



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Cycle Final Examination 2025

Wood Technology

Common Level

Thursday 12 June Afternoon 1:30 - 3:00

120 marks

Examination Number

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Date of Birth

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For example, 3rd February
2005 is entered as 03 02 05

Centre Stamp

Instructions

Answer all questions.

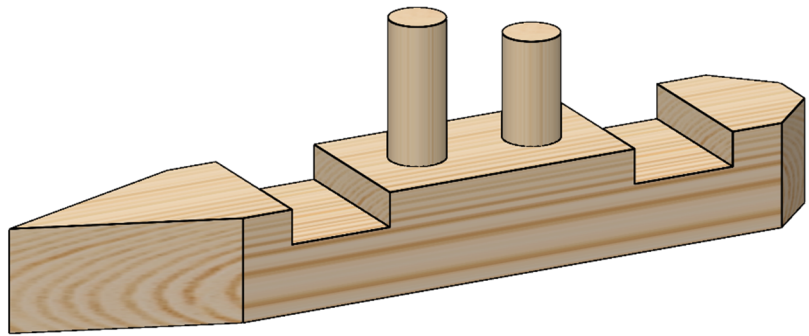
Write your answers in blue or black pen. You may use pencil for sketches and drawings only.

Write your answers in the spaces provided in this booklet. There is space for extra work at the end of the booklet. Label any such extra work clearly with the question number and part.

This examination booklet will be scanned and your work will be presented to an examiner on screen. Anything that you write outside of the answer area may not be seen by the examiner.

Question 1

The image shows a toy boat which is made from scots pine.



- (a) (i) Scots pine is a softwood. Give **two** reasons why more softwoods should be used instead of hardwoods in the Wood Technology classroom.

Reason 1:
Reason 2:

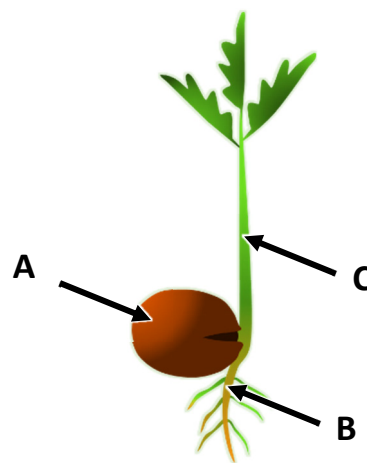
- (ii) Indicate with a tick (✓) whether each of the following statements is true **or** false.

Softwoods	True	False
Softwoods are normally obtained from coniferous trees		
Sitka spruce is a softwood		
Softwoods are slow growing		
Softwoods are normally more expensive than hardwoods		

- (b)** Scots pine seeds are planted in forests throughout Ireland every year.
The image shows the germination of a seed.

From the list below, identify the parts labelled **A**, **B**, and **C**.

Plumule	☐
Radicle	☐
Seed	☐

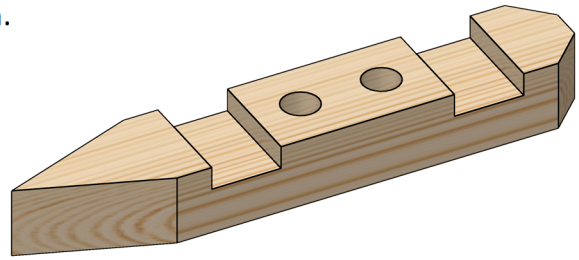


- (c)** Food for a scots pine tree is produced in its leaves by a process called photosynthesis.

Using notes and a neat freehand sketch, briefly describe the process of photosynthesis.

Sketch:

- (d) The toy boat has two holes drilled in it, as shown.
A pillar drill is to be used to drill these holes.

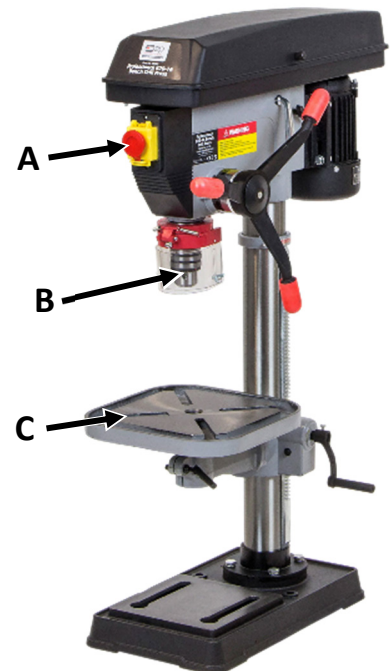


- (i) Give **one** advantage of using the pillar drill to drill the holes.

Advantage:

- (ii) Name the parts of the pillar drill labelled **A**, **B**, and **C**.

A:
B:
C:

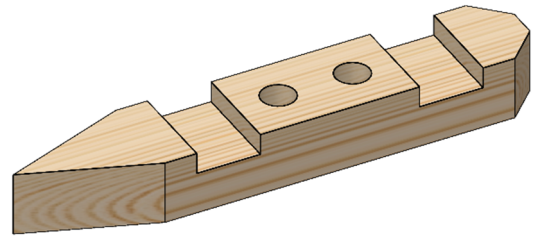


- (iii) State the function of the part labelled **B** on the pillar drill.

Function:

- (e) In the space below, design a poster to explain any **two** of the specific safety precautions that should be observed when using the pillar drill to drill the holes in the boat.

On your poster include notes on **each** precaution.



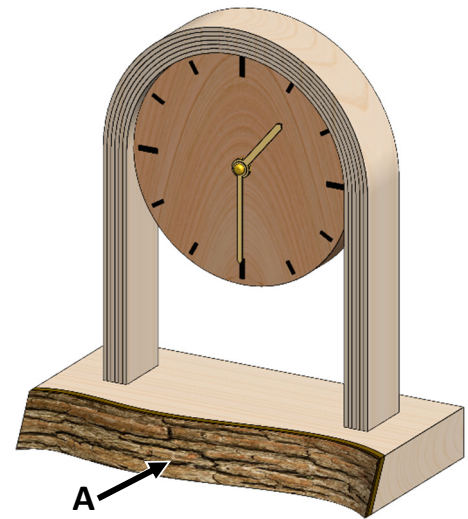
Question 2

The image on the right shows a mantel clock which is made from solid wood as shown.

- (a) Identify the wood defect, labelled **A**, on the base of the clock as shown.

Waney edge ☐

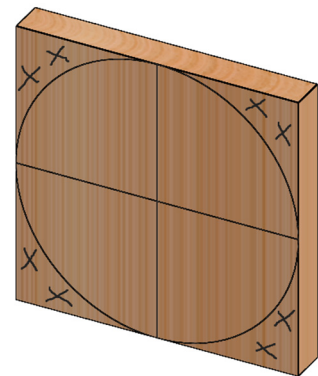
Broken edge ☐



- (b) The image shows the circular face of the clock marked-out on a piece of wood.

Describe, using notes and sketches, how you would shape the circular face of the clock.

Name any tools and machines used.

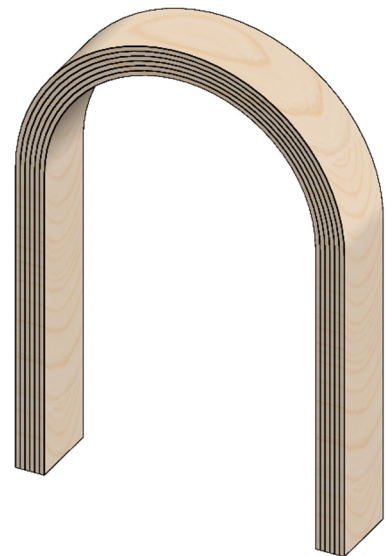


Sketches:

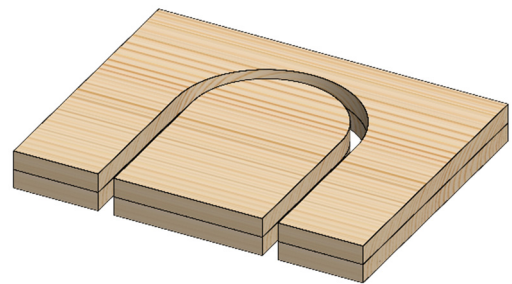
- (c) The top frame of the mantle clock is laminated from thin pieces of wood as shown.

Give **two** reasons for laminating the top frame instead of cutting it from a piece of solid wood.

Reason 1:
Reason 2:



- (d) The image on the right shows the former used to shape the laminate. The battery powered tool below was used to shape this former.



- (i) Name the tool shown.

Name:

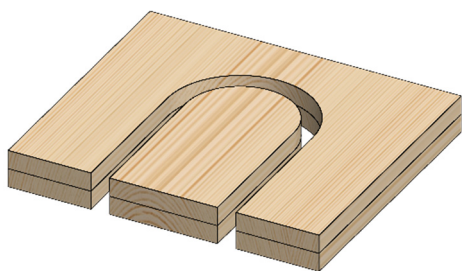
- (ii) Give **one** advantage of using battery powered tools.

Advantage:

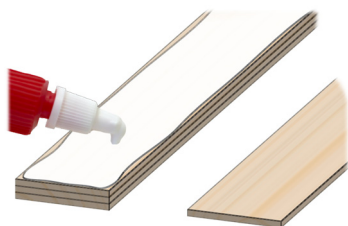


- (e) The images on the left below show some of the steps used to make the laminated frame for the mantel clock. Shown on the right is the description of each step.

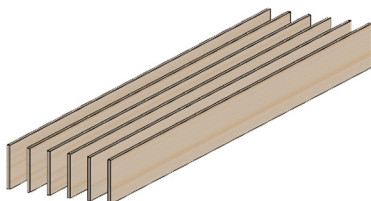
Match each of the steps shown on the left with the correct description on the right.
The first step is completed for you.



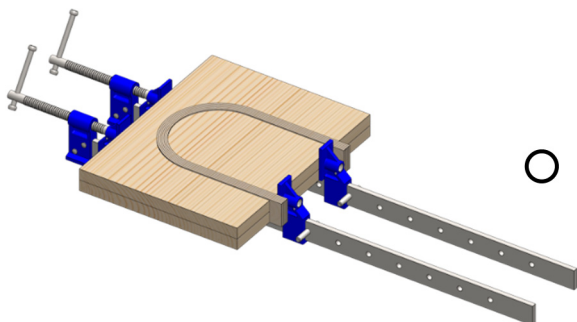
Apply adhesive between the laminates



Cut and prepare a former to the required shape for the laminated frame

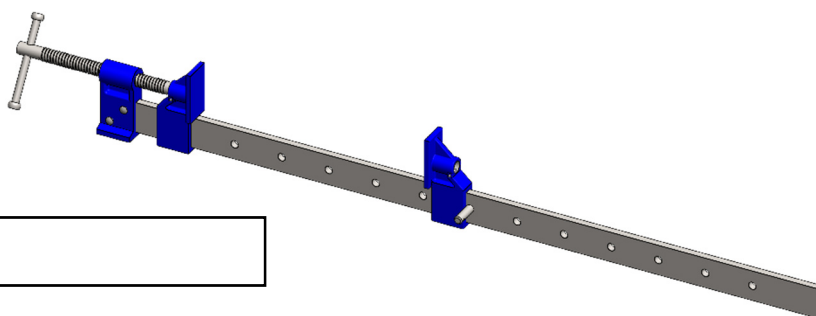


Place the laminates into the former and clamp securely to form the curved shape



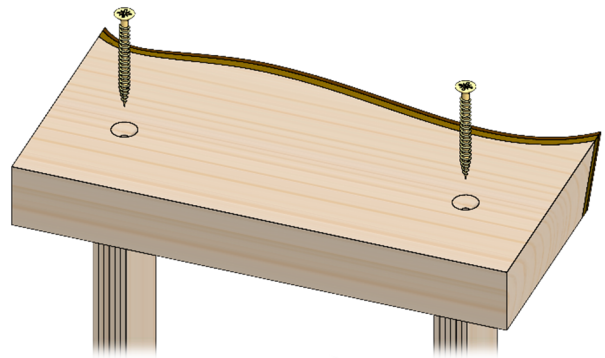
Cut thin strips of wood (laminates) to the required thickness and length

- (f) Name the tool shown, used to clamp the laminates in the former.



Name:

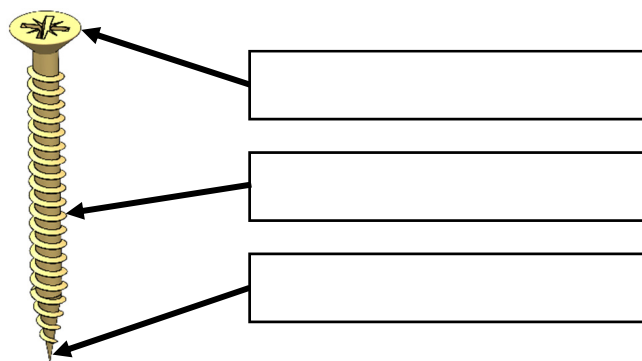
- (g) The image on the right shows the assembly of the laminated frame to the base using screws.



- (i) The image below shows a pozidriv screw which is used in the assembly of the clock.

From the following list, identify **each** part of the screw.

Thread, Head, Tip



- (ii) Give **one** advantage of using a pozidriv screw to assemble the clock.

Advantage:

- (h) Give **two** reasons why it is necessary to apply a surface finish to the clock.

Reason 1:
Reason 2:

Question 3

The image shows a napkin holder which is made from a native Irish hardwood. The front includes an owl logo which has been carved into the wood.



- (a) (i) Name this method of carving.

Carving method:

- (ii) Name **one** other method of carving.

Other carving method:

- (b) Suggest a suitable native Irish hardwood for the napkin holder.
Give **one** reason for your choice of hardwood.

Hardwood:

Reason:

- (c) Name the tool shown, used when carving the owl.

Name:



- (d) The wood used to make the napkin holder came from a plank of wood converted from a log of timber.

- (i) The image on the right shows a method of timber conversion.

Name this method.

Name:



- (ii) Give **one** advantage and **one** disadvantage of this method of conversion.

Advantage:

Disadvantage:

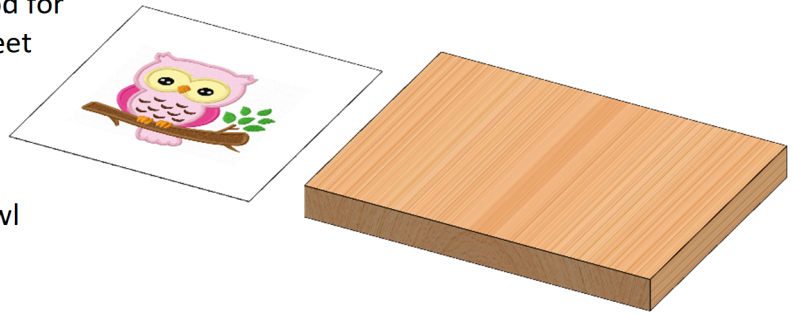
- (iii) Name and sketch **one** other timber conversion method.

Name:

Sketch:

- (e) The image shows a piece of wood for the front of the holder and a sheet of paper with the owl design.

Describe, using notes and neat freehand sketches, **two** of the steps required to transfer the owl outline from the sheet of paper to the piece of wood.

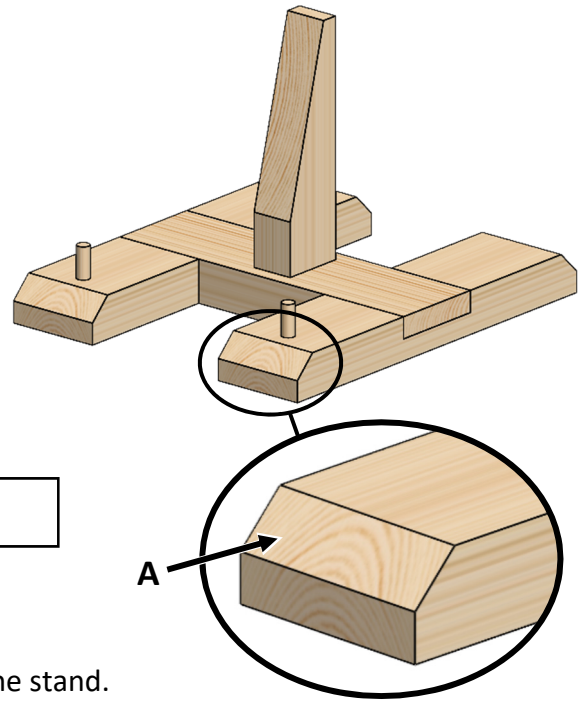


Step 1:

Step 2:

Question 4

The image on the right shows a tablet stand which is made from solid wood.



- (a) The front edge of the stand is finished with an edge moulding, labelled **A**, as shown.

- (i) Name the edge moulding.

Name:

- (ii) Give **one** reason to add this moulding to the stand.

Reason:

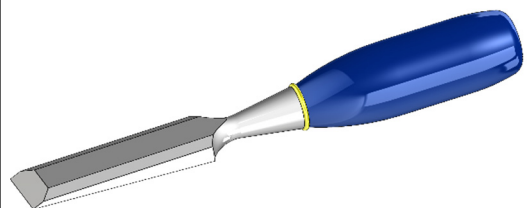
- (b) A tool must be selected to make the edge moulding above.

State the correct name for **each** of the tools below and give **one** advantage of using each tool to make the edge moulding.

Name:
Advantage:

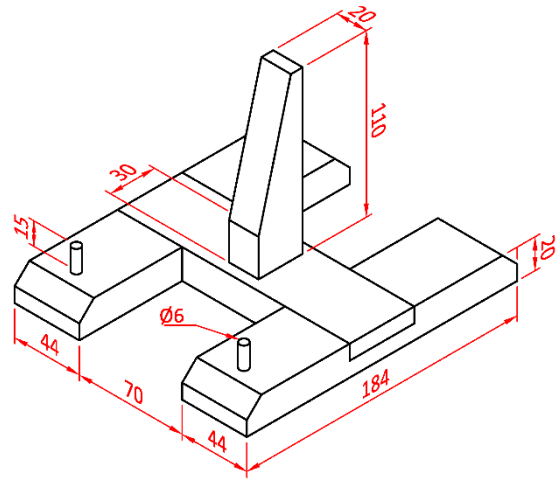


Name:
Advantage:



(c) The image shows a dimensioned drawing of the tablet stand.

(i) In the space below, draw a neat freehand sketch of the **plan** of the stand.

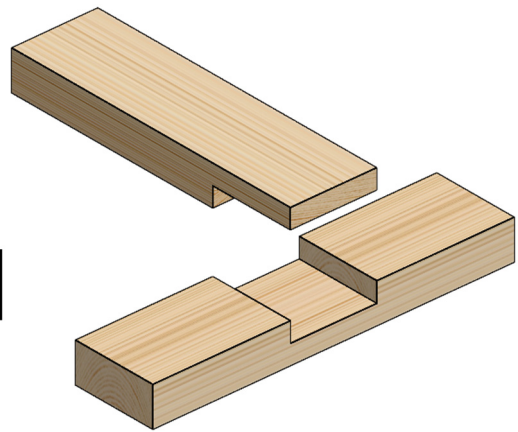


Sketch of plan:

(ii) Complete the cutting list for the given tablet stand in the table below.

Description	Quantity	Length	Width	Thickness
Vertical base	2		44	20
Horizontal base	1		44	20
Tablet support	1	130	30	20
Dowels		25	Ø6	

- (d) The image on the right shows a woodwork joint being considered to join the base of the stand.



- (i) Name the joint shown.

Name:

- (ii) Give **one** advantage and **one** disadvantage of using the joint, shown above.

Advantage:

Disadvantage:

- (iii) Name and sketch **one** other possible joint that could be used to join the base.

Joint name:

Sketch:

- (e) This tablet stand does not allow the angle of the tablet to be adjusted when in use.

Using a neat freehand sketch with annotations to communicate your idea, design a tablet stand that will allow the viewing angle of the computer tablet to be adjusted when in use.



Sketch:

[illegible]

Acknowledgements

Images

Image on page 5: <https://www.sip-group.com>

Image on page 8: <https://www.dewalt.com>

Image on page 11: <https://www.fairfulltools.com>

Image on page 12: <https://www.lumberjocks.com>

Image on page 13: <https://www.etsy.com/listing/124992621/owl-on-branch-applique-machine>

Image on page 14: <https://www.stanleytools.com>

Image on page 17: <https://vivax.com/en/products/vivax-tablet-tpc-105-4g-2>

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Wood Technology

Thursday 12 June

Afternoon 1:30 - 3:00