Automotive Technology 7th Edition
Chapter 114
Multiple Choice Quiz B

Name: _____ Date: _____

1. The air suspension sensor operation consists of which types?
A. Air suspension sensor two-wire type or a potentiometer three-wire type
B. Hydraulic sensor or a pneumatic sensor
C. Optical sensor or a magnetic sensor
D. Ultrasonic sensor or a radar sensor

2. What is the common mounting location for the suspension position sensor?
A. Inside the engine compartment
B. Attached to the wheel hub
C. Between the vehicle body and the suspension control arm
D. On the vehicle's roof for GPS signal

3. What type of sensor is used to provide the control module with information regarding the relative position and movement of suspension components?
A. Air suspension sensor
B. Temperature sensor
C. Speed sensor
D. Pressure sensor

4. What is the operation of a linear Hall-effect sensor in an air suspension sensor?
A. It detects the vehicle's acceleration
B. It measures the distance traveled by the vehicle
C. It varies the inductance of the internal sensor coil relative to suspension position
D. It controls the air flow to the engine

5. What is the function of the air spring compressor assembly?
A. To compress the vehicle's exhaust gases
B. To provide air change required to inflate the air springs
C. To pump fuel to the engine
D. To generate electrical power for the vehicle

6. What does the solenoid valve at the top of each air spring regulate?
A. The fuel mixture
B. The temperature of the coolant
C. The flow of hydraulic fluid
D. Airflow into and out of the air spring

7. What does the ECM command to lower the vehicle involve?
A. Increasing fuel supply to the engine
B. Opening the vent solenoid to bleed air pressure out of the system
C. Activating the vehicle's brakes
D. Adjusting the rearview mirrors

8. What is the purpose of the air dryer in the air suspension system?
A. To remove moisture from the air entering or leaving the air springs
B. To dry the vehicle after a car wash
C. To filter the air entering the cabin
D. To dehumidify the vehicle's interior

9. What is the result of the ECM receiving information from the height sensors indicating that the trim height is too high or too low?
A. The ECM adjusts the vehicle's speed
B. The ECM changes the radio station
C. The ECM turns on the windshield wipers
D. The ECM energizes the actuators to add or bleed air from the air springs

10. What is the leveling function of the air suspension (AS) system designed to maintain?
A. The vehicle's speed
B. Rear trim height within 3/16 inch (4 mm) in all loading conditions
C. The temperature inside the vehicle
D. The volume of the audio system

Automotive Technology 7th Edition
Chapter 114
Multiple Choice Quiz B
Answer Key

1. A

2. C

3. A

4. C

5. B

6. D

7. B

8. A

9. D

10. B