



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Cycle Final Examination 2024

Wood Technology

Common Level

Thursday 13 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 stool which is made from native Irish oak.



- (a) (i) Give **one** reason to use oak to make the stool.

Reason:

- (ii) Oak is a native Irish hardwood. Using a tick (✓) indicate which of the following woods are native **or** non-native to Ireland.

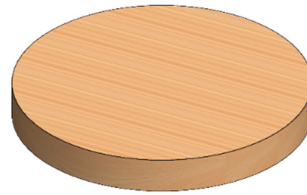
Wood	Native	Non-Native
Ash		
Mahogany		
Sycamore		
Balsa		

- (iii) The use of native Irish woods in Wood Technology can promote environmental sustainability.

Give **one** reason for using native Irish hardwood instead of imported hardwoods.

Reason:

- (c) A cutting tool must be selected to cut the circular top of the stool as shown.

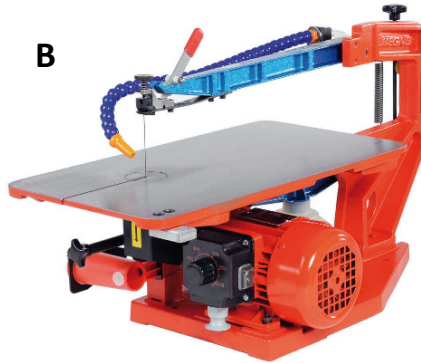


- (i) State the correct name for **each** of the cutting tools labelled **A**, **B**, and **C** below.

A



B



C



A:	B:	C:

- (ii) Recommend a preferred cutting tool from above and give a reason for your selection.

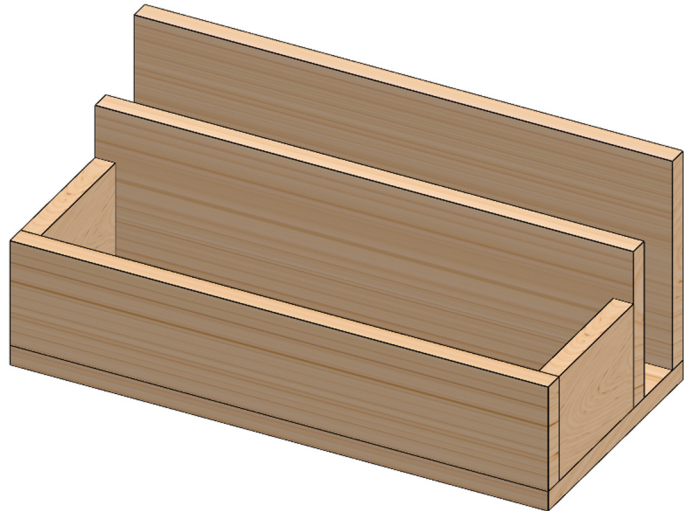
Recommend:
Reason:

- (iii) List **two** specific safety precautions that should be observed when using cutting tool **B** above.

Precaution 1:
Precaution 2:

Question 2

The image on the right shows a design for a desk tidy which is to be made from a manufactured board.



- (a) (i) Name **two** possible manufactured boards that could be used to make the desk tidy.

1.
2.

- (ii) Give **one** advantage and **one** disadvantage of using a manufactured board to make this desk tidy.

Advantage:
Disadvantage:

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

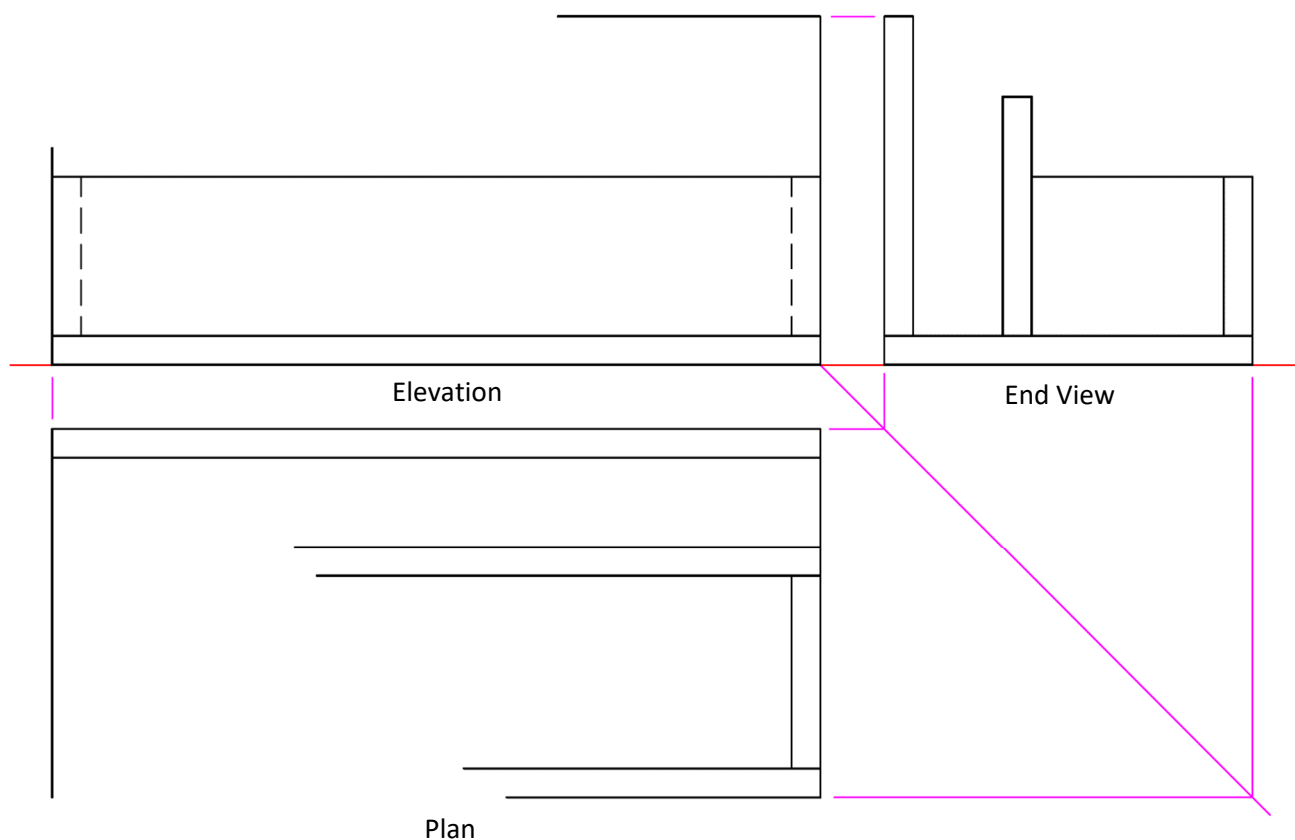
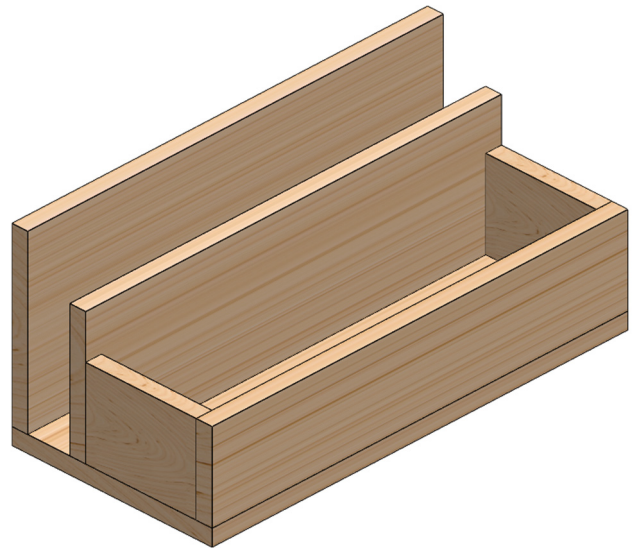
Manufactured Boards	True	False
Manufactured boards are normally less expensive than solid wood		
Manufactured boards are more sustainable than using solid wood		
Manufactured boards grow in all soil types		
Manufactured boards are normally made from waste materials		

- (b)** An incomplete working drawing of the desk tidy is shown below.
Also shown is a 3D graphic of the tidy.

On the drawing below:

- (i)** Complete the elevation.
- (ii)** Complete the plan.

Note: Hidden detail is not required.



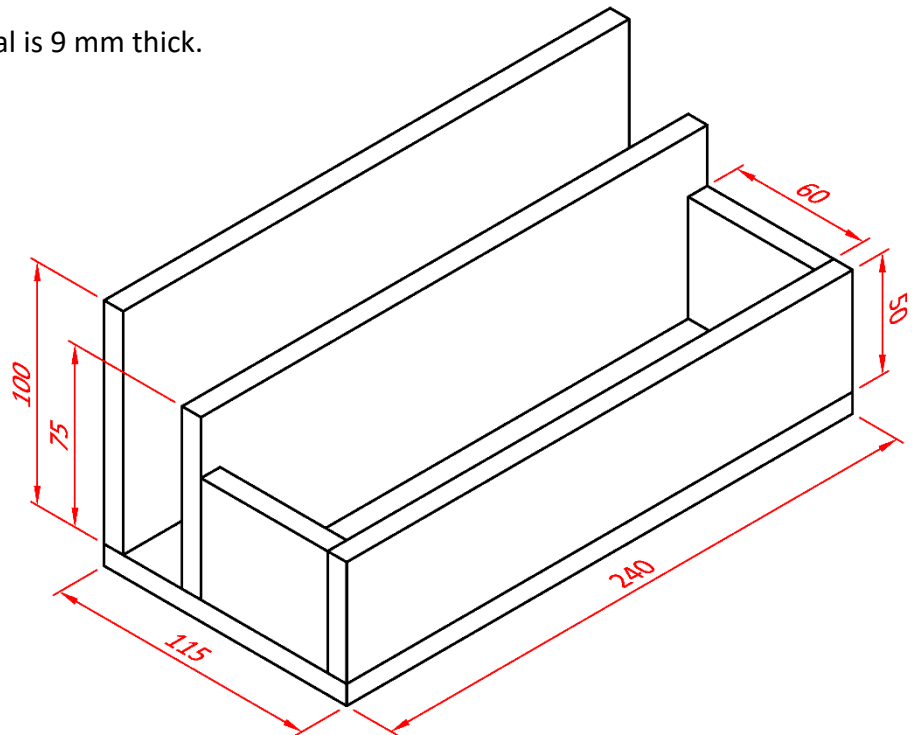
(c) A cutting list should be prepared to make the desk tidy.

(i) Give **one** reason why it is important to prepare a cutting list before making the tidy.

Reason:

(ii) The image below shows a dimensioned drawing of the desk tidy. Complete the cutting list given in the table below.

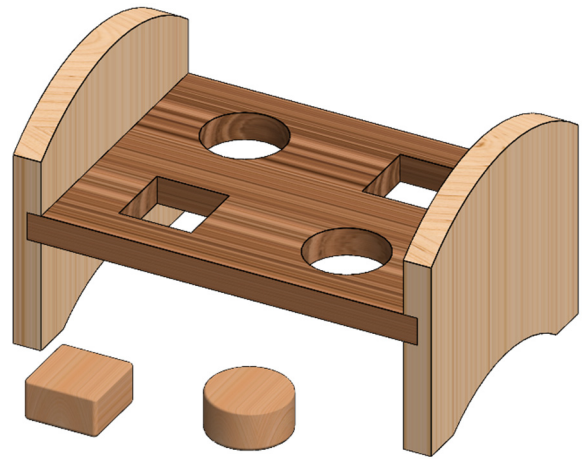
Note: All material is 9 mm thick.



Description	Quantity	Length	Width	Thickness
Base	1		115	9
Front	1	240	50	
Back	1	240		9
Middle	1	240	75	9
Sides		60	50	9

Question 3

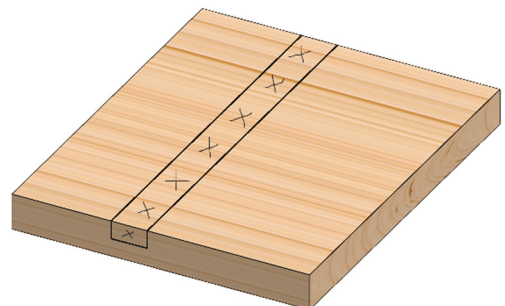
The image on the right shows a child's shape-sorting toy made from contrasting solid woods.



- (a) Give **two** considerations that should be taken into account when designing a child's wooden toy.

Consideration 1:
Consideration 2:

- (b) The image on the right shows one side of the toy with a housing joint marked out on it.

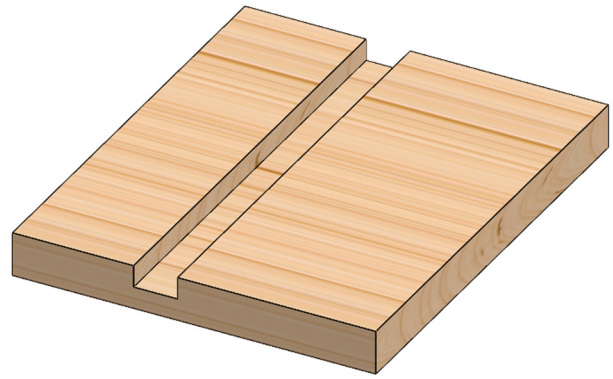


Name the marking out tool shown which has been used to mark the depth of this joint.



Name:

- (c) Name and sketch **one** tool that could be used to remove the trench for the housing joint as shown.

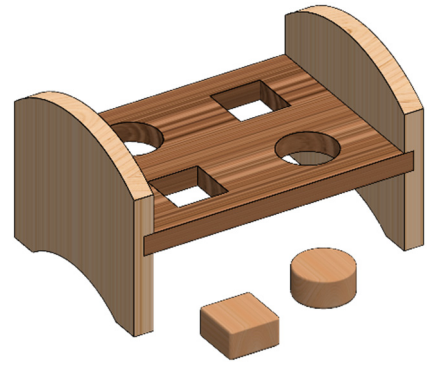


Tool name:
Sketch:

- (d) Suggest a suitable applied finish for the toy.
Give **one** reason for your choice of finish.

Applied finish:
Reason:

- (e) Describe, using notes and neat freehand sketches, **two** of the steps involved in **preparing** the wood for your chosen finish.



Step 1:

Step 2:

Question 4

Coillte is the company which owns and manages most of Ireland's forestry. Coillte seeks to create a sustainable future from our forests.



(a) (i) Give **two** reasons why it is necessary to manage Ireland's forests.

Reason 1:
Reason 2:

(ii) List **two** benefits of planting forestry.

Benefit 1:
Benefit 2:

- (b)** The image shows a forest in Ireland which contains a mixture of hardwood and softwood trees.



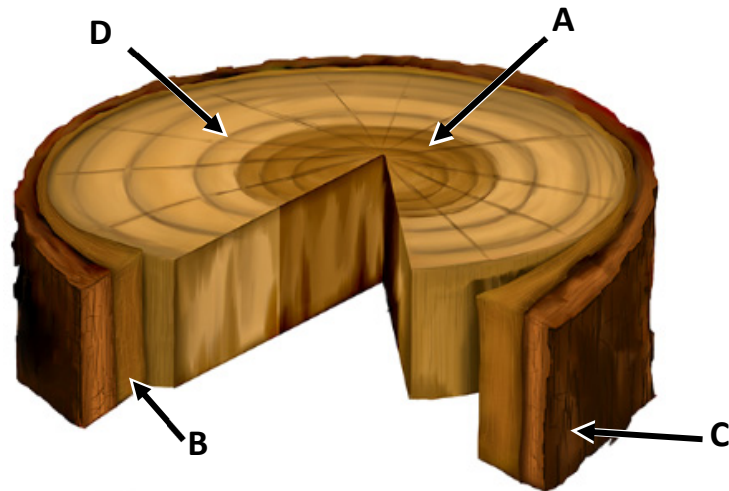
Describe, using notes and freehand sketches, a characteristic of a hardwood leaf and a characteristic of a softwood leaf.

Hardwood leaf:	Softwood leaf:

(c) The image shows the cross-section of a hardwood tree trunk.

(i) From the following list, identify **each** part of the cross-section:

Bast, Heartwood, Bark, Annual rings



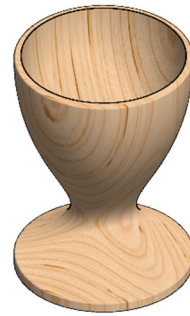
A:
B:
C:
D:

(ii) Describe the function of the bark.

Function:

Question 5

The image on the right shows a wooden egg cup which has been turned on a lathe.

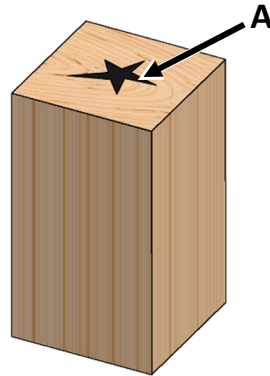


- (a) (i) Use a tick (✓) to identify the defect, labelled **A**, on the block of wood being considered to make the egg cup.

Veneer

☐

Star shake

☐


- (ii) Describe the effect of this defect on wood.

- (iii) Name and sketch **one** other wood defect.

Defect name:

Sketch:

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- (b) Name the woodturning item below and give a specific use for it.

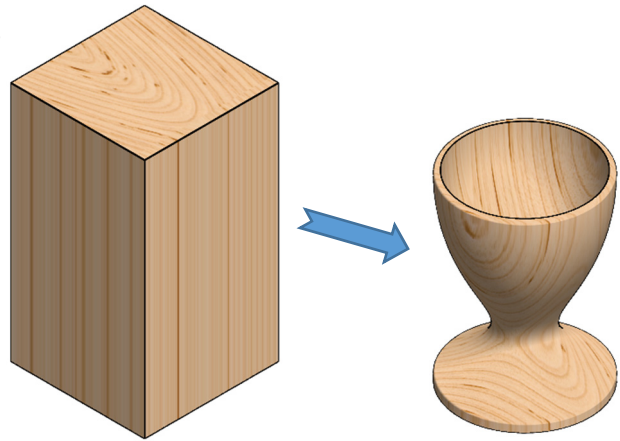


Name:

Use:

- (c) The image on the left shows a block of wood. This block is to be woodturned to form the egg cup as shown, on the right.

With the aid of notes and neat freehand sketches, describe **two** steps needed to **prepare** the block for mounting on the lathe.



Step 1:

Step 2:

(d) The image on the right shows a set of six egg cups.

Using a neat freehand sketch with annotations, to communicate your idea, design an attractive stand to hold and display the six egg cups on a kitchen table.



Sketch:

[illegible]

Acknowledgements

Images

Image on page 5: <https://www.dewalt.ie>

Image on page 5: <https://www.hegner.co.uk>

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

Image on page 9: <https://www.conrad.com>

Image on page 12: <https://careersportal.ie/careerplanning/story.php?ID=2501203419>

Image on page 13: <https://www.agriland.ie/farming-news>

Image on page 14: <https://brainly.com/question/14688748>

Image on page 15: <https://www.axminstertools.com>

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