
2022 HSC Industrial Technology Timber Products and Furniture Technologies Marking Guidelines

Section I

Multiple-choice Answer Key

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

Section II

Question 11

Criteria	Marks
<ul style="list-style-type: none"> Correctly identifies a suitable machine that is used to dress timber 	1

Sample answer:

Planer/Jointer.

Answers could include:

- Thicknesser
- Drum sander
- CNC router.

Question 12

Criteria	Marks
<ul style="list-style-type: none"> Provides an outline of the importance of EMC 	2
<ul style="list-style-type: none"> Provides some relevant information 	1

Sample answer:

EMC affects the stability of the timber. When the moisture content is the same as the environment, then there should be no movement of the timber structure.

Answers could include:

Wet weather and air conditioning may affect the EMC of the material, causing doors to jam and other related issues.

Question 13

Criteria	Marks
• Correctly calculates the cost to complete the stool	3
• Provides some steps in calculating the cost of the stool	2
• Provides some relevant calculation	1

Sample answer:

Item	Length	Width	Thickness	Number Required	\$/m	Total
Top	300	150	50	2	13.00	7.80
Leg	200	50	50	4	7.25	5.80
Rail	200	75	25	4	1.95	1.56
						15.16

Question 14

Criteria	Marks
• Demonstrates a sound understanding of how recycling and reusing can address timber shortages	4
• Demonstrates some understanding of how recycling and reusing can address timber shortages	3
• Identifies some ways of recycling and reusing that address timber shortages	2
• Provides some relevant information	1

Sample answer:

Older timber structures such as wooden bridges and power poles can easily be recycled as they often contain much-valued hardwoods harvested many years ago from species not now readily available. These can make their way into specialist furniture producers, where their use is valued. Timbers which are chemically untreated may be repurposed as wooden pallets.

Answers could include:

Some timber may be chipped and used for mulch with chemically treated timbers going into landfill. Builder's waste could also be better managed as much timber is wasted in the production of domestic dwellings.

Question 15

Criteria	Marks
<ul style="list-style-type: none"> Provides a detailed explanation of the advantages of using knock-down fittings 	5
<ul style="list-style-type: none"> Provides a sound explanation of the advantages of using knock-down fittings 	4
<ul style="list-style-type: none"> Provides some explanation of the advantages of using knock-down fittings OR a sound explanation of an advantage of using knock-down fittings 	3
<ul style="list-style-type: none"> Provides detail of an advantage of using knock-down fittings 	2
<ul style="list-style-type: none"> Provides some relevant information 	1

Sample answer:

KD fittings are used for flat pack furniture as they can exert more pressure on a joint than using a screw or nail. KD fittings are used without adhesives and hold together by mechanical strength. Bolt and barrel fittings can be used to assemble items which are much larger than the entry to the room in which it is to be used.

Answers could include:

- Speed of assembly
- Fewer tools required
- Lower degree of expertise required
- Adds strength to joinery.

Section III

Question 16 (a)

Criteria	Marks
<ul style="list-style-type: none"> Provides a detailed description of the role WHS legislation has in workplace safety 	5
<ul style="list-style-type: none"> Provides a sound description of the role WHS legislation has in workplace safety 	4
<ul style="list-style-type: none"> Provides some description of the role WHS legislation has in workplace safety 	3
<ul style="list-style-type: none"> Provides a limited description of the role of WHS 	2
<ul style="list-style-type: none"> Provides some relevant information 	1

Sample answer:

Workplaces must ensure the safety of their employees by law. The law exists to protect the welfare of employees. WHS law requires employers to provide safety training, safe equipment, safety inspection, evacuation procedures, safety signage and safety committees to ensure a safe workplace. Failure to comply with legal requirements may result in penalties or prosecution.

Question 16 (b)

Criteria	Marks
<ul style="list-style-type: none"> Provides a detailed explanation of strategies that could be implemented to improve safety in the workplace 	9–10
<ul style="list-style-type: none"> Provides a sound explanation of strategies that could be implemented to improve safety in the workplace 	7–8
<ul style="list-style-type: none"> Provides some explanation of strategies that could be implemented to improve safety in the workplace 	5–6
<ul style="list-style-type: none"> Outlines some strategies that could be implemented to improve safety in the workplace 	3–4
<ul style="list-style-type: none"> Provides some relevant information 	1–2

Answers could include:

- Hierarchy of control
- Employee training
- WHS signage
- Provision of PPE
- Fire safety equipment
- Ergonomic workstations
- Manual handling techniques and equipment
- RCD electrical safety
- Tagging & testing
- Regular equipment inspections
- Taking regular breaks
- Have regular WHS meetings and discussions
- Access to First Aid
- Accident log review
- Chemical signage / storage.

2022 HSC Industrial Technology Timber Products and Furniture Technologies Mapping Grid

Section I

Question	Marks	Content	Syllabus outcomes
1	1	Fittings and allied materials	H4.3
2	1	Framing joints	H4.3
3	1	Materials – Adhesives	H4.3
4	1	Fittings and allied materials	H4.3
5	1	Processes – Manufacturing components	H4.3
6	1	Tools and machinery – Maintenance	H4.1
7	1	Material – Manufactured boards	H4.3
8	1	Processes – Widening joints	H4.3
9	1	Processes – Finishes	H1.3, H4.3
10	1	Processes – Carcase joints	H4.3

Section II

Question	Marks	Content	Syllabus outcomes
11	1	Tools and Machinery – Use and maintenance	H4.3
12	2	Materials – Timber recovery and conversion	H4.3
13	3	Processes – Planning	H3.2
14	4	Fittings and allied hardware – Hardware and fittings	H4.3
15	5	Processes – Finishing	H4.3, H7.1

Section III

Question	Marks	Content	Syllabus outcomes
16 (a)	5	Work, health and safety	H7.1
16 (b)	10	Work, health and safety	H7.1