



Pre-Junior Certificate Examination 2009

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

Time: 2 hours

STUDENT NAME

SCHOOL

TEACHER

STUDENT NAME	
SCHOOL	
TEACHER	

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

Instructions

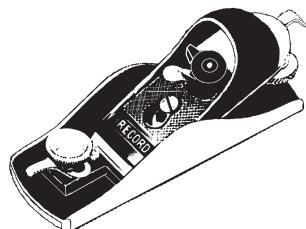
- (a) Answer any **sixteen** questions.
- (b) All questions carry equal marks.
- (c) Answer the questions in the spaces provided.
- (d) This booklet **must** be handed up at the end of the examination.
- (e) Write your name, your teacher's name and the name of your school in the box provided and on all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

SECTION A - 40 MARKS

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

1. (i) Using a tick, identify the woodworking tool shown.

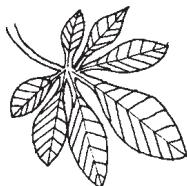
Rebate Plane Block Plane Jack Plane



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

USE

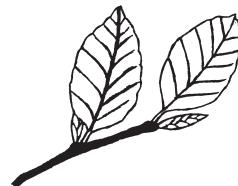
2. The diagram shows the leaves of three common Irish trees.
Name the trees in the spaces provided.



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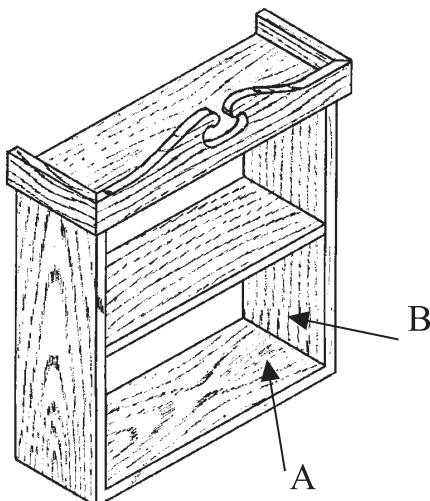


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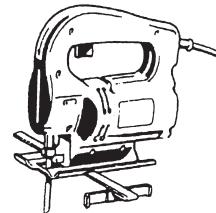
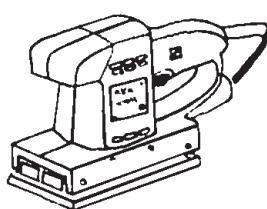
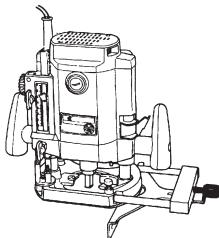
3. A storage unit is shown below. In the space provided sketch a suitable means of joining shelf **A** to side **B**.



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4. Shown below, are a selection of power tools often used during Materials Technology Wood classes.

(i) In the spaces provided, name any **TWO** of the tools.



(ii) State **ONE** safety precaution that should be observed when using power tools.

PRECAUTION

5. With reference to wood seasoning state what the letters **F.S.P.** stand for.

F

S

P

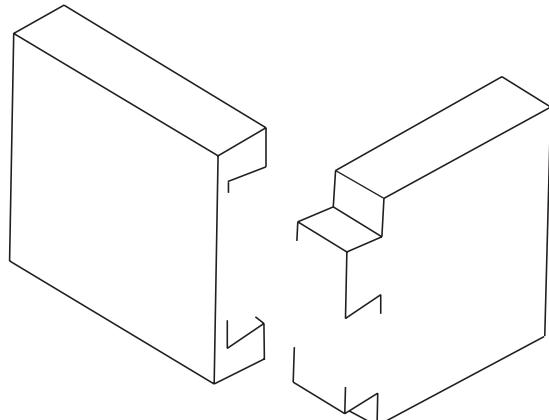
6. State **TWO** specific safety precautions that should be observed when sanding and finishing project work.

PRECAUTION 1

PRECAUTION 2

7. The diagram shows an incomplete exploded isometric sketch of a **Lapped Dovetail Joint**.

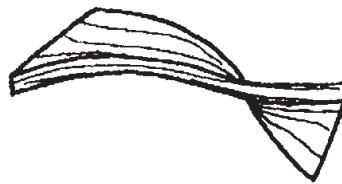
Complete the sketch of the joint.



8. The diagram shows a common defect in timber.

(i) Give the correct name for this defect.

NAME

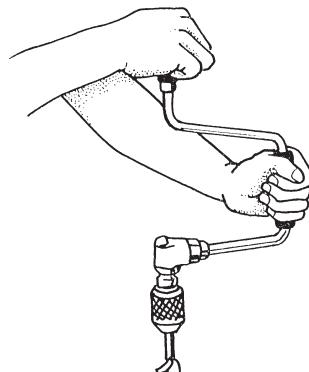


(ii) What is the possible cause of this defect?

CAUSE

9. The diagram shows a brace being used to bore a hole. Using a tick, identify the force which is being applied to the brace.

COMPRESSION



TORSION

TENSION

10. Plywood is a commonly used manufactured board.

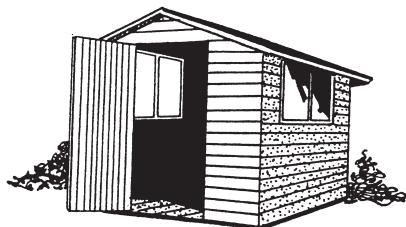
In the space provided draw a neat diagram showing the grain direction in **EACH** layer, in a piece of 3-ply plywood.



11. State **TWO** reasons why it is necessary to apply a preservative to the garden shed shown.

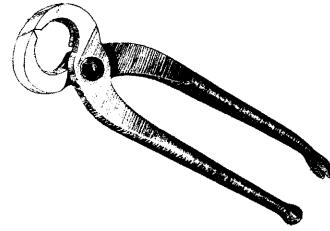
REASON 1

REASON 2



12. (i) Name the tool shown in the diagram.

NAME



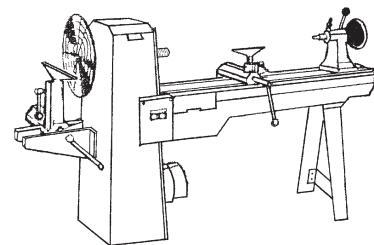
(ii) State an appropriate use for this tool.

USE

13. (i) What is the correct name for the woodworking machine shown?

NAME

(ii) State **TWO** specific safety precautions that should be observed when using this machine.



SAFETY 1

SAFETY 2

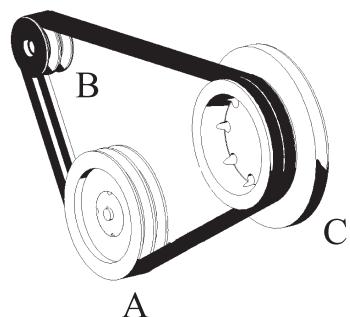
14. Shown in the diagram is the pulley mechanism of a machine.

(i) If a pulley **A** rotates anti-clockwise, indicate using a tick, the direction in which pulley **B** will rotate.

CLOCKWISE or ANTI-CLOCKWISE

(ii) Pulleys **A** and **C** are 120mm in diameter and pulley **B** is 50mm in diameter.

If pulley **C** rotates at 160 revolutions per minute (R.P.M.), what is the rotational speed of pulley **B**?



SPEED OF B

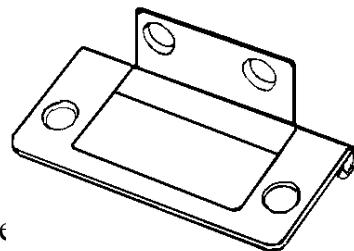
15. State **TWO** advantages of using CAD.

ADVANTAGE 1

ADVANTAGE 2

16. (i) Name the hinge shown in the diagram.

NAME

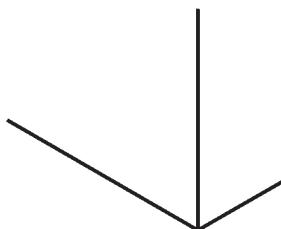
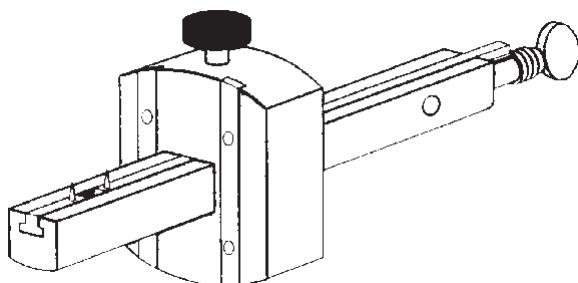


(ii) This hinge is made from Brass.

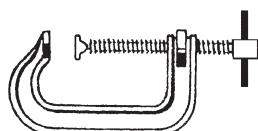
Brass is an alloy of two metals. Name **ONE** of the metals.

METAL

17. The diagram shows a ***Mortice Gauge*** in 3D. Reproduce the sketch of the ***Mortice Gauge*** on the given isometric axes.



18. Name the **TWO** clamping tools shown in diagrams.



TOOL 1

TOOL 2

- 19.** (i) In the space provided, state the difference between Thermosetting Plastics and Thermoplastics.

DIFFERENCE

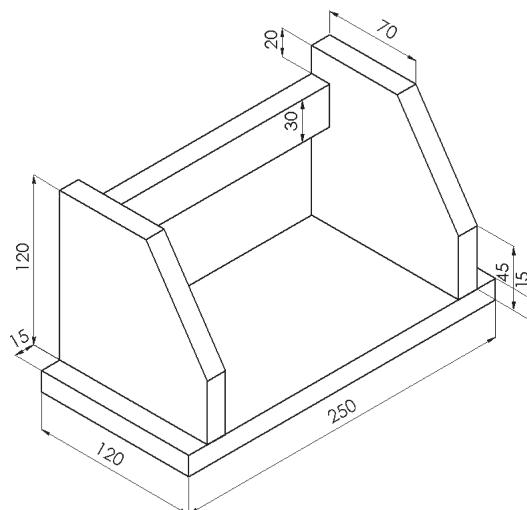
- (ii) Name **ONE** Thermoplastic.

THERMOPLASTIC

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- 20.** The diagram shows a CD rack.

Complete the following cutting list for the CD rack.
(All material is 15mm thick)



Description	Quantity	Length	Width	Thickness
Base	1	250		15
Side		120	120	
Back	1			15

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