

Electric and Hybrid Electric Vehicles, 1st Edition

Quiz 15B

NAME _____

1. Two technicians are discussing electric power steering (EPS) systems. Technician A says that some systems operate on 12 volts. Technician B says that some systems operate on 42 volts, such as on some hybrid electric vehicles. Which technician is correct? 1. _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B

2. The steering torque sensor in an electric power steering system senses _____. 2. _____
 - A) steering wheel torque
 - B) steering wheel direction
 - C) Both a and b
 - D) Neither a nor b

3. If a fault is detected in the electric power steering system, what dash light is turned on? 3. _____
 - A) The "check engine" light
 - B) The "service vehicle soon" light
 - C) The power steering warning light
 - D) Either b or c

4. The EPS control unit will vary the _____ to the EPS motor, depending on sensor inputs. 4. _____
 - A) RPM
 - B) voltage
 - C) pressure
 - D) current

5. Which of these must be serviced together, as a unit? 5. _____
 - A) Steering wheel and air bag
 - B) Steering torque and position sensors
 - C) Steering warning lamp and PSCM
 - D) All of these can be serviced individually.

6. The steering shaft torque sensor uses _____ as inputs to the EPS control module. 6. _____
 - A) calibrated springs
 - B) vacuum pulses
 - C) viscous resistances
 - D) voltage signals

7. Where is the assist motor located in a column mounted EPS system? 7. _____
 - A) In the engine compartment
 - B) Under the steering rack
 - C) Inside the vehicle
 - D) Near the vacuum booster

8. The advantages of electric power steering compared to hydraulic power steering include _____ 8. _____
- A) less weight
 - B) improved fuel economy
 - C) increased usable engine power
 - D) All of the above
9. What diagnostic equipment is usually needed to diagnose faults or relearn the electric power steering system? 9. _____
- A) Special electronic diagnostic equipment designed to test each specific system
 - B) Factory or factory-level scan tool
 - C) A breakout box
 - D) A 12-volt test light
10. What type of diagnostic trouble codes will be set when an EPS system fault is detected? 10. _____
- A) Type A code
 - B) Type B code
 - C) Type C code
 - D) Type D code

Answer Key

Testname: EV1_15B

1. C
Page Ref: 201
2. C
Page Ref: 203
3. D
Page Ref: 204
4. D
Page Ref: 203
5. B
Page Ref: 201
6. D
Page Ref: 203
7. C
Page Ref: 200
8. D
Page Ref: 200
9. B
Page Ref: 204
10. C
Page Ref: 205