

2021 Michigan State Skills USA Championships

Task & Materials List

SKILL OR LEADERSHIP AREA: AUTOMOTIVE SERVICE TECHNOLOGY – OVERALL

CONTEST LOCATION:
VIRTUAL

RESUME:

Each student must submit a one-page resume before the contest start. The resume will be submitted by email to

Contest start will be considered April 8, 2021 at 8:00 a.m.

Contest dates and times and duration

ESI	April 8 at 8:00AM	30 minutes
EH&S	April 8 at 1:00 PM	30 minutes
Written	April 9 at 1:00 PM	60 minutes

- The EH&S, ESI & Written test stations will be delivered using Canvas LMS supplied by Ferris State University. Canvas will record contestant answers to questions and score the results.
- The Electrical station will be delivered using Zoom. Contestant will need to be seated in front of a computer with camera. Contestant will be shown a SET board with components and will direct judge on steps needed to diagnose. Contestant will earn points for each correctly performed step in diagnosis.

General Information

Tasks to be performed:

1. Electronic Service Information (ESI): answer questions concerning bulletins, repair procedures and service specifications using AllData.
2. Environmental Health and Safety: Identify safe shop practices & interpret Material Safety Data Sheet information.
3. Written test: answer multiple choice and true/false questions from all 8 ASE areas
4. Electrical: diagnose electrical circuits related to various vehicle systems using a test lamp and DMM.

Contest Overview

Electronic Service Information (ESI)

DESCRIPTION OF CONTEST

This contest is designed to test the basic skill and knowledge of an entry level technician by:

- Locating service information on an AllData based ESI system
- Performing several vehicle/complaint type inquiries
- Correctly identifying diagnostic and repair procedures

Tools and equipment to be used (will be provided)

- NA

Contestant will need:

- A computer and camera.
- Access to AllData (provided)
- Paper and pencil to make calculations.

Environmental Health and Safety Procedures

DESCRIPTION OF CONTEST

This contest is designed to test the basic skill and knowledge of an entry level technician by:

- Correctly identifying unsafe conditions in a service bay area
- Locating information found in various sections of Material Safety Data Sheets (MSDS)
- Interpret information found on common shop chemical labels
- Identify proper lifting techniques
- Identify correct personal protective equipment

Tools and equipment to be used

- NA

Contestant will need:

- A computer and camera.
- Paper and pencil may be helpful

WRITTEN TEST

DESCRIPTION OF CONTEST:

This contest is designed to test the basic skill and knowledge of an entry level technician by:

- Answering questions from each of the 8 ASE areas
- Questions will be multiple choice and true/false

Tools and equipment to be used (will be provided)

- NA

Contestant will need:

- A computer and camera.
- Paper and pencil may be helpful.

ELECTRICAL

DESCRIPTION OF CONTEST:

- The judge will monitor contestants throughout the specified time.
The judge will present the contestant with the SET board and a statement of the concern involved as close as possible to the provided start time as possible. The judge will ask the contestant to provide directions for diagnosing the circuit. The judge will follow the contestant's directions and supply results when needed. Once diagnosis is complete, the judge will ask one or two questions of the contestant. Then, a second SET board will be presented, and the Judge will again provide the concern and follow the contestant's directions for diagnosing. Once complete, the judge will ask one or two questions of the contestant.
- The contestant will be responsible for providing appropriate and concise instructions to the judge and then interpreting the results and provide the next diagnostic step. Directions will need to include what tool to use, how to connect the leads, when using a DMM, what settings to use. A test lamp and Fluke 87 DMM will be supplied. The contestant is responsible for understanding how to properly use these tools.
- The instructor if present must sit in view of the camera

This contest is designed to test the basic skill and knowledge of an entry level technician by:

- Using Ohm's law to calculate electrical circuit values
- Explaining the proper method for taking electrical measurements with a DMM
- Reading and Interpreting wiring diagrams
- Troubleshooting electrical circuits
- Performing testing of electrical components
- Explaining basic circuit operation

Tools and equipment to be used (will be provided)

- SET Board and mounted components
- Test Lamp
- DVOM (Fluke 87)

Contestant will need:

- A computer and camera.
- Paper and pencil to make calculations.

