Electric and Hybrid Electric Vehicles, 1st Edition

Quiz 8A

NAME _____

1. Direct current is being discussed. Technician A say that direct current only flows in one direction. Technician B says that a common way to generate DC is with a rectifier bridge. 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. Using Watt's law, calculate the amperage needed to operate a 50 watt side marker lense running at 13 volts. 2. _____
   A) 650 amps
   B) 13 amps
   C) 3.8 amps
   D) 0.38 amps

3. The loss of isolation test is used to determine _____. 3. _____
   A) If the vehicle has a bad ground
   B) If a high-voltage circuit has an unintended path to the vehicle chassis
   C) If the ignition-off draw on the battery is too high
   D) If the cable between the battery and the starter is defective

4. Which of these expresses Watt's law? 4. _____
   A) $P = I \times E$
   B) $I = P \div E$
   C) $E = P \div I$
   D) All of the answers are correct

5. Which of these meters needs to be plugged in to household current? 5. _____
   A) Digital multimeter
   B) Milliohm meter
   C) Megohm meter
   D) None of these

6. A capacitor is being discussed. Technician A says that a capacitor is used for electrical spike suppression. Technician B says that a capacitor is used as a supplemental power source. 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. The highest speed CAN communication protocol is _____. 7. _____
   A) CAN A
   B) CAN B
   C) CAN C
   D) CAN D

8. A 60 kilowatt motor is about _____ horsepower. 8. _____
   A) 65
   B) 80
   C) 60
   D) None of these

9. CAN Bus features which of the following benefits? 9. _____
   A) Faster than other communication protocols
   B) Less effected by electromagnetic interference
   C) Message based rather than address based, which makes it easier to expand
   D) All of the answers are correct

10. Voltage waveforms are being discussed. Technician A says that an AC waveform is a straight line. Technician B says that an AC waveform changes continuously above and below zero. Which technician is correct? 10. _____
   A) Technician A only
   B) Technician B only
   C) Both technicians A and B
   D) Neither technician A nor B

Answer Key
Testname: EV1_8A

1. C
   Page Ref: 90
2. C
   Page Ref: 92
3. B
   Page Ref: 97
4. D
   Page Ref: 92
5. B
   Page Ref: 96
6. C
   Page Ref: 93
7. C
   Page Ref: 98
8. B
   Page Ref: 92
9. D
   Page Ref: 97
10. B
    Page Ref: 92