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# 2024 HSC Industrial Technology Timber Products and Furniture Technologies Marking Guidelines

## Section I

### Multiple-choice Answer Key

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

## Section II

### Question 11

Criteria	Marks
<ul style="list-style-type: none"> <li>Identifies an appropriate adhesive</li> </ul>	1

**Sample answer:**

Epoxy resin

### Question 12

Criteria	Marks
<ul style="list-style-type: none"> <li>Outlines ONE strategy that ensures efficient resource utilisation and minimises wastage</li> </ul>	2
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1

**Sample answer:**

Before cutting or ordering materials, meticulously measure and plan the dimensions and cuts needed for each piece of timber stock. Develop thorough and accurate project plans.

### Question 13

Criteria	Marks
<ul style="list-style-type: none"> <li>Describes the difference between a mitre saw and a compound mitre saw in their function and use</li> </ul>	3
<ul style="list-style-type: none"> <li>Demonstrates some understanding of the difference between a mitre saw and a compound mitre saw in their function and/or use</li> </ul>	2
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1

**Sample answer:**

A standard mitre saw cuts wood at various angles, typically in straight, cross, or bevel cuts. In contrast, a compound mitre saw performs these cuts and allows bevel cuts with additional adjustable blade angles, enhancing its versatility for angled and compound cuts in woodworking projects.

**Question 14**

<b>Criteria</b>	<b>Marks</b>
• Provides a thorough explanation of ONE crucial feature woodworkers should consider when selecting a router for their woodworking projects	4
• Provides some explanation of ONE crucial feature woodworkers should consider when selecting a router for their woodworking projects	3
• Recognises some aspects and terms of ONE feature woodworkers should consider when selecting a router for their woodworking projects	2
• Provides some relevant information	1

**Sample answer:**

The router's compatibility with a variety of router shank types, enables versatility in executing diverse cutting, shaping and detailing tasks within woodworking projects. Whether you are cutting, shaping or adding details to a project, a router that can work with a variety of bits gives you more options to get the job done just the way you want it. Each bit serves a different purpose, but it must be compatible with the router.

**Answers could include:**

- The router's ergonomics and handling. Choosing a router with comfortable grips, proper weight distribution, and easy accessibility to controls enhances user comfort, reducing fatigue during extended woodworking sessions and improving overall precision in handling the tool.
- Variable speed control. It allows adjustments to the router's rpm (revolutions per minute), which is crucial for different bit sizes and materials, ensuring precision, safety, and optimal performance in various woodworking tasks.

## Question 15

Criteria	Marks
<ul style="list-style-type: none"> <li>Provides a thorough explanation of TWO WHS risks, which should be assessed prior to preparing and using recycled timber in a project</li> </ul>	5
<ul style="list-style-type: none"> <li>Provides a sound explanation of TWO WHS risks, which should be assessed prior to preparing and using recycled timber in a project</li> </ul>	4
<ul style="list-style-type: none"> <li>Provides features of TWO WHS risks, which should be assessed prior to preparing and/or using recycled timber in a project</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>A thorough explanation of ONE WHS risk, which should be assessed prior to preparing and/or using recycled timber in a project</li> </ul>	3
<ul style="list-style-type: none"> <li>Recognises WHS risks, which should be assessed prior to preparing and/or using recycled timber in a project</li> </ul>	2
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1

### **Sample answer:**

Recycled timber might have previously been treated with hazardous chemicals like pesticides, preservatives, or paints. Sanding or cutting this timber without proper assessment could lead to exposure to harmful substances, causing respiratory issues or skin irritation. Additionally, recycled timber may have hidden defects such as embedded nails, screws, or metal fragments. Working with this timber without adequate inspection and removal of these elements could result in splinters, cuts, or puncture wounds, posing physical injury risks to workers handling the material.

### **Answers could include:**

- Dust and respiratory Issues: Sanding or cutting recycled timber generates fine dust particles. Workers may inhale these particles without appropriate protective measures like masks or ventilation, leading to respiratory problems like asthma or lung irritation. Assessing and managing dust exposure risks are crucial to maintaining worker health and safety.
- Structural integrity: Recycled timber might have undergone degradation, weakening its structural integrity due to previous wear, insect damage, or rot. Failing to assess this risk might result in structural instability during construction, leading to accidents or collapses and endangering worker safety.

## Section III

### Question 16 (a)

Criteria	Marks
<ul style="list-style-type: none"> <li>Provides a comprehensive comparison that highlights differences in approach to marketing and advertising of both firms</li> </ul>	5
<ul style="list-style-type: none"> <li>Provides a sound comparison of the differences in approach to marketing and advertising of both firms</li> </ul>	4
<ul style="list-style-type: none"> <li>Provides a description of the two firms' approaches to marketing and advertising</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>Provides a sound description of the approach to marketing and advertising used by an organisation</li> </ul>	3
<ul style="list-style-type: none"> <li>Shows some understanding of marketing and advertising</li> </ul>	2
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1

**Sample answer:**

Organisation A, a partnership-owned firm with a hierarchical structure, tends to have a formal approach to marketing and advertising. This means that decisions about how to promote their products or services go through different levels of management before being put into action. Each partner might have a say in these decisions, which can take time. They may have specialised teams for different marketing tasks, like research or branding.

In contrast, Organisation B, a sole trader-owned firm with a flat management structure, takes a more flexible approach. This means that decisions about marketing are made more quickly because there are fewer levels of management. A small team might handle marketing directly, allowing for faster reactions to changes in market conditions.

## Question 16 (b)

Criteria	Marks
<ul style="list-style-type: none"> <li>Provides an analysis of the influence of management approaches to production and efficiency</li> </ul>	9–10
<ul style="list-style-type: none"> <li>Provides an explanation of the influence of management approaches to production and/or efficiency</li> </ul>	7–8
<ul style="list-style-type: none"> <li>Describes the influence of management approaches to production and efficiency</li> </ul>	5–6
<ul style="list-style-type: none"> <li>Demonstrates some understanding of the influence of management approaches to production and/or efficiency</li> </ul>	3–4
<ul style="list-style-type: none"> <li>Provides some relevant information</li> </ul>	1–2

### **Answers could include:**

- Decision-making speed
  - Hierarchical structures (Organisation A) may experience slower decision-making due to the various levels of approval required.
  - Flat structures (Organisation B) typically allow for quicker decisions due to fewer layers of management.
- Responsiveness to change
  - Organisation A might be less responsive to change because of its many tiers of management, which can slow down the implementation of new ideas.
  - Organisation B is likely more agile and can adapt quickly due to its simpler structure.
- Quality control
  - In a hierarchical structure, quality control can be more standardised and rigorous, although potentially slower.
  - Flat structures might have more flexible quality control processes, allowing for quicker adjustments but possibly less consistency.
- Resource allocation
  - Hierarchical firms may have more complex resource allocation processes, potentially leading to inefficiencies.
  - Flat structures might allocate resources more dynamically and efficiently due to less bureaucracy.
- Innovation
- Communication
- Employee autonomy
- Management overhead
- Cost efficiency
- Risk management.

# 2024 HSC Industrial Technology Timber Products and Furniture Technologies Mapping Grid

## Section I

Question	Marks	Content	Syllabus outcomes
1	1	Processes, tools and machinery – finishing	H4.3, H6.1
2	1	Processes, tools and machinery – widening joints	H1.2, H4.1
3	1	Processes, tools and machinery – preparation of timber	H1.2, H4.2
4	1	Processes, tools and machinery – construction techniques	H1.2, H4.3
5	1	Materials – additional materials applied to timber and timber-based projects	H1.2, H3.3, H4.3
6	1	Materials – timber selection considerations	H6.1, H7.2
7	1	Processes, tools and machinery – construction techniques	H1.2, H4.1, H6.1
8	1	Materials – fittings and allied materials	H1.2, H4.3
9	1	Processes, tools and machinery – planning	H3.1, H4.3
10	1	Processes, tools and machinery – manufacturing individual components as part of a project	H1.2, H4.1

## Section II

Question	Marks	Content	Syllabus outcomes
11	1	Materials – adhesives	H1.2, H3.3
12	2	Materials – timber selection considerations	H1.2, H7.2
13	3	Tools and machinery – maintenance	H1.2, H4.1
14	4	Processes, tools and machinery – other construction techniques – routing	H1.2, H1.3, H3.2
15	5	Materials – timber selection considerations – WHS issues	H2.1, H4.3

## Section III

Question	Marks	Content	Syllabus outcomes
16 (a)	5	Structural considerations	H1.1
16 (b)	10	Structural considerations	H1.1 H1.2