



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Cycle 2025

Marking Scheme

Wood Technology

Common Level

Note to teachers and students on the use of published marking schemes

Marking schemes published by the State Examinations Commission are not intended to be standalone documents. They are an essential resource for examiners who receive training in the correct interpretation and application of the scheme. This training involves, among other things, marking samples of student work and discussing the marks awarded, so as to clarify the correct application of the scheme. The work of examiners is subsequently monitored by Advising Examiners to ensure consistent and accurate application of the marking scheme. This process is overseen by the Chief Examiner, usually assisted by a Chief Advising Examiner. The Chief Examiner is the final authority regarding whether or not the marking scheme has been correctly applied to any piece of candidate work.

Marking schemes are working documents. While a draft marking scheme is prepared in advance of the examination, the scheme is not finalised until examiners have applied it to candidates' work and the feedback from all examiners has been collated and considered in light of the full range of responses of candidates, the overall level of difficulty of the examination and the need to maintain consistency in standards from year to year. This published document contains the finalised scheme, as it was applied to all candidates' work.

In the case of marking schemes that include model solutions or answers, it should be noted that these are not intended to be exhaustive. Variations and alternatives may also be acceptable. Examiners must consider all answers on their merits, and will have consulted with their Advising Examiners when in doubt.

Future Marking Schemes

Assumptions about future marking schemes on the basis of past schemes should be avoided. While the underlying assessment principles remain the same, the details of the marking of a particular type of question may change in the context of the contribution of that question to the overall examination in a given year. The Chief Examiner in any given year has the responsibility to determine how best to ensure the fair and accurate assessment of candidates' work and to ensure consistency in the standard of the assessment from year to year. Accordingly, aspects of the structure, detail and application of the marking scheme for a particular examination are subject to change from one year to the next without notice.

Annotations to be used in Wood Technology for 2025

The table below contains information on annotations used for marking the examination paper.

Annotation	Use	Marks (if applicable)
✓ ₁	Valid information	1
✓ ₂	Valid information	2
✓ ₃	Valid information	3
✓ ₄	Valid information	4
✓ ₅	Valid information	5
✓ ₆	Valid information	6
✓ ₇	Valid information	7
✓ ₈	Valid information	8
✓	Relevant information	N/A
0	Incorrect answer	0
⚡	Page seen by examiner/ information not valid	N/A

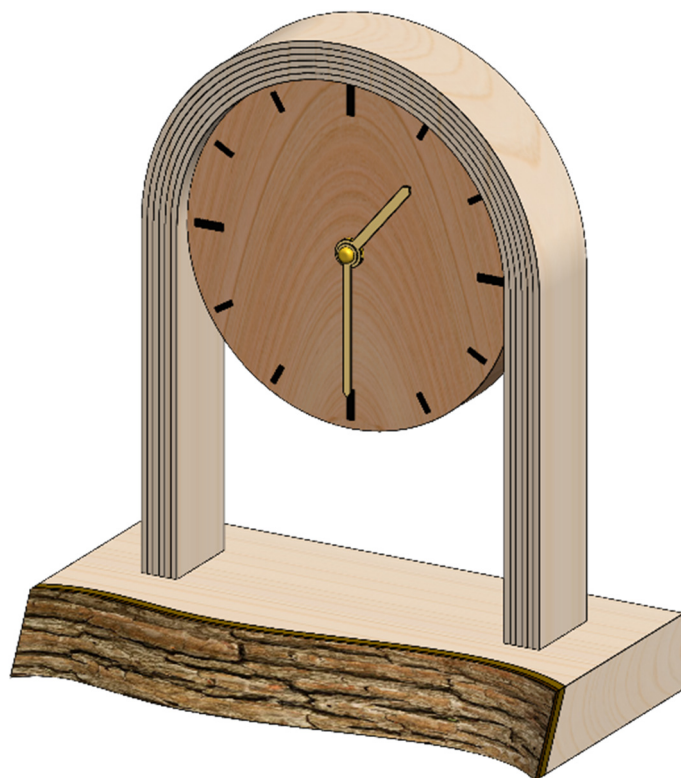


Junior Cycle Examination 2025

Wood Technology

Common Level

Marking Scheme

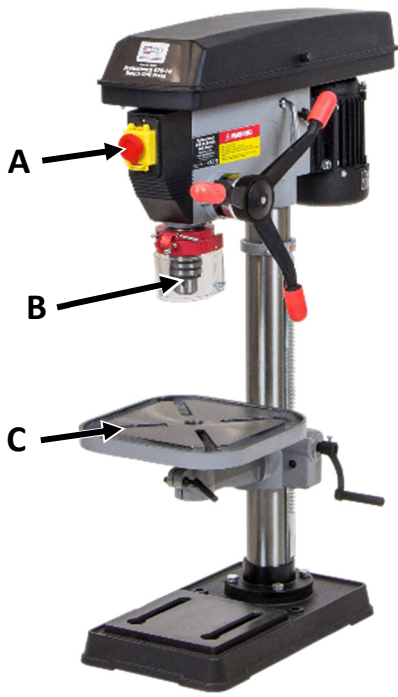


*The Sample solutions shown are presented as example answers.
All other valid solutions are acceptable and are marked accordingly.*

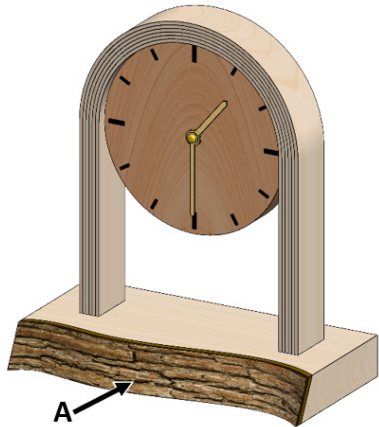
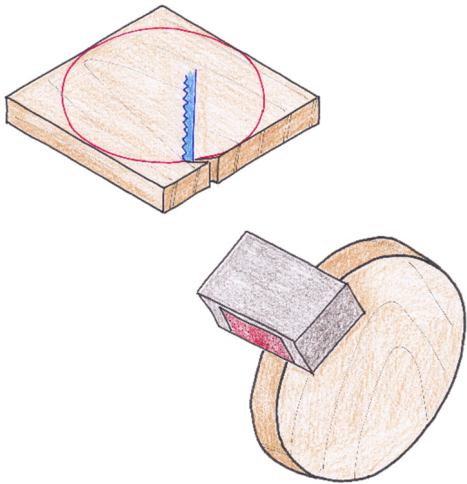
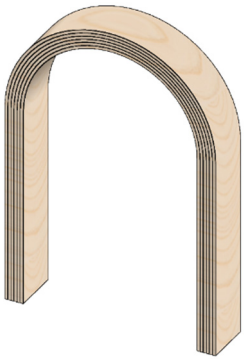
Answer all questions.

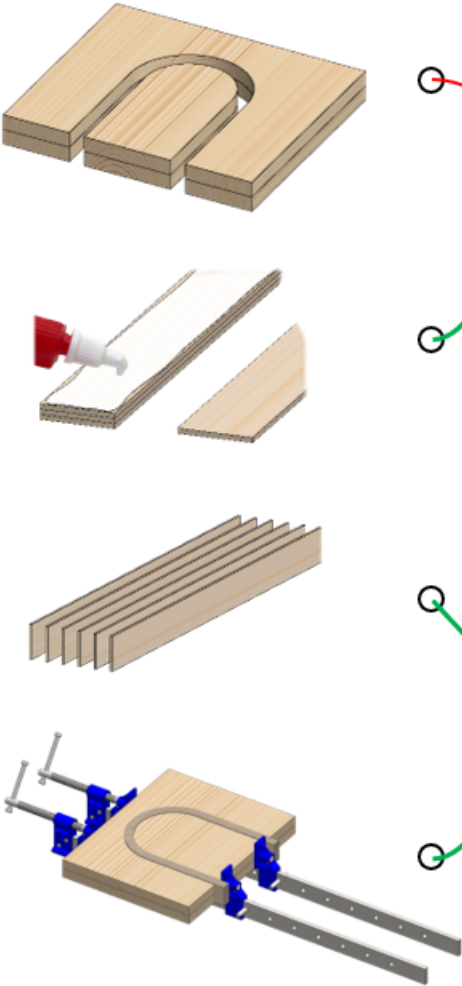
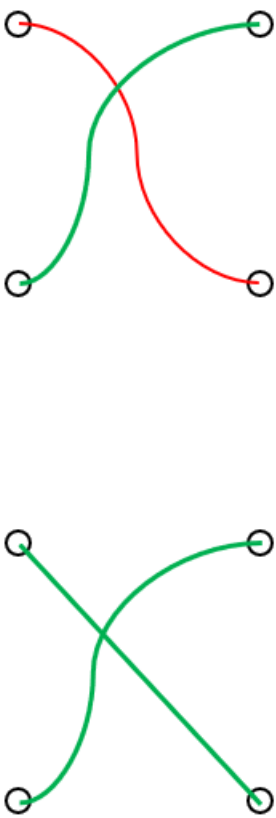
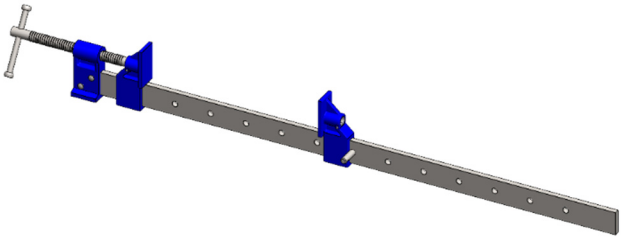
Question 1

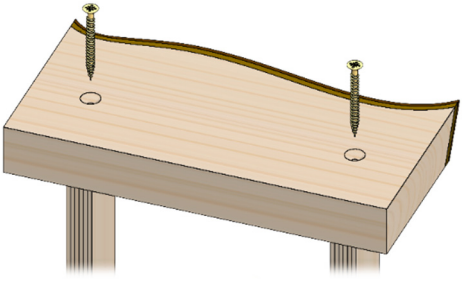
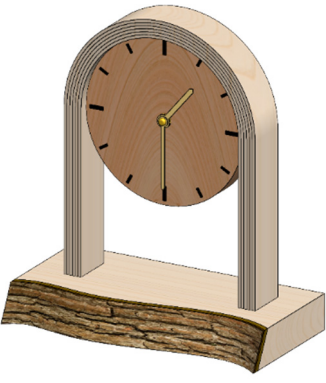
Q.	ANSWER	IMAGE(S)	MARKS															
(a)	(i) Give two reasons why softwoods should be used instead of hardwoods in the Wood Technology classroom. - Softwood trees grow much quicker than hardwoods (quicker to replace) - Ireland's climate is more suitable for softwood tree growth - Easier to work with (less waste) - Better for the environment - Reduce the use of hardwoods. Any other appropriate reason.		(2 + 1) 3 marks															
	(ii) Indicate with a tick (✓) which of the following is true or false. <table><thead><tr><th>Softwoods</th><th>True</th><th>False</th></tr></thead><tbody><tr><td>Softwoods are normally obtained from coniferous trees</td><td>✓</td><td></td></tr><tr><td>Sitka Spruce is a softwood</td><td>✓</td><td></td></tr><tr><td>Softwoods are slow growing</td><td></td><td>✓</td></tr><tr><td>Softwoods are normally more expensive than hardwoods</td><td></td><td>✓</td></tr></tbody></table>	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		✓		(1 each) 4 marks
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)	Identify the parts labelled A, B, and C. Plumule C Radicle B Seed A		(1 each) 3 marks															
(c)	Using notes and sketches, describe the process of photosynthesis... - Roots absorb water and minerals from the soil below - The absorbed water and minerals are transported up to the leaves - Leaves take in carbon dioxide from the air - The leaves trap energy from sunlight - A chemical reaction (photosynthesis) takes place in the leaves producing glucose and oxygen - The leaves release oxygen into the air - The glucose is used by the tree for growth. Any other appropriate step.		(3 + 3) 6 marks															

Q.	ANSWER	IMAGE(S)	MARKS
(d)	(i) Give one advantage of using the pillar drill to drill the holes. • Easy to use • Workpiece can be held safely • Very accurate • Holes will be drilled at right angles (90°) • The depth can be set to ensure all holes are the same depth • Can drill different size holes. • Quicker safer. Any other appropriate reason.		2 marks
	(ii) Name the parts labelled A, B, and C. A - On/off switch, emergency stop button B – Chuck, safety guard C – Table.		(1 each) 3 marks
	(iii) State the function of the part labelled B. • To hold the drill bit in the pillar drill • Transfer turning force to drill bit when drilling. • Prevent material flying. Any other appropriate function.		2 marks
(e)	Design a poster to explain any two specific safety precautions that should be observed when using the pillar drill..... • Sketch of safety precautions using pillar drill • Notes on safety precautions: ○ Wear correct eye protection ○ Ensure that the chuck guard is in position ○ Avoid wearing loose clothing or jewellery ○ Tie back long hair ○ Ensure the pillar drill is running at the correct speed ○ Ensure workpiece is clamped or held in position while drilling ○ Keep fingers and hands away from drill bit. Any other appropriate precaution.		(4 + 4) 8 marks
Question 1 Total			31 marks

Question 2

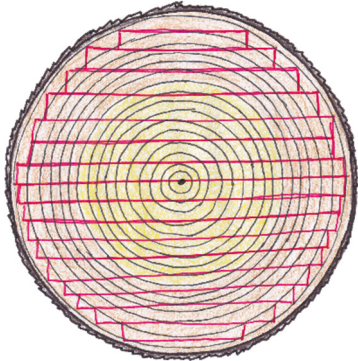
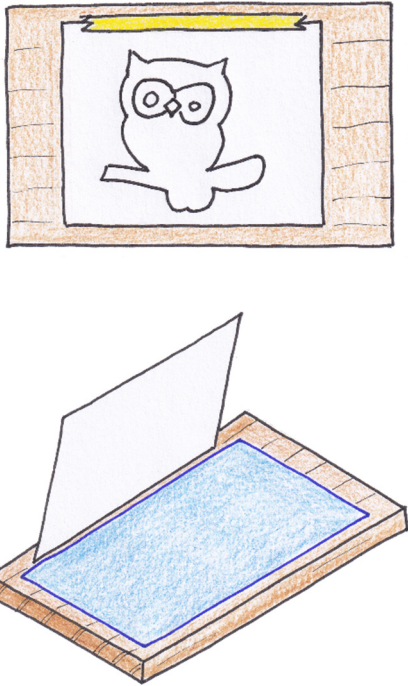
Q.	ANSWER	IMAGE(S)	MARKS
(a)	Identify wood defect labelled A.... Waney edge ☒ Broken edge ☐		1 marks
(b)	Describe, using notes and sketches, how you would shape the circular face of the clock. Name any tools and machines used. • Cut out the circular face of the clock using a scroll saw (coping saw) • Sand the circle smooth to the circular outline using disk sander (sanding block and sand paper). Any other appropriate step. Tool and machine used: • Coping saw, scroll saw, band saw, sanding block, disk sander.....		7 marks
(c)	Give two reasons for laminating the top frame instead of cutting it from a piece of solid wood. • A laminated frame is stronger than one cut from a solid piece of wood • No short grain • Less waste material produced • Grain direction on the laminates will be uniform • Easier to finish the laminate. Any other appropriate reason.		(2 + 1) 3 marks
(d)	(i) Name the power tool shown		1 marks
	Router (ii) Give one advantage of using battery powered tools.		2 marks
	• Very portable and mobile to use • Do not require a power source when in use • No risk of cutting power cords • Safer to use. • Easier to use. Any other appropriate advantage.		

Q.	ANSWER	IMAGE(S)	MARKS
(e)	Match each step. 	 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	(1 each) 3 marks
(f)	Name the tool shown. (Sash/Bar/Framing) Clamp		1 mark
(g)	(i) Identify each part of the screw.  Head Thread Tip		(1 each) 3 marks

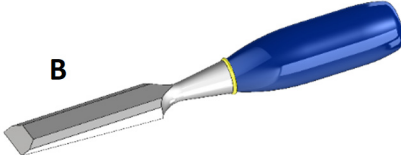
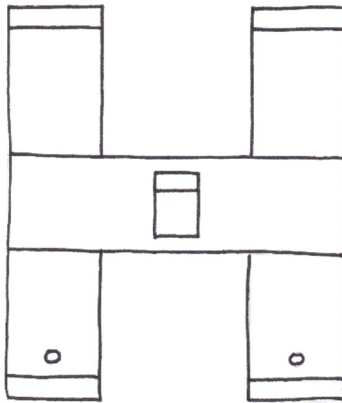
Q.	ANSWER	IMAGE(S)	MARKS
	(ii) Give one advantage of using a pozidriv screw to assemble the clock. • Better grip with screwdriver • Reduced slippage when inserting or removing a screw • Greater torque possible. Any other appropriate advantage.		1 mark
(h)	Give two reasons why it is necessary to apply a surface finish to the clock. • To improve the appearance • Protect the surface of the wood • Prevent the decay of the wood • Resist moisture damage to the wood. Any other appropriate reason.		(2 + 2) 4 marks
Question 2 Total			26 marks

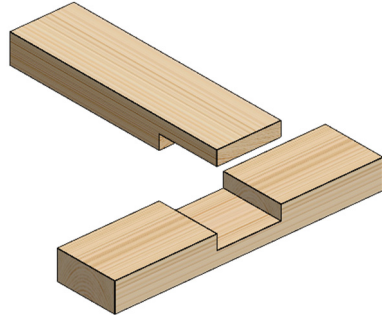
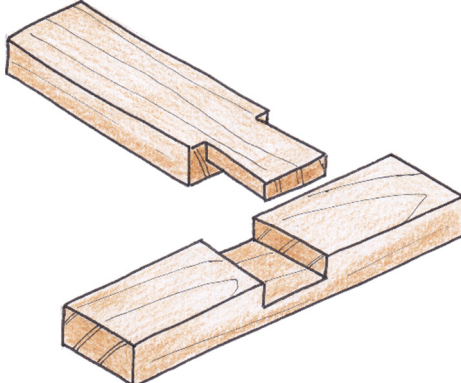
Question 3

Q.	ANSWER	IMAGE(S)	MARKS
(a)	(i) Name this method of carving. Relief carving		2 marks
	(ii) Name one other method of carving. • Incised carving • Chip carving • Sculpture, 3D carving, carving in the round • Whittling.		1 mark
(b)	Suggest a suitable native Irish hardwood and give one reason for your choice. Suitable Native Hardwood: Lime, oak, ash, beech, sycamore, cherry, Reason: Any suitable reason related to chosen wood.		(2 + 1) 3 marks
(c)	Name the tool shown. Mallet		2 marks
(d)	(i) Name the method of timber conversion shown. Radial sawing, quarter sawing, rift.		2 marks
	(ii) Give one advantage and one disadvantage of this method of conversion. Advantage: Produces very stable boards, less shrinkage of boards, produces attractive silver grain pattern, boards produced wear more evenly, Disadvantage: More waste produced, more handling of the log required when cutting the boards, more labour involved, expensive method of conversion, narrow boards produced, heart and sapwood mixed....		(2 + 2) 4 marks

Q.	ANSWER	IMAGE(S)	MARKS
	(iii) Name and sketch one other timber conversion method. - Through and through sawing - Tangential sawing.		(1 + 4) 5 marks
(e)	Describe, using notes and sketches, two of the steps required to transfer the owl design from the sheet of paper to the wood. - Tape the drawing to one edge of the wood - Insert a sheet of carbon paper underneath the drawing - Trace over the design - Check all lines are visible on the wood before removing sheets. OR - Cut around drawing - Tape this template to the wood - Trace around the template with a pencil - Sketch in missing parts as accurately as possible.		(4 + 4) 8 marks
Question 3 Total			27 marks

Question 4

Q.	ANSWER	IMAGE(S)	MARKS																									
(a)	(i) Name the edge moulding. Chamfer		2 mark																									
	(ii) Give one reason to add this moulding to the stand. Reason: - To enhance the appearance of the stand - Remove sharp edges. Any other appropriate reason.		2 mark																									
(b)	Name each of the tools and give one advantage of using each tool to make the edge moulding. A: (Smoothing) Plane Advantage: Easy to use, two handles make it safe to use, creates a very accurate chamfer, depth of the cut can be adjusted.... B: (Bevel edge) chisel Advantage: Easily accessible, does not require any setup to use, less expensive to purchase....	 	(3 + 3) 6 marks																									
(c)	(i) Draw a neat freehand sketch of the plan of the stand.		4 marks																									
	(ii) Complete the cutting list for the given tablet stand.		(1 each) 3 marks																									
<table><thead><tr><th>Description</th><th>Quantity</th><th>Length</th><th>Width</th><th>Thickness</th></tr></thead><tbody><tr><td>Vertical base</td><td>2</td><td>184</td><td>44</td><td>20</td></tr><tr><td>Horizontal base</td><td>1</td><td>158</td><td>44</td><td>20</td></tr><tr><td>Tablet support</td><td>1</td><td>130</td><td>30</td><td>20</td></tr><tr><td>Dowels</td><td>2</td><td>25</td><td colspan="2">Ø6</td></tr></tbody></table>				Description	Quantity	Length	Width	Thickness	Vertical base	2	184	44	20	Horizontal base	1	158	44	20	Tablet support	1	130	30	20	Dowels	2	25	Ø6	
Description	Quantity	Length		Width	Thickness																							
Vertical base	2	184		44	20																							
Horizontal base	1	158		44	20																							
Tablet support	1	130		30	20																							
Dowels	2	25	Ø6																									

Q.	ANSWER	IMAGE(S)	MARKS
(d)	(i) Name the joint shown. T-halving, lap halving joint		2 marks
	(ii) Give one advantage and one disadvantage of using this joint. Advantage: Very easy to make, large gluing area, easy to process using hand tools, easy to assemble, quick... Disadvantage: Not a strong joint, usually require glue/screws, requires a lot of accuracy to make, slow....		(2 + 2) 4 marks
	(iii) Name and sketch one other possible joint that could be used to join the base. Bridle joint, mortise and tenon joint, dovetail joint, dowel joint, biscuit, domino, slot/capped/countersunk screws		(1 + 4) 5 marks
(e)	Design a tablet stand to allow the viewing angle of the tablet to be adjusted when in use. Presentation of design solution: Basic unit/box without any consideration for allowing the viewing angle of the computer tablet be adjusted - sketch only (2 marks) Fair attempt to hold the computer tablet and include a facility to adjust the viewing angle, suitable stand/unit - to include annotations (4 marks) Good well sketched design, showing some innovation and creativity which includes a facility to adjust the viewing angle of the computer tablet when in use – to include annotations (6 marks) - An Exceptional quality design sketch of the tablet stand, showing original innovation and creativity which includes a facility to adjust the viewing angle of the computer tablet when in use. The sketch must be rendered or shaded and include annotations (8 marks)		8 marks
Question 4 Total			36 marks

Coursework Marking scheme 2025

My Design Journey Folio		
Heading	Description	Marks
Exploration of brief	Not examinable for 2025	
Investigate	Not examinable for 2025	
Generation of ideas	Not examinable for 2025	
My preferred design & justification	Presentation of your preferred design solution	20
	Consider and justify your design decisions made to arrive at the preferred design	
Working drawing(s) / Sketches	Not examinable for 2025	
Evaluation & Reflection on learning	Discuss the successes, challenges and learnings from completing your coursework	15
Artefact		
Artefact satisfies brief	The brief requirements are fulfilled in the presented artefact	30
Effective use of materials, processes and techniques	Sustainable and appropriate use of materials, processes and techniques in the completion of the artefact	20
Creativity	Expression of inventiveness and imagination in the artefact presented	30
Craft, skills and techniques	Demonstration of craft excellence in the construction of the artefact	60
Assembly of artefact	How well is the artefact assembled together	10
Finishing the artefact	The artefact materials have a high quality finish applied	20
Presentation	Overall presentation of the completed artefact	20
Overall Coursework Total in 2025		225

For 2025, the total marks for the coursework will be 225 marks instead of the 280 marks that will apply in normal years. The 70% coursework weighting (280 marks) will be retained by re-weighting the coursework mark before it gets added to the written mark.