



Junior Certificate Examination 2013

Materials Technology (Wood)
Ordinary Level
Section A (40 marks)

Monday, 17 June
Afternoon, 2:00 - 4:00

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 examination number in the box provided and on all other pages used.*

Examination Number:

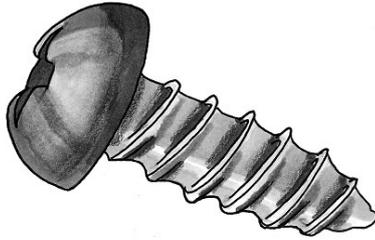
Centre Number

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. Identify the screw type shown using a tick (✓).



Round Head Screw

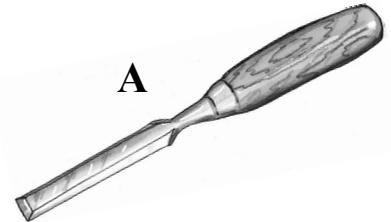
Raised Head Screw

Countersunk Head Screw

2. Name the tool labelled **A** and explain what you would use it for.

NAME

USE

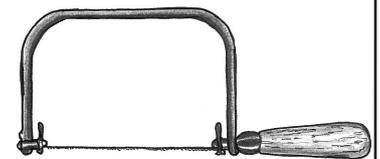


OR

Name the tool labelled **B** and explain what you would use it for.

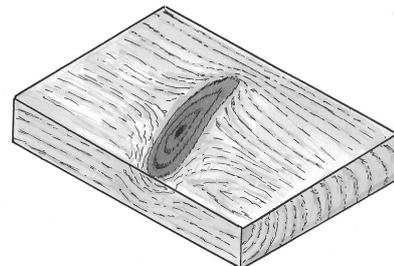
NAME

USE

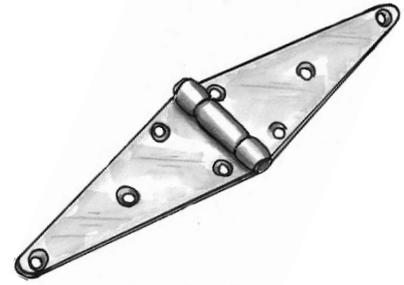


3. Name the grain feature shown on the block of wood.

NAME



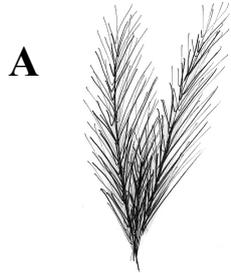
4. Name the fitting shown and explain what you would use it for.



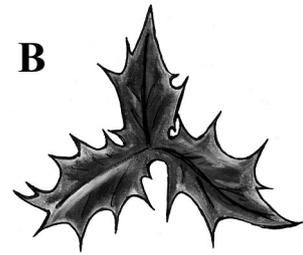
NAME

USE

5. The diagrams A and B show the leaves from two common Irish trees. Select the correct name for each tree from the list below.



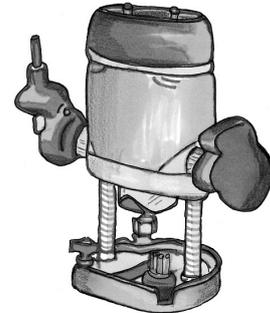
- Pine
- Oak
- Sycamore
- Ash
- Holly



TREE A

TREE B

6. Name the power tool shown in the diagram.



NAME

7. List **two** activities that require eye protection when working on a project in the MTW room.

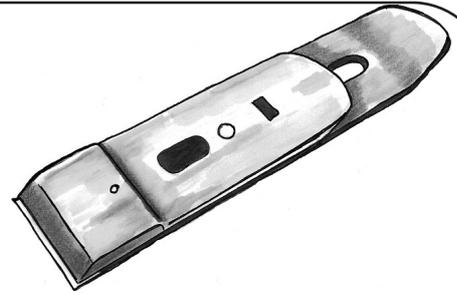


1.

2.

8. The diagram shows a cap iron and blade from a plane.

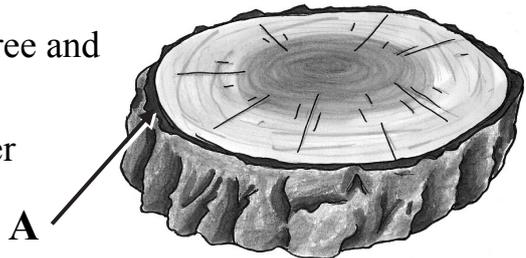
What is the function of the cap iron?



FUNCTION

9. The diagram shows a cross section of a tree and its various parts.

What is the correct name for the soft layer located just underneath the bark, as indicated by the arrow A?

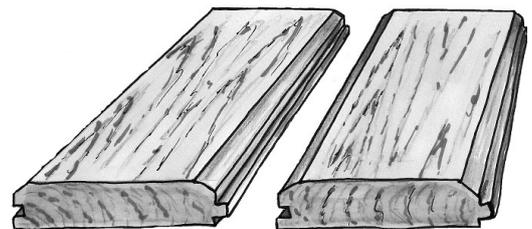


NAME

10. Show by means of a tick (✓) which of the trees on the left are categorised as hardwoods and which are categorised as softwoods.

	Hardwood	Softwood
Scots Pine		
Oak		
Horse Chestnut		
Ash		
Norway Spruce		

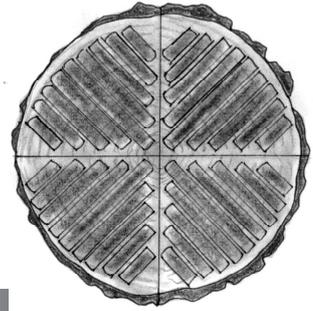
11. Name the joint shown, which is commonly used when joining floorboards.



JOINT

12. The diagram shows the conversion of timber into planks of wood.

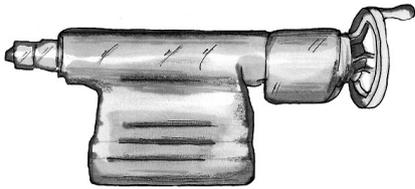
Name this method of conversion.



METHOD

13. Diagrams **A** and **B** show two lathe parts used in wood turning.
From the list given, identify the parts.

A



A

Faceplate

Callipers

Tailstock

Forked Centre

Toolrest

B



B

14. Manufactured boards are often used instead of solid wood in the construction of furniture and other woodwork projects.

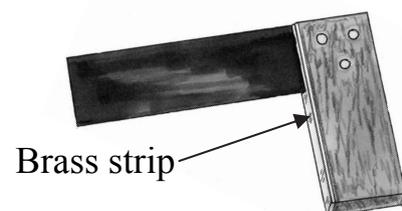
State **two** advantages of using manufactured boards instead of solid wood.

1.

2.

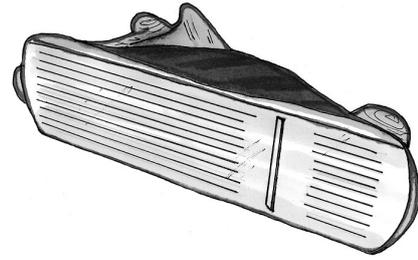
15. The diagram shows a **Try-square**.

Give **one** reason for the brass strip along the stock of the try-square.



REASON

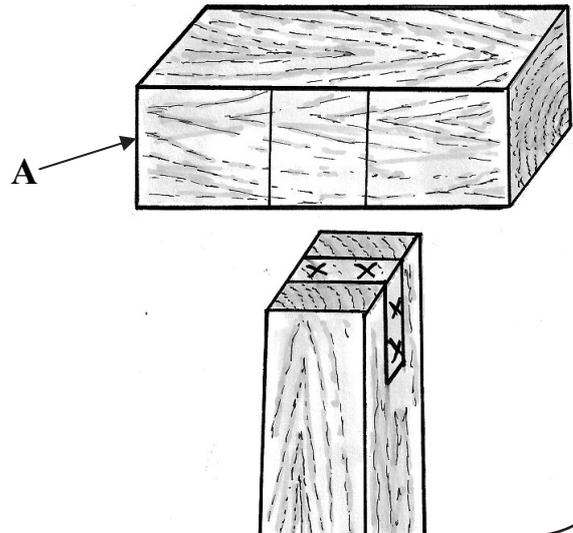
16. Give **one** reason why a plane should be placed on its side on a bench when it is not being used.



REASON

17. The diagram shows the incomplete marking out for a **Bridle Joint**.

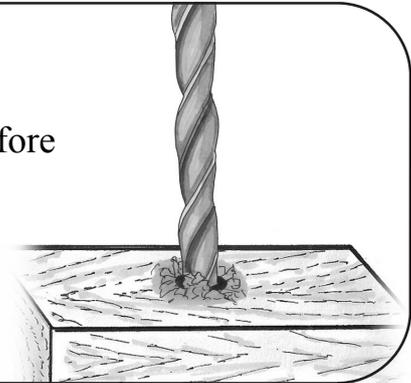
Complete the diagram to show the marking out on part A.



18. The diagram shows a hole being drilled into wood.

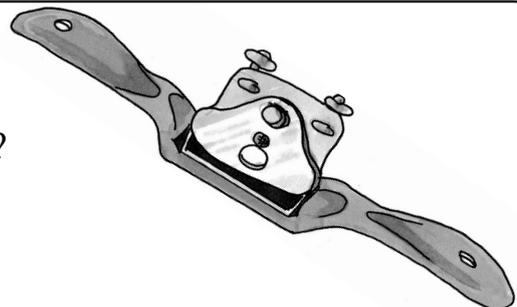
Why is it often necessary to drill a hole in wood before screwing two pieces together?

REASON



19. The diagram shows a spokeshave.

What are spokeshaves normally used for?



USE

20. 3D printers print solid objects that have been modelled using Computer Aided Design (CAD) programs.



Give **one** advantage of 3D printing.

ADVANTAGE

This booklet must be handed up at the end of the examination.

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