

Battery Electric Bus (BEB) Session #1: BEB Familiarization

Test

Name: _____

Job Title: _____

Date: _____

Circle the correct answer for each question

- 1) The most common voltages in a BEB range from:
 - a. 50-200 volts
 - b. 200-300 volts
 - c. 400-800 volts
 - d. 900-1000 volts

- 2) The acronym ESS stands for:
 - a. Electric Standby System
 - b. Energy Storage System
 - c. Electronic Storage Station
 - d. Electromagnetic Storage System

- 3) BEBs use various electronic controllers to:
 - a. Monitor and control high and low voltage power
 - b. Ensure safe operation of bus subsystems
 - c. All of the above
 - d. None of the above

- 4) A traction motor in a BEB:
 - a. Replaces the traditional diesel engine
 - b. Uses AC voltage to turn bus wheels
 - c. All of the above
 - d. None of the **above**

- 5) A DC-to-DC converter replaces the need for an alternator
 - a. True
 - b. False

- 6) What is the standard color for insulation or looming that covers high voltage cables?
 - a. Orange
 - b. Yellow
 - c. Blue
 - d. Red

- 7) An Inverter in a BEB:
 - a. Changes AC voltage to DC
 - b. Changes 12 volts DC to 24 volts DC
 - c. Reverses battery polarity
 - d. Changes DC voltage to AC

- 8) BEBs require a glycol based (liquid) cooling system.
 - a. True
 - b. False

- 9) During regenerative braking in a BEB:
 - a. The flow of energy is reversed
 - b. Deceleration is similar to a retarder
 - c. All of the above
 - d. None of the above

- 10) Because of electric propulsion, BEBs do not require preventive maintenance
 - a. True
 - b. False

- 11) Air filter replacements are not required for BEBs
 - a. True
 - b. False

- 12) Because all diagnostic functions are built into BEBs, the need for laptop computers and OEM specific software programs is eliminated.
 - a. True
 - b. False

- 13) SAE J1939 refers to:
 - a. A process to size electric motors to batteries
 - b. Establish electric power steering requirements
 - c. Data communication protocols
 - d. AC-DC inverters

14) HVIL is an acronym for:

- a. High Voltage Interlock Loop
- b. High Voltage Integrated Logistics
- c. High Voltage Internal Lock
- d. High Voltage Inverter Logic

15) A purpose of the HVIL is to isolate high voltage to the batteries when an open in a circuit is detected.

- a. True
- b. False

BEB Course #1 Link:

https://www.transittraining.net/images/uploads/full_documents/BEB_Session_1_Slides_and_Notes.pdf