

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. An electric vehicle can travel \_\_\_\_\_ miles per kilowatt-hour.
  - A. About 10 to 12
  - B. About 3 to 4
  - C. About 100 or more
  - D. Less than 2
  
2. In most hybrid electric vehicle applications, a target SOC of \_\_\_\_\_ is used.
  - A. 100%
  - B. 80%
  - C. 70%
  - D. 60%
  
3. In a three SMR system design, one SMR controls the positive circuit and two SMRs control the negative circuit. On the negative side, an SMR is in-series with a(n) \_\_\_\_\_.
  - A. Capacitor
  - B. Resistor
  - C. Diode
  - D. Inductor (coil)
  
4. Some HV batteries can be repaired by \_\_\_\_\_.
  - A. Replacing the electrolyte
  - B. Adding water
  - C. Replacing cooling fins
  - D. Replacing battery modules
  
5. HV batteries that are air-cooled degrade at \_\_\_\_\_ liquid-cooled HV batteries.
  - A. The same rate as
  - B. A slower rate than
  - C. A faster rate than
  - D. None of the above
  
6. What occurs if the state-of-charge exceeds 80%?
  - A. The battery's life span decreases
  - B. The battery's efficiency increases
  - C. The battery enters a maintenance mode
  - D. The battery's cooling system activates
  
7. The service of the liquid cooling system in high-voltage battery cooling systems requires \_\_\_\_\_.
  - A. Regular level checks for leaks
  - B. Checking freeze protection and pH level
  - C. Replacing the coolant at specified intervals
  - D. All of the above

8. Long battery life requires \_\_\_\_\_ for battery cell balancing.

- A. Passive and active methods
- B. Only passive methods
- C. Only active methods
- D. No balancing at all

9. Passive balancing is achieved by \_\_\_\_\_.

- A. Drawing energy from the least charged cell
- B. Drawing energy from the most charged cell
- C. Equalizing the charge across all cells
- D. None of the above

10. The battery control module (BCM) is responsible for \_\_\_\_\_.

- A. Controlling the operation of the high-voltage battery
- B. Monitoring the voltage blocks, current sensor, and temperature sensors
- C. Determining the need for charging
- D. All of the above

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Chapter 89

Multiple Choice Quiz B

Answer Key

1. A

2. B

3. B

4. D

5. C

6. A

7. D

8. A

9. B

10. D