**Sample Assessment Tasks**

Automotive Engineering and Technology

General Year 11

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Sample assessment task

Automotive Engineering and Technology – General Year 11

Task 1 – Unit 1

**Assessment type:** Response

**Rules and regulations** – Safety in the workshop **(20 marks)**

Complete safety in the workshop activities.

**Conditions**

Period allowed for completion of the task: two weeks

**Task weighting**

5% of the school mark for this pair of units

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**What you need to do**

A journal of activities is to be completed during practical sessions.

Complete the following steps:

* watch safety video <http://smartmove.safetyline.wa.gov.au/>
* complete general and automotive modules for a Smartmove certificate

<http://smartmove.safetyline.wa.gov.au/course/view.php?id=2>

* after instruction, choose an automotive workshop machine, then describe and demonstrate the correct steps in operating the machine, explaining the Occupational Safety and Health (OSH) requirements
* practise general safety aspects of workshop practice

|  |  |
| --- | --- |
| **What needs to be submitted** | **Date due** |
| * General and automotive modules for a Smartmove certificate
 |  |
| * Workshop machine demonstration and explanation
 |  |
| * Journal of activities
 |  |

Marking key for sample assessment task 1 – Unit 1

|  |  |  |
| --- | --- | --- |
| **Task: Work Safe SmartMove certificates and appropriate behaviour** | **Maximum possible mark** | **Allocated mark** |
| View video and complete general module * independently viewed the video, attempted and completed the quiz, receiving a certificate
* attempted several times and completed the quiz, receiving a certificate
* attempted several times, but did not receive a certificate
 | 4–52–30–1 | **/ 5** |
| Completed automotive module and certificate* independently attempted and completed the quiz, receiving a certificate
* with assistance, attempted several times and completed the quiz, receiving a certificate
* attempted several times, but did not receive a certificate
 | 4–52–30–1 | **/ 5** |
| Demonstration of selected workshop machine, description of operation and Occupational Safety and Health requirements* correct demonstration of operational steps, with clear explanation of process, and safety issues explained
* operational steps demonstration, expressing during process OSH issues
* little understanding of the operation of the machine, limited awareness of OSH issues and safety
 | 4–52–30–1 | **/ 5** |
| Behaviour within the workshop and journal of activities * consistently safe behaviour within the workshop and collected safety notes with safety material
* safe behaviour shown for the majority of the time and collected safety material
* behaviour within the workshop required close supervision, few safety notes presented
 | 4–52–30–1 | **/ 5** |
|  | **Total** | **/ 20** |

Sample assessment task

Automotive Engineering and Technology – General Year 11

Task 2 – Unit 1

**Assessment type:** Investigation and diagnostics, Production and assembly, and Response

**Maintenance and repair – motor vehicle safety inspection (51 marks)**

* apply testing techniques involved with daily/weekly checks and monitoring of the operation of single or multi-cylinder engines
* identify and use tools, equipment, parts and materials used in automotive industry
* identify the various systems that make up an automotive power plant or vehicle

**Conditions**

Period allowed for completion of the task: three weeks

**Task weighting**

Investigation and diagnostics – 5%

Production and assembly – 10%

Response – 2% of the school mark for this pair of units \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**What you need to do**

Following instructions from your teacher, and with the use of a vehicle service manual, inspect the general operating condition of a vehicle.

Using the workshop cars and equipment, and in consultation with your teacher, complete a multiple-point safety vehicle inspection.

**Tools and equipment**

|  |  |
| --- | --- |
| * service manual of vehicle
 | * workshop tools
 |
| * battery
 | * trolley jack and axle stands
 |
| * torch or work light
 | * hoist
 |
| * rags
 | * other tools may be required
 |

This task will be done with the tools and equipment used in the automotive industry. The following is a list of skills you will need to learn and carry out in order to complete the task:

* raising car on hoist
* raising the car on axle stand
* fit battery properly
* removing wheels
* visual inspection of components
* evaluation comments
* evaluation report

Due to the nature of this practical assessment task, investigation, production and response is evaluated during the different stages of the task.

|  |  |
| --- | --- |
| **What needs to be submitted** | **Date due** |
| * Motor vehicle inspection sheet
 |  |
| * Vehicle condition evaluation worksheet
 |  |

**Maintenance and repair –**

**Motor vehicle safety and maintenance inspection**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Eng/Car: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Checked** | **Item** | **Checked** |
| **Electrical systems** |  | **Under body** |  |
| Headlight operation | Hi Lo |  | Engine mounts – front/rear |  |
| Headlight aim | L R |  | Lubrication points |  |
| Park lights | L R |  | Oil leaks – minor/major |  |
| Turn signal/flasher rate | L R |  | **Exhaust system** | Engine flange gasket |  |
| Signal cancellation | L R |  | Front pipe |  |
| Hazard lights | L R |  | Muffler/resonators |  |
| Tail lights | L R |  | Tail pipe |  |
| Stop lights | L R |  | Supports/hangers |  |
| Licence plate light | L R |  | Rust – other defects |  |
| Reversing lights | L R |  | Brake lines/fuel lines/leaks/attachments |  |
| All lenses/condition | L R |  | Brake cables |  |
|  |  | **Steering and suspension** |  |
| **Interior checks** |  | Steering wheel free play |  |
| Instrument warning lights |  | Steering box/steering rack |  |
| Instrument dash lights |  | Tie rod ends |  |  |
| Interior lights/courtesy lights |  | Suspension bushes |  |  |
| Horn operation |  | Ball joints |  |  |
| Washer operation |  | **Shock absorbers** Bushes/leaks | Front L/R |  |
| Windscreen wiper blades |  | Rear L/R |  |
| Windscreen condition/visibility |  |  |  |
| Mirrors: internal/external |  | Universal joints |  |
| Seat belts – front – rear |  | Constant velocity joints |  |
| Secure seating, adjustment |  | Rear spring bushes/shackles  |  |
| Doors – handles/ locks/hinges |  |  |  |  |
| Window operation – front – rear |  | Wheel nuts and studs (check condition) |  |
| Air conditioning control /  |  | **Wheels and tyres****Tyre pressure and tread depth** | L/F |  |
| operation (motor at idle) |  | L/R |  |
| Heater operation/demist |  | R/F |  |
| Brake pedal travel |  | R/R |  |
| Hand brake |  | Spare |  |
| Clutch pedal |  |  |  |
| Pedal pads – condition |  |  |  |
|  |  | **Brake system** |  |
|  |  | (visual only)Brake pads ordrum linings (% worn) | Front |  |
|  |  | Rear  |  |
| Notes: (especially items requiring immediate attention) |
| **Item** | **Checked** | **Item** | **Checked** |
| **Under bonnet checks** |
| Engine oil |  | **Cooling system** |  |
| Brake fluid |  | Radiator coolant (check condition) |  |
| Clutch fluid |  | Radiator/coolant expansion caps  |  |
| Power steering fluid |  | Radiator/airconditioner fins  |  |
| Automatic transmission fluid level |  | Radiator hoses/heater hoses |  |
| Windscreen washer fluid |  | Water pump |  |
| Battery electrolyte level |  |  |  |
| Battery clamp terminals/cables |  |  |  |
| Air cleaner (check condition) |  | Shock absorber bounce test LR RF LR RR |  |
| All drive belts – condition – tension |  | Bonnet latch operation |  |
| Fuel lines |  |  |  |  |
| Fuel filter (check condition) |  |  |  |  |
| Plug leads |  |  |  |  |
| Spark plugs |  |  |  |  |
|  |  |  |  |  |
| Notes: (including items requiring immediate attention) |

**Vehicle condition evaluation worksheet**

Complete the worksheet by filling in the vehicle details and responding to the following questions:

Student: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Vehicle: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Registration: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Build (body type): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Model/Year: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Manufacture: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Chassis No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Procedures**

1. Run the engine to operating temperature, then record the following information.
* How many times did the engine turn until it started?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* How was the smoothness of the engine while running cold at idle?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Was there any audible noise from the engine when cold?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Was there any smoke when running cold?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* When warmed, how was the smoothness of operation?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Were there any audible noises?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Was there any smoke emitted?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Check the following electrical components. Comment on conditions, visual inspection and operation.

List all the external lights and check their operation: (note type and wattage)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Electrical components condition, either operational or requiring maintenance

Horn: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Wipers: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Washers: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Heater fan: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Starter motor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Battery terminals: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Starter motor leads: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Battery carrier: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

H.T. leads: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Distributor cap: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Check the condition and report on the following mechanical components located under the bonnet. (Check for leaks, cracks, corrosion etc.)

Complete notes on the following:

Drive belts:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Water pump:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Cooling system hoses

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Carburettor/injector system:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Fuel line hoses:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Fuel leaks:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Check the condition and report on the following mechanical components located under the vehicle. (Check for leaks, rust, worn rubbers and play.)

Exhaust:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Steering system *[Hint – raise front and look for movement]:*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Wheel bearings *[Hint – raise front of car and check]:*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Shock absorbers *[Hint – bounce test]:*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Oils leaks:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Check the levels and report on the condition of all vehicle fluid levels.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Checked** | **Condition (appearance)**  | **Comments** |
| Battery  |  |  |  |
| Engine oil |  |  |  |
| Brake fluid |  |  |  |
| Clutch fluid |  |  |  |
| Coolant  |  |  |  |
| Power steering |  |  |  |

1. Check the operation and report on the condition of the following body and trim components.

Seat belts:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Door locks/key locks:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Window operation:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Seat adjustments:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Hand brake:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Heater:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Air conditioner:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Other:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Status of other trim items (list):

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Inspect body for rust and dents, other damage:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Windscreen and windows:

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1. Inspect the tyres for wear and report.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **R/F** | **L/F** | **L/R** | **R/R** | **Spare** |
| **Pressures** |  |  |  |  |  |
| **Wear** |  |  |  |  |  |

Write customer report.

(Your overall conclusion on the general state of the vehicle’s condition.)

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Technician’s signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Marking key for sample assessment task 2 – Unit 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Motor vehicle safety inspection** | **Maximum possible mark** | **Mark allocation** | **Teacher feedback** |
| **Investigation** |
| Uses sound observation skills to inspect various mechanical components | 1–3 |  |  |
| Seeks out information from specifications | 1–3 |  |  |
| Works independently or with partner to make observations | 1–3 |  |  |
| Seeks reasons for oil and water leaks | 1–3 |  |  |
| Seeks out component wear through safe activation of component | 1–3 |  |  |
| **Total** | **/15** | **Weighted mark (5%)** |
| **Production** |
| Places axle stands at correct vehicle structural points | 1–3 |  |  |
| Operates hoist to raise vehicle using correct lift points | 1–3 |  |  |
| Handles batteries using appropriate safety procedures | 1–3 |  |  |
| Safe and correct inspection of a running engine  | 1–3 |  |  |
| Safe and correct inspection and use of all fluids | 1–3 |  |  |
| Uses air tools appropriately to remove wheels | 1–3 |  |  |
| Uses simple measuring tools to size wear components | 1–3 |  |  |
| Uses leverage to check joint and bearing play | 1–3 |  |  |
| **Total** | **/24** | **Weighted mark (10%)** |
| **Response** |
| Observations clearly and fully recorded | 1–3 |  |  |
| Correct use of terminology to record evaluations | 1–3 |  |  |
| Makes evaluations from several conclusions on vehicle | 1–3 |  |  |
| Draws correct conclusions from investigations  | 1–3 |  |  |
| **Total** | **/12** | **Weighted mark (2%)** |

Sample assessment task

Automotive Engineering and Technology – General Year 11

Task 6 – Unit 1

**Assessment type:** Production and assembly

**Complete engine strip down and rebuild (35 marks)**

Complete an overhaul on an engine using workshop tools and equipment, following OSH workshop practices. Record the practical skills learnt in a journal.

**Conditions**

This task is to be completed over a five or six-week period.

**Task weighting**

15% of the school mark for this pair of units

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**What you need to do**

A journal of activities is to be completed during practical sessions.

* select and use the correct engine manual
* follow recommended procedure in the manual
* follow correct OSH workshop practices
* use correct tools and equipment
* use correct quantities of oil, recommended by the manufacturer’s specifications

Using a specific process according to the manufacturer’s specifications, and a more detailed number of steps, complete the dismantling of the engine:

* disconnect and remove battery
* drain and store, or correctly dispose of all fluids

Label all components as you disassemble the engine

* remove outer components
* disassemble main components
* disassemble internal components
* clean, re-label if necessary
* inspect and measure components
* compare with manufacturer’s specifications

A teacher checklist will be used to assess the dismantling of the engine.

Assemble the engine:

* replace worn, or order new parts
* assemble to manufacturer’s specifications
* use correct fluids

Under teacher supervision, start and run the assembled engine to operating temperature.

|  |  |
| --- | --- |
| **What needs to be submitted** | **Date due** |
| * Journal of activities
 |  |
| * Test assembled engine
 |  |

Marking key for sample assessment task 6 – Unit 1

|  |  |
| --- | --- |
| **Complete engine dismantle and rebuild** | **Marks allocation** |
| **Observed skills** |  |
| * remove battery from engine, car or cradle
 | 1 |
| * remove all existing fluids from the engine
 | 1 |
| * strip outer engine components per manual instructions
 | 1 |
| * tag and clean all parts
 | 1 |
| * inspect, report wear or damage (include in journal)
 | 1 |
| * obtain or order new parts
 | 1 |
| * repair/replace items to manufacturer’s specifications
 | 1 |
| * assemble engine to manufacturer’s manual specifications
 | 1 |
| * reconnect battery to electrics and engine in car or engine cradle
 | 1 |
| **Tools and equipment** |  |
| * tools used correctly
 | 1 |
| * equipment used correctly
 | 1 |
| * tools and equipment in combination used responsibly
 | 1 |
| **Procedures/processes and techniques** |  |
| * layout of engine parts
 | 1 |
| * procedure for item repair
 | 1 |
| * preparation for assembly
 | 1 |
| * recommended procedure in the manual followed
 | 1 |
| * correct quantities of oil, recommended by the manufacturer’s specifications
 | 1 |
| * use of a correct engine manual
 | 1 |
| **OSH** |  |
| * correct OSH/workshop practices followed
 | 1 |
| * responsible behaviour in the workplace
 | 1 |
| * correct clothing, footwear, safety glasses worn
 | 1 |
| * correct manual handling
 | 1 |
| * preparation of worksite
 | 1 |
| * preparation of waste disposal
 | 1 |
| * journal of activities
 | 1 |
| Operation of running engine up to temperature* engine runs smoothly at temperature at idle and under power, clearly followed the recommended assembly of the engine
* engine correctly assembled, minor adjustment to fire engine, engine runs smoothly at temperature at idle and under power
* engine runs at temperature at idle and under power, minor assembly issues requiring adjustment
* engine runs, requires a number of adjustments
* engine doesn’t run, requires several adjustments and/or parts not fitted correctly
 | 9–107–85–63–41–2 |
| **Total** | **/35**  |