MODULE 2 – Introduction to Technology Of EV

2.4 Case Study: Volt & Bolt

Practice Problems

In the brochure, look for the following information and fill in the questions below:

Q.1 What is the energy capacity of the battery of the 2013 Volt and the 2017 Bolt, respectively?

1. 60 kWh for the 2013 Volt and 60 kWh for the 2017 Bolt
2. 16.5 kWh for the 2013 Volt and 60 kWh for the 2017 Bolt
3. 111 kW for the 2013 Volt and 150 kW for the 2017 Bolt
4. 370Nm for the 2013 Volt and 360Nm for the 2017 Bolt

Ans. B

Q.2 What is the EPA all-electric range of the 2016 Volt PHEV and the 2017 Bolt BEV, respectively?

1. 38 miles for the 2016 Volt and 53 miles for the 2017 Bolt
2. 38 miles for the 2016 Volt and 238 miles for the 2017 Bolt
3. 38 miles for the 2016 Volt and 38 miles for the 2017 Bolt
4. 53 miles for the 2016 Volt and 238 miles for the 2017 Bolt

Ans. D

Q.3 Does the 2016 Volt PHEV or the 2017 Bolt BEV have a higher overall range (gas + electric)?

1. 2016 Volt PHEV with 420 miles
2. 2017 Bolt BEV with 238 miles

Ans. A

Q.3 What is the energy consumption of the 2016 Volt in MPGe in all electric mode? How does it compare to the fuel economy in MPG when driving on gas for city/highway?

1. 42 MPGe in electric mode and 106 MPG in hybrid mode
2. 106 MPGe in electric mode and 42 MPG in hybrid mode
3. 42 miles for the 2016 Volt and 42 miles for the 2017 Bolt
4. 106 miles for the 2016 Volt and 106 miles for the 2017 Bolt

Ans. B