



# Provincial Scope Document

## *AUTOMOTIVE SERVICE (Secondary) 2009*

**Contest Length: 8 hours**

**Check in time: 7:45**

**Contest Start: 8:00**

### **Purpose of the Challenge:**

Assess the contestant's skills in correctly inspecting, repairing and adjusting detached and/or mounted auto parts, as compared to industry standards

### **Skills & Knowledge to be Tested:**

#### **Safety:**

- Proper eye protection and clothing **MUST** be worn at all times during the competition
- CSA approved/goggles
- Coveralls/shop coats
- All competitors must follow safety standards as per competition area

#### **Service Information Retrieval:**

- Electronic system use
- Traditional manual use

#### **Customer Relations:**

- Satisfy customer inquiries
- Interpret customer information to convey diagnostic approach
- Explanation of service work performed

#### **Theory:**

- Examination of questions regarding all aspects of the repair and diagnosis of automobiles

#### **Fabrication:**

- Select and operate appropriate fabricating hand tools

#### **Manual Transmissions/Manual Transaxles:**

- Identify components
- Analyze gear ratios
- Power flow
- Clutch operation
- Assembly/disassembly procedures

- Routine maintenance/adjustments
- Component fault diagnosis

### **Automatic Transmissions/Automatic Transaxles**

- Identify components
- Routine maintenance/adjustments
- Assembly/disassembly procedures
- Electrical/hydraulic diagnosis
- Power flow
- Component fault diagnosis

### **Differentials/Driveshafts/Driveaxles**

- Identify components
- Assembly/disassembly
- Inspecting and testing
- Inspection and adjustment of operating angles
- Power flow
- Adjustments

### **Engine Mechanical**

- Assembly/disassembly
- Identify components
- Component fault diagnosis
- Inspection and testing
- Diagnosis and service of cylinder heads and blocks
- Measurements

### **Turbochargers/Superchargers**

- Identify components
- Inspection and testing

### **Heating/Cooling Systems (excluding A/C)**

- Identify components
- Inspection and testing
- Assembly/disassembly

### **Fuel Systems**

- Identify components
- Inspection and testing

### **Engine Management**

- Identify components
- Driveability diagnostics
- Test equipment usage
  - Scan Tool
  - Multi-meter

- Lab-scope
- Exhaust gas analyzer
- Component operation and testing

### **Ignition Systems**

- Identify components
- Inspection and testing
- Diagnostics
- Adjustments

### **Vehicle Emissions**

- Exhaust gas analysis
- Identify components
- System inspection and testing

### **Electrical Accessories**

- Testing and diagnosis of electrical accessories

### **Electrical**

- Starting systems
- Charging systems
- Batteries
- Testing and diagnosis

### **Braking Systems (excluding air brake systems)**

- Identify components
- Inspection and testing
- Assembly/disassembly
- Basic systems
- ABS
- Routine maintenance/adjustments
- Diagnostics

### **Suspension and Steering**

- Identify components
- Inspection and testing
- Assembly/disassembly
- Routine maintenance/adjustments
- Diagnostics

### **Component Identification**

- Purpose, operation and testing of identified components

## **Judges**

Judging will be done by qualified industry representatives, wherever possible.

