Automotive Technology 7th Edition
Chapter 12
Multiple Choice Quiz A

Name: _____ Date: _____

1. What is the first step in the scientific method as applied to automotive diagnosis?
A. Test to see if the explanation matches the existing problem.
B. Perform additional tests to verify the method works.
C. Formulate an explanation that could be the cause of the problem.
D. Observe the conditions or problem and define or describe the problem.

2. What does the “five whys” method aim to discover?
A. The most obvious problem.
B. The possible hypotheses.
C. The root cause of an automotive problem.
D. The number of tests required.

3. In the context of energy, which is the correct statement?
A. Kinetic energy is the energy of mass at rest.
B. Potential energy is released when a vehicle moves down a hill.
C. Energy is released when a battery is not connected to any load.
D. Chemical energy is not related to the operation of an automobile.

4. How is torque defined?
A. The amount of work done by an engine.
B. The term used to describe a rotating force.
C. The energy stored in a battery.
D. The power produced by an engine.

5. One pound-foot of torque is equal to:
A. 1 Newton-meter
B. 1.3558 Newton-meters
C. 0.7376 Newton-meters
D. 500 Newton-meters

6. Which of the following best describes the difference between heat and temperature?
A. Temperature is the amount of heat present.
B. Heat and temperature mean the same thing.
C. Temperature is the intensity of the heat source while heat is the quantity of heat.
D. Heat is the intensity of the heat source while temperature is the quantity of heat.

7. What does one BTU represent?
A. The amount of heat needed to raise the temperature of two pounds of water by two degrees Fahrenheit.
B. The heat generated by one matchstick.
C. The heat produced by a room heater in one hour.
D. The amount of heat needed to raise the temperature of one pound of water one degree Fahrenheit.

8. Which of the following is NOT a method of heat transfer?
A. Conduction
B. Convection
C. Combustion
D. Radiation

9. What was Gabriel Fahrenheit's initial representation for 100 degrees on his temperature scale?
A. Boiling point of water
B. His own body temperature
C. Melting point of ice
D. Average room temperature

10. Which substance listed below is NOT an acid?
A. Vinegar
B. Lye
C. Battery acid
D. Nitric acid

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Answer Key

1. D

2. C

3. B

4. B

5. B

6. C

7. D

8. C

9. B

10. B