohms)
15. Which wire has the smallest current carrying capacity? 10 gauge, 4 gauge, or 16 gauge?
(16 gauge)
16. EV performance changes with the weather. In warm weather does the battery capacity increase or decrease?
(increase)
17. What is a protective device that opens an electric circuit if too much current flows through it?
(fuse)
18. The rotating electromagnet in an electric motor is called the...
(armature)
19. Your E-MTV uses a 12-tooth sprocket on the motor and a 72-tooth sprocket on the wheel. What is the gear ratio of the drive system?
(1:6)
20. A battery supplies electricity by converting one form of energy into another. Name them.
(chemical to electrical)