



**BOARD OF STUDIES**  
NEW SOUTH WALES

## **2012 HSC Industrial Technology Metal and Engineering Technologies Marking Guidelines**

### **Section I**

#### **Multiple-choice Answer Key**

<b>Question</b>	<b>Answer</b>
1	D
2	C
3	D
4	B
5	C
6	B
7	A
8	D
9	C
10	B

## Section II

### Question 11 (a)

Criteria	Marks
• Recognises and names steel sections that could be used to manufacture the towbar	2
• Lists a steel section	1

### Question 11 (b)

Criteria	Marks
• Provides characteristics and features of suitable processes that could be used in the mass production of the tow bar including quality control check	3
• Outlines a process that could be used to manufacture the tow bar	2
• Lists some manufacturing steps	1

### Question 12

Criteria	Marks
• Provides characteristics and features of the stages of aluminium production distinguishing materials and their purpose in the process	3
• Outlines the process of aluminium production identifying some materials in the process	2
• Lists a step in the process of aluminium production (incomplete outline)	1

### Question 13

Criteria	Marks
• Provides characteristics and features of a process to manufacture the cold chisel, including reference to forging/shaping and heat treatment	3
• Outlines the process of forging and hardening	2
• Lists some steps in the manufacture of the cold chisel	1

**Question 14**

<b>Criteria</b>	<b>Marks</b>
• Provides characteristics and features of a process to manufacture the G clamp spindle, with reference to a material and finish	4
• Outlines characteristics and features of a process to manufacture the G clamp spindle, with reference to a material and finish	3
• Outlines a process that could be used to manufacture the G clamp spindle	2
• Lists a material or finish or step in the manufacturing process	1

### Section III

#### Question 15 (a)

Criteria	Marks
• Provides characteristics and features of web-based technologies the company could use to market and sell its goods and services	5
• Sketches in general terms web-based technologies the company could use to market and sell its goods and services	3–4
• Identifies a web-based technology that could be used	1–2

#### Question 15 (b)

Criteria	Marks
• Provides characteristics and features of TWO impacts on the organisation and work practices of the company if web-based technologies were implemented	9–10
• Provides characteristics and features of ONE impact and sketches in general terms another impact on the organisation and work practices of the company if web-based technologies were implemented	7–8
• Sketches in general terms ONE impact on the organisation and ONE impact on work practices of the company if web-based technologies were implemented	5–6
• Sketches in general terms ONE impact and identifies another impact on the organisation and work practices of the company if web-based technologies were implemented	3–4
• Identifies an organisational and/or work practices impact on the company if web-based technologies were implemented	1–2

# Industrial Technology

## Metal and Engineering Technologies

### 2012 HSC Examination Mapping Grid

#### Section I

Question	Marks	Content	Syllabus outcomes
1	1	Processes, tools and machinery	H1.2
2	1	Processes	H1.2
3	1	Materials	H1.2
4	1	Processes	H1.2, H4.3
5	1	Processes, tools and machinery	H1.2, H4.3
6	1	Processes	H4.3, H1.2
7	1	Processes, tools and machinery	H1.2
8	1	WHS	H1.2, H2.1
9	1	Materials	H3.1, H3.2
10	1	Processes, tools and machinery	H3.1, H4.3

#### Section II

Question	Marks	Content	Syllabus outcomes
11 (a)	2	Materials	H3.1, H4.3
11 (b)	3	Processes, tools and machinery	H1.2, H3.1, H4.3
12	3	Materials	H1.2, H4.3
13	3	Processes, tools and machinery	H3.1, H4.3
14	4	Processes, tools and machinery	H3.1, H4.3

#### Section III

Question	Marks	Content	Syllabus outcomes
15 (a)	5	Structural Considerations	H1.1, H1.2, H7.1, H7.2
15 (b)	10	Personnel Issues	H1.1, H1.2, H7.1, H7.2