



NZQA accredited and registered provider

Tune Up

PRACTICE PAPER ONLY

Test Paper One / Time allowed 90 mins

To be completed by the student

Student Name _____ **Date** __ / __ /2020

School/Provider _____

To be completed by the School Invigilator/Coordinator/Tutor

I confirm that this assessment was completed by the student named above as a closed book exercise under exam conditions

Invigilator Name _____

Invigilator Sign _____

Assessed By _____

Date __ / __ / 2020

**Assessor's
Stamp**

Assessors Note: Materials relate to unit standard 21687

SAMPLE ASSESSMENT INSTRUCTIONS

PLEASE MAKE SURE TO READ AND SIGN THIS SECTION

ASSESSMENT INSTRUCTIONS

- Before starting this assessment you should have achieved a mark of at least 80% for your workbook.
- Use a black or blue ball point pen. (do not use pencil)
- Write your full name on the cover page.
- This is a closed book assessment, so you cannot bring any reference material in, or seek help from anyone else.
- You need to answer all the questions.
- Read the questions carefully, and give detailed answers when asked to.
- You must complete the assessment under exam conditions.
- To achieve the unit standard you must show competency for each outcome.

Complete the following by circling Yes or No as appropriate:

Are you ready to be assessed? **Yes** **No**

Have the assessment instructions these been explained to you? **Yes** **No**

Do you understand the assessment instructions? **Yes** **No**

Have you all the materials/resources that you need for this assessment? **Yes** **No**

Please sign to acknowledge that you have read these instructions and are ready to be assessed.

Student Signature: _____ Date: _____

You must complete the assessment instructions on Page 2 before starting this assessment!

ELEMENT ONE

Demonstrate knowledge of carrying out a pre-tuning visual inspection and service.

- 1. **Complete the table below by providing the relevant checks that should be carried out when visually inspecting a vehicle before starting a tune up.**

	Checks
Oil	
Coolant	
Fuel	
Drive belts	
Wires and connectors	

2. Complete the table by providing relevant safety precautions that must be observed when carrying out engine tuning.

	Precautions
Your Personal safety	
Safety of other staff and customers	
Safety of the vehicle you are working on	
Safety of the tools and equipment that you are using	

3. Outline the procedure involved in carrying out a compression test.

4. Outline the procedure involved when carrying out a cylinder leakage test.

5. Provide a likely cause of air bubbles in the coolant.

6. Provide a likely cause of air in the oil filler.

7. Outline the procedure involved in a carrying out an engine vacuum test.

ELEMENT TWO

Demonstrate knowledge of servicing an ignition system.

1. **Outline the procedure involved when removing a spark plug.**

2. **Identify each spark plug condition and describe how it can be identified.**

Condition A: _____



Condition B: _____



Condition C: _____



Condition D: _____



Condition E: _____



Condition D: _____



- 3. Describe the checks that should be carried on spark plugs before they are installed and explain why each check is necessary.**

- 4. List the main tools and equipment that are commonly used when checking ignition timing.**

5. Complete the table by describing each ignition timing situation.

Ideal timing	
Timing retarded	
Timing Advanced	

6. Outline the procedure involved when checking the high tension and low tension circuit resistance of an ignition coil.

7. Outline the procedure involved when checking ignition timing.

ELEMENT THREE

Demonstrate knowledge of servicing the air and fuel filters.

1. Complete the table below:

When is it necessary to replace an air filter?	List the tools should be used?	Outline the procedure involved in replacing an air filter
When is it necessary to replace a fuel filter?	List the tools should be used?	Outline the procedure involved in replacing a fuel filter

ELEMENT FOUR

Demonstrate knowledge of checking and adjusting valve clearances.

1. **Outline the procedure involved when checking the valve clearances for number 1 cylinder.**

2. **What tool is used when measuring valve clearances?**

3. **Which ONE of the following statements is true? Please tick the appropriate box.**

If the valve clearance is set too close the valve will open too early and close too late, resulting in rough engine idle and possible burning and warping of the valve.

If the valve clearance is set too close the valve will open too late and close too early causing valve bounce.

4. **What final checks should be carried out following the reassembly of the engine after valve clearances have been adjusted?**

ELEMENT FIVE

Demonstrate knowledge of checking and adjusting engine idle speed and exhaust emissions.

1 Complete the table below:

When is it necessary to check engine idle speed	List the tools should be used?	Outline the procedure involved in checking and adjusting engine idle speed.
When is it necessary to check exhaust emissions?	List the tools should be used?	Outline the procedure involved in measuring exhaust emissions

2. List two harmful gases that can be measured using an exhaust gas analyser.

1 _____

2 _____

3. After carrying out an engine tune up a high HC emission reading was displayed during an exhaust emissions test, what is a possible cause and where may the problem be?

Cause: _____

Problem: _____

FINISHED? CHECK THAT YOU HAVE ATTEMPTED ALL QUESTIONS!



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