



*Pre-Junior Certificate Examination, 2013*

***Materials Technology (Wood)***  
***Higher Level***  
***Section A (40 marks)***

***Time: 2 hours***

**STUDENT NAME** 

**SCHOOL** 

**TEACHER** 


***Instructions***

- (a) Answer any **sixteen** questions.*
- (b) All questions carry equal marks.*
- (c) Answer the questions in the spaces provided.*
- (d) This booklet **must** be handed up at the end of the examination.*
- (e) Write your name, your school's name and your teacher's name in the boxes provided and on all other pages used.*

School Stamp	

Section A	
1	
2	
3	
4	
5(a) or 5(b)	
Total	

## SECTION A - 40 MARKS

*Answer any 16 questions from this section. All questions carry equal marks.*

1. (i) Using a tick (✓), identify the power tool shown from the list below

Pillar Drill ☐      Mortise Machine ☐      Belt Sander ☐

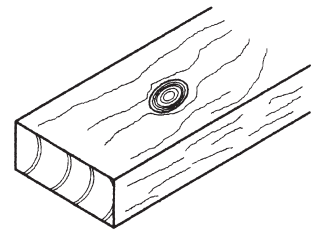
- (ii) Describe **ONE** specific use for this tool.

USE

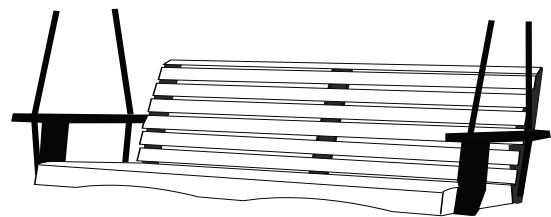


2. Identify, using a tick (✓), whether the following defects are **Natural** or are defects caused in **Other** ways.

Defects	Natural	Other
Warp		
Star Shake		
Spiral Grain		
Knots		
End Spilts		



3. Give **TWO** reasons why it is necessary to apply preservative to a wooden artefact that is kept outdoors.



REASON 1

REASON 2

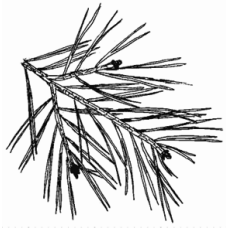
4. Name **TWO** methods of protecting metals from the damaging effects of the weather.

1

2



5. The diagrams show the leaves of three common Irish trees.  
In the spaces provided, name the trees.








6. Thinning is an important stage in the management of forestry.

- (i) Give **ONE** reason for thinning a forest.

**REASON**

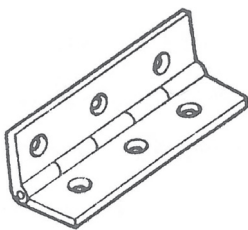


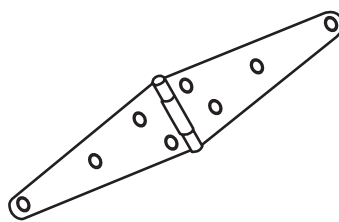
- (ii) State **TWO** uses for these forest thinnings.

**USE 1**

**USE 2**

7. The diagram shows three types of hinge.  
In the spaces provided, name the hinges.





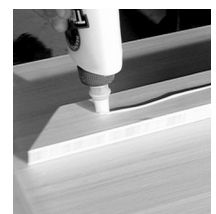



8. List **THREE** adhesives that are commonly used in the MTW workshop.

**ADHESIVE 1**

**ADHESIVE 2**

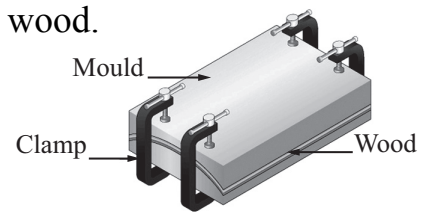
**ADHESIVE 3**



9. The item shown in the diagram is used when bending wood.

(i) Name the item shown.

NAME



(ii) State **ONE** reason why wood is steamed before it is bent into a curve.

REASON

10. (i) Name the woodworking tool shown in the diagram.

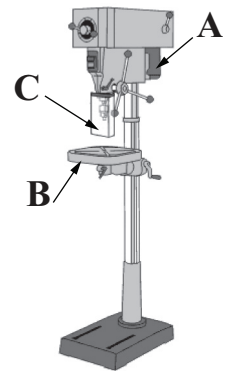
NAME

(ii) Name the parts labelled A, B and C.

A

B

C



11. Shown in the diagram is a wood-boring insect.

(i) Name the most common wood-boring insect found in Ireland

NAME



(ii) State **TWO** methods to protect wood from attack by wood-boring insects.

METHOD 1

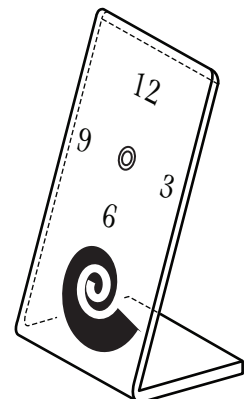
METHOD 2

12. (i) State **ONE** safety precaution that should be followed when drilling acrylic.

PRECAUTION 1

(ii) State **ONE** safety precaution that should be observed while heating and bending acrylic.

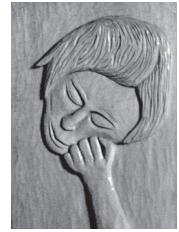
PRECAUTION 2



13. The diagram shows a carved wood panel.

(i) Suggest a suitable timber for the panel.

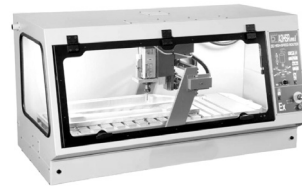
ANSWER



(ii) Name **ONE** tool that could be used when creating the carving.

NAME


14. The diagram shows a **CNC** router that is controlled by a computer.  
What do the initials **CNC** stand for?



C

N

C

15. The diagram shows a claw hammer removing a nail.  
Using a tick (✓), identify the force which is being applied to the nail.

**COMPRESSION**

☐

**TENSION**

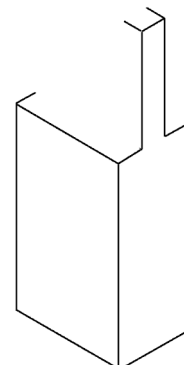
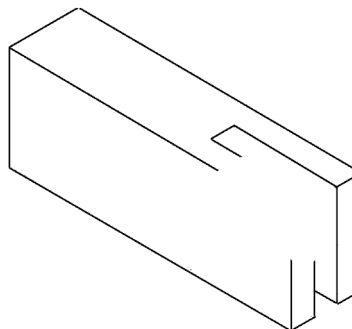
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**TORSION**

☐

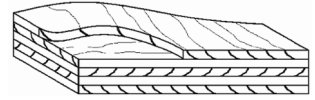
16. The diagram shows an incomplete exploded isometric sketch of a **Bridle Joint**.

Complete the sketch of the joint.



17. Identify, using a tick (✓), whether the following manufactured boards are **Particle Boards** or **Laminated Boards**.

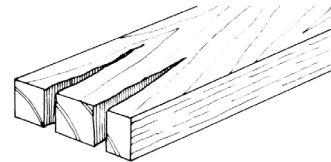
Boards	Particle	Laminated
OSB		
Plywood		
Chipboard		
MDF		
Block board		



18. The diagram shows a piece of wood that has been damaged during seasoning.

- (i) What is this defect called?

NAME

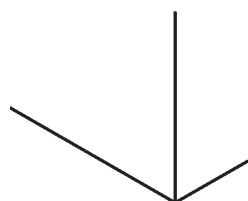


- (ii) Suggest **TWO** methods to prevent this damage from occurring.

METHOD 1

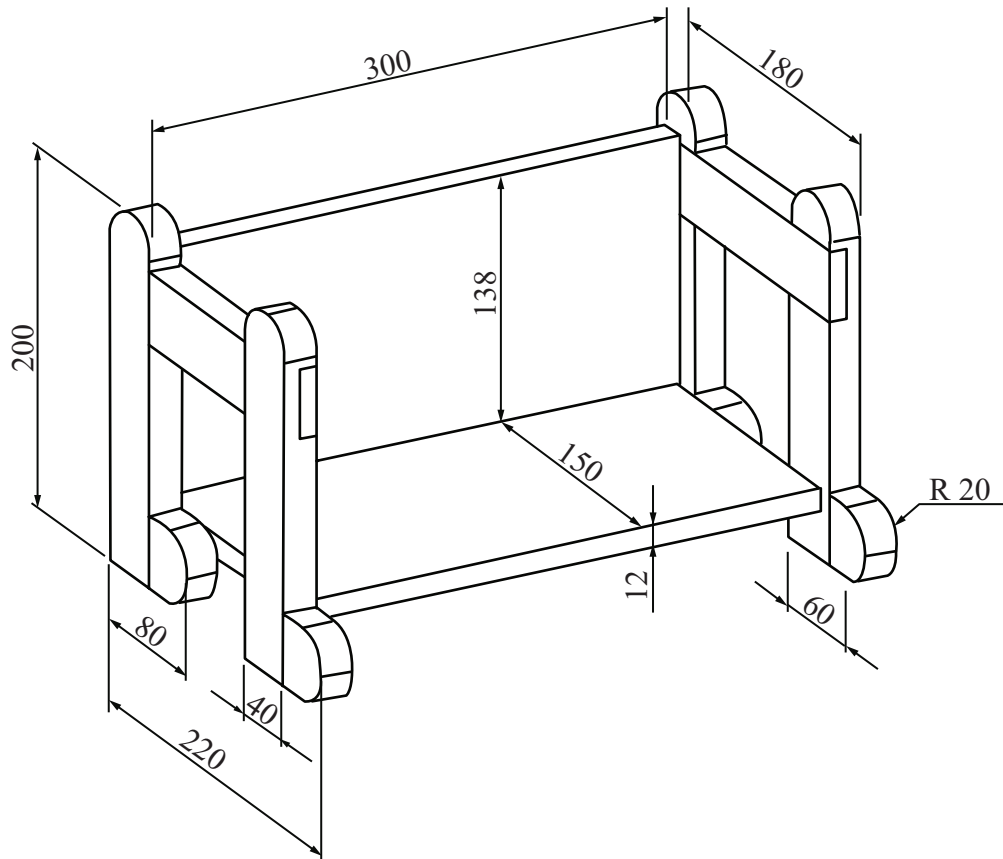
METHOD 2

19. Make a 3D sketch of a **Bench Hook** on the given isometric axes.



**20.** The dimensioned drawing shows a musical rack made from wood.

Complete the cutting list below.



Description	Quantity	Length	Width	Thickness
Legs	4		40	20
Rails		180		20
Rounded Feet	4	40	40	
Base	1	300		12
Back	1	300	150	12

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