



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Cycle Final Examination 2022

Wood Technology

Common Level

Thursday 16 June Afternoon 1:30 - 3:00

120 marks

Examination Number

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Day and Month of Birth

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For example, 3rd February
is entered as 0302

Centre Stamp

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For Examiner Only	
1	
2	
3	
4	
Total	
Grade	

Instructions

Answer all questions.

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

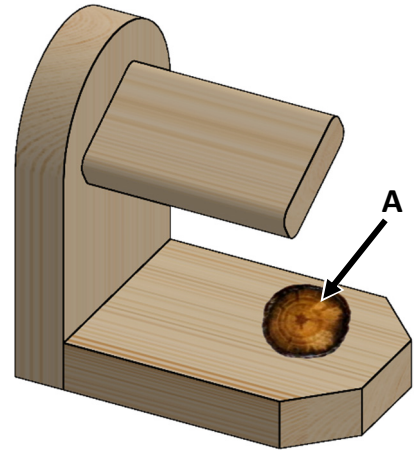
Write your answers in the spaces provided in this booklet. There is space for extra work at the end of the booklet. Label any such extra work clearly with the question number and part.

Question 1

The image shows a watch stand which is made from solid wood as shown.

- (a) (i) Name the wood defect, labelled **A**, on the base of the watch stand as shown.

Defect name:



- (ii) Describe how this defect can affect wood.

- (b) The image shows a piece of wood with the base of the watch stand marked-out on it.

Give **two** reasons why marking out is an important process in the making of a Wood Technology project.



Reason 1:

Reason 2:

- (c) The image on the right shows the base of the watch stand after it has been cut.

The image below shows the saw which has been used to cut the front corners of the base.



- (i) Name the saw shown.

Name:

- (ii) State the function of part labelled **A** on the saw.

Function:

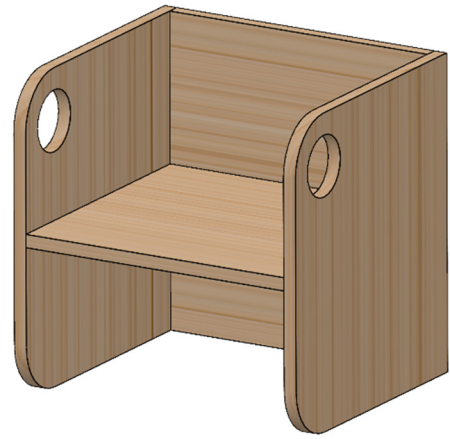
- (iii) Name and sketch **one** other suitable saw that could be used to cut the base as shown.

Tool name:

Sketch:

Question 2

The image shows a child's seat made from a manufactured board as shown.



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

1.
2.

- (ii) Recommend a manufactured board from above to make the seat and give a reason for your selection.

Recommend:
Reason:

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

Manufactured boards	True	False
Manufactured boards are available in large sheet sizes		
Manufactured boards are very stable		
Manufactured boards grow naturally		
Manufactured boards are free from natural defects		

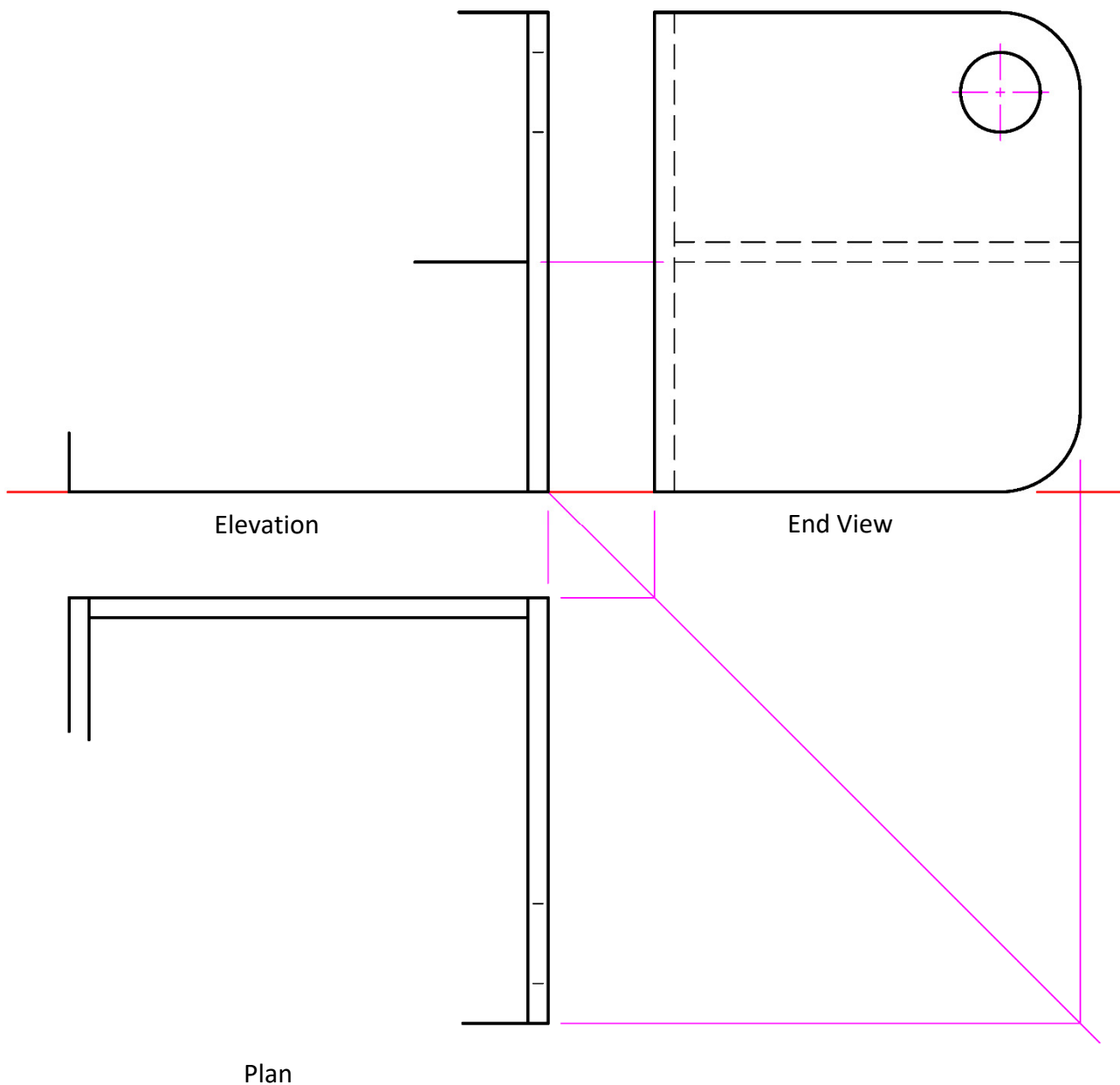
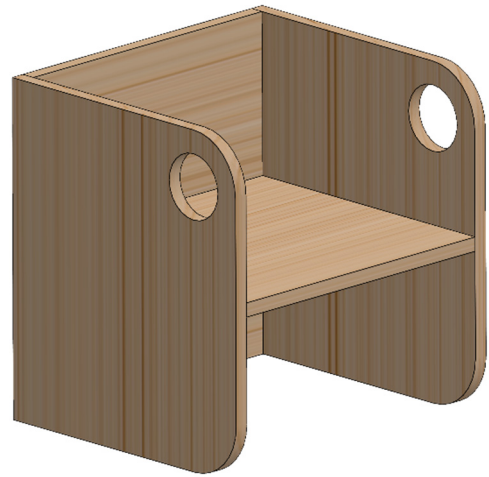
- (b) An incomplete working drawing of the child's seat is shown below.

Also shown is a 3D graphic of the seat.

On the drawing below:

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

Note: Hidden detail is not required.



(c) The surfaces of the seat must be sanded before a finish is applied.

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

A



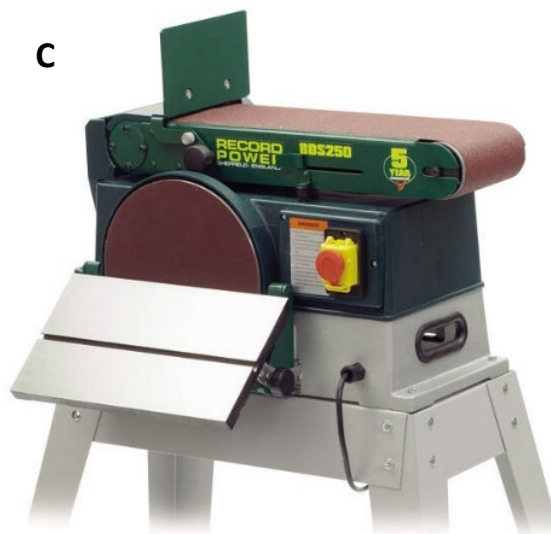
A:

B



B:

C



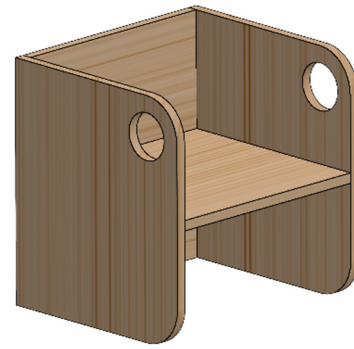
C:

(ii) List **two** specific safety precautions that should be observed when using sanding tool **C** above.

Precaution 1:

Precaution 2:

- (d) Describe, using notes and neat freehand sketches, **two** of the steps involved in preparing the wood for a clear applied finish.



Step 1:

Step 2:

Question 3

'National Tree Week' has been organised by the Tree Council of Ireland each year since 1989 in partnership with Coillte. The week seeks to promote planting and celebrates all things trees through a programme of events each year.



Tree Council
of Ireland

- (a) (i) Give **two** reasons why the Tree Council of Ireland promotes the planting of trees each year.

Reason 1:
Reason 2:

- (ii) The images show the stages in the life cycle of an oak tree.
From the following list, identify each of the stages labelled A, B, C, and D.

Germination, Tree, Seedling, Seed



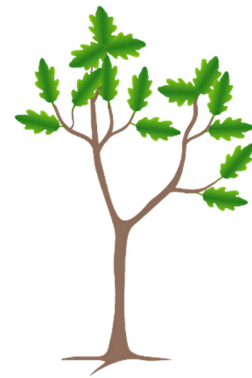
A



B



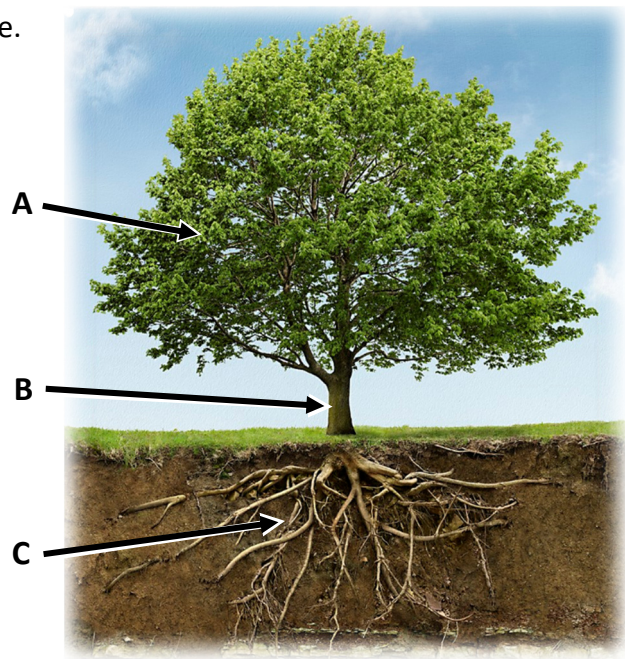
C



D

A:
B:
C:
D:

(b) The image shows a deciduous tree.



(i) Name the parts of the tree labelled **A**, **B**, and **C**.

A:
B:
C:

(ii) Give **one** function for each part labelled on the tree.

Function of A:
Function of B:
Function of C:

- (c) (i) Trees are divided into two main groups: deciduous and coniferous.

Show using a tick (✓) which of these groups the words on the left best relate to.

Trees	Deciduous	Coniferous
Needle shaped leaves		
Produce hardwood timber		
Trees grow quickly		
Lose leaves in the Autumn		

- (ii) The images below show the leaves of three common Irish deciduous trees.

Name **each** tree.



A:

B:

C:

- (iii) Food for a tree is produced in its leaves by a process called photosynthesis.

Name **any two** of the raw materials necessary for photosynthesis to take place in a leaf.

1:

2:

- (d) In the space below, design a poster to explain the process of photosynthesis in trees.

On your poster include notes on any **three** stages in the process of photosynthesis.



Question 4

The image shows a table coaster.
The top is decorated with veneers cut
in the design of a coffee cup.



- (a) (i) Name this veneering craft technique.

Craft technique:

- (ii) Veneer is cut from a tree log as shown.
Identify the cutting method shown using a tick (✓).

Rotary cut

☐

Flat slicing

☐

- (iii) The use of veneers in Wood Technology can promote environmental sustainability.
Give **two** reasons for using veneers instead of solid wood.

Reason 1:

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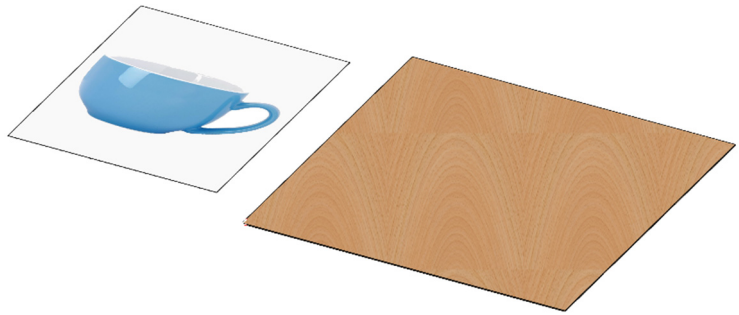
Reason 2:

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- (b) The image shows a veneer for the top of the coaster and a sheet of paper with the coffee cup design.

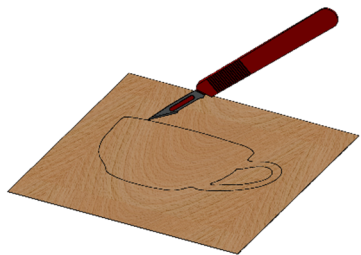
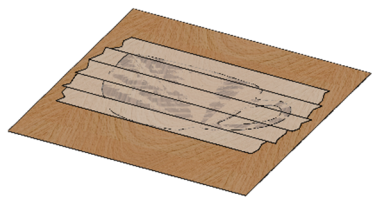
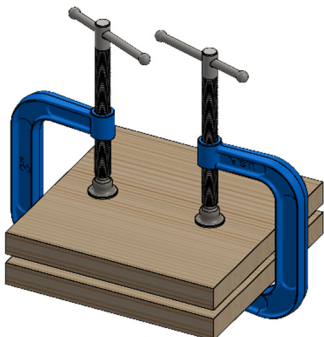
Describe, using notes and neat freehand sketches, **two** of the steps required to transfer the cup outline from the sheet of paper to the veneer.



Step 1:

Step 2:

- (c) (i) The images on the left below show some of the steps used in the *window method* to produce the coaster. Shown on the right is the description for each step.
- Match each of the steps shown on the left with its correct description on the right. The first one is completed for you.

	☒	☐ Using masking tape, tape the veneers together
	☐	☐ Apply adhesive to the back of the veneers and clamp the coaster
	☐	☒ Cut out the cup shape using a scalpel
	☐	☐ Cut through the window to the veneer below

- (ii) Name the tool shown, used to clamp the veneers to the coaster.

Name:



- (d) Using a neat freehand sketch with annotations to communicate your idea, design a table top holder to store the six coasters shown.

The coasters should be easily stacked and accessible in the holder.



Sketch:

[illegible]

Acknowledgements

Images

Image on page 4: <https://www.caulfieldindustrial.com>

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

Image on page 8: <https://www.tegstools.com/dewalt-dcw200p1-20v-max-xr-cordless-1-4-sheet-variable-speed-sander-kit-5-0-ah-battery>

Image on page 8: <https://www.agencja-amk.pl/bds250-szlifierka-tarczowo-tasmowa-230v.html>

Image on page 10: <https://www.treecouncil.ie>

Image on page 10: www.dreamstime.com/illustration/acorn-tree-cycle

Image on page 11: <https://www.commarts.com/project/18917/tree-roots>

Image on page 12: <https://www.pinterest.ie/hotspot2/decor-more-leaves/>

Image on page 12: <https://www.anyrgb.com/en-clipart-y2rvu>

Image on page 12: <https://www.123rf.com>

Image on page 13: <https://www.publicdomainpictures.net/en/view-image.php?image=173260&picture=tree>

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Afternoon 1:30 - 3:00