

Name: _____

Organization: _____

Date: _____

International Transportation Learning Center
Electric School Bus (ESB) Module #2
Technician Familiarization – Technical Overview
Test

Circle the correct answer for each question or statement.

- 1) Which is **NOT** a characteristic of an electric school bus?
 - a. Batteries provide driving force for the entire vehicle
 - b. Small diesel engine available as a propulsion option
 - c. Batteries are charged by an external source
 - d. Most ESBs operate in the 400V-900V DC range

- 2) The purpose of an Inverter on an electric school bus is to:
 - a. Invert high voltage to low voltage
 - b. Convert alternating current to direct current
 - c. Convert direct current to alternating current
 - d. None of the above

- 3) High voltage cables are typically red in color.
 - a. True
 - b. False

- 4) Regenerative braking:
 - a. Extends brake lining life
 - b. Charges the bus batteries when the accelerator pedal is released
 - c. All of the above
 - d. None of the above

- 5) A vehicle-to-grid (V2G) system allows energy from the high-voltage bus batteries to be returned to the electrical grid.
 - a. True
 - b. False

- 6) A laptop computer is an essential tool for diagnosing faults on an electric school bus.
 - a. True
 - b. False

- 7) The DC/DC Converter regulates direct current (DC) voltages depending on need.
 - a. True
 - b. False

- 8) Some electric school buses also use 12-volt batteries to power the low voltage system.
 - a. True
 - b. False

- 9) ESS stands for:
 - a. Energy Safety System
 - b. Environmental Security System
 - c. Energy Storage System
 - d. None of the above

- 10) Electric School Buses require preventive maintenance.
 - a. True
 - b. False

- 11) Which is **NOT** a function of a Battery Management System.
 - a. Automatic electrolyte replenishment
 - b. Dictates charging/discharging limits
 - c. Controls ancillary high voltage loads
 - d. Measures cell voltage and temperature

- 12) Battery cell performance and longevity are affected by temperature.
 - a. True
 - b. False

- 13) Only alternating current can be used to charge electric school bus batteries.
 - a. True
 - b. False

- 14) Accessories such as power steering pumps and compressors continue to be belt driven on electric school buses.
 - a. True
 - b. False

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- 15) Electric school buses utilize coolant that needs to be checked and replaced in regular intervals.
- a. True
 - b. False

Answer Key

- 1) Which is **NOT** a characteristic of an electric school bus?
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