BOARD OF STUDIES
NEW SOUTH WALES

# 2010 HSC Automotive Marking Guidelines

## Section I

| Question | Answer |
|---|---|
| 1 | B |
| 2 | B |
| 3 | C |
| 4 | A |
| 5 | D |
| 6 | D |
| 7 | A |
| 8 | C |
| 9 | C |
| 10 | B |
| 11 | D |
| 12 | D |
| 13 | A |
| 14 | C |
| 15 | C |

# Section II

## Question 16

| Criteria | Marks |
|---|---|
| • Demonstrates a comprehensive understanding of how computer-based technologies can improve the efficiency within an automotive workshop<br>• Provides cohesive examples that are industry specific<br>• Develops a clear, well-reasoned response | 5 |
| • Demonstrates a sound understanding of how computer-based technologies can improve the efficiency within an automotive workshop<br>• Provides clear examples to support their answer | 3-4 |
| • Demonstrates a basic understanding of how computer-based technologies can improve the efficiency within an automotive workshop<br>• Provides limited examples | 1-2 |

## Question 17 (a)

| Criteria | Marks |
|---|---|
| • Demonstrates thorough knowledge of procedure to follow when an injury is sustained in the workplace<br>• Addresses at least THREE key components | 2 |
| • Demonstrates basic knowledge of procedure to follow when an injury is sustained in the workplace | 1 |

**Question 17 (b)**

| Criteria | Marks |
|---|---|
| • Correctly identifies an Australian Apprenticeship Centre (AAC) | 1 |

**Question 17 (c)**

| Criteria | Marks |
|---|---|
| • Demonstrates thorough knowledge of evacuation procedure and outlines a range of relevant elements | 3 |
| • Demonstrates basic knowledge of evacuation procedure and provides a number of elements that are relevant | 2 |
| • Demonstrates basic knowledge of evacuation procedure and provides limited examples of relevant elements | 1 |

**Question 18 (a)**

| Criteria | Marks |
|---|---|
| • Demonstrates a concise understanding of the hazards associated with raising a vehicle with a trolley jack<br>• Correctly provides ALL required procedures for the safe raising of a vehicle<br>• Provides correct references to industry terms, tools and equipment | 4 |
| • Demonstrates sound understanding of the hazards associated with raising a vehicle with a trolley jack<br>• Correctly provides the majority of key steps required for the safe raising of a vehicle<br>• Provides a number of references to industry terms, tools and equipment | 3 |
| • Demonstrates some understanding of the hazards associated with raising a vehicle with a trolley jack<br>• Correctly identifies a number of key steps for the safe raising of a vehicle<br>• Provides correct references to industry terms, tools and equipment | 2 |
| • Demonstrates a limited understanding of the hazards associated with raising a vehicle with a trolley jack<br>• Identifies a limited number of correct steps for the safe raising of a vehicle<br>• Provides little or no reference to industry terms, tools and equipment | 1 |

**Question 18 (b)**

| Criteria | Marks |
|---|---|
| • Correctly states why fasteners are progressively tightened in a set sequence | 1 |

**Question 18 (c)**

| Criteria | Marks |
|---|---|
| • Correctly identifies tool as torque wrench and provides a concise description of its purpose | 2 |
| • Correctly identifies the tool but displays a limited understanding of the purpose<br>• Correctly identifies the purpose but does not correctly specify its trade name | 1 |

**Question 19 (a)**

| Criteria | Marks |
|---|---|
| • Correctly lists chemical composition of battery components | 3 |

**Question 19 (b)**

| Criteria | Marks |
|---|---|
| • Correctly draws all required symbols | 2 |
| • Correctly draws two symbols | 1 |

## Question 20 (a)

| Criteria | Marks |
|---|---|
| • Demonstrates a thorough understanding of how lightweight materials are used to improve vehicle efficiency<br>• Correctly outlines THREE relevant lightweight materials and provides relevant examples of how they are used within the construction of a vehicle<br>• Provides a clear, well-reasoned response | 4 |
| • Demonstrates an understanding of how lightweight materials are used to improve vehicle efficiency<br>• Correctly outlines TWO relevant lightweight materials and provides relevant examples of how they are used within the construction of a vehicle<br>• Provides a clear response | 2–3 |
| • Demonstrates limited understanding of how lightweight materials are used to improve vehicle efficiency<br>• Correctly outlines ONE relevant lightweight material<br>• Provides limited or no relevant examples of how lightweight materials are used within the construction of a vehicle | 1 |

## Question 20 (b)

| Criteria | Marks |
|---|---|
| • Provides correct answer as: Paint Code or demonstrates deep understanding of where the Paint Code is located | 1 |

## Question 20 (c)

| Criteria | Marks |
|---|---|
| • Provides correct answer as any of the following: Supplementary Restraint System (SRS) or Air bag and/or Pre-tensioned seat belts | 1 |

**Question 21 (a)**

| Criteria | Marks |
|---|---|
| • Demonstrates a thorough understanding of the effects the suspension damage will have on various components as well as the vehicle geometry<br>• Provides correct reference to industry terms and provides accurate examples<br>• Develops a clear, well-structured response | 4 |
| • Demonstrates an understanding of the effects the suspension damage will have on a range of components as well as the vehicle geometry<br>• Provides some reference to industry terms and provides a number of examples | 2–3 |
| • Demonstrates a limited understanding of the effects the suspension damage will have on the vehicle<br>• Correctly names at least ONE component correctly<br>• Provides limited reference to industry terms | 1 |

**Question 21 (b)**

| Criteria | Marks |
|---|---|
| • States at least one fix and one suitable method to manage problem | 2 |
| • Identifies how the problem can be rectified but does not say how it can be managed (or vice versa) | 1 |

# Section III

## Question 22

| Criteria | Marks |
|---|---|
| • Demonstrates a broad depth of knowledge and understanding of employees' responsibilities within the automotive industry<br>• Provides an extensive explanation of how employees can ensure their compliance with the OHS Act<br>• Correctly uses precise industry terminology and examples within the context of the automotive industry<br>• Develops a well-structured cohesive response | 13–15 |
| • Demonstrates a clear knowledge and understanding of employees' responsibilities within the automotive industry<br>• Provides a clear explanation of how employees can ensure their compliance with the OHS Act<br>• Uses specific industry terminology and examples within the context of the automotive industry<br>• Develops a well-structured response | 10–12 |
| • Demonstrates a general understanding of employees' responsibilities within the automotive industry<br>• Provides a general explanation of how employees can ensure their compliance with the OHS Act<br>• Uses appropriate industry terminology | 7–9 |
| • Demonstrates an understanding of employees' responsibilities<br>• Provides some links to how employees can ensure their compliance with the OHS Act<br>• Uses limited or basic industry terminology | 4–6 |
| • Demonstrates a limited understanding of employees' responsibilities<br>• Provides limited examples of how employees can ensure their compliance with the OHS Act<br>• Communicates using non-industry specific terms | 1–3 |

# Section IV

## Question 23 (a)

| Criteria | Marks |
|---|---|
| • Demonstrates a concise knowledge and understanding of the responsibilities of various government authorities<br>• Uses precise industry terminology<br>• Provides examples within the context of the automotive industry<br>• Develops a well-structured cohesive response | 5 |
| • Demonstrates a sound understanding of the responsibilities of government authorities<br>• Uses industry terminology<br>• Provides examples within the context of the automotive industry | 3–4 |
| • Demonstrates a basic knowledge and understanding of the responsibilities of government authorities<br>• Uses limited or basic industry terminology | 1–2 |

## Question 23 (b)

| Criteria | Marks |
|---|---|
| • Demonstrates a broad depth of knowledge of the management of environmental issues within the automotive industry<br>• Provides an extensive and accurate explanation of how to deal with THREE environmental issues<br>• Correctly uses precise industry terminology and provides examples within the context of the automotive industry<br>• Develops a well-structured cohesive response | 9–10 |
| • Demonstrates clear knowledge of the management of environmental issues within the automotive industry<br>• Provides an accurate explanation of how to deal with THREE environmental issues<br>• Correctly uses specific industry terminology and provides examples within the context of the automotive industry<br>• Develops a well-structured response | 7–8 |
| • Demonstrates a general understanding of the management of environmental issues within the automotive industry<br>• Provides a general explanation of how to deal with a minimum of TWO environmental issues<br>• Uses appropriate industry terminology | 5–6 |
| • Demonstrates an understanding of the management of environmental issues within the automotive industry<br>• Provides some relevant examples of how to deal with TWO environmental issues<br>• Uses limited or basic industry terminology | 3–4 |
| • Demonstrates a limited understanding of the management of environmental issues within the automotive industry<br>• Provides limited examples of how to deal with at least ONE environmental issue<br>• Communicates using non-industry specific terms | 1–2 |

# Automotive

## 2010 HSC Examination Mapping Grid

| Question | Marks | Unit of competency / Element of competency |
|---|---|---|
| **Section I** | | |
| 1 | 1 | AURC270103A Apply safe working practices |
| 2 | 1 | AURT270278A Use and maintain workplace tools and equipment |
| 3 | 1 | Automotive systems and components |
| 4 | 1 | AURT270278A Use and maintain workplace tools and equipment |
| 5 | 1 | Automotive systems and components |
| 6 | 1 | Automotive systems and components |
| 7 | 1 | AURC272003A Apply environmental regulations and best practice in a workplace or business |
| 8 | 1 | AURC272003A Apply environmental regulations and best practice in a workplace or business |
| 9 | 1 | AURC270103A Apply safe working practices |
| 10 | 1 | Automotive industry induction |
| 11 | 1 | AURC272003A Apply environmental regulations and best practice in a workplace or business |
| 12 | 1 | AURC270789A Communicate effectively in the workplace |
| 13 | 1 | Automotive industry induction |
| 14 | 1 | AURC270103A Apply safe working practices |
| 15 | 1 | AURC252103A Apply basic automotive troubleshooting processes |
| **Section II** | | |
| 16 | 5 | AURC270789A Communicate effectively in the workplace |
| 17 (a) | 2 | Automotive industry induction |
| 17 (b) | 1 | Automotive industry induction |
| 17 (c) | 3 | Automotive industry induction |
| 18 (a) | 4 | AURT270278A Use and maintain workplace tools and equipment |
| 18 (b) | 1 | AURT270278A Use and maintain workplace tools and equipment |
| 18 (c) | 2 | AURT270278A Use and maintain workplace tools and equipment |
| 19 (a) | 3 | AURE218670A Service, maintain or replace batteries |
| 19 (b) | 2 | AURE218708A Carry out repairs to single electrical circuits |
| 20 (a) | 4 | Automotive systems and components |
| 20 (b) | 1 | Automotive systems and components |
| 20 (c) | 1 | Automotive systems and components<br>AURE218708A Carry out repairs to single electrical circuits |
| 21 (a) | 4 | AURC252103A Apply basic automotive troubleshooting processes |
| 21 (b) | 2 | AURC252103A Apply basic automotive troubleshooting processes |
| **Section III** | | |
| 22 | 15 | AURC270103A Apply safe working practices Automotive industry induction |
| **Section IV** | | |
| 23 | 15 | AURC272003A Apply environmental regulations and best practice in a workplace or business<br>AURC270103A Apply safe working practices |