

FOR OFFICIAL USE



National  
Qualifications  
SPECIMEN ONLY

Mark

**S862/75/01**

**Practical Woodworking**

Date — Not applicable

Duration — 1 hour



\* S 8 6 2 7 5 0 1 \*

Fill in these boxes and read what is printed below.

Full name of centre

Town

Forename(s)

Surname

Number of seat

Date of birth

Day

Month

Year

Scottish candidate number

**Total marks — 60**

Attempt ALL questions.

Write your answers clearly in the spaces provided in this booklet. Additional space for answers is provided at the end of this booklet. If you use this space you must clearly identify the question number you are attempting.

Use **blue** or **black** ink.

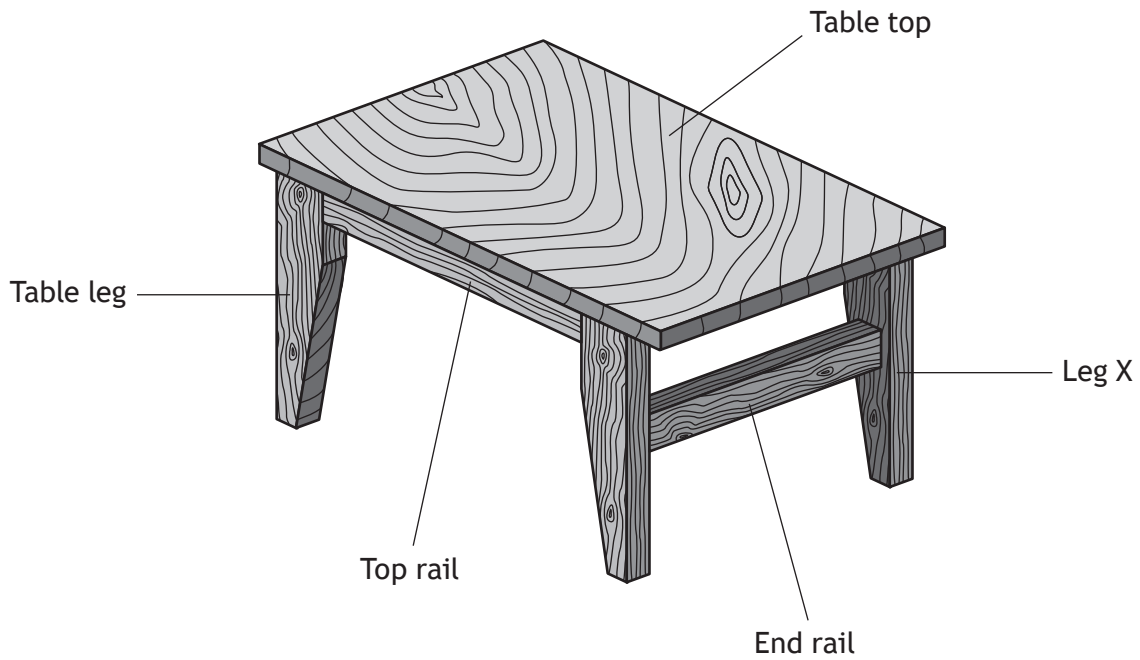
Before leaving the examination room you must give this booklet to the Invigilator; if you do not, you may lose all the marks for this paper.



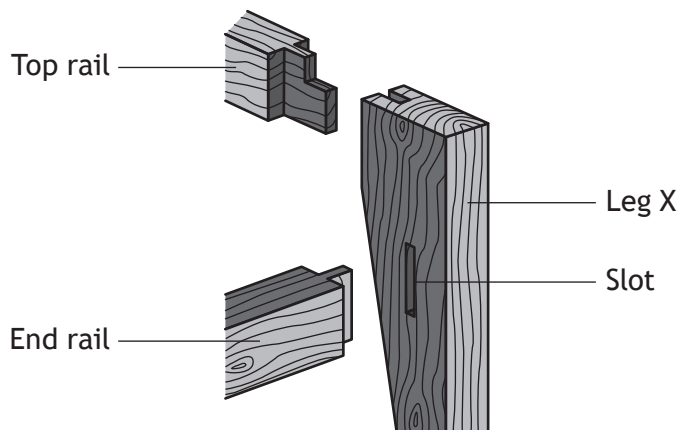
\* S 8 6 2 7 5 0 1 0 1 \*

Total marks — 60  
Attempt ALL questions

1. A small coffee table is shown.



The diagram below shows how the rails of the coffee table are joined to the legs.



(a) Name the joint used to join the top rail to leg X.

1

---

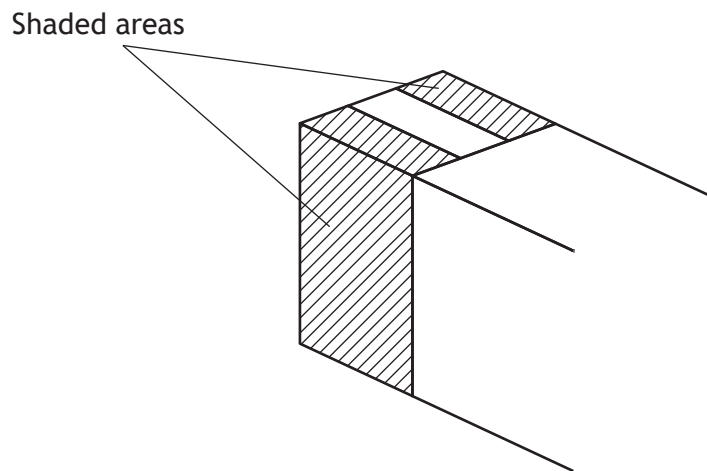


---



## 1. (continued)

The diagram below shows how the end rail is marked out before it is cut.



(b) Explain the purpose of shading in the areas shown in this diagram.

1

---

---

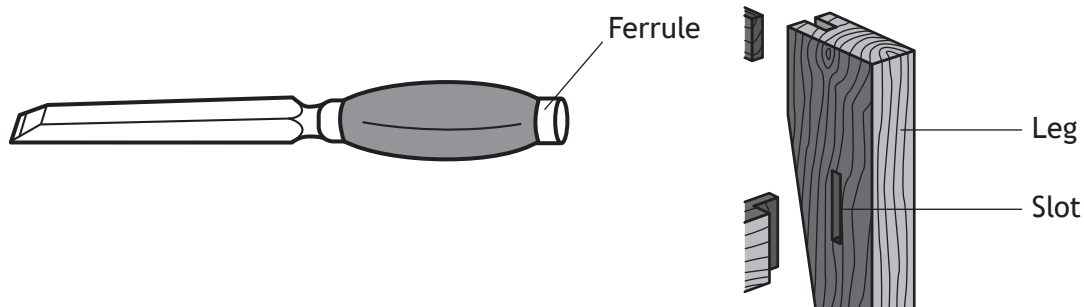
[Turn over



\* S 8 6 2 7 5 0 1 0 3 \*

1. (continued)

(c) The tool shown below is used to cut the slot in the leg of the table as shown in the diagram.



(i) Name this tool. 1

\_\_\_\_\_

(ii) Describe the purpose of the ferrule, shown on the tool above. 1

\_\_\_\_\_  
\_\_\_\_\_

In the diagram above, the slot in the leg is cut to a depth of 15mm.

(iii) Describe a method of ensuring the slot is cut to the correct depth. 2  
You may use sketches to support your answer.

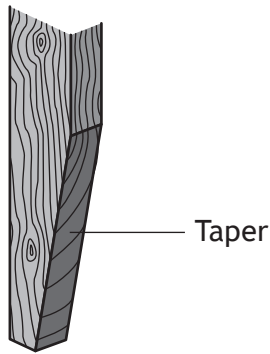
Health and safety in a workshop is always a priority.

(iv) State two health and safety checks that must be carried out before starting to cut out the slot in the leg. 2

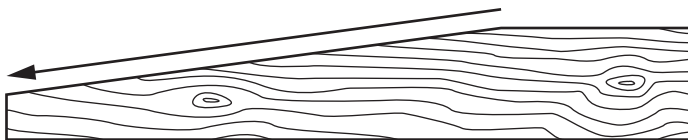
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1. (continued)

(d) This diagram shows the table leg tapered using a smoothing plane.



The direction of cut is shown in the diagram below.



(i) Explain why this is the correct direction of cut. 1

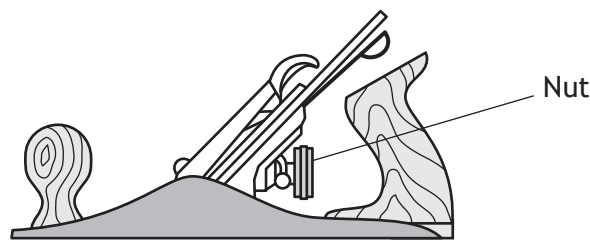
---

---

(ii) Explain the purpose of the nut shown on the smoothing plane below. 1

---

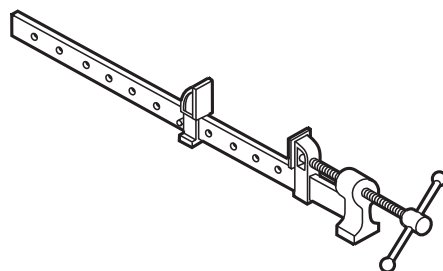
---



[Turn over

1. (continued)

The device shown below is used during the assembly of the coffee table.



(e) Name this device.

1

\_\_\_\_\_

Various materials and their properties were considered to make the table top.

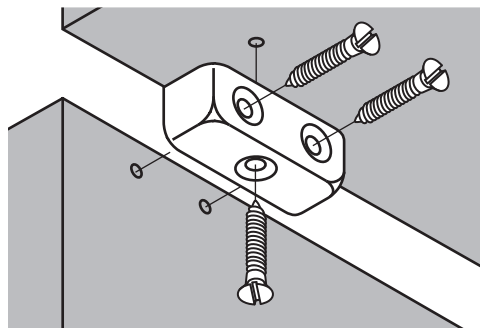
(f) Complete the table below with the materials that match the properties and uses given. The first one is completed for you.

6

Material	Properties and uses
Beech	Hardwood pinkish brown in colour used for <b>tool handles and toys</b> .
(i)	Softwood that is straight grained, but <b>knotty</b> , quite strong and easy to work. <b>Pale yellow</b> in colour.
(ii)	Light brown, hardwood, tough, heavy and durable outside. <b>Gets harder with age</b> .
(iii)	Hardwood, <b>reddish in colour</b> , quite strong. A common hardwood used in schools.
(iv)	Made from <b>veneers</b> glued together with the grain direction at 90° to the one next to it. <b>Very stable</b> and costs less than solid wood.
(v)	Made from fine wood fibres, <b>compressed and glued</b> together.
(vi)	<b>Strips of softwood</b> are glued together and then <b>sandwiched</b> between two hardwood veneers. Resistant to bending.

1. (continued)

The knock down fixings shown below are used to attach the table top to the frame.



- (g) Describe two advantages of using knock down fixings over traditional wooden joints.

2

---



---



---

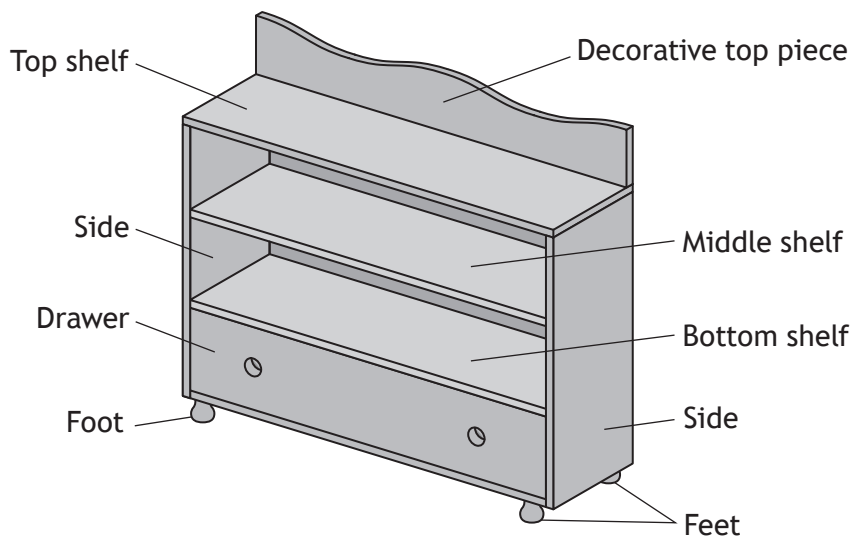


---

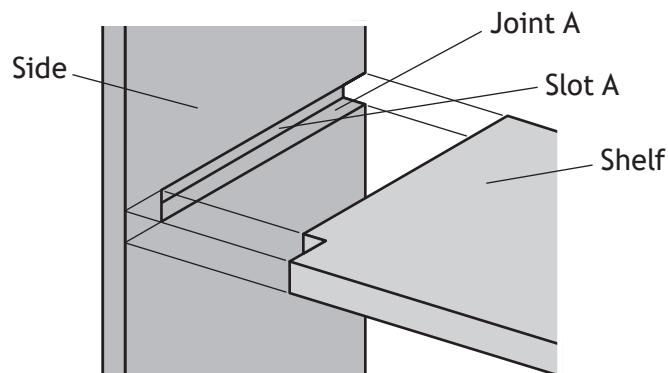
[Turn over



2. A shelving unit is shown.



The middle and bottom shelves are attached to the sides of the shelving unit using the joint shown in the diagram below.



(a) Name joint A.

1

Slot A, shown above, is cut using hand tools. The first stage is to mark out the slot. The last stage is to accurately level off the bottom of the slot.





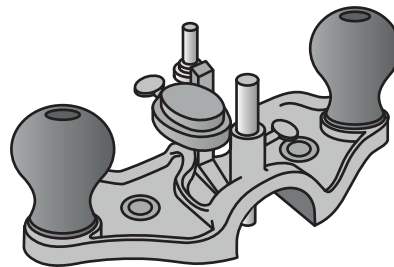
2. (continued)

- (b) (i) Describe the three intermediate stages in the table below. The stages must be in the correct order.

3

1	mark out the slot
2	
3	
4	
5	accurately level off the bottom of the slot

The tool shown below is used to level off the bottom of the slot accurately.



- (ii) Name this tool.

1

\_\_\_\_\_

The diagram below shows the decorative top piece of the shelving unit. This has to be reproduced many times.



- (c) Name the marking out aid that is used to ensure all the decorative top pieces are marked out identically.

1

\_\_\_\_\_

- (d) Name the power tool used to cut the curved shape of the decorative top piece.

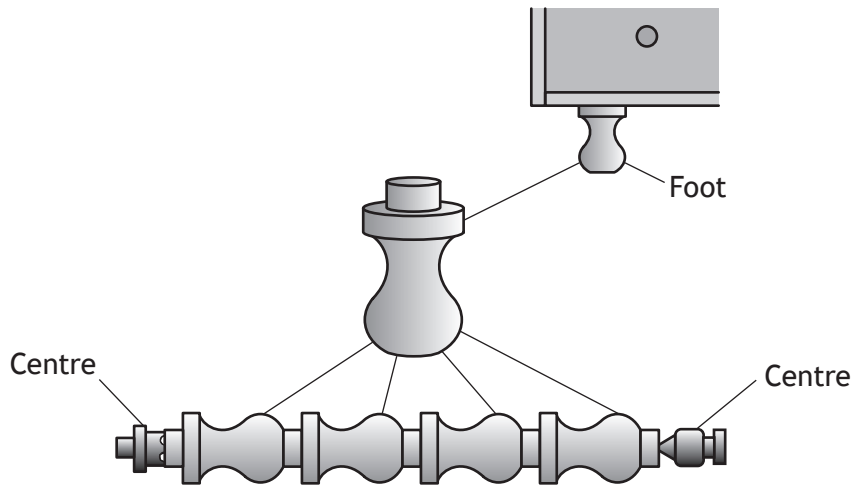
1

\_\_\_\_\_

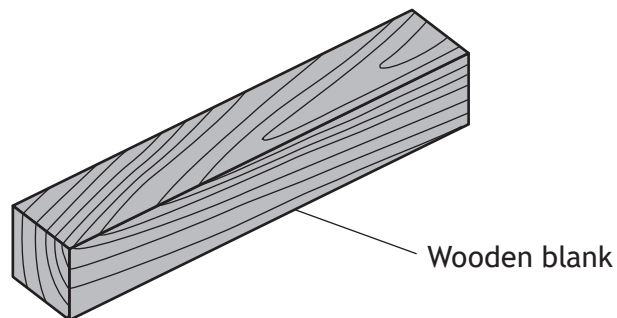


## 2. (continued)

This diagram shows the four feet of the shelving unit being turned on the woodwork lathe.



All four feet are made from one piece of hardwood, called a 'wooden blank', as shown in the diagram below.



The wooden blank is prepared for the turning process before it is mounted on the woodwork lathe.

There are five stages in the preparation of the wooden blank before fitting it between the centres on the lathe. The **first** stage is to draw diagonals on the ends of the wooden blank.



\* S 8 6 2 7 5 0 1 1 0 \*

## 2. (continued)

- (e) Describe the **next** four stages in the correct order. You may use sketches to support your answer.

4

Stage 2

Stage 3

Stage 4

Stage 5

[Turn over

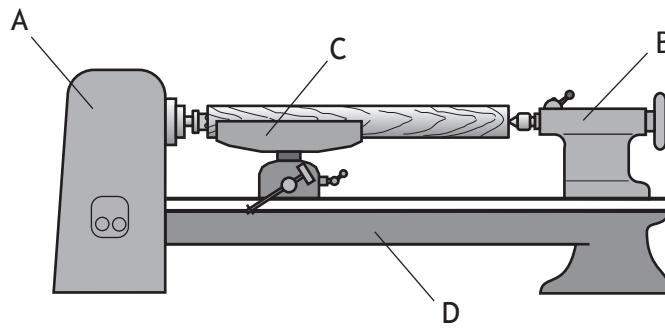


\* S 8 6 2 7 5 0 1 1 1 \*

2. (continued)

MARKS DO NOT WRITE IN THIS MARGIN

A diagram of a woodwork lathe is shown below.



(f) Name parts A, B, C and D of the woodwork lathe shown above.

4

A \_\_\_\_\_

B \_\_\_\_\_

C \_\_\_\_\_

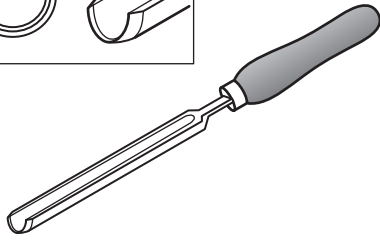
D \_\_\_\_\_



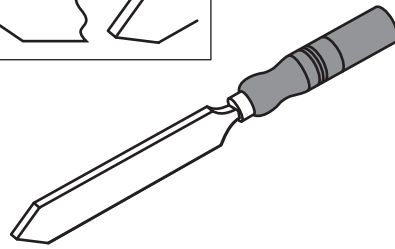
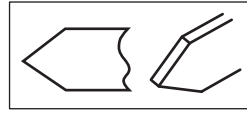
2. (continued)

DO NOT  
WRITE IN  
THIS  
MARGIN

- (g) The two cutting tools shown below are used to help shape the feet of the shelving unit.



Tool A



Tool B

- (i) Name these tools.

2

Tool A \_\_\_\_\_

Tool B \_\_\_\_\_

- (ii) Explain how each tool is used to help shape the feet of the shelving unit.

Tool A \_\_\_\_\_

1

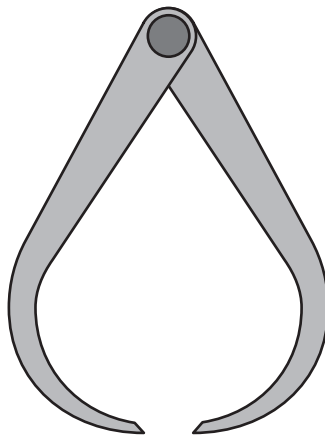
\_\_\_\_\_

Tool B \_\_\_\_\_

1

\_\_\_\_\_

The tool shown below is used to check the diameters of the feet of the shelving unit.



- (iii) Name this tool.

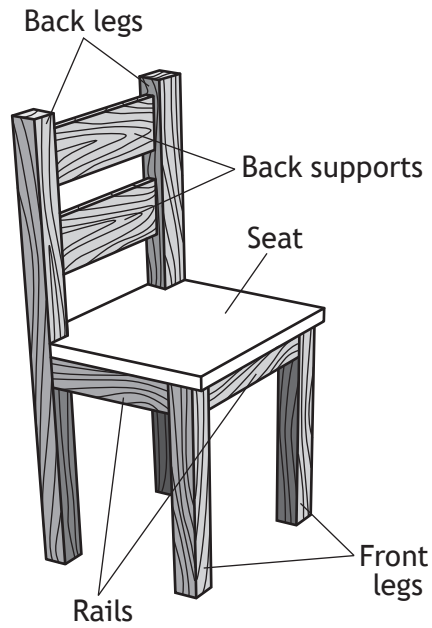
1

\_\_\_\_\_

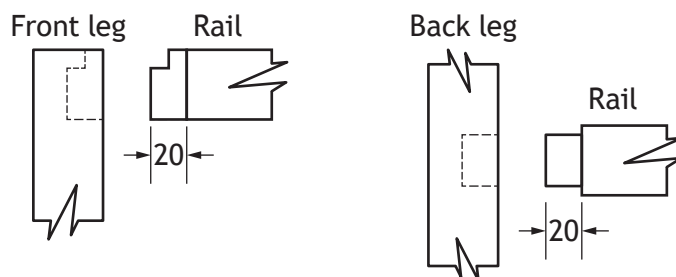
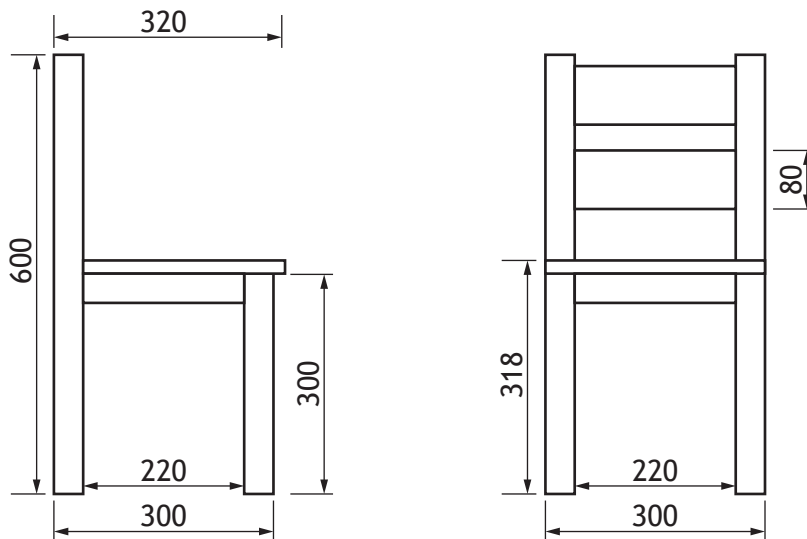


3. A child's chair is shown.

MARKS  
DO NOT WRITE IN THIS MARGIN



The diagram below shows the working drawing for the child's chair.



**Note:** The rails are joined to the legs using the joints shown in the drawings above. All sizes are in millimetres.



3. (continued)

MARKS

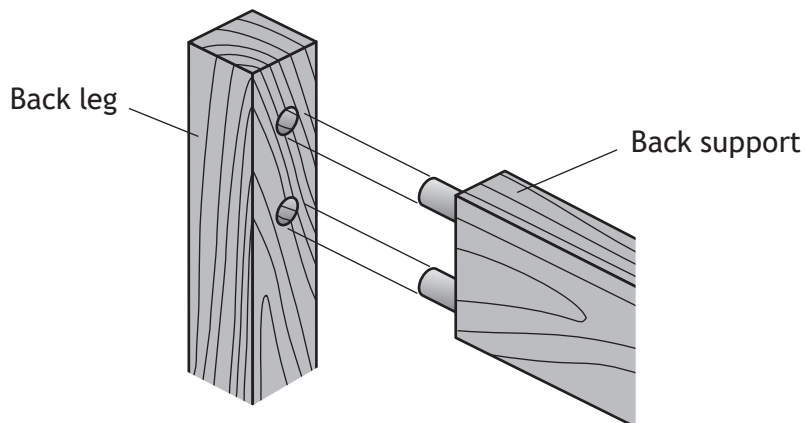
DO NOT WRITE IN THIS MARGIN

- (a) Complete the cutting list below, using the information provided in the working drawings shown on page 14.

5

Cutting list					
Part	Number	Material	Length	Breadth	Thickness
Front leg	2	Red pine	300	40	40
Back leg	2	Red pine		40	40
Back support	2	Red pine	220		30
Rails	4	Red pine		40	40
Seat	1	MDF		320	

- (b) This diagram shows the joint used to join the back supports of the chair to the back legs.



- (i) Name this joint.

1

\_\_\_\_\_

- (ii) The holes in the back leg are drilled using the pedestal/pillar drill. State two safety checks that should be carried out on the pedestal/pillar drill **before** switching it on.

Check 1 \_\_\_\_\_

1

Check 2 \_\_\_\_\_

1

[Turn over



## 3. (continued)

(c) The chair is constructed from red pine. A clear varnish finish is applied to the chair.

(i) State one reason why a **clear** varnish is a suitable finish.

1

---

(ii) Describe three stages to be carried out to prepare the wood **before** the clear varnish is applied.

3

1 \_\_\_\_\_

---

2 \_\_\_\_\_

---

3 \_\_\_\_\_

---

(iii) Explain why each part of the chair is prepared for a finish **before** it is assembled.

1

---

---

(iv) Health and safety is a priority when preparing wood for a finish. State two safe working practices which should be carried out when **preparing** wood for a finish.

2

---

---

---

---





## 3. (c) (continued)

Red pine is a softwood.

- (v) Describe three **environmental** reasons for choosing red pine **instead** of a hardwood.

3

1 \_\_\_\_\_

\_\_\_\_\_

2 \_\_\_\_\_

\_\_\_\_\_

3 \_\_\_\_\_

\_\_\_\_\_

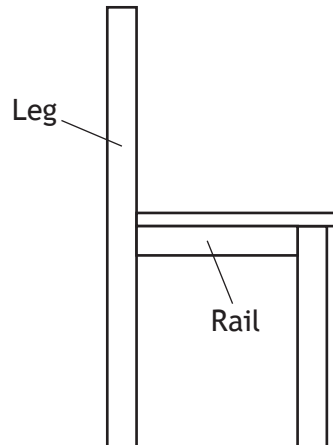
[Turn over for next question



\* S 8 6 2 7 5 0 1 1 7 \*

3. (continued)

- (d) It is essential to make sure the legs and rails are square to each other when assembling the chair as shown in the diagram below.



- (i) Explain what is meant by the term square.

1

---



---

- (ii) Describe two methods of checking that the leg and rail are assembled correctly and are square.

2

Method 1 \_\_\_\_\_

---

Method 2 \_\_\_\_\_

---

[END OF SPECIMEN QUESTION PAPER]



MARKS

DO NOT  
WRITE IN  
THIS  
MARGIN

ADDITIONAL SPACE FOR ANSWERS AND ROUGH WORK



\* S 8 6 2 7 5 0 1 1 9 \*

MARKS

DO NOT  
WRITE IN  
THIS  
MARGIN

ADDITIONAL SPACE FOR ANSWERS AND ROUGH WORK



\* S 8 6 2 7 5 0 1 2 0 \*



National  
Qualifications  
SPECIMEN ONLY

**S862/75/01**

**Practical Woodworking**

## Marking Instructions

---

These marking instructions have been provided to show how SQA would mark this specimen question paper.

The information in this publication may be reproduced to support SQA qualifications only on a non-commercial basis. If it is reproduced, SQA should be clearly acknowledged as the source. If it is to be used for any other purpose, written permission must be obtained from [permissions@sqa.org.uk](mailto:permissions@sqa.org.uk).

Where the publication includes materials from sources other than SQA (ie secondary copyright), this material should only be reproduced for the purposes of examination or assessment. If it needs to be reproduced for any other purpose it is the user's responsibility to obtain the necessary copyright clearance.

## General marking principles for National 5 Practical Woodworking

*This information is provided to help you understand the general principles you must apply when marking candidate responses to questions in this paper. These principles must be read in conjunction with the detailed marking instructions, which identify the key features required in candidate responses.*

- (a) Marks for each candidate response must always be assigned in line with these general marking principles and the detailed marking instructions for this assessment.
- (b) Marking should always be positive. This means that, for each candidate response, marks are accumulated for the demonstration of relevant skills, knowledge and understanding: they are not deducted from a maximum on the basis of errors or omissions.

## Marking instructions for each question

Question		Expected response	Max mark	Additional guidance
1.	(a)	Haunched mortise and tenon joint	1	
	(b)	To identify waste wood or material	1	Must be an explanation
	(c)	(i) Mortise chisel	1	
		(ii) Strengthens the end of handle, prevents it from splitting or wearing	1	
		(iii) Measure the depth on chisel Mark the chisel in some way (eg masking tape or similar)	2	Do not accept 'mortise machine', answer must relate to stem of 1(c)  Clearly annotated sketches are acceptable
		(iv) Any two of the following: <ul style="list-style-type: none"> <li>• check tools for damage</li> <li>• secure leg to workbench</li> <li>• check the tool is sharp</li> </ul>	2	Do not accept answers relating to a mortise machine, answer must relate to stem of 1(c)
	(d)	(i) To plane with the grain (not against the grain) to achieve a smooth finish	1	
		(ii) Adjusts the cutting height/depth of cut	1	
	(e)	Sash cramp	1	
	(f)	(i) Pine (ii) Oak (iii) Mahogany (iv) Plywood (v) MDF (vi) Blockboard	6	1 mark for each correct response
	(g)	Easier to assemble than traditional wooden joints as no expensive specialised tools are required  Easier to take apart than traditional wooden joints as no need for technical knowledge	2	
2.	(a)	Stopped housing	1	
	(b)	(i) 2 Vee-notch 3 Saw or vertical chisel 4 Remove waste wood with chisel	3	Description of stages must be in the correct order  Accept description of any valid methods
		(ii) Hand router	1	
	(c)	Template	1	
	(d)	Jig saw	1	
	(e)	Stage 2 Centre punch both ends Stage 3 Mark circle/octagonal shape Stage 4 Saw diagonals Stage 5 Plane edges	4	Description of stages must be in the correct order

Question		Expected response				Max mark	Additional guidance																					
2.	(f)	A Head stock B Tail stock C Tool rest D Bed				4																						
	(g)	(i)	Tool A Gouge Tool B Parting chisel			2	Also accept 'parting tool' for Tool B																					
		(ii)	Tool A Roughing out to shape Tool B Parting off/cutting to length/cutting shoulders			2																						
		(iii)	Outside calipers			1																						
3.	(a)		<table border="1"> <thead> <tr> <th>Part</th> <th>Length</th> <th>Breadth</th> <th>Thickness</th> </tr> </thead> <tbody> <tr> <td>Back leg</td> <td>600</td> <td></td> <td></td> </tr> <tr> <td>Back support</td> <td></td> <td>80</td> <td></td> </tr> <tr> <td>Rails</td> <td>260</td> <td></td> <td></td> </tr> <tr> <td>Seat</td> <td>300</td> <td></td> <td>18</td> </tr> </tbody> </table>				Part	Length	Breadth	Thickness	Back leg	600			Back support		80		Rails	260			Seat	300		18	5	
Part	Length	Breadth	Thickness																									
Back leg	600																											
Back support		80																										
Rails	260																											
Seat	300		18																									
	(b)	(i)	Dowel joint			1																						
		(ii)	Any two of the following: <ul style="list-style-type: none"> <li>wood secure</li> <li>drill secure</li> <li>chuck key removed</li> <li>guards in place</li> </ul>			2																						
	(c)	(i)	To allow the grain of the wood to be visible			1																						
		(ii)	Remove all pencil marks/saw marks/scratches Raise grain/wet wood Sand smooth/fine paper			3	Other valid stages are acceptable																					
		(iii)	More difficult to sandpaper after assembled			1																						
		(iv)	Dust mask/eye protection/dust extraction Protective clothes			2																						
		(v)	Answers should be a description of any three of the following: <ul style="list-style-type: none"> <li>reduce deforestation/protect rain forests from deforestation</li> <li>faster speed of growth of softwood compared to hardwoods/replanting</li> <li>encourage sustainable forests</li> <li>lower levels of transport pollution as softwoods are grown in local forests</li> </ul>			3																						
	(d)	(i)	90 degree/right angle			1																						
		(ii)	Method 1 Try square Method 2 Check diagonals			2																						

[END OF SPECIMEN MARKING INSTRUCTIONS]