

**Automotive Electrical and Engine Performance 9th Edition**  
**Chapter 18 – Driver Information and Navigation Systems**  
**Multiple Choice Questions Quiz B**

1. What is the purpose of green or white dash symbols in a vehicle?
  - a. To indicate a fault that needs attention
  - b. To notify the driver of active functions like headlights
  - c. To signal that immediate action is required
  - d. To reset maintenance indicators
  
2. What is the primary function of a stepper motor in an analog dash gauge?
  - a. To display text on an LCD
  - b. To control the direction of turn signals
  - c. To move the gauge needle in precise increments
  - d. To monitor engine coolant temperature
  
3. Which sensor is essential for providing vehicle speed data to the instrument panel cluster (IPC)?
  - a. Oil pressure sensor
  - b. Vehicle speed sensor (VSS)
  - c. Coolant temperature sensor
  - d. Yaw sensor
  
4. Why is the arrow near the fuel pump symbol on the fuel gauge helpful?
  - a. Indicates fuel efficiency
  - b. Directs the driver to nearby gas stations
  - c. Highlights when the tank is nearly empty
  - d. Points to the side where the fuel cap is located

5. What is the function of nonvolatile random access memory (NVRAM) in electronic odometers?
- a. To display diagnostic codes
  - b. To retain mileage data when power is lost
  - c. To convert analog signals to digital
  - d. To store navigation system maps
6. Which issue commonly affects the performance of night vision systems in vehicles?
- a. Low-quality thermal imaging cameras
  - b. Excessive glare from sunlight
  - c. Accumulation of ice or snow on the camera lens
  - d. Inconsistent headlight brightness
7. What feature does a telematics system like OnStar provide?
- a. Remote door unlocking
  - b. Real-time vehicle diagnostics
  - c. Emergency collision notification
  - d. All of the above
8. What maintenance reminder light reset procedure is commonly used in modern vehicles?
- a. Holding down the brake pedal for 10 seconds
  - b. Depressing the accelerator pedal three times within 10 seconds
  - c. Turning the ignition off and on three times
  - d. Disconnecting and reconnecting the battery

9. How does a head-up display (HUD) assist drivers?

- a. By projecting vehicle speed and navigation data onto the windshield
- b. By automatically adjusting rearview mirror brightness
- c. By controlling dashboard brightness based on external light
- d. By synchronizing with telematics systems for real-time alerts

10. What is the most likely cause of a speedometer needle moving with engine speed rather than vehicle speed?

- a. Faulty vehicle speed sensor (VSS)
- b. Damaged odometer chip
- c. Alternator producing excessive AC ripple voltage
- d. Loose drive belt

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**Answer Key Quiz B**

**Correct Answers:**

1. b
2. c
3. b
4. d
5. b
6. c
7. d
8. b
9. a
10. c