Automotive Technology 7th Edition
Chapter 89: EV and HEV High-Voltage Batteries
Matching Quiz

Name: _____ Date: _____

Matching: Choose the item in column 2 that best matches each item in column 1.

1. Nickel-metal hydride (NiMH) battery	A. An electronic system that manages the temperature, voltage, state-of-charge, and safety of battery cells.	1. _____
2. Cylindrical cell	B. A rectangular or box-like design with active materials on flat plates.	2. _____
3. Prismatic cell	C. Achieved by drawing energy from the most charged cell and dissipating it as heat through resistors.	3. _____
4. Lithium-ion (Li-ion) battery	D. A battery type where a hydrogen-absorbing alloy is used for the negative electrode and nickel hydroxide for the positive.	4. _____
5. Pouch cell	E. A design that uses laminated architecture in a bag and is lightweight and cost-effective.	5. _____
6. Battery density	F. A cell design that has active materials in long ribbons arranged in a spiral inside a steel case.	6. _____
7. Guess-O-Meter (GOM)	G. Refers to the amount of energy in kilowatt-hours (kWh) a battery can store per kilogram of mass.	7. _____
8. Battery Management System (BMS)	H. Technology where ions move between a specialty carbon negative electrode and a positive electrode, such as lithium cobalt oxide.	8. _____
9. System Main Relays (SMRs)	I. A common term for the dash display that shows the estimated miles per kWh, which may be inaccurate.	9. _____
10. Passive balancing	J. Heavy-duty relays, also called contactors, that control the high-voltage circuit between the battery and other components.	10. ____

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Answer Key

Answer Key:

1. D
2. F
3. B
4. H
5. E
6. G
7. I
8. A
9. J
10. C