

Name: _____

Organization: _____

Date: _____

International Transportation Learning Center

Electric School Bus (ESB) Module #3

High Voltage Safety Considerations Test

Circle the correct answer for each question or statement.

- 1) NFPA 70E is a:
 - a. Standard for Electric School Bus Safety
 - b. Standard for Electrical Safety in the Workplace
 - c. Standard for Electrical Vehicle Charging
 - d. Standard for Repairing Electric Vehicles

- 2) Arc Flash is the light and heat generated from an electrical explosion.
 - a. True
 - b. False

- 3) Which is NOT a direct type of electrical injury.
 - a. Shock
 - b. Fire
 - c. Burn
 - d. Hearing loss

- 4) It is not necessary to lock out/tag out an electric school bus once it has been fully deenergized.
 - a. True
 - b. False

- 5) High voltage cables are:
 - a. Orange
 - b. Red
 - c. Yellow
 - d. None of the above

- 6) Voltage present in modern high-voltage packs range from:
 - a. 50-100 volts DC
 - b. 300-900 volts DC

- c. 1000 to 1500 volts DC
 - d. Greater than 1500 volts DC
- 7) A live-dead-live test is best performed using a:
- a. Test light
 - b. Cat III multimeter
 - c. Lap top computer
 - d. Insulated screwdriver
- 8) A hole less than 2mm in diameter found in an insulated glove does not present a safety concern.
- a. True
 - b. False
- 9) JSA stands for:
- a. Junior Safety Assistant
 - b. Job Safety Administration
 - c. Job Safety Assessment
 - d. None of the above
- 10) Electric School Buses require mechanics/technicians to have foundational electrical as well as high-voltage skills.
- a. True
 - b. False
- 11) Insulated gloves need to be inspected for rips and tears each day and air-pressure tested every:
- a. Six months
 - b. Nine months
 - c. Year
 - d. Two years
- 12) Insulated tools are not needed if insulated gloves are used.
- a. True
 - b. False
- 13) Drivers and mechanics/technicians are the only personnel that require electric school bus training.
- a. True
 - b. False
- 14) Hearing protection is considered high-voltage personal protective equipment (PPE).
- a. True
 - b. False

This content was developed by the National Renewable Energy Laboratory and International Transportation Learning Center funded by the Joint Office of Energy and Transportation for distribution.

- 15) Which is NOT a function of a vehicle high-voltage safety perimeter.
- a. Alerts others that high voltage work is being performed
 - b. Surrounds the entire vehicle
 - c. Directs high voltage to ground in the event of a short circuit
 - d. Prevents untrained, unfamiliar, or unprotected individuals from high-voltage exposure

Answer Key

- 1) NFPA 70E is a:
 - a. Standard for Electric School Bus Safety
 - b. Standard for Electrical Safety in the Workplace
 - c. Standard for Electrical Vehicle Charging
 - d. Standard for Repairing Electric Vehicles

- 2) Arc Flash is the light and heat generated from an electrical explosion.
 - a. True
 - b. False

- 3) Which is NOT a direct type of electrical injury.
 - a. Shock
 - b. Fire
 - c. Burn
 - d. Hearing loss

- 4) It is not necessary to lock out/tag out an electric school bus once it has been fully deenergized.
 - a. True
 - b. False

- 5) High voltage cables are:
 - a. Orange
 - b. Red
 - c. Yellow
 - d. None of the above

- 6) Voltage present in modern high-voltage packs range from:
 - a. 50-100 volts DC

- b. 300-900 volts DC
 - c. 1000 to 1500 volts DC
 - d. Greater than 1500 volts DC

- 7) A live-dead-live test is best performed using a:
 - a. Test light
 - b. Cat III multimeter
 - c. Lap top computer
 - d. Insulated screwdriver

- 8) A hole less than 2mm in diameter found in an insulated glove does not present a safety concern.
 - a. True
 - b. False

- 9) JSA stands for:
 - a. Junior Safety Assistant
 - b. Job Safety Administration
 - c. Job Safety Assessment
 - d. None of the above

- 10) Electric School Buses require mechanics/technicians to have foundational electrical as well as high-voltage skills.
 - a. True
 - b. False

- 11) Insulated gloves need to be inspected for rips and tears each day and air-pressure tested every:
 - a. Six months
 - b. Nine months
 - c. Year
 - d. Two years

- 12) Insulated tools are not needed if insulated gloves are used.
 - a. True
 - b. False

- 13) Drivers and mechanics/technicians are the only personnel that require electric school bus training.
 - a. True
 - b. False

- 14) Hearing protection is considered high-voltage personal protective equipment (PPE).
 - a. True

This content was developed by the National Renewable Energy Laboratory and International Transportation Learning Center funded by the Joint Office of Energy and Transportation for distribution.

- b. False
- 15) Which is NOT a function of a vehicle high-voltage safety perimeter.
- a. Alerts others that high voltage work is being performed
 - b. Surrounds the entire vehicle
 - c. Directs high voltage to ground in the event of a short circuit
 - d. Prevents untrained, unfamiliar, or unprotected individuals from high-voltage exposure