

Automotive Electrical and Engine Performance 8th Edition
Chapter 8 – CAN and Network Communications
Quiz B

1. What is the primary advantage of a differential BUS communication system?
 - a. Higher data transfer speeds
 - b. Reduced electromagnetic interference (EMI)
 - c. Simplified wiring configurations
 - d. Improved network redundancy

2. What protocol is primarily used for module communication in General Motors vehicles as of 2008?
 - a. UART
 - b. GMLAN
 - c. CAN
 - d. SCI

3. In a star link network, modules are connected through what component?
 - a. Gateway module
 - b. Splice pack
 - c. Central gateway controller
 - d. Ring link

4. What voltage variation indicates a high-speed GMLAN communication signal at the OBD-II connector?
 - a. 0 to 5 volts
 - b. 1.5 to 3.5 volts
 - c. 2.5 to 3.5 volts
 - d. 0 to 7 volts

5. What diagnostic tool is essential for isolating faults in a star link network?

- a. Breakout box (BOB)
- b. Digital multimeter
- c. Digital storage oscilloscope
- d. J 42236 splice pack tool

6. What is the typical baud rate for high-speed CAN BUS communication?

- a. 125 kbps
- b. 500 kbps
- c. 1 Mbps
- d. 250 kbps

7. Why are twisted pairs used in CAN BUS communication?

- a. To reduce wire length requirements
- b. To eliminate electromagnetic interference
- c. To prevent signal redundancy
- d. To enable faster data transfer

8. What is the role of terminating resistors in high-speed BUS networks?

- a. Balancing signal load across modules
- b. Reducing electromagnetic interference
- c. Isolating faulty modules
- d. Ensuring proper signal voltage levels

9. Which protocol uses a one-wire communication method in Chrysler vehicles?

- a. CCD
- b. PCI
- c. SCI
- d. GMLAN

10. What is the purpose of the "state of health" (SOH) message in Class 2 BUS networks?

- a. To verify module initialization
- b. To identify BUS voltage irregularities
- c. To confirm active module status
- d. To detect data transfer delays

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Correct Answers:

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