Automotive

Sample HSC examination questions
for candidates undertaking the
Vehicle Body stream

The first HSC examination for Automotive will be held in 2015.

The Automotive examination specifications can be found in the Assessment and Reporting in Automotive document at www.boardofstudies.nsw.edu.au/syllabus_hsc/automotive.html

The HSC examination in Automotive is based on the HSC Content (mandatory and stream focus areas) and employability skills for the Certificate II qualifications.

There will be two separate written papers, one for each stream. Candidates will be required to complete the paper based on the stream they have studied.

The examination will consist of a written paper worth 80 marks. The examination mark for each candidate will be converted to a mark out of 100. Each paper will consist of four sections:

- Section I (objective response questions)
- Section II (short-answer questions)
- Section III (structured extended response question) and
- Section IV (extended response question).

There is no expectation that all of the HSC Content and employability skills for the Certificate II qualifications in the Automotive Curriculum Framework will be examined each year. The examination will test a representative sample of the HSC Content and relevant employability skills in any given year.

The following sample questions provide examples of some questions that may be set in HSC examinations for Automotive – Vehicle Body. Each question has been mapped to an HSC Content focus area. Where appropriate, the employability skill(s) being assessed are indicated.

Answers for the objective response questions have been italicised. Marking guidelines are provided for a short-answer question (Section II) and an extended response question (Section IV). The marking guidelines indicate the criteria associated with each mark or mark range. In the examination, students will record their answers to Section III and Section IV in a separate writing booklet.
A rubric indicating general criteria for judging performance for the extended response question in Section IV has been included with the sample question. This rubric applies only to Section IV and is used to assess responses to the extended response question together with criteria specific to the question.

The sample questions and marking guidelines provide teachers and students with guidance as to the sort of questions to expect and how they may be marked. They are not meant to be prescriptive. Each year the structure of the examination will conform with the examination specifications. However, the number and type of questions in the examination may focus on different syllabus outcomes and content, or have a different range and balance than those given in this sample set of questions.
Section I (15 marks)

There will be objective response questions to the value of 15 marks.

Five questions will be based on the HSC mandatory focus areas and will be the same for all three papers. Ten questions will be specific to the Vehicle Body HSC stream focus area.

Candidates are given four possible answers (A, B, C or D) from which to choose the correct (or best) one. This type of question requires the candidate to have a degree of certainty about their knowledge and understanding of the subject.

The purpose of the other answers (distractors) is to present a range of options that appear to be feasible. Some could be correct in a given set of circumstances but are not the best overall answer. In other cases, distractors may be partially right with some element of incorrect information.

Section I sample questions

Question 1

_HSC Content – focus area assessed: Safety_

Battery acid has come in contact with skin.
What should be done to the affected area?
(A) Apply bicarbonate soda
(B) Pad down with a sterile rag
(C) Immediately apply an ice pack
(D) Wash thoroughly with clean water

Question 2

_HSC Content – focus area assessed: Working in the automotive industry and workplace_

What body has the responsibility for issuing trade licences within the automotive industry?
(A) Department of Fair Trading
(B) Motor Traders’ Association
(C) Automotive Training Board
(D) Institute of Automotive Mechanical Engineers
**Question 3**

*HSC Content – focus area assessed: Vehicle Body*

What is the correct procedure to follow when disposing of a solvent used to clean vehicle body components?

(A) Treat, clean, recycle and reuse the solvent

(B) Pour the solvent into an oil and water separator for treatment

(C) Store the solvent in a sealed tin and dispose into an industrial waste bin

(D) Store the solvent in a bunded area for collection by an approved disposal agent

**Question 4**

*HSC Content – focus area assessed: Vehicle Body*

What is the primary purpose of a fuse in an electrical circuit?

(A) To allow the current to flow into the circuit

(B) *To protect the circuit against excessive current flow*

(C) To ensure the current is maintained at the correct amperage

(D) To ensure continued current flow in the event of a short circuit
Section II  (35 marks)

- There will be approximately five short-answer questions.
- 15 marks will be based on the HSC mandatory focus areas and these questions will be the same for both papers.
- 20 marks will be allocated to questions specific to the Vehicle Body HSC stream focus area.
- Questions may contain parts.
- There will be approximately 12 items in total.
- At least two items will be worth from 4 to 8 marks.

Section II sample questions

Question 5  (3 marks)

HSC Content – focus areas assessed:  Vehicle Body
Employability skill assessed:  Problem-solving

A vehicle has sustained damage to a wiring harness. You notice the insulation has been damaged and some wires are completely broken.

Describe the steps needed to bring the wiring harness back to manufacturer’s specifications.

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## Question 5

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<thead>
<tr>
<th>Criteria</th>
<th>Marks</th>
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<tbody>
<tr>
<td>• Provides a concise description of suitable steps</td>
<td>3</td>
</tr>
<tr>
<td>• Identifies suitable tools and repair techniques</td>
<td></td>
</tr>
<tr>
<td>• Identifies suitable steps for the repair</td>
<td>2</td>
</tr>
<tr>
<td>• Identifies some appropriate tools used for the repair</td>
<td></td>
</tr>
<tr>
<td>• Demonstrates a superficial understanding of the repair techniques</td>
<td>1</td>
</tr>
</tbody>
</table>
Question 6 (6 marks)

HSC Content – focus areas assessed:  Safety
                                    Working in the automotive industry and workplace

(a) What is the correct procedure to follow if you discover an electric tool with a  
    frayed cord?

(b) Explain the procedure for raising a vehicle on a two-post hoist so that you can  
    work below it safely.
Section III  (15 marks)

- There will be one structured extended response question based on the Vehicle Body HSC stream focus area, and can also draw from the HSC mandatory focus areas.
- The question will have two or three parts, with one part worth at least 8 marks.
- The question will have an expected length of response of around four pages of an examination writing booklet (approximately 600 words) in total.

Question 7 (15 marks)

HSC Content – focus areas assessed: Vehicle Body Sustainability

(a) Outline environmental hazards commonly found in an automotive repair workshop. 3

(b) What is the primary role of different government authorities for ensuring that an automotive repair workshop complies with environmental protection regulations and guidelines? 4

(c) Recommend environmentally sustainable practices for workers carrying out pre-repair vehicle body operations. In your answer, provide industry examples. 8
Section IV (15 marks)

- There will be one extended response question based on the HSC mandatory focus areas and will be the same for both papers.
- The question will have an expected length of response of around four pages of an examination writing booklet (approximately 600 words).

In your answer you will be assessed on how well you:
- demonstrate knowledge and understanding relevant to the question
- communicate ideas and information using relevant workplace examples and industry terminology
- present a logical and cohesive response.

Question 8 (15 marks)

HSC Content – focus area assessed: Working in the automotive industry and workplace
Employability skill assessed: Communication

In the automotive workplace, communication occurs in written, verbal and non-verbal ways. Explain the benefits of the effective use of each of these types of communication in a workshop environment.
## Marking guidelines

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Marks</th>
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</thead>
<tbody>
<tr>
<td>• Demonstrates a depth of knowledge and understanding of the various</td>
<td></td>
</tr>
<tr>
<td>types of communication relative to the industry</td>
<td>13–15</td>
</tr>
<tr>
<td>• Provides a clear explanation of the relationship between effective</td>
<td></td>
</tr>
<tr>
<td>communication and a successful workshop</td>
<td></td>
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<tr>
<td>• Correctly uses precise industry terminology and examples within the</td>
<td></td>
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<tr>
<td>context of the automotive industry in a well-reasoned cohesive response</td>
<td></td>
</tr>
<tr>
<td>• Demonstrates knowledge and understanding of various types of</td>
<td></td>
</tr>
<tr>
<td>communication relative to the industry</td>
<td></td>
</tr>
<tr>
<td>• Provides an explanation of the relationship between effective</td>
<td></td>
</tr>
<tr>
<td>communication and a successful workshop</td>
<td>10–12</td>
</tr>
<tr>
<td>• Uses appropriate industry terminology with some examples relevant to</td>
<td></td>
</tr>
<tr>
<td>the automotive industry</td>
<td></td>
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<tr>
<td>• Demonstrates a general understanding of various types of communication</td>
<td></td>
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<tr>
<td>• Provides a general discussion linking effective communication to a</td>
<td>7–9</td>
</tr>
<tr>
<td>successful workshop</td>
<td></td>
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<tr>
<td>• Uses appropriate industry terminology</td>
<td></td>
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<tr>
<td>• Demonstrates an understanding of communication</td>
<td></td>
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<tr>
<td>• Provides some links to the importance of effective communication</td>
<td>4–6</td>
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<tr>
<td>• Uses basic industry terminology</td>
<td></td>
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<tr>
<td>• Demonstrates a limited understanding of communication</td>
<td>1–3</td>
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<tr>
<td>• Uses limited industry terminology</td>
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