

Electric and Hybrid Electric Vehicles, 1st Edition

Quiz 6B

NAME _____

1. A MAP sensor signal voltage on a hybrid engine is being observed using a DSO. The pattern on the scope occasionally, and instantaneously, rises to 5 volts (source voltage). What does this indicate? 1. _____
 - A) A drop in manifold vacuum
 - B) A momentary short circuit
 - C) Normal operation
 - D) A momentary open circuit

2. Voltage signals (waveforms) that do not go below zero are called _____. 2. _____
 - A) AC signals
 - B) pulse trains
 - C) pulse width
 - D) DC coupled signals

3. AC coupling is used to display waveforms from _____ sensors. 3. _____
 - A) magnetic
 - B) vacuum
 - C) DC
 - D) Any of these

4. Two technicians are discussing pulse train signals. Technician A says a fuel injector pulse on a hybrid engine is an example of a pulse train signal. Technician B says that an ignition module pulse on a hybrid engine is an example of a pulse train signal. Which technician is correct? 4. _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B

5. _____ the time base setting reduces the number of samples per second. 5. _____
 - A) Increasing
 - B) Decreasing
 - C) Dividing
 - D) None of these

6. A signal showing the voltage of a battery displayed on a digital storage oscilloscope (DSO) is being discussed. Technician A says that the display will show one horizontal line above the zero line. Technician B says that the display will show a line sloping upward from zero to the battery voltage level. Which technician is correct? 6. _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B

7. Technician A says that voltage is usually indicated on the horizontal display axis. Technician B says that time is usually indicated on the horizontal display axis. Which technician is correct? 7. _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B
8. Setting the time base to 50 milliseconds per division will allow the technician to view a waveform how long in duration? 8. _____
- A) 50 ms
 - B) 200 ms
 - C) 400 ms
 - D) 500 ms
9. Two technicians are discussing the DC coupling setting on a DSO. Technician A says that the position allows both the DC and AC signals of the waveform to be displayed. Technician B says this setting allows just the DC part of the waveform to be displayed. Which technician is correct? 9. _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B
10. Which is the correct voltage division setting for testing an electric motor? 10. _____
- A) 1V
 - B) 10V
 - C) 5V
 - D) 3V

Answer Key

Testname: EV1_6B

1. D

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2. B

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3. A

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4. C

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5. A

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6. A

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7. B

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8. D

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9. A

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10. A

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