Automotive Technology 7th Edition
Chapter 47
Multiple Choice Quiz A

Name: _____ Date: _____

1. What happens when two dissimilar metals are placed in an acid and connected by a circuit?
A. Electrons stop flowing between the metals.
B. The metals corrode rapidly.
C. Electrons flow between the metals.
D. The acid neutralizes.

2. How can the principle of electron flow between two dissimilar metals in an acid be demonstrated?
A. By connecting a voltmeter to a steel nail and a copper wire inserted into a lemon.
B. By placing the metals in pure water.
C. By heating the metals in the acid.
D. By connecting the metals to a light bulb.

3. What is the potential difference (voltage) between lead peroxide and lead in acid in a fully charged lead-acid battery?
A. 1.5 volts
B. 2.1 volts
C. 3.0 volts
D. 4.5 volts

4. What does the symbol 'S' represent in the context of the document?
A. Silicon
B. Sodium
C. Sulfur
D. Selenium

5. What is the chemical symbol for the sulfuric acid solution used in automotive batteries?
A. H2O
B. H2SO3
C. H2SO4
D. H2S

6. What is the term used to describe the acid solution in a battery?
A. Electrode
B. Electrolyte
C. Electron
D. Electromagnet

7. What is the primary purpose of an automotive battery?
A. To provide a source of electrical power for starting and for electrical demands that exceed alternator output.
B. To power the vehicle's headlights.
C. To charge the vehicle's entertainment system.
D. To provide power to the vehicle's air conditioning system.

8. What is the composition of the electrolyte used in automotive batteries?
A. 50% sulfuric acid and 50% water
B. 36% sulfuric acid and 64% water
C. 25% sulfuric acid and 75% water
D. 40% sulfuric acid and 60% water

9. Which type of battery uses a low-pressure venting system that releases excess gas and automatically reseals if a buildup of gas occurs due to overcharging?
A. Gel battery
B. Flooded lead acid battery
C. Valve-regulated lead-acid battery
D. Nickel-cadmium battery

10. What is the significance of specific gravity in relation to battery electrolytes?
A. It indicates the battery's voltage.
B. It determines the battery's weight.
C. It determines the battery's size.
D. It indicates the amount of sulfate in the electrolyte.

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Answer Key

1. C

2. A

3. B

4. C

5. C

6. B

7. A

8. B

9. C

10. D