



Junior Certificate Examination, 2015

Materials Technology (Wood)

Higher Level

Section A (40 marks)

Monday, 15 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. (i) Name the woodworking tool shown.

NAME

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

USE



2. Safety in the MTW classroom is important. List **THREE** specific safety rules that must be observed in an MTW classroom.

1

2

3



3. Name **THREE** adhesives suitable for gluing wood.

1

2

3

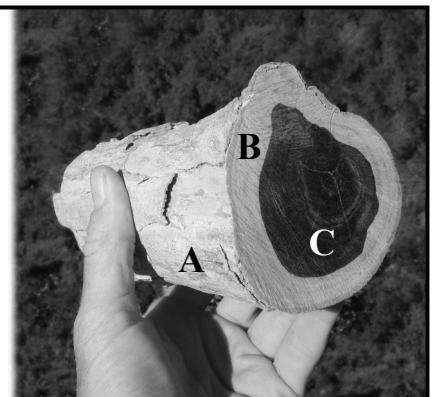


4. The diagram shows a cross section of a tree trunk. Name the areas labelled **A**, **B** and **C**.

A

B

C

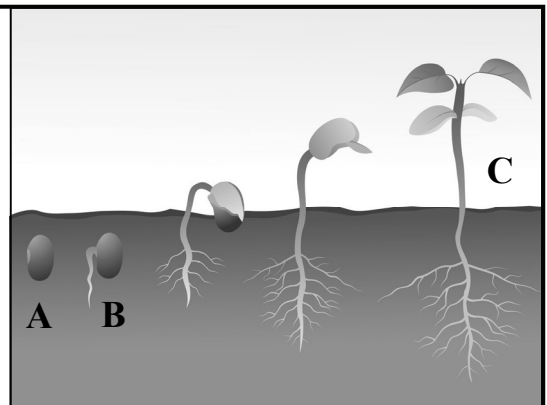


5. The diagram shows the leaves and seeds of three common Irish trees. In the spaces provided below, name **each** tree.



6. The diagram shows the **GERMINATION** of a seed. From the list below identify the stages labelled **A**, **B** and **C**.

- Radicle
- Sapling
- Seed



7. (i) Name the woodworking tool shown.

NAME

- (ii) Give an appropriate use for this tool.

USE



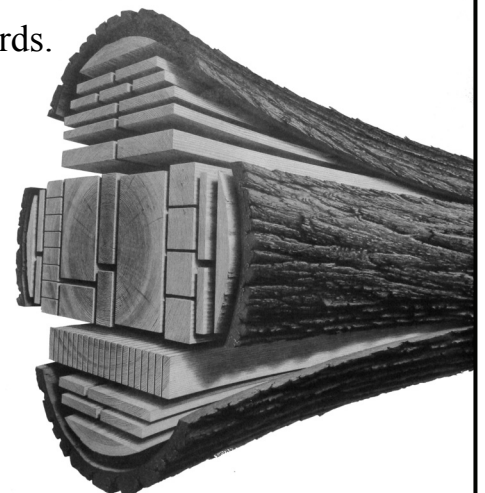
8. The diagram shows a log converted into wooden boards.

Name **THREE** methods of timber conversion.

1

2

3



9. Defects in timber are often an attractive feature.

The diagram shows a wooden bowl, turned from beech which has a fungal defect.
Name the defect.

DEFECT



10. (i) Name the tool shown.

NAME

(ii) State an appropriate use for this tool.

USE



11. (i) Veneers are often used to create decorative embellishments on wooden artefacts, as shown.
What is this craft technique called?

NAME

(ii) Name a suitable adhesive for applying veneers to wood.

GLUE



12. Preservatives prolong the lifespan of external wooden products.

Name **THREE** methods of applying preservatives to wood which is to be used externally.

1

2

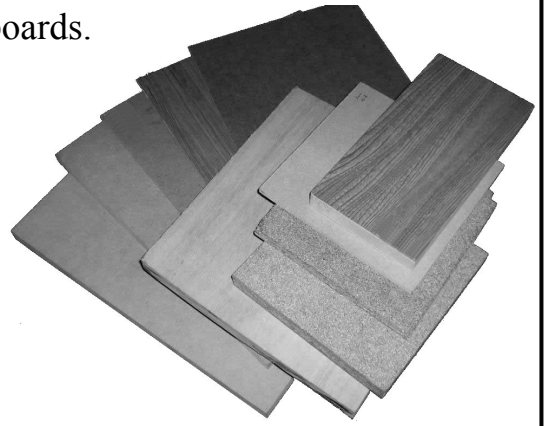
3



13. The graphic shows a variety of manufactured boards.

Name **FIVE** types of manufactured board.

- 1
- 2
- 3
- 4
- 5

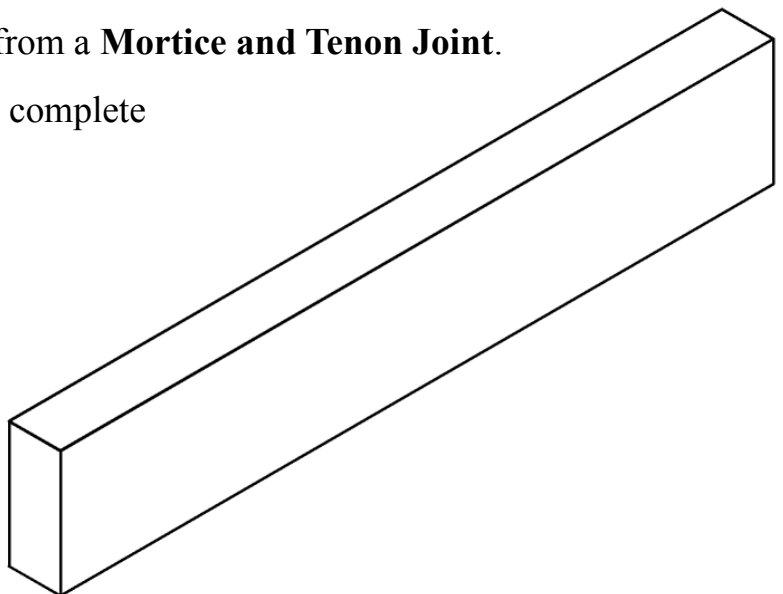
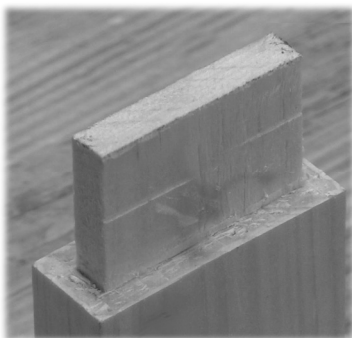


14. Name the **THREE** items shown, which are associated with woodturning.



15. The graphic shows the tenon from a **Mortice and Tenon Joint**.

Sketch the marking out of the complete *Mortice and Tenon* joint on the diagram on the right.



16. The letters **EMC** are associated with drying of timber.

What do the letters EMC stand for?

ε	η	Ϸ
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17. The diagram shows a student using a cordless drill to insert a screw.

(i) What is the correct name for the turning force being applied by the drill to the screw?

FORCE

(ii) Name **ONE** other type of force.

FORCE



18. Metal is often used with wood as a design feature in jewellery making.

Identify, using a tick (✓), whether the following metals are **Ferrous** or **Non Ferrous**.

Metals	Ferrous	Non Ferrous
Aluminium		
Tin		
Lead		
Mild Steel		
Silver		



19. (i) Name the woodworking machine shown.

NAME

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

PRECAUTION 1

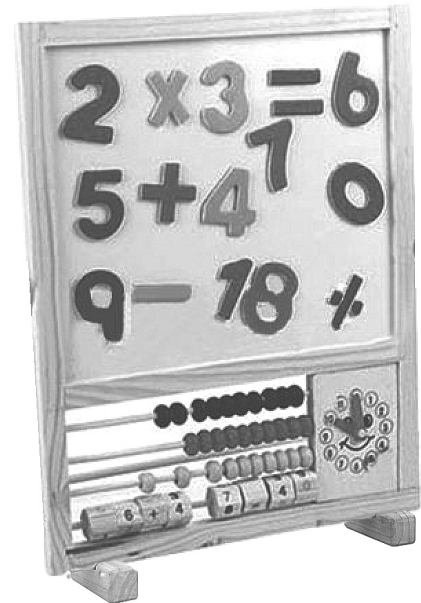
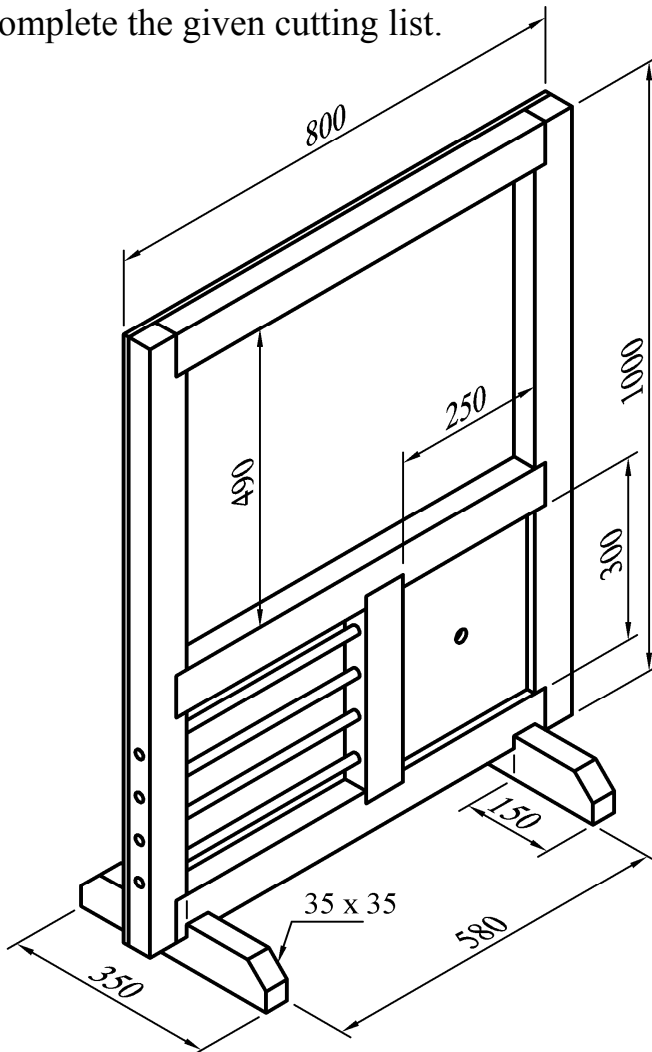
PRECAUTION 2



20. The image on the right below shows a child's whiteboard which has an integrated abacus and a clock. A dimensioned drawing of the artefact is also shown below.

All frame material is 70mm × 40mm and all housing joints are 20mm deep.

Complete the given cutting list.



Description	Quantity	Length	Width	Thickness
Sides	2	1000		40
Cross Rails	3		70	40
Middle Upright	1		70	40
Whiteboard Backing	3	1000	800	10
Feet	2		70	40
Clock Face	1	300	250	10
	4	480	Ø15	

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