

DATE	LOCATION
FRIDAY, APRIL 11, 2025	NSCC SYDNEY WATERFRONT CAMPUS
TIME	TASK
8:00 am – 8:30 am	Orientation
8:40 am – 9:30 am	1st session
9:40 am – 10:30 am	2nd session
10:40 am – 11:30 am	3rd session
11:30 pm – 12:30 pm	Lunch (mandatory, provided)
12:40 am – 1:30 pm	4th session
1:40 pm – 2:30 pm	5th session
2:40 pm – 3:30 pm	6th session

### 1. Purpose of the Contest

To assess the competitor skills in correctly inspecting, repairing and adjusting detached and/or mounted auto parts, as compared to industry standards. Practical assignments will be based on selected areas of the contest description document.

### 2. Criteria

The competition will consist of six (6) stations.

### 3. Number of Stations / Allocations

There will be a maximum of six (6) competitor spaces available.

### 4. Skills & Knowledge to be Tested

#### a) Workshop Procedures

- Service Information Retrieval;
- Electronic system use;
- Traditional manual / information printouts use;
- Interprets work order information to convey diagnostic approach;

- Explanation of service work performed.
- Confirm Problem. Look for related symptoms. Analyze all information available, come up with action plan. Isolate suspected area of problem. Repair problem area. Confirm systems function as expected

**b) Engine Mechanical**

- Assembly / disassembly;
- Identify components;
- Component fault diagnosis;
- Inspection and testing;
- Diagnosis and service of cylinder heads and blocks;
- Measurements with precision measuring tools which could include but not limited to; plastigauge, micrometers, feeler gauges and straight edge.

**c) Engine Ignition, Management and Emissions**

- Identify components;
- Drivability diagnostics and repair;
- Test equipment usage;
- Scan Tool;
- Multi-meter (DVOM);
- Lab-scope;
- System repair;
- Component operation and testing.

**d) Electrical Systems**

- Starting systems;
- Charging systems;
- Batteries;
- Accessories;
- Testing and diagnosis;
- Body and Chassis Electrical.

**e) Braking Systems**

- Identify components;
- Inspection and testing;
- Assembly / disassembly;
- Base Brake systems;

- ABS / Traction / Stability;
- Maintenance, repairs, & adjustments (may include rotor and drum service);
- Diagnostics

**f) Suspension and Steering**

- Identify components;
- Inspection and testing;
- Assembly / disassembly;
- Maintenance, repair and adjustment;
- Diagnostics.

**g) Manual Transmission and Drivetrain Components**

- Identify components;
- Inspection, measurement and testing;
- Assembly / disassembly;
- Maintenance / adjustments;
- Driveline measurements and adjustments;
- Driveshaft diagnosis and repair.

## **5. Prerequisites**

### **Contest-Specific Prerequisites**

- Contestants must be able to follow shop manual procedures and retrieve information on electronic shop manual information systems;
- Contestants must have the ability to use and interpret measuring and diagnostic equipment readings such as, scanners, DVOMs, etc.

### **SCNS Prerequisites**

- Post-Secondary competitors must meet the following criteria in the current school year:
- Be enrolled in a community college, university, private school OR be a registered apprentice with the Department of Labour and Advanced Education (Apprenticeship Agency);
- Be registered as a competitor with Skills Canada – Nova Scotia;
- The competitor cannot be a certified journey-person;
- Possess Canadian citizenship or Permanent Resident (Landed Immigrant) status and

be a resident of Nova Scotia; or be a registered International Student. Competitors are responsible for verifying this information if requested;

- Have been earning post-secondary credits in a sector relevant to the one in which they wish to compete (i.e. to compete in carpentry, the student would be earning credits in any construction-related trade) at any time during the academic school year (September to June);
- All competitors must be able to show either current apprenticeship status and/or proof of enrollment in a post-secondary institution upon request of the Provincial Technical Committee (PTC) or Skills Canada – Nova Scotia.
- Have completed and submitted a signed release form

## **6. Equipment & Clothing**

### **a) What will be Supplied**

- Tools;
- Equipment;
- Service information;
- Nitrile gloves;
- Hearing protection;

### **b) What Competitors will Supply**

- Safety glasses must be worn at all times;
- Steel toed boots must be worn at all times;
- Competitors may bring their own mechanical gloves, if desired;

\*Competitors will not be permitted to compete without the above items, with the exception of the mechanics gloves, which are optional.

## 7. Evaluation & Judging Criteria

<b>POINT BREAKDOWN</b>	<b>/100</b>
Engine Mechanical	16
Electrical	17
Engine Management	17
Suspension and Steering	17
Brakes and related systems	17
Manual Transmission	16

- All procedures must follow proper safety practices;
- Proper trade procedures are to be followed;
- Some stations may have bonus points or negative points for special conditions;
- Each station has a time limit of 50 minutes.

## 8. Additional information

No ties are permitted. In the event of a tie, the winner will be decided by utilizing the mark received in the electrical portion of the competition.

## 9. Provincial Technical Committee Information

<b>Name</b>	<b>Employer</b>	<b>Email</b>
Robert Chouinard	HRM Halifax Police	robert.chouinard@halifax.ca
Owen Hemeon	340 Automotive	Owenjh2000@gmail.com
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