



Junior Certificate Examination 2008

Materials Technology Wood

Higher Level

Section A

(40 Marks)

Monday 16 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(a) or (b)	
5	
Total	

SECTION A - 40 MARKS

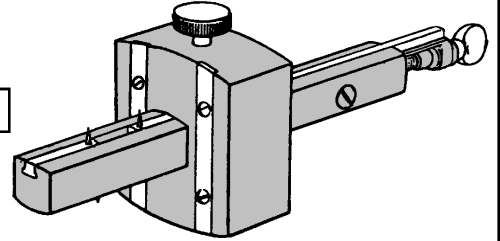
Answer any 16 questions from this section. All questions carry equal marks.

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

Marking Gauge

Cutting Gauge

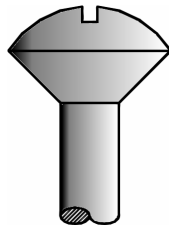
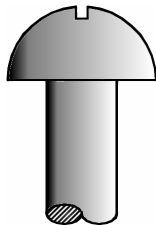
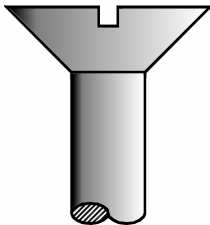
Mortise Gauge



(ii) Give one specific use for this tool.

USE

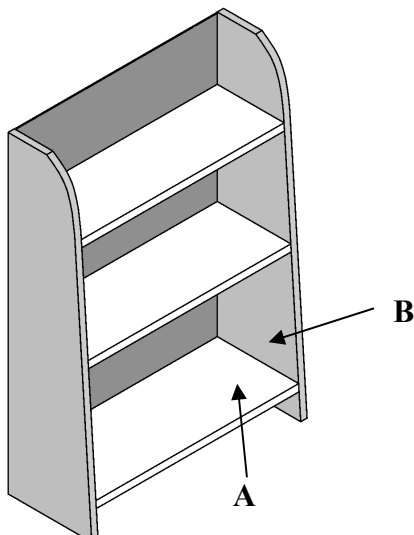
2. Shown in the diagrams are the heads of three different screws.
In the spaces provided, name any **TWO** of the head types.



NAME

NAME

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



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4. Cordless drills are often used during Materials Technology Wood classes.
State **TWO** advantages of using cordless drills.



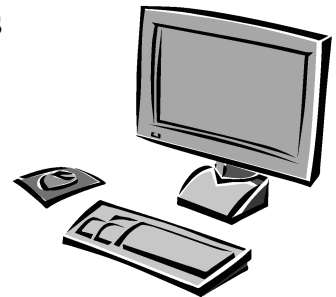
ADVANTAGE 1

ADVANTAGE 2

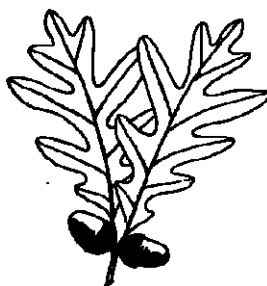
5. Typical stages associated with a *Design Process* are listed on the right.
Place these stages in the correct order, from **1 to 5**.

Stage	Order (1-5)
Sketches/Working Drawings	<input type="text"/>
Evaluation	<input type="text"/>
Design Ideas/Solutions	<input type="text"/>
Investigation and Research	<input type="text"/>
Analysis of Brief	<input type="text"/>

6. With reference to furniture production state what the letters **C.A.M.** stand for.



7. The diagrams show the leaves and fruit of three common Irish trees.
Name the trees in the spaces provided.



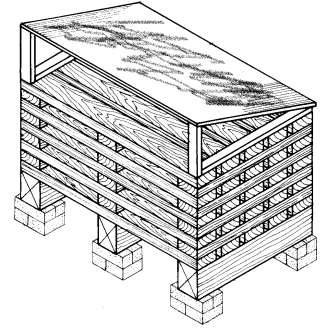
8. The diagram shows a method of seasoning timber.

(i) What is this method of seasoning called?

METHOD

(ii) State **ONE** disadvantage of this method of seasoning.

DISADVANTAGE



9. Dry rot is caused by a fungal attack on timber.

State **TWO** conditions that are necessary for a fungal attack to occur.

CONDITION 1

CONDITION 2

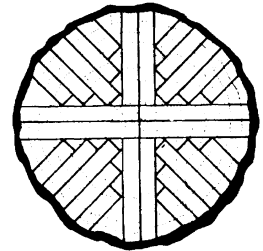
10. The diagram shows a method of converting logs.

(i) Give the correct name for this method of conversion.

METHOD

(ii) This method of conversion reveals a grain feature in oak boards.
What is the grain feature called?

FEATURE



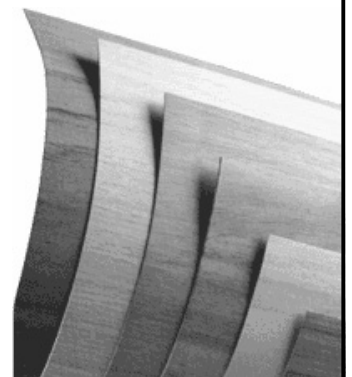
11. The diagram shows a selection of wood veneers for use on a marquetry panel.

(i) Suggest the most suitable adhesive for gluing the veneers to the panel.

ADHESIVE

(ii) Give a reason for your choice.

REASON



12. State **TWO** specific safety precautions that should be observed when using wood chisels.

PRECAUTION 1

PRECAUTION 2



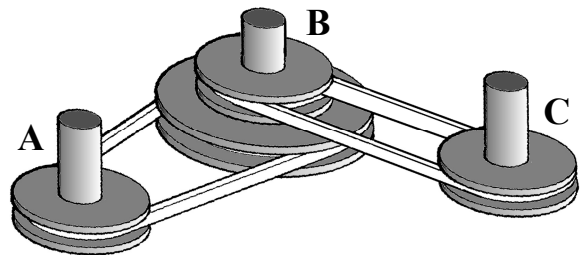
13. (i) If pulley A rotates clockwise, indicate by ticking the box, the direction in which pulley C will rotate?

CLOCKWISE or ANTI-CLOCKWISE

(ii) The small pulleys are 100mm in diameter and the large pulley is 200mm in diameter.

If pulley A rotates at 180 revolutions per minute (R.P.M.), what is the rotational speed of pulley C?

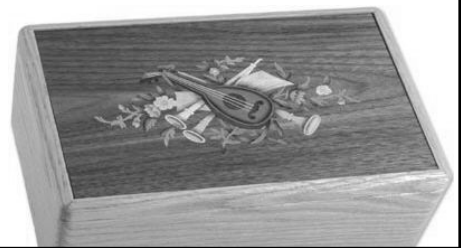
SPEED OF C R.P.M.



14. State **TWO** reasons why it is necessary to apply a finish to a wooden artefact.

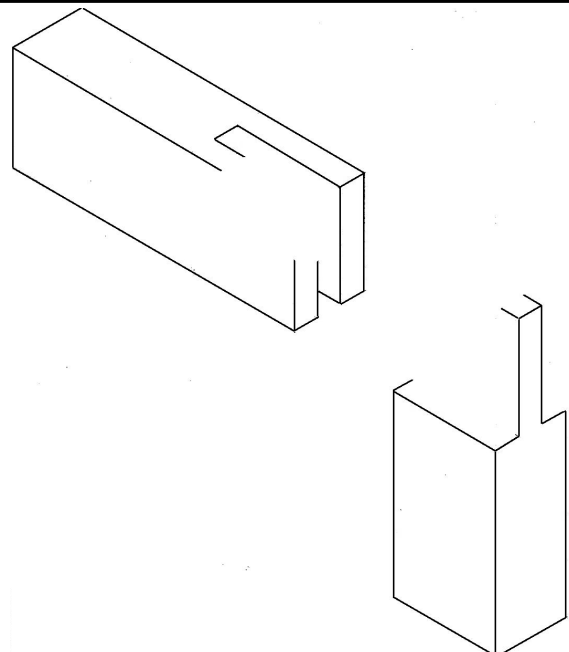
REASON 1

REASON 2



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

Complete the sketch of the joint.



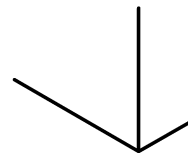
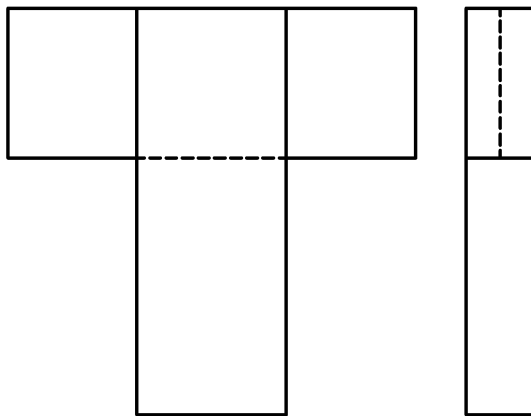
16. Brass is an alloy of two metals.
Name the **TWO** metals.

METAL 1

METAL 2



17. The elevation, plan and end view of a *Tee Halving Joint* are shown.
Make a 3D sketch of the *Tee Halving Joint* on the given axes.

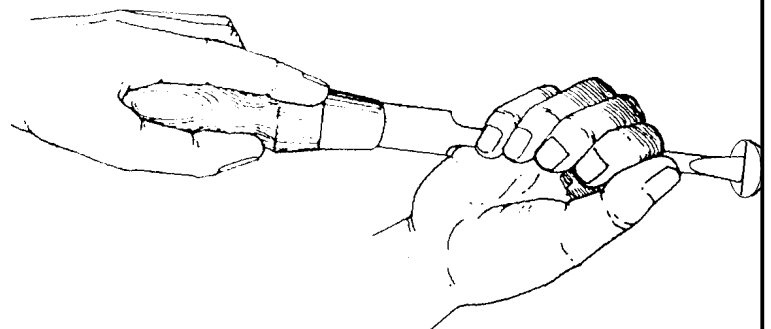


18. The diagram shows a screwdriver being used to insert a screw. Using a tick, identify the force which is being applied to the screw.

COMPRESSION

TORSION

TENSION



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

NAME

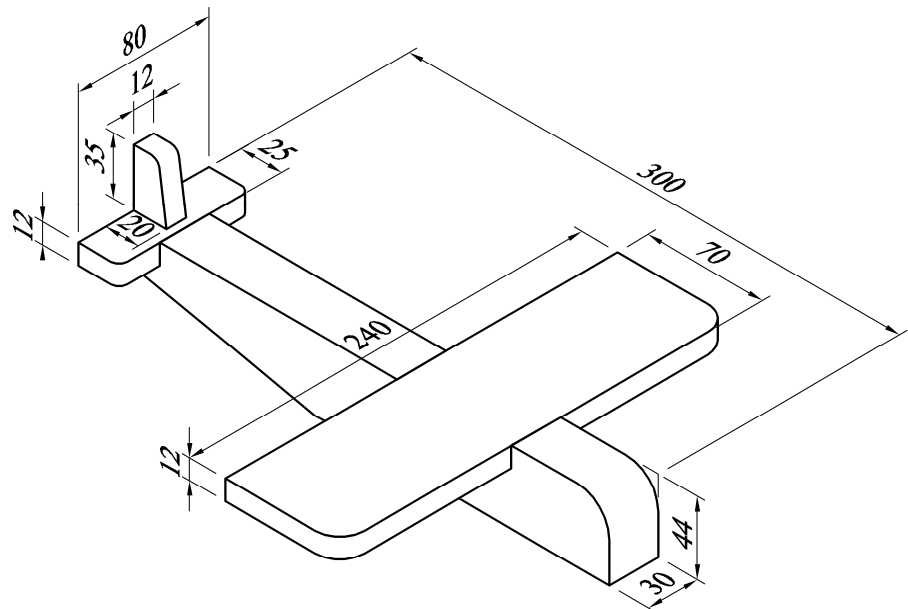
(ii) State **TWO** specific safety precautions that should be observed when using this machine.

SAFETY 1

SAFETY 2



20. The diagram shows a toy aeroplane made from wood.



Complete the following cutting list for the toy aeroplane.

Description	Quantity	Length	Width	Thickness
Body	1		44	30
Wing	1		70	
Tail	1	80		12
Fin		35	20	12

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