

Automobile Mechanics

Evaluation Specifications for Certification Purposes

Description of the Examination or Participation

Evaluation Form

Training Sector

10

Motorized
Equipment
Maintenance

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10

Motorized
Equipment
Maintenance

Formation professionnelle et technique
et formation continue

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et du développement

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Introduction

Educational institutions and the Ministère de l'Éducation, du Loisir et du Sport share the responsibility for evaluating learning in vocational training programs.¹ The objectives of a program include criteria that are selected to evaluate learning for certification purposes and are prescriptive. As stipulated in the *Basic vocational training regulation*,² each competency must be evaluated and the results expressed as a pass or a fail mark.

As part of its responsibility for evaluating learning, the Ministère produces evaluation instruments that are consistent with the competency-based approach to program development. These instruments are developed as part of an overall approach to training designed to meet job market requirements on the one hand, and to provide an integrated vision that promotes program implementation and consistent, meaningful training on the other. The evaluation material provided ensures that the competencies targeted by the programs have been acquired, thus giving students the qualifications required to practise a trade or occupation, and that the training given in all of the educational institutions authorized to offer a given program is comparable. The level of acquisition of competencies corresponds to that expected at entry level on the job market.

Although the term “competency” can mean many things, the vocational training sector defines it as “the ability to act successfully and evolve in order to adequately perform work-related tasks and activities based on an organized body of knowledge, skills from a variety of fields, perceptions, attitudes, etc.”³ The evaluation of a competency must reflect its multidimensional nature and take into account all of the important aspects—the knowledge, skills, perceptions and attitudes—on which a competency is based. All of the performance criteria must therefore be met and evaluated during the learning process or for certification purposes.

The method of evaluation in vocational training is said to be criterion-referenced. This type of evaluation is used to establish whether an individual has met the required performance or participation level while carrying out a task or activity, according to specific criteria. Rather than compare a student to his or her peers or to a group, criterion-referenced evaluation verifies the extent to which a student develops a given competency according to the performance criteria of a program of study and criteria defined for certification purposes.

This document contains three parts, each corresponding to an evaluation instrument produced by the Ministère. The first part, entitled “Evaluation Specifications for Certification Purposes,” contains indicators and evaluation criteria related to the elements and situations that have been selected for evaluation for certification purposes. Each situation or element includes one or more performance indicators that specify what aspect to evaluate or how an element is to be evaluated. Indicators are accompanied by evaluation criteria that are used to judge whether a candidate’s performance is satisfactory. For behavioural objectives, the weighting allotted to each criterion and the minimum performance standard are indicated. For situational objectives, the criteria used by teachers to judge (or infer) whether a competency has been acquired beyond a student’s participation in activities are also indicated.

The second part, entitled “Description of the Examination” or “Description of Participation,”⁴ consists of a description of each competency of the program of study. These descriptions are proposals for meeting the requirements of evaluation criteria established for certification purposes. They help standardize the level of complexity of various examinations related to the competencies of a program and support the development of examinations administered in educational institutions. The description of the examination and the description of participation are provided for information purposes only.

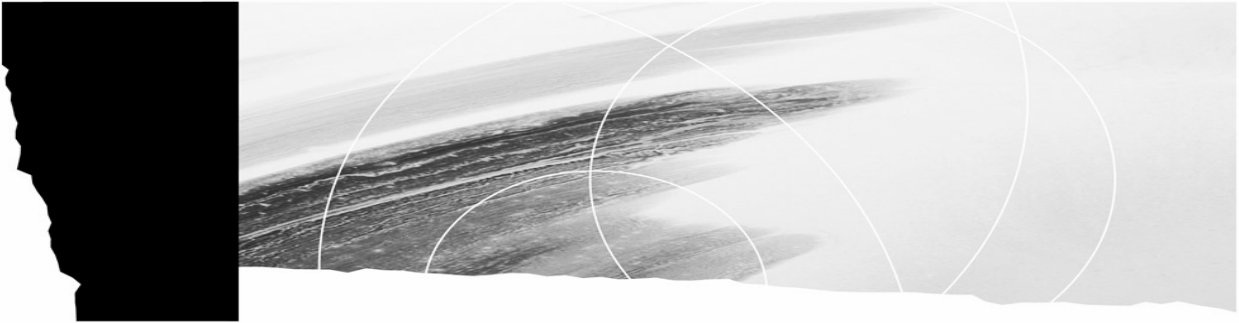
1. *Education Act*, R.S.Q., c. I-13.3, ss 461 and 463.

2. Québec, O.C. 653-2000, 1 June 2000, G.O.Q. 2000.II.2608.

3. Québec, Ministère de l'Éducation, *Program Development: Vocational Training – Program Design and Development Guide* (Québec: Gouvernement du Québec, 2004), 1.

4. The description of the examination pertains to a behavioural objective, while the description of participation pertains to a situational objective.

The last part, entitled “Evaluation Form,” lists the indicators and criteria used in the evaluation for certification purposes. They are listed as observations and may include accepted tolerances. Teachers may find them useful when carrying out evaluation activities. Like the description of the examination and the description of participation, they are provided for information purposes only.



5798

Automobile Mechanics

Year of approval: 2005

Certification:

Diploma of Vocational Studies

Number of credits: 120

Number of modules: 29

Total duration: 1 800 hours

Program Synopsis

Title of Module	Code	Module
The Trade and the Training Process	843401	1
Health, Safety and Environmental Protection	843412	2
Finding Technical Information	843423	3
Heating, Welding and Cutting	843433	4
Shop Work	843445	5
Communicating in the Workplace	843452	6
Inspecting Internal Combustion Engines	843465	7
Repairing Internal Combustion Engines	843476	8
Inspecting Road-Holding Systems	843484	9
Repairing Road-Holding Systems	843496	10
Inspecting Electrical and Electronic Systems	843506	11
Repairing Lighting Systems	843514	12
Inspecting Basic Computer-Controlled Systems	843524	13
Inspecting Transmission Systems	843536	14
Repairing Transmission Systems	843547	15
Inspecting Starting and Charging Systems and Electromagnetic Accessories	843555	16
Repairing Starting and Charging Systems and Electromagnetic Accessories	843565	17
Inspecting Engine and Passenger Compartment Temperature Control Systems	843573	18
Maintaining and Repairing Engine and Passenger Compartment Temperature Control Systems	843583	19
Inspecting Active and Passive Safety Systems	843593	20
Repairing Active and Passive Safety Systems	843604	21
General Automobile Maintenance	843614	22
Inspecting Electronic Ignition Systems	843624	23
Repairing Electronic Ignition Systems	843634	24
Inspecting Electronic Injection and Antipollution Systems	843644	25
Maintaining and Repairing Electronic Injection and Antipollution Systems	843655	26
Inspecting Drive Trains	843665	27
Job Search	843671	28
Entering the Work Force	843686	29

Evaluation Specifications for Certification Purposes

Statement of the Competency

Determine their suitability for the trade and the training process.

Situations Retained	Indicators	Evaluation Criteria	
Information Phase	Gathering information on most of the topics to be covered	• Records the information gathered on worksheets.	☐
		• Indicates job and wage prospects.	☐
		• Indicates the nature and conditions of the job.	☐
		• States the skills and behaviours to be developed.	☐
Participation Phase	Sharing their impressions of the trade during a group discussion, based on the information gathered	• Presents the advantages and disadvantages of the trade.	☒
		• Comments on certain rules of professional ethics.	☐
	Showing an interest in the suggested activities	• Participates actively in discussions.	☐
		Explaining their impressions of the program of study during a group discussion	☐
Synthesis Phase	Producing a report	• Justifies personal career choice with respect to the trade, taking into account personal preferences, aptitudes and interests.	☒

Situations Retained	Indicators	Evaluation Criteria
		Projects the trade's potential for personal development. ☐

Minimum performance standard: 8 out of 10 evaluation criteria, including the criteria indicated by an "X"

Description of Participation

1. General Information

The purpose of the evaluation is to assess the students' participation in activities designed to develop the competency to *determine their suitability for the trade and the training process*.

The teacher evaluates participation throughout the module using a participation evaluation form. Evaluation is based on the students' participation in the various activities carried out individually or in large or small groups, and not on the results obtained.

The evaluation consists of three phases, undertaken at different stages of the module. Each phase is accompanied by specific instructions.

2. Procedure

Information Phase

Evaluation in this phase consists of two tasks: gathering information on most of the topics to be covered and sharing their impressions of the trade during a group discussion, based on the information they have gathered.

As they look for information, students are required to name:

- two types of companies and their products
- job prospects and wage scales in this sector
- trade-related tasks
- skills and behaviours specific to the trade

Participation Phase

Evaluation in this phase focuses on the students' participation in group discussions on the requirements to be met to practise the trade and their impressions of the training program.

During the discussion, students are required to:

- present at least three advantages and three disadvantages of practising the trade
- comment on rules of professional ethics
- discuss their opinions about the competency-based approach and its influence on learning and evaluation methods
- comment on the modules listed in the synoptic table of the program

Synthesis Phase

Evaluation in this phase focuses on the quality of the report that explains the student's choice of program and career.

In their reports, students are required to:

- demonstrate, using a few examples, how their career choice with respect to automobile mechanics is consistent with their preferences, aptitudes and interests
- give examples of how they can continue to develop and advance in this field

Module 1

Evaluation Form

Student's name:

School:

Permanent code:

Result

Pass

Fail

☐☐

Date:

Teacher's signature:

Participation Elements

Yes No

1. Gathering information on most of the topics to be covered

1.1 Records the information gathered on worksheets.

☐ ☐

1.2 Indicates job and wage prospects.

☐ ☐

1.3 Indicates the nature and conditions of the job.

☐ ☐

1.4 States the skills and behaviours to be developed.

☐ ☐

2. Sharing their impressions of the trade during a group discussion, based on the information gathered

2.1 Presents the advantages and disadvantages of the trade.

☐ ☐

2.2 Comments on certain rules of professional ethics.

☐ ☐

3. Showing an interest in the suggested activities

3.1 Participates actively in discussions.

☐ ☐

4. Explaining their impressions of the program of study during a group discussion

4.1 Using the program, the training approach or evaluation methods as an example, highlights some of the similarities or differences between the example given and the actual work situation.

☐ ☐

Participation Elements

	Yes	No
5. Producing a report		
5.1 Justifies personal career choice with respect to the trade, taking into account personal preferences, aptitudes and interests.	☐	☐
5.2 Projects the trade's potential for personal development.	☐	☐

Total: ____ /10

Minimum performance standard: 8 out of 10 evaluation criteria, including criteria 2.1 and 5.1

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Avoid health, safety and environmental hazards.

Elements Retained	Indicators	Evaluation Criteria	Mark
Take precautions to protect their own health and safety and those of others.	Recognition of hazardous situations in the working environment	• Clear indication of the main dangers associated with the work environment	5
		• Clear indication of the main dangers associated with work methods	5
		• Clear indication of the main dangers associated with the use of tools and equipment	5
		• Clear indication of the main dangers associated with the handling of loads	5
		• Clear indication of the main dangers associated with toxic products and emissions	5
		• Accurate interpretation of the Workplace Hazardous Materials Information System (WHMIS) classification and pictograms	5
	Determination of means of control	• Relevant association of means of control and hazardous situations	25
Take precautions to preserve the quality of the environment.	Recognition of potentially hazardous situations	• Clear indication of the main risks associated with pollution emissions	5

Elements Retained	Indicators	Evaluation Criteria	Mark
		• Clear indication of the main risks associated with the storage of hazardous materials	5
		• Clear indication of the main risks associated with the disposal of hazardous materials	5
		• Clear indication of the main risks associated with the recycling of hazardous materials	5
	Determination of means of control	• Relevant association of means of control and risk factors	20
	Recognition of their limitations	• Determination of actions that can be safely undertaken, according to the gravity of the situation	5
Take action in the event of an accident or an emergency.			

Minimum performance standard: 80 marks

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *avoid health, safety and environmental hazards*. The examination should not exceed 1 hour.

2. Procedure

The examination will focus on theoretical knowledge. Students will be required to answer, in writing, questions on hazardous situations at work. Then, based on case studies, they will be asked to describe the control measures to adopt to ensure health and safety and to protect the environment at work, as well as the behaviours to adopt in an accident or emergency.

3. Special Instructions

Course notes are not allowed during the exam. Students will be given a written examination consisting of multiple choice, matching, multiple association or close-ended short-answer questions and hypothetical situations modelled on the workplace.

The examination should contain twenty questions distributed as follows:

- 1 question: Clear indication of the main dangers associated with the work environment
- 1 question: Clear indication of the main dangers associated with work methods
- 1 question: Clear indication of the main dangers associated with the use of tools and equipment
- 1 question: Clear indication of the main dangers associated with the handling of loads
- 1 question: Clear indication of the main dangers associated with toxic products and emissions
- 1 question: Accurate interpretation of the Workplace Hazardous Materials Information System (WHMIS) classification and pictograms
- 5 questions: Relevant association of means of control and hazardous situations
- 1 question: Clear indication of the main risks associated with pollution emissions
- 1 question: Clear indication of the main risks associated with the storage of hazardous materials
- 1 question: Clear indication of the main risks associated with the disposal of hazardous materials
- 1 question: Clear indication of the main risks associated with the recycling of hazardous materials
- 4 questions: Relevant association of means of control and risk factors
- 1 question: Determination of actions that can be safely undertaken according to the gravity of the situation

Finding Technical Information

Code: 843423

Module 3

Evaluation Specifications for Certification Purposes

Statement of the Competency

Find technical information about motor vehicles.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather information in technical manuals.	Location of information	• Correct application of research method in reference manuals	15
		• Careful handling of documents	5
Gather technical information in electronic format.	Observance of method for importing files	• Observance of electronic research methodology	15
Identify in documentation the general characteristics of a motor vehicle.	Location of information about parts, systems and jacking points	• Accurate location in technical manuals of the information required for a work sheet	20
		• Careful selection of the information in electronic format required for a work sheet	20
	Recording of information	• Inclusion of essential elements on the work sheet	5
		• Use of appropriate terminology	5
	Interpretation of information found	• Correct interpretation of technical information	15

Minimum performance standard: 85 marks

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *find technical information about motor vehicles*.

The examination should not exceed 1 hour and 30 minutes.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination which will consist in finding information in technical manuals and in electronic format, using an effective research method. In both cases, the research will focus on finding specifications, a work method, an electrical diagram, a component location diagram and a table of symptoms for a motor vehicle system or component. To demonstrate the result of their research, students will summarize the information they have found on a work sheet or present a copy of the information to the teacher in electronic format. To demonstrate their ability to correctly interpret technical information, students will be asked to summarize a brief excerpt of a manufacturer's manual on a work sheet.

In all cases, students must be familiar with the general characteristics of motor vehicles and their systems in order to orient their research properly. For this reason, different systems or their main components will be used as a starting point for the research.

3. Materials

Materials include technical manuals, glossaries, French and English dictionaries, computers and software.

4. Special Instructions

Course notes are not allowed.

Module 3

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Location of information			
1.1 Correct application of research method in reference manuals:			0 or 15
• using a table of contents	☐	☐	
• using sections and subsections	☐	☐	
1.2 Careful handling of documents			0 or 5
2. Observance of method for importing files			
2.1 Observance of electronic research methodology:			0 or 15
• input of accurate data on vehicle parameters	☐	☐	
• accurate selection in the main menu of the section corresponding to the systems or components sought	☐	☐	
• appropriate use of submenus	☐	☐	

Observations

3. Location of information about parts, systems and jacking points

3.1 Accurate location in technical manuals of the information required for a work sheet:

0 or 20

- location of specifications
 - location of a work method
 - location of a component location diagram
 - location of an electrical diagram
 - location of a table of symptoms
- (tolerance: one error)

☐	☐
☐	☐
☐	☐
☐	☐
☐	☐

3.2 Careful selection of information in electronic format required for a work sheet:

0 or 20

- location of specifications
 - location of a work method
 - location of a component location diagram
 - location of an electrical diagram
 - location of a table of symptoms
- (tolerance: one error)

☐	☐
☐	☐
☐	☐
☐	☐
☐	☐

4. Recording of information

4.1 Inclusion of essential elements on the work sheet

0 or 5

4.2 Use of appropriate terminology

0 or 5

5. Interpretation of information found

5.1 Correct interpretation of technical information

0 or 15

Total: ____ /100

Minimum performance standard: 85 marks

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Perform heating, welding and cutting operations.

Elements Retained	Indicators	Evaluation Criteria	Mark
Prepare the work.	Preparation of welding station	Appropriate assembly of welding station	5
	Preparation of surfaces	Appropriate preparation of surfaces, based on the type of weld	5
	Adjustment of welding equipment	Appropriate adjustment of welding equipment	10
Weld metals.	Application of welding techniques	Observance of welding techniques	15
	Uniformity and resistance of the weld bead	Regular welds	15
		Appropriate fusing of metals	15
Cut metals.	Application of cutting techniques	Observance of cutting techniques	10
		Correct adjustment of cutting equipment	10
	Regularity of the cut	Correct execution of cut	15

Minimum performance standard: 80 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *perform heating, welding and cutting operations*.

The examination should not exceed 1 hour and 30 minutes.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination consisting of two parts. In the first part, students will be required to perform welding operations. This will entail preparing the welding station and the surfaces to be welded, adjusting the equipment and applying the welding techniques necessary to produce uniform, resistant welds. The welds will be performed on sheets of metal in the horizontal position and on an exhaust pipe. Exhaust pipe welding should be representative of situations encountered in the workplace. Depending on the availability of material resources, students could use oxyacetylene welding, semi-automatic welding or any other technique appropriate for the job.

In the second part of the examination, students will be required to cut metals. This will entail adjusting the equipment, applying cutting techniques and producing clean, regular cuts. The task could consist in cutting a sheet of metal and a bolt without damaging nearby parts.

In all cases, the tasks should enable the teacher to infer that the students are able to use the tools and equipment and apply the work methods taught in this module to pass the examination.

3. Materials

Materials include welding stations, welding tips, pliers as well as personal safety equipment.

4. Special Instructions

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 4

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass Fail

☐ ☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Preparation of welding station			
1.1 Appropriate assembly of welding station			0 or 5
2. Preparation of surfaces			
2.1 Appropriate preparation of surfaces, based on the type of weld			0 or 5
3. Adjustment of welding equipment			
3.1 Appropriate adjustment of welding equipment, based on:			0 or 10
• the type of equipment used	☐	☐	
• the materials to be welded	☐	☐	
• the work to be done	☐	☐	
4. Application of welding techniques			
4.1 Observance of welding techniques:			0 or 15
• horizontal welding	☐	☐	
• exhaust pipe welding	☐	☐	
5. Uniformity and resistance of the weld bead			
5.1 Regular welds:			0 or 15
• horizontal welding	☐	☐	
• exhaust pipe welding	☐	☐	
5.2 Appropriate fusing of metals:			0 or 15
• horizontal welding	☐	☐	
• exhaust pipe welding	☐	☐	

Observations

6. Application of cutting techniques

6.1 Observance of cutting techniques, based on:

- the work to be done
- the type of equipment used
- the materials to be cut

☐	☐
☐	☐
☐	☐

0 or 10

6.2 Correct adjustment of cutting equipment, based on:

- the work to be done
- the type of equipment used
- the materials to be cut

☐	☐
☐	☐
☐	☐

0 or 10

7. Regularity of the cut

7.1 Correct execution of cut:

- straight cut (tolerance 3 mm)
- clean cut

☐	☐
☐	☐

0 or 15

Total: ____ /100

Minimum performance standard: 80 marks

Pass/fail condition:

Observance of occupational health and safety rules and
environmental protection measures

Comments

Shop Work

Code: 843445

Module 5

Evaluation Specifications for Certification Purposes**Statement of the Competency**

Do shop work.

Elements Retained	Indicators	Evaluation Criteria	Mark
Take measurements.	Choice of instruments	Appropriate choice of instruments, based on the measurements to be taken	5
	Use of instruments	Proper use of measuring instruments	10
	Precision of measurements	Correct reading of measurements	15
		Recording of all measurements on the work sheet	5
Perform operations on ferrous and nonferrous metals at the workbench.	Application of cutting, drilling, filing, threading and tapping techniques	Appropriate choice of drill bits and taps	5
		Observance of machining techniques	10
		Machining in conformity with drawing	15
	Use of tools, instruments and equipment	Correct use of tools, instruments and equipment	10
Use mechanical workshop equipment.	Observance of work methods	Proper use of equipment to replace a component	15

Elements Retained	Indicators	Evaluation Criteria	Mark
		Correct handling of components	10

Minimum performance standard: 80 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *do shop work*.

The examination should not exceed 2 hours and 30 minutes.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination consisting of three parts. In the first part, they will be required to take measurements. This will entail choosing measuring instruments, correctly reading measurements and accurately recording the results. The examination will focus on four types of measurements: measurements using a dial gauge, a vernier calliper, a micrometer and a feeler gauge.

In the second part of the examination, students will perform operations at a workbench. Based on a drawing, they will cut a piece of metal to a predetermined length, file one of the ends using a square file, drill a hole and then tap it to the required dimension at the appropriate place, as indicated on the drawing. The teacher must make sure that the drill the student chooses corresponds to the tap.

In the third part of the examination, students will use shop equipment. We suggest that they disassemble a component using an extractor and reassemble it using a hydraulic press. These operations could be carried out on wheel bearings, a manual transmission gear, a differential bearing, or any other component of similar difficulty.

In all cases, the tasks should enable the teacher to infer that the students are able to use the tools and equipment and apply the work methods taught in this module to pass the examination.

3. Materials

Part 1: materials include the components to be measured as well as dial gauges, vernier callipers, micrometers and feeler gauges.

Part 2: materials include metal bars, rules, scribe awls, hacksaws, files, a set of drill bits, a drill press, a set of taps as well as cutting lubricant.

Part 3: materials include a set of extractors and a hydraulic press equipped with special tools.

4. Special Instructions

Course notes are not allowed.

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass Fail

☐ ☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Choice of instruments			
1.1 Appropriate choice of instruments, based on the measurements to be taken			0 or 5
2. Use of instruments			
2.1 Proper use of measuring instruments:			0 or 10
• appropriate adjustment and positioning	☐	☐	
• careful handling	☐	☐	
3. Precision of measurements			
3.1 Correct reading of measurements, using a:			0 or 15
• dial gauge	☐	☐	
• micrometer	☐	☐	
• vernier calliper	☐	☐	
• feeler gauge	☐	☐	
3.2 Recording of all measurements on the work sheet:			0 or 5
• accurate identification of type of measurement	☐	☐	
• inclusion of all numbers	☐	☐	
• proper placement of decimal point	☐	☐	

Observations

4.	Application of cutting, drilling, filing, threading and tapping techniques			
4.1	Appropriate choice of drill bits and taps			0 or 5
4.2	Observance of machining techniques:			0 or 10
	• cutting	☐	☐	
	• filing	☐	☐	
	• tapping	☐	☐	
4.3	Machining in conformity with drawing:			0 or 15
	• straight, precise cut	☐	☐	
	• filing in conformity with requirements	☐	☐	
	• thread size and placement in conformity with drawing	☐	☐	
5.	Use of tools, instruments and equipment			
5.1	Correct use of tools, instruments and equipment:			0 or 10
	• appropriate positioning of hacksaw blade	☐	☐	
	• correct adjustment of drill speed	☐	☐	
	• proper method of using tap	☐	☐	
6.	Observance of work methods			
6.1	Proper use of equipment to replace a component:			0 or 15
	• accurate positioning of extractor	☐	☐	
	• correct use of hydraulic press	☐	☐	
6.2	Correct handling of components:			0 or 10
	• without damage	☐	☐	
	• correct positioning of components	☐	☐	
				Total: ____ /100

Minimum performance standard: 80 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Establish interpersonal relationships at work.

Situations Retained	Indicators	Evaluation Criteria	
Information Phase	Consulting sources of information made available to them	• Notes the elements involved in the communication process.	☐
		• Notes the main communication difficulties.	☐
		• Notes the factors that make effective communication possible.	☐
		• Notes the factors that promote cooperation in a work team.	☐
Participation Phase	Participating in activities	• Participates actively in the learning activities.	☐
	Identifying communication strategies related to automobile mechanics	• Identifies the strategies observed for communicating technical information orally.	☐
		• Identifies the characteristics of technical information on a work order.	☐
		• Identifies the strategies for communicating with different types of people.	☐
		• Identifies the strategies observed for dealing appropriately with complaints.	☐

Situations Retained	Indicators	Evaluation Criteria	
	Identifying attitudes and behaviours related to teamwork	• Identifies attitudes and behaviours that foster teamwork.	☐
		• Identifies attitudes and behaviours that hinder teamwork.	☐
		• Lists communication techniques to use in a work team.	☐
	Writing a report	• Presents personal strengths and the aspects to be improved throughout the training process with respect to communication.	☒
		• Presents personal strengths and the aspects to be improved throughout the training process with respect to teamwork.	☒

Minimum performance standard: 12 out of 14 evaluation criteria, including the criteria indicated by an “X”

Description of Participation

1. General Information

The purpose of the evaluation is to assess the students' participation in activities designed to develop the competency to *establish interpersonal relationships at work*.

The teacher evaluates participation throughout the module using a participation evaluation form. Evaluation is based on the students' participation in the various activities carried out individually or in large or small groups, and not on the results obtained.

The evaluation consists of three phases, undertaken at different stages of the module. Each phase is accompanied by specific instructions.

2. Procedure

Information Phase

Evaluation in this phase focuses on the students' search for information.

As they look for information, students are required to note:

- the elements involved in the communication process
- two examples of communication difficulties
- two factors that make effective communication possible
- two factors that promote cooperation in a work team

Participation Phase

Evaluation in this phase focuses on student participation in group discussions during learning activities that recreate communication situations typically encountered in automobile mechanics or in a work team. It is important for the teacher to ask the students questions and encourage all of them to express their opinions on the topics suggested.

During the discussions, students are required to discuss:

- strategies for effectively communicating technical information orally, ways of communicating with different types of people, and techniques for gathering all of the information needed to deal with a complaint
- strategies that foster effective, harmonious communication in a work team as well as behaviours and attitudes to adopt or avoid

Synthesis Phase

Evaluation in this phase focuses on the production of a report that describes the student's ability to communicate.

In the report, students are required to:

- highlight their strengths with respect to communication and teamwork
- state the aspects to be improved throughout the training process

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Participation Elements

	Yes	No
1. Consulting sources of information made available to them		
1.1 Notes the elements involved in the communication process.	☐	☐
1.2 Notes the main communication difficulties.	☐	☐
1.3 Notes the factors that make effective communication possible.	☐	☐
1.4 Notes the factors that promote cooperation in a work team.	☐	☐
2. Participating in activities		
2.1 Participates actively in the learning activities.	☐	☐
3. Identifying communication strategies related to automobile mechanics		
3.1 Identifies the strategies observed for communicating technical information orally.	☐	☐
3.2 Identifies the characteristics of technical information on a work order.	☐	☐
3.3 Identifies the strategies for communicating with different types of people.	☐	☐
3.4 Identifies the strategies observed for dealing appropriately with complaints.	☐	☐
4. Identifying attitudes and behaviours related to teamwork		
4.1 Identifies attitudes and behaviours that foster teamwork.	☐	☐
4.2 Identifies attitudes and behaviours that hinder teamwork.	☐	☐
4.3 Lists communication techniques to use in a work team.	☐	☐

Participation Elements

	Yes	No
5. Writing a report		
5.1 Presents personal strengths and the aspects to be improved throughout the training process with respect to communication.	☐	☐
5.2 Presents personal strengths and the aspects to be improved throughout the training process with respect to teamwork.	☐	☐
Total: ____ /14		

Minimum performance standard: 12 out of 14 evaluation criteria, including criteria 5.1 and 5.2

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Inspect internal combustion engines.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the technical information needed to inspect the engine.	Gathering of information based on the type of vehicle	Location of appropriate specifications	10
Do the inspection.	Choice of control instruments and equipment	Appropriate choice of tools and instruments, based on the work to be done	5
	Taking measurements	Appropriate use of measuring instruments and equipment	10
		Accurate measurement of cylinder leaks	10
		Accurate measurement of oil pressure	10
	Recording of measurements on the work order	Recording of all measurements taken	5
Make observations.	Measurements checked against manufacturer's specifications	Accurate comparison between data collected and specifications	15
	Observations	Accurate observations entered on the work order	20
Explain the results of the inspection.	Proposal of solutions to the problems identified	Proposal of relevant solution	10
Minimum performance standard:	85 marks		
Pass/fail condition:	Observance of occupational health and safety rules and environmental protection measures		

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *inspect internal combustion engines*.

The examination should not exceed 1 hour and 30 minutes.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination during which they will inspect an internal combustion engine. This will entail looking for the required technical information, choosing control equipment, taking measurements, making observations, proposing relevant solutions based on the problem detected, and filling out a work order. This should allow the teacher to infer that the student understands the operating principles of an internal combustion engine well enough to diagnose a problem, justify the diagnosis and propose solutions.

The evaluation could take place at several workstations. A non-operational engine on a stand (engine bench) could be used to check for leaks, while an operational vehicle or engine on a stand could be used to check oil pressure. The problems posed should be realistic and representative of situations typically encountered in repair shops and present a similar level of difficulty.

Examples of engine malfunctions include: cylinder-head gasket torn between two cylinders, broken piston ring, valve jammed open, cracked cylinder head creating an opening between the combustion chamber and antifreeze lines, or any other problem of similar difficulty.

When students measure cylinder leaks, the teacher should pay particular attention to the placement of the engine to ensure that each cylinder is checked.

Workstations will be assigned to students by random draw.

3. Materials

Materials include workstations for detecting leaks and workstations for measuring oil pressure. In addition to their toolboxes, students should have manometers, wrenches, sockets, and cylinder leak detectors. They should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed.

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 7

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass

Fail

☐☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Gathering of information based on the type of vehicle			
1.1 Location of appropriate specifications concerning:			0 or 10
• cylinder compression	☐	☐	
• engine oil pressure	☐	☐	
• engine oil quantity	☐	☐	
• type of engine oil	☐	☐	
2. Choice of control instruments and equipment			
2.1 Appropriate choice of tools and instruments, based on the work to be done:			0 or 5
• checking cylinders for leaks	☐	☐	
• checking oil pressure	☐	☐	
3. Taking measurements			
3.1 Appropriate use of measuring instruments and equipment:			0 or 10
• correct adjustment	☐	☐	
• correct handling	☐	☐	
3.2 Accurate measurement of cylinder leaks			0 or 10
3.3 Accurate measurement of oil pressure			0 or 10
4. Recording of measurements on the work order			
4.1 Recording of all measurements taken			0 or 5
4.2 Clean, legible work order:			0 or 5
• appropriate terminology	☐	☐	
• clear, orderly information	☐	☐	
• absence of dirt	☐	☐	

Observations

5. Measurements checked against manufacturer's specifications
- 5.1 Accurate comparison between data collected and specifications 0 or 15
6. Observations
- 6.1 Accurate observations entered on the work order concerning: 0 or 20
- cylinder leaks ☐ ☐
 - oil pressure ☐ ☐
7. Proposal of solutions to the problems identified
- 7.1 Proposal of relevant solution 0 or 10
- Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Repair internal combustion engines.

Elements Retained	Indicators	Evaluation Criteria	Mark
Part 1: REPLACING A PISTON			
Disassemble an internal combustion engine.	Application of manufacturer-recommended methods concerning the removal and disassembly of components	• Observance of manufacturer-recommended methods concerning the removal of components	10
	Identification of parts	• Accurate identification of parts based on their position	5
	Arrangement of parts	• Organized arrangement of parts	5
Inspect the components of the cylinder block and head.	Measurement of each component	• Accurate measurements	15
	Interpretation of the values obtained with respect to the manufacturer's specifications	• Accurate observations	10
Reassemble the internal combustion engine.	Application of manufacturer-recommended methods and specifications	• Observance of methods concerning piston reassembly	15
		• Observance of method for inspecting connecting rod bearing clearance	10
Part 2: REPLACING A TIMING BELT OR CHAIN			
Plan the work.	Identification of methods and specifications in technical documentation	• Accurate location of information	5
Repair and replace components of the cylinder block and head.	Application of manufacturer-recommended methods	• Observance of belt/chain replacement method	10

Elements Retained	Indicators	Evaluation Criteria	Mark
		Accurate adjustment of belt/chain	10
Reassemble the internal combustion engine.	Integrity of assemblies	Complete reassembly of elements	5
Minimum performance standard: 85 marks distributed as follows:		Part 1: 60 out of 70 marks Part 2: 25 out of 30 marks	

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *repair internal combustion engines*.

The examination should not exceed 3 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination consisting of two parts: replacing a piston and replacing a timing belt or chain.

In Part 1 of the examination, students will remove a piston and rings, take measurements, make a diagnosis, and reinstall the piston inside the cylinder. They will use a Plastigauge to check the clearance in the connecting rod bearing. This part of the examination should be conducted on non-operational engines mounted on a stand from which the cylinder head and crankcase have been removed.

In Part 2, students will replace a timing belt or chain. This will entail identifying the applicable methods and specifications in technical documentation, applying the technique for replacing the component and making the necessary adjustments. Depending on the training centre, teachers could have students replace a timing belt or a timing chain. A complete engine on a stand should be used; however, the alternator belt and other accessories should be removed ahead of time to avoid prolonging the examination.

Workstations will be assigned to students by random draw.

3. Materials

Materials include engines for the piston replacement and engines for the timing belt/chain replacement. In addition to their toolboxes, students should have soft-blow mallets for pistons, protective materials for machined surfaces, tools for turning the flywheel, dial indicators to measure cylinder taper and out-of-round wear, ring pliers, ring compressors, oilcans, Plastigauges and torque wrenches. Replacement materials should be provided, especially in Part 1 of the examination. Students should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed.

The examination is divided into two separate parts. In case of failure, students redo only the part they have failed.

Module 8

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Pass

☐

Fail

☐

Date: _____

Teacher's signature: _____

Observations

Yes No Results

Part 1: REPLACING A PISTON

1. Application of manufacturer-recommended methods concerning the removal and disassembly of components
- 1.1 Observance of manufacturer-recommended methods concerning the removal of components:
 - observance of removal sequence
 - proper protection of machined surfaces and parts
 - proper use of tools
2. Identification of parts
- 2.1 Accurate identification of parts based on their position:
 - accurate location of reference points
 - proper marking of parts
3. Arrangement of parts
- 3.1 Organized arrangement of parts
4. Measurement of each component
- 4.1 Accurate measurements:
 - cylinder out-of-round
 - cylinder taper
 - piston diameter

☐	☐
☐	☐
☐	☐

0 or 10

☐	☐
☐	☐

0 or 5

0 or 5

☐	☐
☐	☐
☐	☐

0 or 15

Observations

5. Interpretation of the values obtained with respect to the manufacturer's specifications
- 5.1 Accurate observations concerning: 0 or 10
- cylinder out-of-round ☐ ☐
 - cylinder taper ☐ ☐
 - piston diameter ☐ ☐
6. Application of manufacturer-recommended methods and specifications
- 6.1 Observance of methods concerning piston reassembly 0 or 15
- 6.2 Observance of method for inspecting connecting rod bearing clearance 0 or 10
- Total: ____ /70

Part 2: REPLACING A TIMING BELT OR CHAIN

7. Identification of methods and specifications in technical documentation
- 7.1 Accurate location of information: 0 or 5
- replacement method ☐ ☐
 - timing belt tension ☐ ☐
 - position of timing marks ☐ ☐
8. Application of manufacturer-recommended methods
- 8.1 Observance of belt/chain replacement method 0 or 10
- 8.2 Accurate adjustment of belt/chain: 0 or 10
- appropriate tension of belt or chain ☐ ☐
 - torque in conformity with requirements ☐ ☐
9. Integrity of assemblies
- 9.1 Complete reassembly of elements: 0 or 5
- inclusion of all parts ☐ ☐
 - proper positioning of protective covers ☐ ☐
- Total: ____ /30

Minimum performance standard: 85 marks distributed as follows: Part 1: 60 out of 70 marks
Part 2: 25 out of 30 marks

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Inspect road-holding systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Part 1: BRAKING SYSTEM			
Gather the technical information needed to inspect braking, suspension and steering systems.	Gathering of technical information	• Selection of the appropriate technical information	10
Inspect brakes.	Inspection of system	• Observance of manufacturer-recommended inspection methods	10
	Choice of control instruments and equipment	• Appropriate choice of control instruments	5
	Measurements	• Accurate measurements	10
Make observations.	Measurements checked against manufacturer's specifications	• Accurate comparison between data collected and specifications	10
	Observations	• Accurate observations entered on the work order concerning the braking system	15
Part 2: SUSPENSION AND STEERING			
Gather the technical information needed to inspect braking, suspension and steering systems.	Gathering of technical information	• Appropriate selection of inspection methods	5
	Interpretation of drawings and diagrams	• Accurate location on the real-life system of the parts indicated in the drawings	10

Elements Retained	Indicators	Evaluation Criteria	Mark
Inspect suspension and steering systems.	Inspection of systems	• Observance of manufacturer-recommended inspection methods	10
Make observations.	Observations	• Accurate observations entered on the work order concerning the suspension and steering	15

Minimum performance standard: 80 marks distributed as follows: Part 1: 50 out of 60 marks
Part 2: 30 out of 40 marks

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *inspect road-holding systems*. Students will be required to inspect braking, suspension and steering systems.

The examination should not exceed 1 hour and 30 minutes.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination consisting of two parts. In Part 1, they will visually inspect a braking system and take appropriate measures. In Part 2, they will inspect a suspension system and a steering system.

In both parts, students will be required to make observations and fill out a work order or an inspection record. This should allow the teacher to infer that the student understands the operating principles of road-holding systems well enough to make observations.

In order to limit the brake inspection which could prove lengthy, the teacher should provide students with a 12-point inspection checklist that covers a front brake, a back brake as well as mechanical, hydraulic, pneumatic and electrical components of the system.

Similarly, a 12-point suspension and steering inspection checklist should also be used to determine the condition of the systems' main components.

In both parts of the examination, the teacher should ensure that one of the vehicles to be inspected has no defects. For the other vehicles, the teacher could install defective parts, alter system adjustments, or jam certain devices. The problems posed should be realistic and representative of situations typically encountered in repair shops and present a similar level of difficulty.

Vehicles will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles. In addition to their toolboxes, students should have the control instruments mentioned in the diagnostic charts for each system, as well as a vehicle lift for easier access to certain systems. Students should also have access to technical documentation.

4. Special Instructions

The examination is divided into two separate parts. In case of failure, students redo only the part they have failed.

Module 9

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass Fail

☐ ☐

Date: _____

Teacher's signature: _____

Observations

Yes No Results

Part 1: BRAKING SYSTEM

1. Gathering of technical information

1.1 Selection of the appropriate technical information:

- inspection methods
- manufacturer's specifications

☐ ☐
☐ ☐

0 or 10

2. Inspection of system

2.1 Observance of manufacturer-recommended inspection methods

0 or 10

3. Choice of control instruments and equipment

3.1 Appropriate choice of control instruments based on:

- the type of inspection to be done
- the vehicle model

☐ ☐
☐ ☐

0 or 5

4. Measurements

4.1 Accurate measurements:

- brake disc thickness
- brake drum diameter
- brake lining thickness and condition

☐ ☐
☐ ☐
☐ ☐

0 or 10

5. Measurements checked against manufacturer's specifications

5.1 Accurate comparison between data collected and specifications

0 or 10

Observations

6. Observations

6.1 Accurate observations entered on the work order concerning the braking system:

- presence or absence of defects
- source of problem
- cause of problem

☐	☐
☐	☐
☐	☐

0 or 15

Total: ____ /60

Part 2: SUSPENSION AND STEERING

7. Gathering of technical information

7.1 Appropriate selection of inspection methods

0 or 5

8. Interpretation of drawings and diagrams

8.1 Accurate location on the real-life system of the parts indicated in the drawings:

- suspension
- steering

☐	☐
☐	☐

0 or 10

9. Inspection of systems

9.1 Observance of manufacturer-recommended inspection methods

0 or 10

10. Observations

10.1 Accurate observations entered on the work order concerning the suspension and steering:

- presence or absence of defects
- source of problem
- cause of problem

☐	☐
☐	☐
☐	☐

0 or 15

Total: ____ /40

Minimum performance standard: 80 marks distributed as follows: Part 1: 50 out of 60 marks
Part 2: 30 out of 40 marks

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Repair road-holding systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Part 1: BRAKING SYSTEM			
Plan the repair.	Choice of tools, instruments, equipment and products	Appropriate choice of tools and products needed, based on the work to be done	5
Replace components of the different systems.	Application of manufacturer-recommended removal and installation methods	Observance of brake removal method	10
		Observance of brake installation method	15
	Lubrication	Appropriate lubrication, based on brake parts	5
	Adjustments	Adjustments in conformity with manufacturer's specifications	15
Inspect the system.	Quality control	Observance of inspection method	10
Part 2: SUSPENSION AND STEERING			
Gather the information needed to make a diagnosis.	Identification of manufacturer-recommended methods and specifications	Selection of the appropriate technical information for the systems to be disassembled	5
Repair components.	Application of manufacturer-recommended disassembly methods	Methodical disassembly of the suspension and steering component	5
	Application of inspection methods	Appropriate inspection of all component parts	10

Elements Retained	Indicators	Evaluation Criteria	Mark
	Detection of problem	Accurate identification of defective part	10
	Application of manufacturer-recommended reassembly method	Observance of manufacturer-recommended reassembly method	10
Minimum performance standard:	85 marks distributed as follows: Part 1: 50 out of 60 marks Part 2: 35 out of 40 marks		
Pass/fail condition:	Observance of occupational health and safety rules and environmental protection measures		

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *repair road-holding systems*. Students will be required to repair braking, suspension and steering system components.

The examination should not exceed 3 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination consisting of two parts. First, they will replace some components of a drum-type brake system and adjust a parking brake. Then, they will repair a MacPherson strut.

In Part 1 of the examination, students will remove, install and adjust a drum brake, and also adjust a parking brake. This will entail choosing the necessary tools, applying the removal and installation methods recommended by the manufacturer and inspecting the systems after the repairs have been done. This part of the examination will be conducted on vehicles from which the wheels have been removed. The teacher will need to misadjust the parking brake before each examination. Depending on the vehicle model, it might be preferable to remove the inside trim to make it easier to adjust the parking brake.

In Part 2, we recommend that students disassemble a MacPherson strut and inspect all of its parts in order to diagnose a problem. They could then reassemble the strut using the replacement part,⁵ in accordance with the sequence recommended by the manufacturer. This part of the examination should be conducted in a shop using struts that have been removed from vehicles. Each strut should be identified (e.g. make, model and year) to help students gather the information they will need to do the repairs. The teacher should either break certain parts or install defective parts in the struts before the examination. Other components requiring disassembly and internal inspection could be used, such as a rack-and-pinion steering system or a steering gearbox.

Examples of problems include: jammed rotating plate, damaged top spring-mount, defective shock absorber, missing dust boot, etc. The repairs required in both parts of the examination should present a similar level of difficulty. Workstations will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles. In addition to their toolboxes, student should have the necessary tools to replace drum brake linings and adjust brakes; brake spring pliers; brake shoe gauges; MacPherson struts; MacPherson strut compressors; as well as a vehicle lift for easier access to certain systems. Students should also have access to technical documentation.

⁵ Students could reassemble the suspension or steering component using the defective part or any other part that might cause problems. This would facilitate the teacher's task as the workstations would be set up for the next students to be evaluated. However, it is important to make sure students have properly diagnosed the problem.

4. Special Instructions

The examination is divided into two separate parts. In case of failure, students redo only the part they have failed.

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 10

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Observations

Yes	No	Results
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Part 1: BRAKING SYSTEM

1. Choice of tools, instruments, equipment and products

1.1 Appropriate choice of tools and products needed, based on the work to be done

0 or 5

2. Application of manufacturer-recommended removal and installation methods

2.1 Observance of brake removal method:

0 or 10

- methodical removal sequence
- no loss of parts
- proper use of tools

☐	☐
☐	☐
☐	☐

2.2 Observance of brake installation method:

0 or 15

- methodical installation sequence
- proper positioning of all components
- absence of contaminants on friction surfaces

☐	☐
☐	☐
☐	☐

3. Lubrication

3.1 Appropriate lubrication, based on brake parts:

0 or 5

- appropriate choice of lubricant
- application in appropriate places

☐	☐
☐	☐

4. Adjustments

4.1 Adjustments in conformity with manufacturer's specifications:

0 or 15

- drum brake
- parking brake

☐	☐
☐	☐

Observations

5. Quality control

5.1 Observance of inspection method:

- brake pedal firmness
- brake pedal height
- parking brake activation

☐	☐
☐	☐
☐	☐

0 or 10

Total: ____ /60

Part 2: SUSPENSION AND STEERING

6. Identification of manufacturer-recommended methods and specifications

6.1 Selection of the appropriate technical information for the systems to be disassembled

0 or 5

7. Application of manufacturer-recommended disassembly methods

7.1 Methodical disassembly of the suspension and steering component:

- methodical disassembly sequence
- proper location of reference points or marking of parts
- safe use of tools

☐	☐
☐	☐
☐	☐

0 or 5

8. Application of inspection methods

8.1 Appropriate inspection of all component parts

0 or 10

9. Detection of problem

9.1 Accurate identification of defective part

0 or 10

10. Application of manufacturer-recommended reassembly method

10.1 Observance of manufacturer-recommended reassembly method:

- methodical reassembly sequence
- inclusion of all parts
- proper position of parts according to reference points
- observance of torque

☐	☐
☐	☐
☐	☐
☐	☐

0 or 10

Total: ____ /40

Minimum performance standard: 85 marks distributed as follows: Part 1: 50 out of 60 marks

Part 2: 35 out of 40 marks

Pass/fail condition:

Observance of occupational health and safety rules and environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Inspect electrical and electronic systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the technical information needed to inspect electrical and electronic systems.	Selection of information	Accurate identification of the information needed to inspect electrical circuits	10
	Interpretation of technical information	Accurate transfer to the vehicle of test points in the drawings	15
Do the inspection.	Application of inspection procedure	Accurate measurement of circuit amperage, voltage and resistance	15
		Correct determination of electrical ratings based on measurements	15
	Use of tools, instruments and control devices	Proper use of multimeter	15
	Application of necessary precautions	Observance of position and integrity of wiring harnesses and connectors	10
	Recording of results on the work order	Correct entry of measurements	10
Make observations.	Measurements checked against manufacturer's specifications	Accurate comparison between measurements taken and information in electrical drawings or tables of symptoms	10

Minimum performance standard: 85 marks

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *inspect electrical and electronic systems*.

The examination should not exceed 1 hour and 30 minutes.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination. Given a 6-point inspection checklist requiring the use of a multimeter, students will find the information needed to inspect electrical circuits, interpret electrical drawings and diagrams, locate components and test points on the vehicle and take measurements using a multimeter. This inspection procedure should allow the teacher to infer that the student understands the operating principles of electrical systems well enough to successfully complete the task.

The examination should be conducted on vehicles. The inspections selected by the teacher should involve simple measurements, such as measuring voltage drops in a switch, power in a component, or resistance in part of an electrical circuit. Students will also be required to apply formulas to determine electrical ratings (i.e. ratings that require several readings), such as the power in a rear-window defroster or headlights, or dynamic resistance in a relay control circuit.

To avoid prolonging the examination, certain body elements or trim could be removed from the vehicles ahead of time.

Vehicles will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles. In addition to their toolboxes, students should have multimeters, jumper wires, wire terminal testers, the control tools and instruments listed in the diagnostic chart for each system, as well as a vehicle lift for easier access to certain systems. Students should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed.

Module 11

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass

Fail

☐☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Selection of information			
1.1 Accurate identification of the information needed to inspect electrical circuits:			0 or 10
• in electrical drawings	☐	☐	
• in diagrams showing the location of components	☐	☐	
• in manufacturer's recommendations	☐	☐	
2. Interpretation of technical information			
2.1 Accurate transfer to the vehicle of test points in the drawings			0 or 15
3. Application of inspection procedure			
3.1 Accurate measurement of circuit amperage, voltage and resistance			0 or 15
3.2 Correct determination of electrical ratings based on measurements			0 or 15
4. Use of tools, instruments and control devices			
4.1 Proper use of multimeter:			0 or 15
• proper adjustment based on measurement to be taken	☐	☐	
• appropriate choice of scale	☐	☐	
• observance of polarity	☐	☐	
• proper positioning of multimeter probes on selected test points	☐	☐	
5. Application of necessary precautions			
5.1 Observance of position and integrity of wiring harnesses and connectors			0 or 10

Observations

6. Recording of results on the work order

6.1 Correct entry of measurements:

- simple measurements
- electrical ratings

☐	☐
☐	☐

0 or 10

7. Measurements checked against manufacturer's specifications

7.1 Accurate comparison between measurements taken and information in electrical drawings or tables of symptoms

0 or 10

Total: ____ /100

Minimum performance standard: 85 marks

Comments

Repairing Lighting Systems

Code: 843514

Module 12

Evaluation Specifications for Certification Purposes**Statement of the Competency**

Repair lighting systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the information needed to make a diagnosis.	Handling of the complaint	Appropriate validation of the complaint by testing the system in question	5
	Determination of the information needed based on the complaint	Selection of the appropriate information for the problem detected	10
Locate the problem on the vehicle.	Location of the system(s) involved in the complaint	Accurate identification on the vehicle of the electrical circuit in question	5
	Taking measurements	Observance of manufacturer-recommended inspection methods	10
		Observance of instructions for using measuring instruments	10
		Accurate measurements	10
	Identification of the problem	Accurate identification of the source and cause of the problem	20
Plan the repair.	Determination of actions to be taken	Determination of the appropriate actions	5
Repair wiring harnesses, cables and their components.	Application of repair techniques	Proper repair of the system involved	20

Elements Retained	Indicators	Evaluation Criteria	Mark
Inspect the system.	Testing of systems	Appropriate inspection of repaired system	5

Minimum performance standard: 85 marks

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *repair lighting systems*.

The examination should not exceed 2 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination. Given a work order describing a customer complaint, students will look for technical information, take measurements, identify a problem, make the necessary repairs and test the system once the repairs have been done.

The examination should be conducted on vehicles that have defective electrical systems. The problems posed should be representative of situations typically encountered in repair shops and present a similar level of difficulty. The defective components should be accessible and the time required for the repair reasonable.

To avoid prolonging the examination, certain body elements or trim should be removed ahead of time.

Examples of customer complaints include: brake lights don't work, low beams won't switch on, backup lights won't turn off, daytime running lights don't work, etc.

Vehicles will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles. In this type of examination where many problems are possible, students should be given a complete set of tools and instruments, including those listed in tables of symptoms. In addition to their toolboxes, students should have multimeters, jumper wires, wiring harness repair kits, as well as a vehicle lift for easier access to certain systems. Students should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed.

Module 12

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Handling of the complaint			
1.1 Appropriate validation of the complaint by testing the system in question			0 or 5
2. Determination of the information needed based on the complaint			
2.1 Selection of the appropriate information for the problem detected:			0 or 10
• information for the diagnosis	☐	☐	
• information for the repair	☐	☐	
3. Location of the system(s) involved in the complaint			
3.1 Accurate identification on the vehicle of the electrical circuit in question			0 or 5
4. Taking measurements			
4.1 Observance of manufacturer-recommended inspection methods			0 or 10
4.2 Observance of instructions for using measuring instruments			0 or 10
4.3 Accurate measurements			0 or 10
5. Identification of the problem			
5.1 Accurate identification of the source and cause of the problem			0 or 20
6. Determination of actions to be taken			
6.1 Determination of the appropriate actions			0 or 5
7. Application of repair techniques			
7.1 Proper repair of the system involved			0 or 20

Observations

8. Testing of systems

8.1 Appropriate inspection of repaired system

0 or 5

Total: ____ /100

Minimum performance standard: 85 marks

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Inspect basic computer-controlled systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the information needed to inspect the systems.	Selection of information	Accurate identification of the information needed to inspect circuits	10
	Interpretation of drawings, diagrams and graphs	Accurate transfer to the systems of test points in the drawings	10
Inspect electrical and electronic circuits.	Taking measurements	Accurate measurements using a multimeter	15
		Accurate reading of circuit signature using an oscilloscope	15
Inspect the vehicle's computers.	Taking readings	Accurate reading of data using a scan tool	10
	Use of tools, equipment and instruments	Proper use of multimeter	10
		Proper use of oscilloscope	10
Make observations.	Measurements checked against manufacturer's specifications	Proper use of scan tool	10
		Accurate comparison between measurements taken and information in electrical drawings or tables of symptoms	10

Minimum performance standard: 85 marks

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *inspect basic computer-controlled systems*.

The examination should not exceed 1 hour and 30 minutes.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination. Given a 10-point inspection checklist requiring the use of a multimeter, an oscilloscope and a scan tool, students will identify the information needed to inspect the test points, interpret electrical drawings and diagrams, locate components and test points on the vehicle, take measurements or readings and check them against the manufacturer's specifications. This inspection procedure should allow the teacher to infer that the student understands the operating principles of basic computer-controlled systems well enough to successfully complete the task.

When evaluating the use of multimeters and oscilloscopes, the teacher should focus on measurements specific to computer-controlled systems, such as duty cycle, signal frequency and cycle time, in order to avoid reassessing what was covered in Module 11. Measurements should therefore be taken on a magnetic or digital crankshaft sensor, a thermistor, a potentiometer, a wheel sensor, the injector circuit, injection time, the duty cycle of an electrovalve, etc.

The scan tool should only be used to read trouble codes and operating parameters. A significant part of the examination focuses on the quality of the readings taken and the proper use of control instruments.

3. Materials

The materials will consist of various basic computer-controlled systems in vehicles or in engines on stands. In addition to their toolboxes, students should have multimeters, oscilloscopes and scan tools. They should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed.

Module 13

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Selection of information			
1.1 Accurate identification of the information needed to inspect circuits:			0 or 10
• in electrical drawings	☐	☐	
• in diagrams showing the location of components	☐	☐	
2. Interpretation of drawings, diagrams and graphs			
2.1 Accurate transfer to the systems of test points in the drawings			0 or 10
3. Taking measurements			
3.1 Accurate measurements using a multimeter			0 or 15
3.2 Accurate reading of circuit signature using an oscilloscope:			0 or 15
• proper identification of type of signal	☐	☐	
• accurate measurement of signal voltage	☐	☐	
• accurate measurement of signal duration	☐	☐	
4. Taking readings			
4.1 Accurate reading of data using a scan tool:			0 or 10
• trouble codes	☐	☐	
• system operating parameters	☐	☐	

Observations

5. Use of tools, equipment and instruments

5.1 Proper use of multimeter 0 or 10

5.2 Proper use of oscilloscope:

- proper adjustment based on reading to be taken
- observance of polarity
- proper positioning of probes on selected test points
- application of protective measures for computer-controlled circuits

☐	☐
☐	☐
☐	☐
☐	☐

0 or 10

5.3 Proper use of scan tool:

- proper connection
- introduction of specific data on vehicle parameters

☐	☐
☐	☐

0 or 10

6. Measurements checked against manufacturer's specifications

6.1 Accurate comparison between measurements taken and information in electrical drawings or tables of symptoms 0 or 10

Total: ____ /100

Minimum performance standard: 85 marks

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Inspect transmission systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Part 1: TRANSMISSION ASSEMBLIES			
Gather the information needed to inspect transmission assemblies.	Selection of technical information	Selection of the appropriate technical information	5
Inspect: - clutch systems - manual gearboxes - differentials - transfer cases - drive shafts	Visual inspection	Thorough visual inspection	10
	Choice of control instruments and equipment	Appropriate choice of control instruments	5
	Quality control	Observance of manufacturer-recommended methods for checking test points	15
Make observations.	Observations	Relevant observations entered on the work order	15
Explain the results of the inspection.	Deduction of possible repercussions on the systems' operation	Plausible hypotheses concerning repercussions	10
Part 2: AUTOMATIC GEARBOXES			
Inspect automatic gearboxes.	Inspection of gearbox	Thorough visual inspection	10
		Accurate reading of the system's hydraulic pressure	10

Elements Retained	Indicators	Evaluation Criteria	Mark
	Identification of trouble codes	Accurate identification of trouble codes	10
	Recording of results on the work order	- Inclusion of essential information on the work order - Use of appropriate terminology	5 5
Minimum performance standard:	85 marks distributed as follows:	Part 1: 50 out of 60 marks Part 2: 35 out of 40 marks	
Pass/fail condition:	Observance of occupational health and safety rules and environmental protection measures		

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *inspect transmission systems*.

The examination should not exceed 2 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination consisting of two parts.

In Part 1, students will be required to visually inspect and check transmission systems using the method recommended by the manufacturer, make observations, and formulate hypotheses on the repercussions that the problems may have on the system. To avoid prolonging the inspection, the teacher should provide an 8-point inspection checklist. Ideally, the inspection should cover complete systems such as clutch systems, manual gearboxes, drive shafts or differentials. Some of the work could be done in a shop on components that have been removed from vehicles in order to make it easier to inspect parts that are normally difficult to access, such as the clutch pressure plate, clutch disc and throw-out bearing.

In Part 2, students will inspect an automatic gearbox. This will entail visually inspecting the hydraulic, mechanical and electrical components, checking the main pressure and identifying the trouble codes.

In both parts of the examination, the inspections should allow the teacher to infer that the student understands the operating principles of transmission systems well enough to make observations.

The teacher could use two vehicles with manual transmissions and two vehicles with automatic transmissions. This would limit the space required for the examination while allowing students to rotate between workstations. The teacher could install defective parts, alter system adjustments, or jam certain devices. The problems posed should be realistic and representative of situations typically encountered in repair shops and present a similar level of difficulty.

Vehicles will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles with manual transmissions and vehicles with electronic automatic transmissions that can communicate with scan tools. In addition to their toolboxes, students should have the control instruments specific to each system, manometers to check transmission oil pressure, scan tools, as well as a vehicle lift for easier access to certain systems. Students should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed. The examination is divided into two separate parts. In case of failure, students redo only the part they have failed.

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 14

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Date: _____

Teacher's signature: _____

Result	
Pass	Fail
☐	☐

Observations

	Yes	No	Results
Part 1: TRANSMISSION ASSEMBLIES			
1. Selection of technical information			
1.1 Selection of the appropriate technical information:			0 or 5
• inspection methods concerning components	☐	☐	
• manufacturer's specifications	☐	☐	
2. Visual inspection			
2.1 Thorough visual inspection:			0 or 10
• mechanical components	☐	☐	
• hydraulic components	☐	☐	
• electrical components	☐	☐	
3. Choice of control instruments and equipment			
3.1 Appropriate choice of control instruments:			0 or 5
• based on the type of inspection	☐	☐	
• based on the vehicle model	☐	☐	
4. Quality control			
4.1 Observance of manufacturer-recommended methods for checking test points on the:			0 or 15
• clutch system	☐	☐	
• manual gearbox	☐	☐	
• differential	☐	☐	
• drive shaft	☐	☐	

Observations

5. Observations

5.1 Relevant observations entered on the work order:

0 or 15

- presence or absence of defect
- source of problem
- cause of problem

☐	☐
☐	☐
☐	☐

6. Deduction of possible repercussions on the systems' operation

6.1 Plausible hypotheses concerning repercussions

0 or 10

Total: ____ /60

Part 2: AUTOMATIC GEARBOXES

7. Inspection of gearbox

7.1 Thorough visual inspection:

0 or 10

- mechanical components
- hydraulic components
- electrical components

☐	☐
☐	☐
☐	☐

7.2 Accurate reading of the system's hydraulic pressure

0 or 10

8. Identification of trouble codes

8.1 Accurate identification of trouble codes

0 or 10

9. Recording of results on the work order

9.1 Inclusion of essential information on the work order:

0 or 5

- visual inspection
- pressure reading
- trouble codes

☐	☐
☐	☐
☐	☐

9.2 Use of appropriate terminology

0 or 5

Total: ____ /40

Minimum performance standard: 85 marks distributed as follows: Part 1: 50 out of 60 marks

Part 2: 35 out of 40 marks

Pass/fail condition:

Observance of occupational health and safety rules and environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Repair transmission systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Part 1: MANUAL TRANSMISSION			
Gather the information needed to make a diagnosis.	Identification of manufacturer-recommended methods and specifications	• Accurate identification of the appropriate information	10
Disassemble components.	Application of manufacturer-recommended disassembly methods	• Observance of disassembly methods for manual transmissions	10
	Arrangement of parts	• Organized arrangement of parts on the work table	5
	Application of inspection methods	• Observance of inspection methods for components	10
	Detection of problem	• Accurate identification of defective part	15
Reassemble the components.	Application of reassembly methods	• Observance of reassembly methods	15
		• Appropriate lubrication	5
Part 2: DIFFERENTIAL			
Perform maintenance and repair operations.	Adjustment of components	• Observance of manufacturer-recommended adjustment method	10
		• Adjustments in conformity with manufacturer's recommendations	10

Elements Retained	Indicators	Evaluation Criteria	Mark
		• Proper use of tools and instruments	5
	Quality control	• Proper contact pattern check	5
Minimum performance standard: 85 marks distributed as follows:			
		Part 1: 60 out of 70 marks	
		Part 2: 25 out of 30 marks	

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *repair transmission systems*.

The examination should not exceed 3 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination consisting of two parts. First, they will have to disassemble a manual transmission in order to make a diagnosis. Then, they will make the necessary adjustments to a differential.

In Part 1 of the examination, based on a work order and manufacturer's recommendations, students will carefully disassemble a transmission, arrange the parts in an organized fashion, thoroughly inspect each component of the transmission, detect the malfunction, and reassemble the transmission using a replacement part.⁶

In Part 2, students will adjust the bearing preload and backlash of a gear differential. The teacher will provide students with a differential on which several internal components have been misadjusted. The students will then make the necessary adjustments, in accordance with the sequence recommended by the manufacturer, and check the contact pattern.

Both parts of the examination will be conducted in a shop, on manual transmissions and differentials that have been removed from vehicles. Each assembly should be identified (e.g. make, model, year) to help students gather the information they need for the repairs.

Examples of customer complaints include: trouble getting into second gear, the transmission is noisy in neutral, noise when shifting between third and fourth gear, etc.

The repairs required in both parts of the examination (i.e. on the transmissions and the differentials) should present a similar level of difficulty. Workstations will be assigned to students by random draw.

3. Materials

The materials will consist of transmissions and differentials. In addition to their toolboxes, students should have the necessary tools to maintain and repair transmissions and differentials, such as torque wrenches, dial indicators with magnetic bases, and snap ring pliers for differential bearings. Students should also have access to technical documentation.

⁶ Students could reassemble the transmission using the defective part or any other part that might cause problems. This would facilitate the teacher's task as the workstations would be set up for the next students to be evaluated. However, it is important to make sure students have properly diagnosed the problem.

4. Special Instructions

The examination is divided into two separate parts. In case of failure, students redo only the part they have failed.

Module 15

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Observations

Yes	No	Results
-----	----	---------

Part 1: MANUAL TRANSMISSION

1. Identification of manufacturer-recommended methods and specifications

1.1 Accurate identification of the appropriate information:

- disassembly and reassembly methods
- specifications concerning diagnosis
- specifications concerning adjustments

☐	☐
☐	☐
☐	☐

0 or 10

2. Application of manufacturer-recommended disassembly methods

2.1 Observance of disassembly method for manual transmissions:

- methodical disassembly sequence
- without damage
- proper use of tools

☐	☐
☐	☐
☐	☐

0 or 10

3. Arrangement of parts

3.1 Organized arrangement of parts on the work table

0 or 5

4. Application of inspection methods

4.1 Observance of inspection methods for components

0 or 10

5. Detection of problem

5.1 Accurate identification of defective part

0 or 15

Observations

6. Application of reassembly methods

6.1 Observance of reassembly methods:

- methodical reassembly sequence
- presence of all parts
- proper positioning of parts

☐	☐
☐	☐
☐	☐

0 or 15

6.2 Appropriate lubrication

0 or 5

Total: ____ /70

Part 2: DIFFERENTIAL

7. Adjustment of components

7.1 Observance of manufacturer-recommended adjustment method:

- gear backlash
- bearing preload

☐	☐
☐	☐

0 or 10

7.2 Adjustments in conformity with manufacturer's recommendations:

- gear backlash
- bearing preload
- torque

☐	☐
☐	☐
☐	☐

0 or 10

7.3 Proper use of tools and instruments:

- accurate positioning of dial indicator
- proper use of adjustment tools

☐	☐
☐	☐

0 or 5

8. Quality control

8.1 Proper contact pattern check

0 or 5

Total: ____ /30

Minimum performance standard: 85 marks distributed as follows: Part 1: 60 out of 70 marks

Part 2: 25 out of 30 marks

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Inspect starting and charging systems and electromagnetic accessories.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the information needed to inspect starting and charging systems and electromagnetic accessories.	Gathering of information	Accurate identification of inspection methods for batteries and starting and charging systems	5
		Accurate identification of specifications concerning batteries and starting and charging systems	5
Do the inspection.	Visual inspection of systems	Thorough visual inspection of mechanical and electrical components	10
	Taking measurements	Observance of manufacturer-recommended inspection methods	15
		Accurate measurements	15
		Proper use of control devices	10
Make observations.	Recording of measurements on the work order	Entry of all measurements	5
	Measurements checked against manufacturer's specifications	Accurate comparison between data collected and specifications	10
	Observations	Accurate observations entered on the work order	20

Elements Retained	Indicators	Evaluation Criteria	Mark
Explain the results of the inspection.	Explanation of the nature of the problem	Proper presentation of work order	5

Minimum performance standard: 85 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *inspect starting and charging systems and electromagnetic accessories*. Students will be required to test the performance of a battery and a starting or charging system.

The examination should not exceed 1 hour.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination, during which they will gather the technical information needed to inspect a battery and a starting or charging system. They will also visually inspect and take measurements on a battery and the components of one of the two systems; check measurements against specifications; make observations concerning the performance of the battery and the system inspected; and fill out a work order. This should allow the teacher to infer that the student understands the operating principles of starting and charging systems well enough to make a diagnosis and explain it.

The examination should take place on vehicles that have batteries and starting and charging systems with different outputs. The teacher should simulate a loss of performance without preventing the systems from functioning, since the students will need to measure the systems' voltage and load.

Examples of simulated problems include: weak or damaged battery, worn belt, defective voltage regulator or diode pack, defective solenoid, defective starter, or any other problem presenting a similar level of difficulty. The problems posed should be realistic and representative of situations typically encountered in repair shops.

Vehicles will be assigned by random draw for the inspection of either a charging system or a starting system. All students will be required to inspect a battery.

3. Materials

The materials will consist of vehicles. In addition to their toolboxes, students should have AVR/alternator charging system battery testers, multimeters, test lights, battery acid testers, as well as a vehicle lift for easier access to certain systems. Students should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed.

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 16

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Gathering of information			
1.1 Accurate identification of inspection methods for batteries and starting and charging systems			0 or 5
1.2 Accurate identification of specifications concerning batteries and starting and charging systems			0 or 5
2. Visual inspection of systems			
2.1 Thorough visual inspection of mechanical and electrical components:			0 or 10
• battery	☐	☐	
• system to be checked	☐	☐	
3. Taking measurements			
3.1 Observance of manufacturer-recommended inspection methods:			0 or 15
• battery	☐	☐	
• system to be checked	☐	☐	
3.2 Accurate measurements:			0 or 15
• battery	☐	☐	
• system to be checked	☐	☐	
3.3 Proper use of control devices			0 or 10
4. Recording of measurements on the work order			
4.1 Entry of all measurements			0 or 5
5. Measurements checked against manufacturer's specifications			
5.1 Accurate comparison between data collected and specifications			0 or 10

Observations

6. Observations

6.1 Accurate observations entered on the work order:

0 or 20

- presence or absence of defect
- source of problem
- cause of problem

☐	☐
☐	☐
☐	☐

7. Explanation of the nature of the problem

7.1 Proper presentation of work order:

0 or 5

- appropriate terminology
- clear, organized entries

☐	☐
☐	☐

Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Repair starting and charging systems and electromagnetic accessories.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the information needed to inspect systems and accessories.	Determination of the information needed based on the complaint	• Selection of the information needed for the diagnosis	5
	Interpretation of drawings, diagrams and graphs	• Accurate location on the vehicle of the test points recommended by the manufacturer	10
Locate the problem on the vehicle or in the assembly.	Taking measurements	• Accurate measurements on the system	15
	Identification of the problem	• Accurate determination of the source of the problem	20
Plan the repair.	Determination of the actions to be taken	• Selection of the appropriate action to correct the problem	10
		• Appropriate choice of tools and equipment	5
Perform repair operations on: • systems • system components • electromagnetic accessories	Application of manufacturer-recommended repair methods	• Observance of repair method selected	10
Inspect the system(s) after repair.	Testing of the system(s) in question	• Appropriate inspection of repaired system	5
		• Repaired accessory in good working order	20
Minimum performance standard:	85 marks		
Pass/fail condition:	Observance of occupational health and safety rules and environmental protection measures		

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *repair starting and charging systems and electromagnetic accessories*.

The examination should not exceed 2 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination. Given a work order describing a customer complaint concerning a defective electromagnetic accessory, students will apply the diagnostic process recommended by the manufacturer, choose the appropriate tools and instruments, make the necessary repairs and test the accessory once the repairs have been done. If the tests reveal that the accessory is still not functioning properly, the students will have the opportunity to make the necessary adjustments.

The examination should focus on repairing an electromagnetic accessory since these types of accessories offer a variety of repair opportunities. The problems simulated should be representative of situations typically encountered in repair shops and present a similar level of difficulty.

Examples of customer complaints include: gas gauge doesn't work, passenger window won't go down, warning light won't turn off, rear-window defroster is always on, etc.

Vehicles will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles. In this type of examination where many problems are possible, students should be given a complete set of tools and instruments, so that they can choose the appropriate ones. In addition to their toolboxes, students should have multimeters, test lights, jumper wires, etc. Students should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed.

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 17

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Determination of the information needed based on the complaint			
1.1 Selection of the information needed for the diagnosis			0 or 5
2. Interpretation of drawings, diagrams and graphs			
2.1 Accurate location on the vehicle of the test points recommended by the manufacturer			0 or 10
3. Taking measurements			
3.1 Accurate measurements on the system			0 or 15
4. Identification of the problem			
4.1 Accurate determination of the source of the problem			0 or 20
5. Determination of the actions to be taken			
5.1 Selection of the appropriate action to correct the problem			0 or 10
5.2 Appropriate choice of tools and equipment			0 or 5
6. Application of manufacturer-recommended repair methods			
6.1 Observance of repair method selected:			0 or 10
• correct reassembly of parts	☐	☐	
• without damage	☐	☐	

Observations

7. Testing of the system(s) in question

7.1 Appropriate inspection of repaired system

0 or 5

7.2 Repaired accessory in good working order

0 or 20

Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition:

Observance of occupational health and safety rules and
environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Inspect engine and passenger compartment temperature control systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the technical information needed to inspect cooling, heating and air conditioning systems.	Selection of technical information	Accurate identification of the information needed to inspect the air conditioning system	10
Do the inspection.	Visual inspection of systems	Thorough visual inspection of air conditioning system	10
	Taking measurements	Accurate measurement of air conditioning system pressure and temperature	15
		Observance of the manufacturer's specific recommendations	15
	Use of control instruments and equipment	Proper use of control devices	15
Make observations.	Measurements checked against manufacturer's specifications	Accurate comparison between data collected and specifications	15
	Evaluation of system performance	Accurate conclusions about air conditioning system performance	20

Minimum performance standard: 85 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *inspect engine and passenger compartment temperature control systems*.

The examination should not exceed 1 hour and 30 minutes.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination during which they will gather technical information, visually inspect the components of an air conditioning system, take the measurements needed to evaluate the system's performance, check measurements against specifications and draw conclusions. This should allow the teacher to infer that the student understands the operating principles of an air conditioning system well enough to evaluate its performance and draw conclusions.

The vehicles used for the examination should have air conditioning systems operating at varying levels of performance. The teacher should decrease a system's performance without preventing the system from functioning. This could be done, for example, by adding or removing a certain amount of refrigerant from the system, or by placing a plastic film or piece of cardboard between the radiator and condenser. Air conditioning systems in good condition (without defects) could also be included in the evaluation. Conducting the examination on vehicles allows the application of specific procedures, such as those related to window operation, hood position and heater blower speed.

Ideally, the problems posed should all be of similar difficulty. Vehicles will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles and, depending on the training centre, either air conditioning service stations or manometers for measuring air conditioning pressure. In addition to their toolboxes, students should have thermometers and hygrometers. Students should also have access to technical documentation.

4. Special Instructions

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 18

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass Fail

☐ ☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Selection of technical information			
1.1 Accurate identification of the information needed to inspect the air conditioning system:			0 or 10
• in pressure charts and diagrams	☐	☐	
• in temperature charts and diagrams	☐	☐	
• specific procedures for testing the system's performance	☐	☐	
2. Visual inspection of systems			
2.1 Thorough visual inspection of air conditioning system:			0 or 10
• mechanical components	☐	☐	
• electrical components	☐	☐	
• thermal components	☐	☐	
3. Taking measurements			
3.1 Accurate measurement of air conditioning system pressure and temperature			0 or 15
3.2 Observance of the manufacturer's specific recommendations:			0 or 15
• correct positioning of auto body components	☐	☐	
• correct positioning of controls	☐	☐	
4. Use of control instruments and equipment			
4.1 Proper use of control devices:			0 or 15
• for system pressure	☐	☐	
• for system temperature	☐	☐	

Observations

5. Measurements checked against manufacturer's specifications
- 5.1 Accurate comparison between data collected and specifications 0 or 15
6. Evaluation of system performance
- 6.1 Accurate conclusions about air conditioning system performance: 0 or 20
- presence or absence of defects ☐ ☐
 - source of problem ☐ ☐
 - cause of problem ☐ ☐

Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Comments

Evaluation Specifications for Certification Purposes**Statement of the Competency**

Maintain and repair engine and passenger compartment temperature control systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the information needed to make a diagnosis.	Handling of the complaint	Appropriate validation of the complaint	10
	Determination of the information needed, based on the complaint	Selection of the appropriate information for the problem detected	5
Locate the problem on the vehicle.	Choice of control instruments and equipment	Appropriate choice of instruments and equipment needed, based on the inspection to be done	5
	Identification of the problem	Observance of manufacturer-recommended inspection method	15
		Accurate determination of the source of the problem	20
Repair cooling and heating systems.	Application of repair techniques	Determination of the appropriate actions to be taken	5
		Observance of the repair procedure selected	10
		Proper use of tools and equipment	5
Inspect the systems after repair.	Quality control	Appropriate inspection of repaired system	5

Elements Retained	Indicators	Evaluation Criteria	Mark
		Repaired system in good working order	20

Minimum performance standard: 85 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *maintain and repair engine and passenger compartment temperature control systems*.

The examination should not exceed 2 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination. Given a work order describing a customer complaint about a problem in either the engine or the passenger compartment temperature control system, students will apply the diagnostic procedure recommended by the manufacturer, make the necessary repairs and test the system once the repairs have been done. If the tests reveal that the system is still not functioning properly, the students will have the opportunity to make the necessary adjustments.

Ideally, the teacher should cause a variety of problems. The problems posed should be representative of situations typically encountered in repair shops and present a similar level of difficulty.

Examples of customer complaints include: the passenger compartment is not warm enough, the engine overheats constantly, the temperature in the passenger compartment is always hot, the dash board temperature gauge always reads "cold," there is a strange smell in the passenger compartment, etc.

Based on the type of complaints selected, the teacher could cause such problems as a blown fuse; a defective radiator fan or heater blower relay; jammed or improperly adjusted heater air flow control; a control valve regulating coolant flow to the heater that is jammed open or shut; a damaged water pump belt; broken heater resistance, decreased vacuum supply to heater controls, antifreeze leak, etc.

Vehicles will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles. In this type of examination where many problems are possible, students should be given a complete set of tools and instruments, so that they can choose the appropriate ones. In addition to their toolboxes, students should have multimeters, anti-freeze hydrometers, pressure testers for the cooling system, manometers to measure pressure, as well as a vehicle lift for easier access to certain systems. Student should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed.

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 19

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Date: _____

Teacher's signature: _____

Result	
Pass	Fail
☐	☐

Observations

	Yes	No	Results
1. Handling of the complaint			
1.1 Appropriate validation of the complaint:			0 or 10
• appropriate testing of system in question	☐	☐	
• determination of plausible hypotheses	☐	☐	
2. Determination of the information needed, based on the complaint			
2.1 Selection of the appropriate information for the problem detected:			0 or 5
• information for the diagnosis	☐	☐	
• information for the repairs	☐	☐	
3. Choice of control instruments and equipment			
3.1 Appropriate choice of instruments and equipment needed, based on the inspection to be done			0 or 5
4. Identification of the problem			
4.1 Observance of manufacturer-recommended inspection method			0 or 15
4.2 Accurate determination of the source of the problem			0 or 20
5. Application of repair techniques			
5.1 Determination of the appropriate actions to be taken			0 or 5
5.2 Observance of the repair procedure selected			0 or 10
5.3 Proper use of tools and equipment			0 or 5

Observations

6. Quality control

6.1 Appropriate inspection of repaired system

0 or 5

6.2 Repaired system in good working order

0 or 20

Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition:

Observance of occupational health and safety rules and
environmental protection measures

Comments

Evaluation Specifications for Certification Purposes**Statement of the Competency**

Inspect active and passive safety systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the information needed to inspect active and passive safety systems.	Gathering of information given the type of vehicle and system	• Selection of the appropriate inspection methods for the system	10
		• Accurate identification of specifications concerning the system component(s)	10
	Interpretation of drawings, diagrams and graphs	• Accurate location on the vehicle of the components indicated in the technical drawings	10
Do the inspection.	Choice of tools, instruments and control equipment	• Appropriate choice of tools and control instruments	5
	Measurements in conformity with manufacturer's recommendations	• Observance of the inspection procedure indicated in tables of symptoms and diagnostic charts	15
		• Accurate reading of system codes and operating parameters using the scan tool	10
		• Accurate measurements	10
Make observations.	Measurements checked against manufacturer's specifications	• Accurate comparison between data collected and specifications	10

Elements Retained	Indicators	Evaluation Criteria	Mark
	Observations	Accurate determination of the source and cause of the problem	20

Minimum performance standard: 85 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *inspect active and passive safety systems*.

The examination should not exceed 1 hour and 30 minutes.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination during which they will gather technical information, do an inspection using a scan tool, take measurements, check the measurements against specifications and make observations. This should allow the teacher to infer that the student understands the operating principles of active and passive safety systems well enough to determine the source and cause of a problem.

The teacher will need to cause problems that will activate warning lights or trouble codes. The defective components should be accessible to facilitate the inspection. Ideally, the problems posed should affect a variety of active and passive safety systems, be representative of situations typically encountered in repair shops and present a similar level of difficulty.

Examples of problems include: defective air bags, defective impact sensors, faulty power relays, damaged wheel sensors, etc.

Vehicles will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles. In this type of examination where many problems are possible, students should be given a complete set of tools and instruments, including those listed in tables of symptoms and diagnostic charts. In addition to their toolboxes, students should have multimeters, jumper wires, oscilloscopes, scan tools, wiring harness repair kits, as well as a vehicle lift for easier access to certain systems. Students should also have access to technical documentation.

4. Special Instructions

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 20

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass

Fail

☐☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Gathering of information given the type of vehicle and system			
1.1 Selection of the appropriate inspection methods for the system			0 or 10
1.2 Accurate identification of specifications concerning the system component(s)			0 or 10
2. Interpretation of drawings, diagrams and graphs			
2.1 Accurate location on the vehicle of the components indicated in the technical drawings			0 or 10
3. Choice of tools, instruments and control equipment			
3.1 Appropriate choice of tools and control instruments			0 or 5
4. Measurements in conformity with manufacturer's recommendations			
4.1 Observance of the inspection procedure indicated in tables of symptoms and diagnostic charts			0 or 15
4.2 Accurate reading of system codes and operating parameters using the scan tool			0 or 10
4.3 Accurate measurements			0 or 10
5. Measurements checked against manufacturer's specifications			
5.1 Accurate comparison between data collected and specifications			0 or 10

Observations

6. Observations

6.1 Accurate determination of the source and cause of the problem

0 or 20

Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Comments

Evaluation Specifications for Certification Purposes**Statement of the Competency**

Repair active and passive safety systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the information needed to make a diagnosis.	Identification of manufacturer-recommended methods and specifications	Selection of the appropriate information for the repair	10
	Interpretation of drawings, diagrams and graphs	Accurate location on the vehicle of the components indicated in the technical drawings	10
Plan the repair.	Choice of tools, equipment and products	Appropriate choice of tools, equipment and products needed for the repair	10
Replace components of different systems.	Application of manufacturer-recommended methods for removing, reinstalling and bleeding components	Observance of removal method	10
		Observance of reinstallation method	20
		Proper use of tools	10
	Handling of components	Observance of component characteristics during handling	10
Inspect the system after repair.	Quality control	Appropriate inspection of repaired system	15
	Explanation of work done on the work order	Clear explanation of actions taken	5
Minimum performance standard:	85 marks		
Pass/fail condition:	Observance of occupational health and safety rules and environmental protection measures		

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *repair active and passive safety systems*.

The examination should not exceed 2 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination. Given a work order describing a repair to be done, students will identify the repair methods recommended by the manufacturer, choose tools and equipment, do the necessary repair and check the quality of the work done.

The teacher should cause problems in a variety of active and passive safety systems. The defective components should be accessible and the time required for the repair reasonable. The problems posed should be representative of situations typically encountered in repair shops and present a similar level of difficulty.

Examples of possible repairs include: replacing an air bag or impact sensor, repairing a brake fluid leak by bleeding antilock brakes, replacing a wheel sensor, changing a device inside the steering column, etc.

Vehicles will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles. In this type of examination where many problems are possible, students should be given a complete set of tools and instruments, including those indicated in repair procedures recommended by the manufacturer. In addition to their toolboxes, students should have multimeters, scan tools, wiring harness repair kits, as well as a vehicle lift for easier access to certain systems. Students should also have access to technical documentation.

4. Special Instructions

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 21

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Date: _____

Teacher's signature: _____

Result	
Pass	Fail
☐	☐

Observations

	Yes	No	Results
1. Identification of manufacturer-recommended methods and specifications			
1.1 Selection of the appropriate information for the repair			0 or 10
2. Interpretation of drawings, diagrams and graphs			
2.1 Accurate location on the vehicle of the components indicated in the technical drawings			0 or 10
3. Choice of tools, equipment and products			
3.1 Appropriate choice of tools, equipment and products needed for the repair			0 or 10
4. Application of manufacturer-recommended methods for removing, reinstalling and bleeding components			
4.1 Observance of removal method			0 or 10
4.2 Observance of reinstallation method:			0 or 20
• correct positioning	☐	☐	
• observance of torque	☐	☐	
4.3 Proper use of tools			0 or 10
5. Handling of components			
5.1 Observance of component characteristics during handling:			0 or 10
• fragility of or potential hazard associated with the component	☐	☐	
• initial condition of adjacent parts	☐	☐	

Observations

6. Quality control

6.1 Appropriate inspection of repaired system:

- failure indicator cycle
- absence of trouble codes

☐	☐
☐	☐

0 or 15

7. Explanation of work done on the work order

7.1 Clear explanation of actions taken

0 or 5

Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition:

Observance of occupational health and safety rules and
environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Do general maintenance on a motor vehicle.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the information needed to do maintenance on the vehicle.	Gathering of information given the type of vehicle	Selection of the appropriate information for the maintenance program	5
Detect malfunctions while doing the general maintenance.	Visual inspection of the vehicle	Accurate evaluation of the components to be verified based on the inspection checklist	10
	Measurements and readings related to maintenance	Proper control checks based on the type of inspection	20
	Recommendations concerning the work needed	Accurate determination of maintenance operations to carry out	15
Fill out the maintenance records.	Communication of the results of the inspection	Use of appropriate terminology	10
Do maintenance work on the wheels.	Replacement of tires on rims and mag wheels	Proper removal and installation of tires	15
	Balancing of wheels	Precise balancing of wheels	15
	Proper installation of wheels on vehicle	Observance of wheel installation sequence and torque	10

Minimum performance standard: 85 marks

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *do general maintenance on a motor vehicle*.

The examination should not exceed 2 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination consisting of two parts. In the first part, they will inspect a vehicle as part of a general maintenance procedure. Given a maintenance checklist, they will select the relevant technical information, do a visual inspection, do control checks, determine the maintenance operations to be done and communicate the results of the inspection.

In the second part, they will replace and balance a tire, and install the wheel on a vehicle.

The teacher could provide a 24-point inspection and maintenance checklist covering most of the systems dealt with in general maintenance. The checklist could be based on those used for pre-purchase inspections, seasonal inspections or scheduled checkups. The checklist could come from a manufacturer's manual or be developed by the teacher.

Not all systems need to be defective. The teacher could cause problems in some systems by installing defective parts, modifying the level of certain fluids, or misadjusting or jamming certain devices. The problems posed should be realistic and representative of situations typically encountered in repair shops.

Vehicles will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles installed on lifts to provide easier access to certain systems. In addition to their toolboxes, students should have the control instruments listed in the diagnostic procedure for each system to be verified, as well as the equipment needed to remove, install and balance tires. Students should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed.

Module 22

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Date: _____

Teacher's signature: _____

Result	
Pass	Fail
☐	☐

Observations

	Yes	No	Results
1. Gathering of information given the type of vehicle			
1.1 Selection of the appropriate information for the maintenance program:			0 or 5
• information for the inspection	☐	☐	
• information for the maintenance	☐	☐	
2. Visual inspection of the vehicle			
2.1 Accurate evaluation of the components to be verified based on the inspection checklist			0 or 10
3. Measurements and readings related to maintenance			
3.1 Proper control checks based on the type of inspection:			0 or 20
• checks of all required points	☐	☐	
• accurate readings	☐	☐	
4. Recommendations concerning the work needed			
4.1 Accurate determination of maintenance operations to carry out			0 or 15
5. Communication of the results of the inspection			
5.1 Use of appropriate terminology			0 or 10

Observations

6. Replacement of tires on rims and mag wheels

6.1 Proper removal and installation of tires:

0 or 15

- proper use of equipment
- observance of sequences
- appropriate lubrication
- without damage to tire or rim
- tires inflated in conformity with manufacturer's recommendations

☐	☐
☐	☐
☐	☐
☐	☐
☐	☐

7. Balancing of wheels

7.1 Precise balancing of wheels:

0 or 15

- proper use of equipment
- appropriate choice of weights
- correct positioning of weights
- appropriate control check

☐	☐
☐	☐
☐	☐
☐	☐

8. Proper installation of wheels on vehicle

8.1 Observance of wheel installation sequence and torque

0 or 10

Total: ____ /100

Minimum performance standard: 85 marks

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Inspect electronic ignition systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the technical information needed to inspect electronic ignition systems.	Gathering of technical information	• Selection of the appropriate inspection methods for the components	5
		• Accurate identification of specifications	5
Inspect electronic ignition systems.	Taking measurements	• Observance of manufacturer-recommended inspection methods	10
		• Accurate measurements using an ignition oscilloscope	15
		• Accurate measurements using a multimeter	10
Make observations.	Use of tools, instruments and devices	• Observance of instructions for using an ignition oscilloscope	10
	Measurements checked against manufacturer's specifications	• Accurate comparison between data collected and specifications	10
	Observations	• Accurate observations entered on the work order	20
Explain the results of the inspection	Explanation of the nature of the problem	• Proper presentation of work order	5
	Deduction of possible repercussions on the operation of the engine	• Plausible hypotheses concerning repercussions	10
Minimum performance standard:	85 marks		
Pass/fail condition:	Observance of occupational health and safety rules and environmental protection measures		

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *inspect electronic ignition systems*.

The examination should not exceed 1 hour and 30 minutes.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination during which they will look for information on the methods and specifications needed to inspect an ignition system, take dynamic and static measurements using an ignition oscilloscope and a multimeter, check the measurements against specifications, make observations about the performance level of the ignition system and the quality of its components, and fill out a work order. This should allow the teacher to infer that the student understands the operating principles of electronic ignition systems well enough to make observations and explain them.

Given the specific and complex nature of the examination, vehicles or engines on stands should be used. Because it is difficult to cause problems in ignition systems without damaging the catalytic converter or compromising engine start-up, the engines used will be in good working order. The evaluation will therefore focus mainly on reading ignition parameters. However, when it comes to inspecting ignition system components, other engines with defective ignition systems could be used. This will enable students to check potentially defective components without damaging the engines used for the examination.

Depending on the availability of materials and control equipment, and to facilitate the examination procedure, some vehicles could be used exclusively for inspections requiring the use of an ignition oscilloscope.

Vehicles and workstations will be assigned to students by random draw.

3. Materials

The materials will consist of engines and separate ignition components. In addition to their toolboxes, students should have ignition oscilloscopes, multimeters and jumper wires. Students should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed.

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 23

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Gathering of technical information			
1.1 Selection of the appropriate inspection methods for the components			0 or 5
1.2 Accurate identification of specifications			0 or 5
2. Taking measurements			
2.1 Observance of manufacturer-recommended inspection methods			0 or 10
2.2 Accurate measurements using an ignition oscilloscope:			0 or 15
• ignition voltage	☐	☐	
• spark voltage	☐	☐	
• spark duration	☐	☐	
2.3 Accurate measurements using a multimeter			0 or 10
3. Use of tools, instruments and devices			
3.1 Observance of instructions for using an ignition oscilloscope			0 or 10
4. Measurements checked against manufacturer's specifications			
4.1 Accurate comparison between data collected and specifications			0 or 10
5. Observations			
5.1 Accurate observations entered on the work order:			0 or 20
• presence or absence of defects	☐	☐	
• source of problem	☐	☐	
• cause of problem	☐	☐	

Observations

6. Explanation of the nature of the problem

6.1 Proper presentation of work order:

- appropriate terminology
- clear, organized entries

☐	☐
☐	☐

0 or 5

7. Deduction of possible repercussions on the operation of the engine

7.1 Plausible hypotheses concerning repercussions

0 or 10

Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition:

Observance of occupational health and safety rules and
environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Repair electronic ignition systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the information needed to make a diagnosis.	Handling of the complaint	Appropriate validation of the complaint	10
	Determination of the information needed based on the complaint	Selection of the appropriate information for the problem detected	5
Locate the problem on the vehicle.	Inspection of the system and its components in conformity with manufacturer's recommendations	Observance of inspection procedure indicated in tables of symptoms and diagnostic charts	10
		Proper use of scan tool	10
		Accurate measurements	10
	Identification of the problem	Accurate determination of the source and cause of the problem	20
Plan the repair.	Determination of the actions to be taken	Determination of the appropriate actions	5
Repair the defective system.	Application of repair techniques	Proper repair of system in question	20
Inspect the system(s) after repair.	Testing of systems	Appropriate inspection of repaired system	10
Minimum performance standard:	85 marks		
Pass/fail condition:	Observance of occupational health and safety rules and environmental protection measures		

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *repair electronic ignition systems*.

The examination should not exceed 2 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination. Given a work order describing a customer complaint, students will apply the diagnostic procedure recommended by the manufacturer, make the necessary repairs and test the system once the repairs have been done.

This examination could take place on defective engines in vehicles or on stands. To avoid damaging the catalytic converter, the inspection should be done on an engine that cranks but does not start.

Ideally, the teacher should cause a variety of problems. The problems posed should be representative of situations typically encountered in repair shops and present a similar level of difficulty.

Examples of problems include: defective main power relay, defective ignition module, short circuit in the crankshaft sensor, etc.

Vehicles and workstations will be assigned to students by random draw.

3. Materials

The materials will consist of various engines. In addition to their toolboxes, students should have scan tools, multimeters, oscilloscopes and jumper wires. Students should also have access to technical documentation.

4. Special Instructions

Course notes are not allowed.

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 24

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Handling of the complaint			
1.1 Appropriate validation of the complaint:			0 or 10
• appropriate testing of engine start	☐	☐	
• accurate reading of trouble codes	☐	☐	
• determination of plausible hypotheses	☐	☐	
2. Determination of the information needed based on the complaint			
2.1 Selection of the appropriate information for the problem detected:			0 or 5
• information for the diagnosis	☐	☐	
• information for the repair	☐	☐	
3. Inspection of the system and its components in conformity with manufacturer's recommendations			
3.1 Observance of inspection procedure indicated in tables of symptoms and diagnostic charts			0 or 10
3.2 Proper use of scan tool:			0 or 10
• proper connections	☐	☐	
• introduction of accurate data on vehicle parameters	☐	☐	
• accurate reading of data	☐	☐	
3.3 Accurate measurements			0 or 10
4. Identification of the problem			
4.1 Accurate determination of the source and cause of the problem			0 or 20
5. Determination of the actions to be taken			
5.1 Determination of the appropriate actions			0 or 5

Observations

6. Application of repair techniques

6.1 Proper repair of system in question

0 or 20

7. Testing of systems

7.1 Appropriate inspection of repaired system:

- trouble codes
- failure indicator
- engine performance

☐	☐
☐	☐
☐	☐

0 or 10

Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition:

Observance of occupational health and safety rules and
environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Inspect electronic injection and antipollution systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the information needed to inspect electronic injection and antipollution systems.	Gathering of technical information	• Selection of the appropriate inspection methods for the components	10
		• Accurate identification of specifications	5
	Interpretation of drawings, diagrams and graphs	• Accurate location on the vehicle of the components indicated in the technical drawings	10
Do the inspection.	Choice of control instruments and equipment	• Appropriate choice of control instruments	5
	Taking measurements	• Observance of manufacturer-recommended inspection methods	10
		• Accurate measurements	10
Make observations.	Measurements checked against manufacturer's specifications	• Proper use of control instruments and devices	10
		• Accurate comparison between data collected and specifications	10
	Observations	• Accurate observations entered on the work order	20

Elements Retained	Indicators	Evaluation Criteria	Mark
Explain the results of the inspection.	Explanation of observations	Clear explanation of the results of the inspection	10
Minimum performance standard:	85 marks		
Pass/fail condition:	Observance of occupational health and safety rules and environmental protection measures		

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *inspect electronic injection and antipollution systems*.

The examination should not exceed 1 hour and 30 minutes.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination during which they will look for information on the methods and specifications they need, take measurements related to fuel pressure system inspections, check the measurements against specifications, and make observations and explain them. This should allow the teacher to infer that the student understands the operating principles of electronic injection and antipollution systems well enough to apply a logical diagnostic method.

The examination should include inspections on three different things: components, non-electronic systems, and systems without trouble codes. The examination could focus on measuring fuel pump pressure, inspecting the crankshaft ventilation valve, checking engine vacuum and exhaust back-pressure, injector flow rates, the electrovalves of the fuel tank vapour recovery system, the idle speed regulator, etc. Although the methods used will vary, the inspections should present a similar level of difficulty.

Vehicles and workstations will be assigned to students by random draw.

3. Materials

The materials will consist of vehicles and engines on stands. Depending on the vehicle model, a vehicle lift might be required to provide easier access to the system parts that need to be inspected. In addition to their toolboxes, students should have the control instruments specific to each system to be inspected, as indicated in the manufacturer's manual, multimeters, oscilloscopes, manometers, scan tools, etc. Students should also have access to technical documentation.

4. Special Instructions

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 25

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Gathering of technical information			
1.1 Selection of the appropriate inspection methods for the components			0 or 10
1.2 Accurate identification of specifications concerning:			0 or 5
• fuel pressure	☐	☐	
• the systems and components to be inspected	☐	☐	
2. Interpretation of drawings, diagrams and graphs			
2.1 Accurate location on the vehicle of the components indicated in the technical drawings			0 or 10
3. Choice of control instruments and equipment			
3.1 Appropriate choice of control instruments			0 or 5
4. Taking measurements			
4.1 Observance of manufacturer-recommended inspection methods			0 or 10
4.2 Accurate measurements			0 or 10
4.3 Proper use of control instruments and devices			0 or 10
5. Measurements checked against manufacturer's specifications			
5.1 Accurate comparison between data collected and specifications			0 or 10

Observations

6. Observations

6.1 Accurate observations entered on the work order:

0 or 20

- presence or absence of defects
- source of problem
- cause of problem

☐	☐
☐	☐
☐	☐

7. Explanation of observations

7.1 Clear explanation of the results of the inspection:

0 or 10

- relevant explanation of conclusions
- use of appropriate terminology

☐	☐
☐	☐

Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Maintain and repair electronic injection and antipollution systems.

Elements Retained	Indicators	Evaluation Criteria	Mark
Gather the information needed to maintain and repair electronic injection and antipollution systems.	Handling of the complaint	Appropriate validation of the complaint	10
Locate the problem on the vehicle.	Location of the system(s) involved in the complaint	Accurate identification on the vehicle of the component in question and the related electrical circuit	5
	Verification of conformity of the components or system with manufacturer's recommendations	Observance of procedure indicated in tables of symptoms and diagnostic charts	10
		Accurate reading of the system's operating parameters using the scan tool	10
		Accurate measurements	10
	Identification of the problem	Accurate determination of the source and cause of the problem	20
Plan the work.	Determination of the actions to be taken	Determination of the appropriate actions	5
Make repairs.	Application of repair techniques	Proper repair of system in question	20

Elements Retained	Indicators	Evaluation Criteria	Mark
Inspect the systems after repair.	Testing of systems	Appropriate inspection of repaired system	10
Minimum performance standard:	85 marks		
Pass/fail condition:	Observance of occupational health and safety rules and environmental protection measures		

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *maintain and repair electronic injection and antipollution systems*.

The examination should not exceed 2 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination. Given a work order describing a customer complaint, students will apply the diagnostic procedure recommended by the manufacturer, identify the problem, make the necessary repairs, and test the system once the repairs have been done.

The teacher will need to cause problems that will activate warning lights or trouble codes. The defective component should be accessible and the time required for the repair reasonable. Ideally, the various problems posed should affect both the electronic injection system and the antipollution system, be representative of situations typically encountered in repair shops and present a similar level of difficulty.

Vehicles and workstations will be assigned to students by random draw.

3. Materials

The materials will consist of engines or vehicles. In this type of examination where many problems are possible, students should be given a complete set of tools and instruments, including those listed in tables of symptoms. In addition to their toolboxes, students should have multimeters, jumper wires, oscilloscopes, scan tools, wiring harness repair kits, as well as a vehicle lift for easier access to certain systems. Students should also have access to technical documentation.

4. Special Instructions

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Module 26

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass

Fail

☐☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Handling of the complaint			
1.1 Appropriate validation of the complaint:			0 or 10
• proper verification of the failure indicator	☐	☐	
• accurate reading of trouble codes	☐	☐	
• appropriate testing of the system in question	☐	☐	
2. Location of the system(s) involved in the complaint			
2.1 Accurate identification on the vehicle of the component in question and the related electrical circuit			0 or 5
3. Verification of conformity of the components or system with manufacturer's recommendations			
3.1 Observance of procedure indicated in tables of symptoms and diagnostic charts			0 or 10
3.2 Accurate reading of the system's operating parameters using the scan tool			0 or 10
3.3 Accurate measurements			0 or 10
4. Identification of the problem			
4.1 Accurate determination of the source and cause of the problem			0 or 20
5. Determination of the actions to be taken			
5.1 Determination of the appropriate actions			0 or 5
6. Application of repair techniques			
6.1 Proper repair of system in question			0 or 20

Observations

7. Testing of systems

7.1 Appropriate inspection of repaired system:

- trouble codes
- failure indicator
- system performance

☐	☐
☐	☐
☐	☐

0 or 10

Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Inspect the drive train.

Elements Retained	Indicators	Evaluation Criteria	Mark
Do the inspection.	Determination of inspections to be done	• Appropriate choice of actions for an intermittent problem	10
		• Appropriate choice of actions related to fuel correction	10
	Application of diagnostic procedure	• Observance of the inspection method	20
		• Accurate observations entered on the work order	20
		• Clear explanation of observations	10
Measure the gas emission rate.	Application of the inspection method	• Accurate measurement of exhaust-gas values	10
	Observations	• Accurate observations entered on the work order	20

Minimum performance standard: 85 marks

Pass/fail condition: Observance of occupational health and safety rules and environmental protection measures

Description of the Examination

1. General Information

The purpose of the examination is to evaluate the students' ability to *inspect the drive train*.

The examination should not exceed 2 hours.

2. Procedure

To demonstrate the required competency, students will undergo a practical examination consisting of the following three tasks: finding an intermittent problem, checking fuel correction, and measuring exhaust emission rates. In each case, students will be required to apply a complete diagnostic procedure. The inspections will be done using a scan tool and an exhaust analyzer. These tasks should allow the teacher to infer that the student understands the operating principles of drive train systems well enough to formulate an accurate diagnosis.

The examination could be conducted on different workstations. In order to check an intermittent problem, students must work on engines that are compatible with scan tools capable of recording real-time data (as a snapshot) or reading freeze-frame data. These data could be downloaded to a computer to facilitate diagnosis. Ideally, the teacher should create intermittent problems that do not activate trouble codes. To check fuel correction, students should be given scan tools that are capable of recording the parameters needed to map the fuel correction, namely short- and long-term correction, oxygen sensor values and injection time.

3. Materials

The materials will consist of vehicles or engines on stands. In addition to their toolboxes, students should have exhaust analyzers, scan tools, oscilloscopes and multimeters. Students should also have access to technical documentation.

4. Special Instructions

The observance of occupational health and safety rules and environmental protection measures will be evaluated throughout the examination. Should a student violate any of these rules at any time, the examination will be terminated immediately and the student will fail.

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Observations

	Yes	No	Results
1. Determination of inspections to be done			
1.1 Appropriate choice of actions for an intermittent problem			0 or 10
1.2 Appropriate choice of actions related to fuel correction			0 or 10
2. Application of diagnostic procedure			
2.1 Observance of the inspection method:			0 or 20
• for an intermittent problem	☐	☐	
• for the fuel correction	☐	☐	
2.2 Accurate observations entered on the work order:			0 or 20
• presence or absence of defect	☐	☐	
• source of problem	☐	☐	
• cause of problem	☐	☐	
2.3 Clear explanation of observations:			0 or 10
• for an intermittent problem	☐	☐	
• for the fuel correction	☐	☐	
3. Application of the inspection method			
3.1 Accurate measurement of exhaust-gas values:			0 or 10
• carbon monoxide	☐	☐	
• carbon dioxide	☐	☐	
• hydrocarbons	☐	☐	
• oxygen	☐	☐	
• nitrogen oxides	☐	☐	

Observations

4. Observations

4.1 Accurate observations entered on the work order:

0 or 20

- presence or absence of defect
- source of problem
- cause of problem

☐	☐
☐	☐
☐	☐

Total: ____ /100

Minimum performance standard: 85 marks

Pass/fail condition:

Observance of occupational health and safety rules and environmental protection measures

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Carry out a job search.

Situations Retained	Indicators	Evaluation Criteria	
Information Phase	Consulting available sources of information	• Draws up a list of the information sources to consult during the job search.	☐
	Developing a job search plan	• Presents, in writing, the steps planned during the job search.	☐
		• Draws up a list of companies likely to meet his or her needs and expectations.	☐
Participation Phase	Writing a résumé and cover letter	• Writes his or her résumé.	☒
		• Writes a cover letter.	☒
	Contacting employers	• Sends his or her letter and résumé to potential employers.	☐
	Assimilating information on job interviews	• Discusses in a group the attitudes and behaviours to adopt or avoid during a job interview.	☐
Synthesis Phase	Evaluation of approach, strengths and weaknesses	• Discusses in a group personal strengths and weaknesses, and how to improve the job search.	☐

Minimum performance standard: 7 out of 8 evaluation criteria, including the criteria indicated by an "X"

Description of Participation

1. General Information

The purpose of the evaluation is to assess the students' participation in activities designed to develop the competency to *carry out a job search*.

The teacher evaluates participation throughout the module using a participation evaluation form. Evaluation is based on the students' participation in the various activities carried out individually or in large or small groups, and not on the results obtained.

The evaluation consists of three phases, undertaken at different stages of the module. Each phase is accompanied by specific instructions.

2. Procedure

Information Phase

Evaluation in this phase focuses on two tasks: consulting sources of information and developing a job search plan.

As they look for information, students must indicate:

- three sources of documentation to consult as part of their job search
- the main steps of their job search plan
- at least five companies that meet their selection criteria

Participation Phase

Evaluation in this phases focuses on producing documents needed for the job search and making contact with employers.

Students are required to:

- write a résumé and cover letter in accordance with presentation standards
- send their documents to the companies they have selected
- discuss, in a group, the observations they made during the simulated job interviews

Synthesis Phase

Evaluation in this phase focuses on the students' becoming aware of their strengths and weaknesses in order to improve their chances of success.

During the discussions, students must participate actively in:

- determining ways of highlighting their potential
- identifying attitudes and behaviours to avoid during job interviews
- recognizing factors within and outside of their control

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Participation Elements

Yes No

1. Consulting available sources of information

1.1 Draws up a list of the information sources to consult during the job search.

☐ ☐

2. Developing a job search plan

2.1 Presents, in writing, the steps planned during the job search.

☐ ☐

2.2 Draws up a list of companies likely to meet his or her needs and expectations.

☐ ☐

3. Writing a résumé and cover letter

3.1 Writes his or her résumé.

☐ ☐

3.2 Writes a cover letter.

☐ ☐

4. Contacting employers

4.1 Sends his or her letter and résumé to potential employers.

☐ ☐

5. Assimilating information on job interviews

5.1 Discusses in a group the attitudes and behaviours to adopt or avoid during a job interview.

☐ ☐

Participation Elements

6. Evaluation of approach, strengths and weaknesses Yes No
- 6.1 Discusses in a group personal strengths and weaknesses, and how to improve the job search. ☐ ☐

Total: ____ /8

Minimum performance standard: 7 out of 8 evaluation criteria, including criteria 3.1 and 3.2

Comments

Evaluation Specifications for Certification Purposes

Statement of the Competency

Enter the work force.

Situations Retained	Indicators	Evaluation Criteria	
Information Phase	Finding a practicum position	• Chooses a company or companies likely to meet his or her needs and expectations.	☐
		• Makes an appointment with a potential employer.	☐
	Learning about the terms and conditions related to the practicum	• Becomes familiar with current company rules, labour standards and CSST regulations.	☐
Participation Phase	Performing or helping perform occupational tasks	• Performs the tasks assigned in a professional manner and in accordance with the agreement established.	☐
	Observing practicum and company rules	• Arrives for work on time and is present at the assigned workstation.	☐
		• Attends work regularly throughout the practicum.	☒
	Writing a report on the tasks and operations performed during the practicum	• Lists in his or her practicum report the tasks performed and new techniques observed.	☒
Synthesis Phase	Participating in discussions about their experience and the tasks and operations performed during the practicum	• Participates actively in discussions.	☐

Situations Retained	Indicators	Evaluation Criteria	
	Drawing parallels between the training received and workplace requirements	Shares personal views on the training and how it will help him or her practise the trade competently in the future	☐

Minimum performance standard: 7 out of 9 evaluation criteria, including the criteria indicated by an "X"

Description of Participation

1. General Information

The purpose of the evaluation is to assess the students' participation in activities designed to develop the competency to *enter the work force*.

Evaluation is based on information gathered at various moments during training activities and on the students' participation in workplace activities.

It is important to clearly indicate the type of information that trainees must gather and present in a group discussion. Regardless of the medium or conventions used to record the information, the evaluation should not focus on the accuracy, quality or presentation of the information, but rather on the students' efforts to compile sufficient pertinent information on the topics to be covered and to organize it so that it can be used during a group discussion. We therefore suggest that the trainees' logbook contain an outline of the report.

Please check "yes" or "no" for each criterion evaluated.

2. Procedure

Information Phase

Students should look for a practicum position on their own. The teacher may provide support and advice, as needed.

Students will notify the teacher concerning the location of their practicum and the reasons for their choice.

Participation Phase

The teacher must verify that students agree to follow established standards, observe tasks attentively, perform tasks eagerly, ask for explanations, as needed, and agree to change their way of doing things, if necessary.

Students should be punctual and attend work regularly.

They should record in a journal or logbook observations regarding tasks performed and new techniques observed.

Synthesis Phase

During the group discussion, students should use their reports to share their impressions of the practicum. The discussion should enable students to assess their behaviour during the practicum and determine how the training can help them practise the trade competently in the future.

Evaluation Form

Student's name: _____

School: _____

Permanent code: _____

Result

Pass	Fail
☐	☐

Date: _____

Teacher's signature: _____

Participation Elements

	Yes	No
1. Finding a practicum position		
1.1 Chooses a company or companies likely to meet his or her needs and expectations.	☐	☐
1.2 Makes an appointment with a potential employer.	☐	☐
2. Learning about the terms and conditions related to the practicum		
2.1 Becomes familiar with current company rules, labour standards and CSST regulations.	☐	☐
3. Performing or helping perform occupational tasks		
3.1 Performs the tasks assigned in a professional manner and in accordance with the agreement established.	☐	☐
4. Observing practicum and company rules		
4.1 Arrives for work on time and is present at the assigned workstation.	☐	☐
4.2 Attends work regularly throughout the practicum.	☐	☐
5. Writing a report on the tasks and operations performed during the practicum		
5.1 Lists in his or her practicum report the tasks performed and new techniques observed.	☐	☐
6. Participating in discussions about their experience and the tasks and operations performed during the practicum		
6.1 Participates actively in discussions.	☐	☐

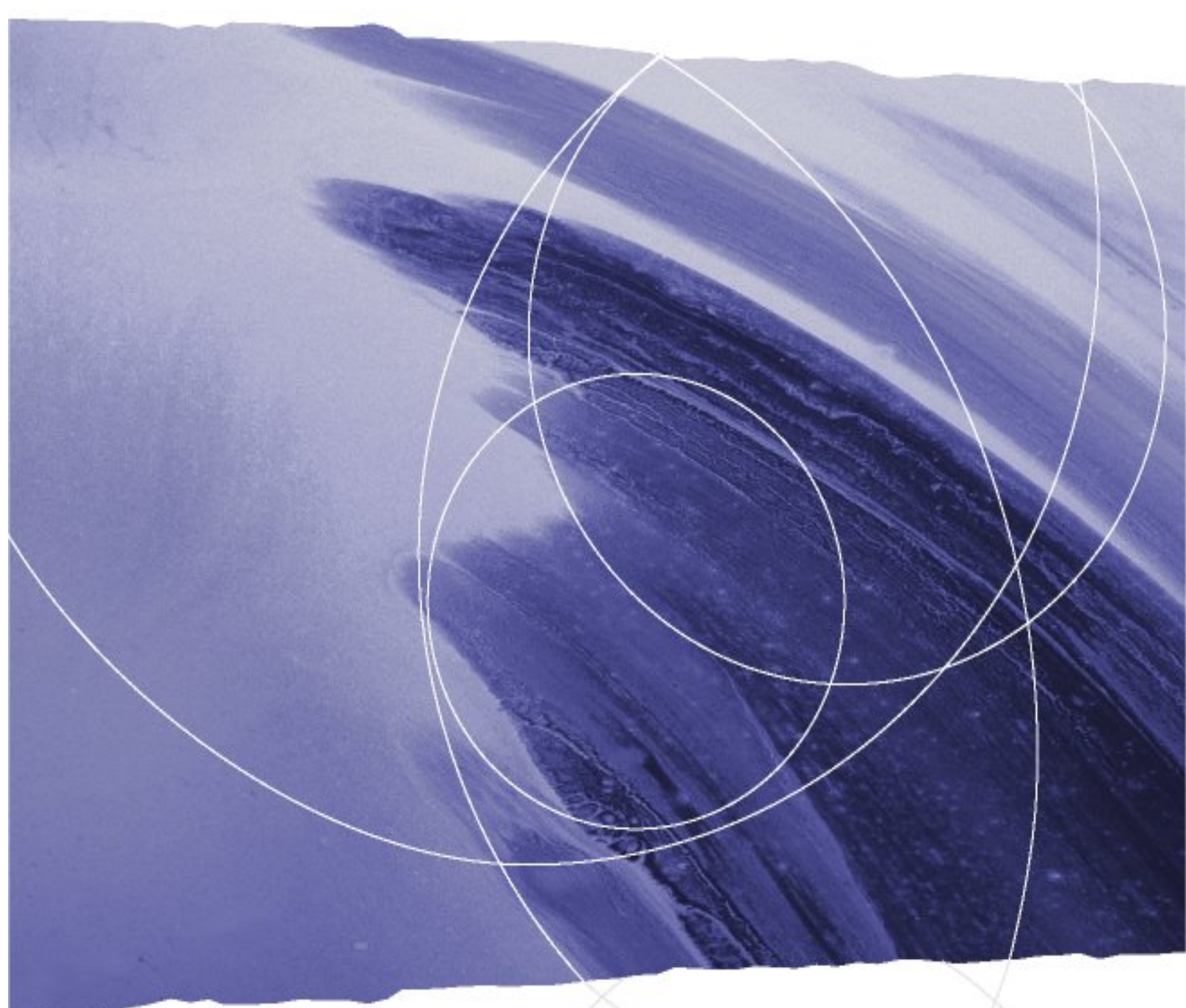
Participation Elements

- | | Yes | No |
|---|--------------------------|--------------------------|
| 7. Drawing parallels between the training received and workplace requirements | | |
| 7.1 Shares personal views on the training and how it will help him or her practise the trade competently in the future. | ☐ | ☐ |

Total: ____ /9

Minimum performance standard: 7 out of 9 evaluation criteria, including criteria 4.2 and 5.1

Comments



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