



Junior Certificate Examination, 2017

Materials Technology (Wood)

Ordinary Level

Section A (40 marks)

Monday, 19 June

Afternoon, 2:00 - 4:00

Instructions

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

Examination Number



--

Centre Number

--

1.	Total of end of page totals	
2.	Aggregate total of all disallowed question(s)	
3.	Total mark awarded (1 minus 2)	
4.	Bonus mark for answering through Irish (if applicable)	
5.	Total mark awarded if Irish Bonus (3+4)	

Note: The mark in row 3 (or row 5 if an Irish bonus is awarded) must equal the mark in the **Grand Total** box on the script.

Question	Marks	
Section A		
1		
2		
3		
4		
5A or 5B		
Total		
Irish Bonus		
Grand 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

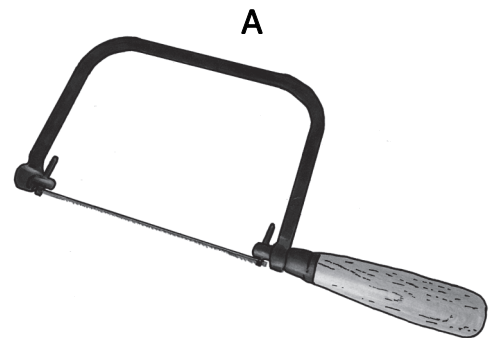
Raised Head Screw

Countersunk Head Screw

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

NAME

USE

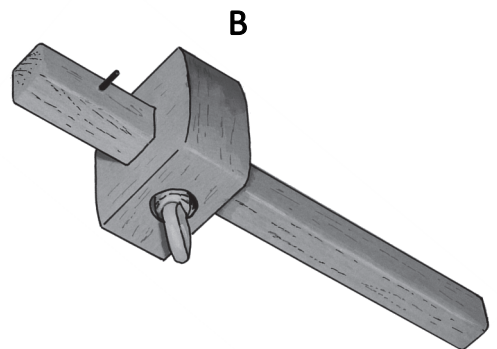


OR

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

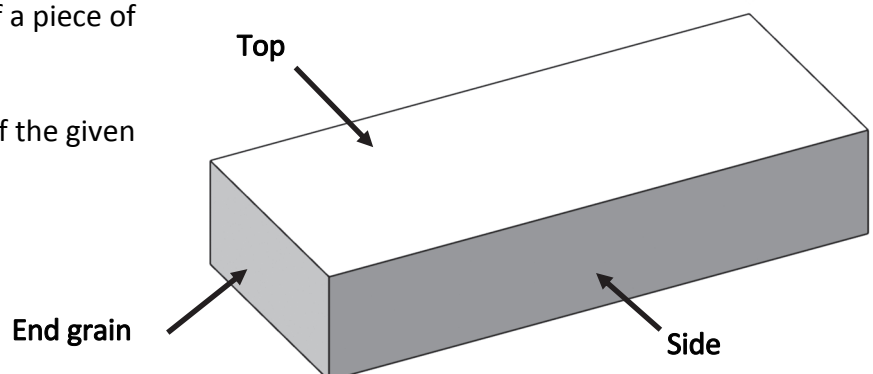
NAME

USE



3. The diagram shows the outline of a piece of wood.

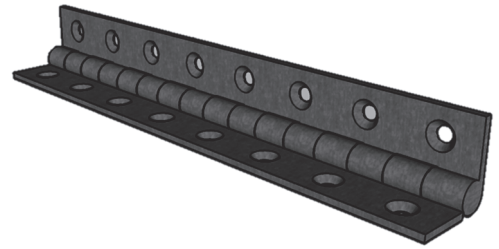
Draw the grain pattern on each of the given sides of the piece.



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

NAME

USE



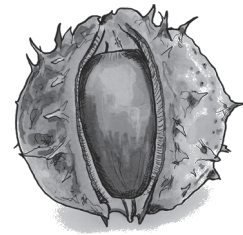
5. The diagrams A and B show the seeds from two common Irish trees. Select the correct name for each tree from the given list.

A



Ash
Oak
Pine
Sycamore
Horse Chestnut

B

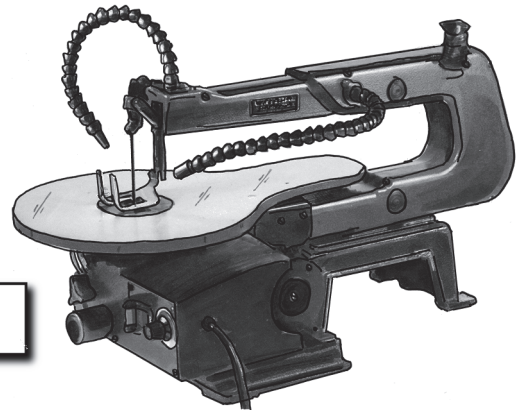


TREE A

TREE B

6. Name the power tool shown in the diagram.

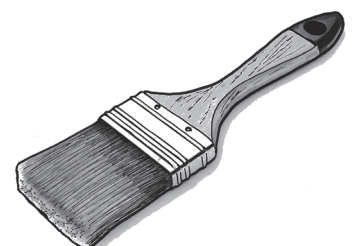
NAME



7. List **two** specific safety precautions that should be observed when varnishing a piece of wood.

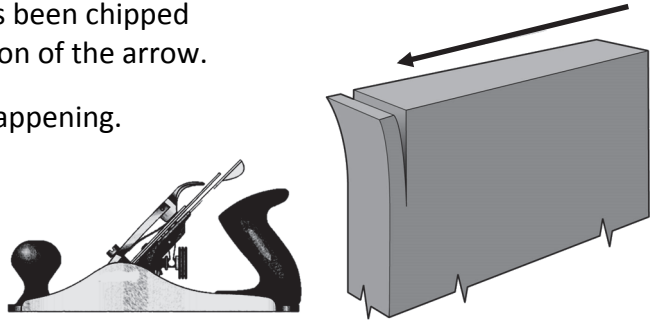
1.

2.



8. The diagram shows a piece of wood that has been chipped after the end grain was planed in the direction of the arrow.

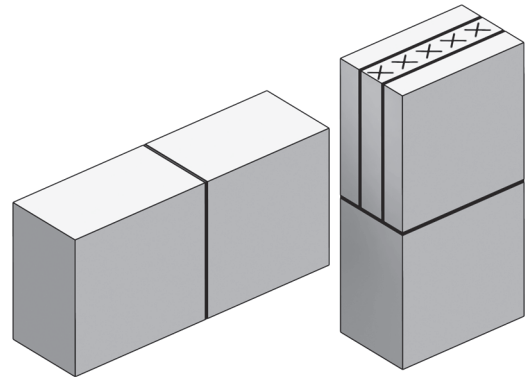
State **one** method of preventing this from happening.



ANSWER

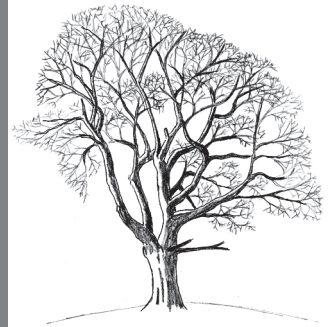
9. The diagram shows the incomplete marking out of a Corner Bridle joint.

Complete the diagram to show the rest of the marking out on both pieces of wood.

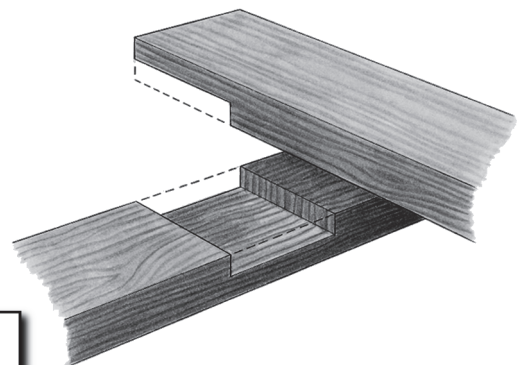


10. Show by means of a tick (✓) which of the trees listed on the left are **coniferous** and which are **deciduous**.

TREES	Coniferous	Deciduous
Ash		
Pine		
Beech		
Sitka Spruce		
Oak		

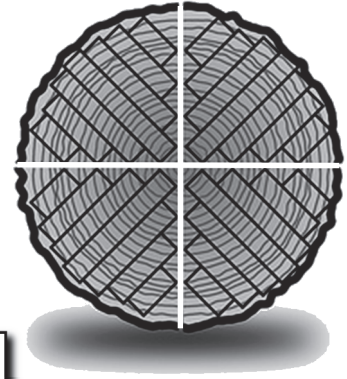


11. Name the joint shown in the diagram.



NAME

12. Name this method of converting a log of wood into boards.



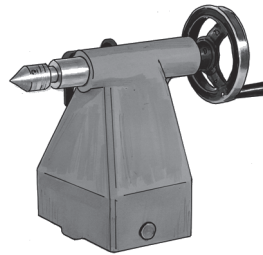
NAME

13. From the list given, select the correct name for the lathe parts shown.

A



B



Headstock

Toolrest

Tailstock

Calipers

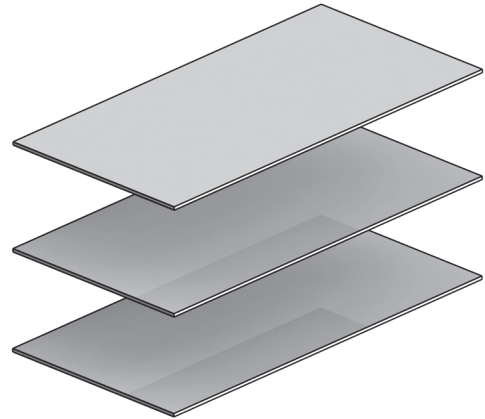
Forked centre

Part A

Part B

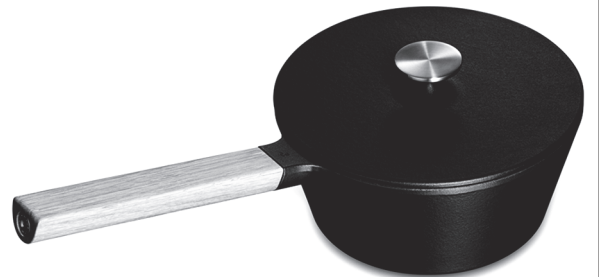
14. The diagram shows three layers of veneer which are to be glued together to form a sheet of plywood.

Show the direction of the grain on each layer by drawing arrows on the diagram.



15. The diagram on the right shows a saucepan that has a wooden handle.

List **one** specific property of wood which makes it suitable for this use.

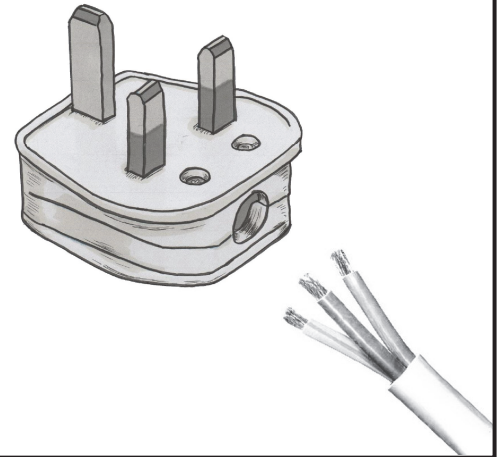


PROPERTY

16. The diagram shows a three-pin plug.

The LIVE wire is connected to one of the pins and the NEUTRAL wire is connected to another.

What wire is connected to the third pin?



WIRE

17. Trees produce food in their leaves by using sunlight, sap and carbon dioxide.

Name this process.



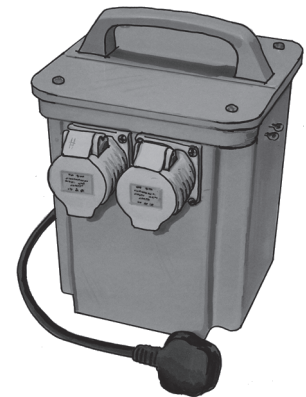
NAME

18. (i) Name the object shown which is commonly used in MTW rooms.

NAME

(ii) Give **one** specific reason for using this object.

REASON

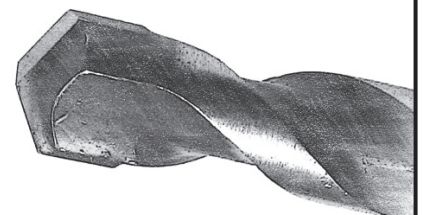


19. (i) Name the item shown in the diagram.

NAME

(ii) What power tool would you normally use this item with?

POWER TOOL



20. The diagram shows a decorative piece of artwork created from wood using laser cutting technology.

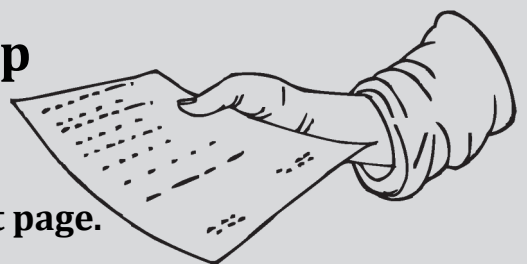
State **one** advantage of using a laser cutting machine to produce artwork such as this.



ADVANTAGE

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

Ensure your Examination Number is on the front page.



**Blank
Page**