



Pre-Junior Certificate Examination, 2015

Materials Technology (Wood)

Higher Level

Section A (40 marks)

Time: 2 hours

STUDENT'S NAME 

SCHOOL'S NAME 

TEACHER 

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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 school's name and your teacher's name in the boxes provided and on all other pages used.

| School Stamp |
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| Section A | |
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| 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) Identify the power tool shown.

NAME

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

USE

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2. Give **TWO** reasons why it is necessary to apply a finish to a wooden planter box.

REASON 1

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REASON 2

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3. The diagram shows a common defect in timber.

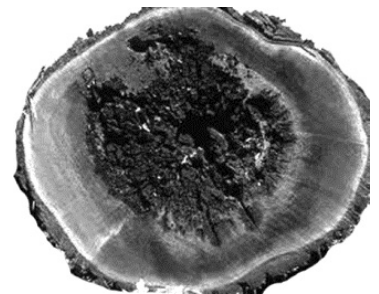
- (i) Give **ONE** correct name for this defect.

NAME

- (ii) Give **ONE** cause of this defect.

CAUSE

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4. Explain the term Photosynthesis.

EXPLAIN

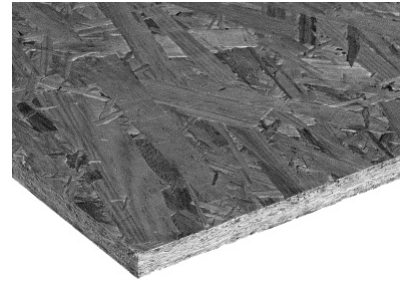
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5. The manufactured board shown in the diagram is OSB. What do the letters OSB stand for?

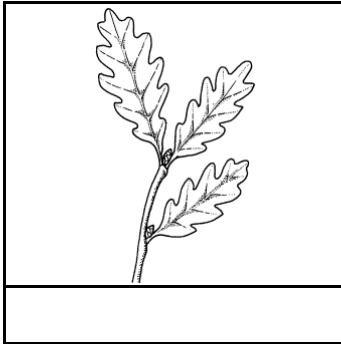
O

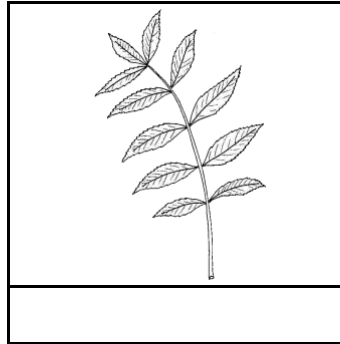
S

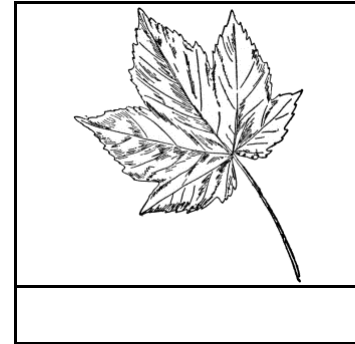
B



6. The diagrams show the leaves of three common Irish trees. In the spaces provided below, name **each** tree.







7. The diagram shows a door knocker found on many exterior doors.

(i) Name **ONE** suitable material to manufacture the fixture from.

NAME

(ii) State **ONE** reason for your choice of material.

REASON



8. Indicate, using a tick (✓), whether the following are **Natural** or **Artificial** defects.

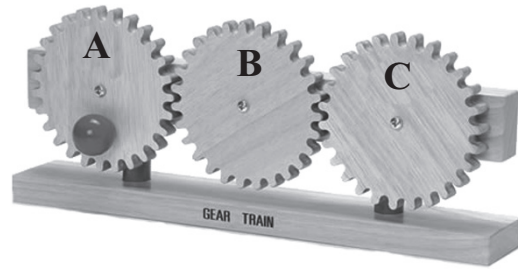
| Defect | Natural | Artificial |
|----------------|---------|------------|
| Knots | | |
| Case Hardening | | |
| Heart Rot | | |
| Warp | | |
| End Splits | | |

9. The diagram shows a gear train with three gears labelled **A**, **B** and **C**. From the list given indicate the correct names for the gears.

IDLER

DRIVER

DRIVEN



10. (i) Name the woodworking tool shown in the diagram.

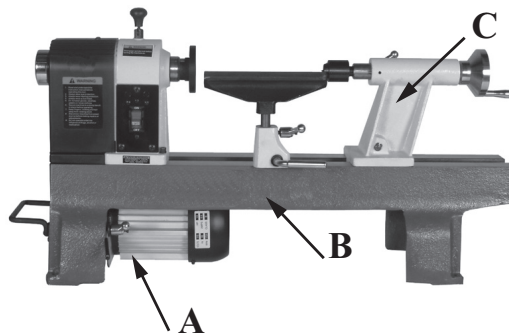
NAME

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

USE



11. Name the parts of the woodturning lathe labelled **A**, **B** and **C** in the diagram.



A

B

C

12. Through and through is one method of converting logs into planks.

Name **TWO** other methods of conversion.

METHOD 1

METHOD 2



13. (i) Name the woodworking tool shown in the diagram.

NAME

(ii) What is the force applied at point S when the tool is being used?

FORCE 'S'



14. (i) Name the woodworking tool shown in the diagram.

NAME

(ii) Applying a sharp cutting edge is done in two stages, Grinding and Sharpening.

What are the correct Grinding and Sharpening angles?

GRINDING ANGLE

SHARPENING ANGLE



15. Ergonomics is a term that is often used when evaluating finished MTW projects.

Explain the term ergonomics.

EXPLAIN

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16. The diagram shows a Laser Cutter. The machine is CNC controlled.

What does CNC stand for?

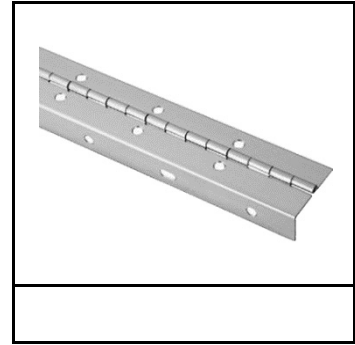
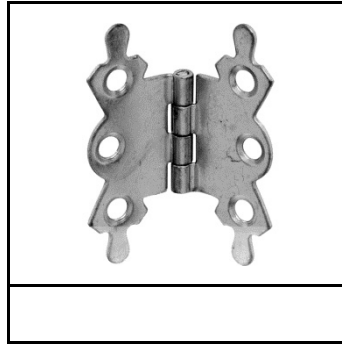
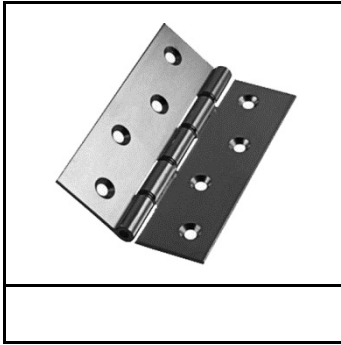
C

N

C



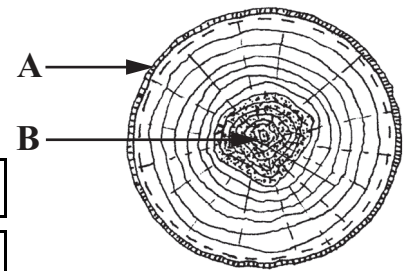
17. The diagram shows three common hinges used in the Woodwork Room.
In the spaces provided below, name **each** hinge.



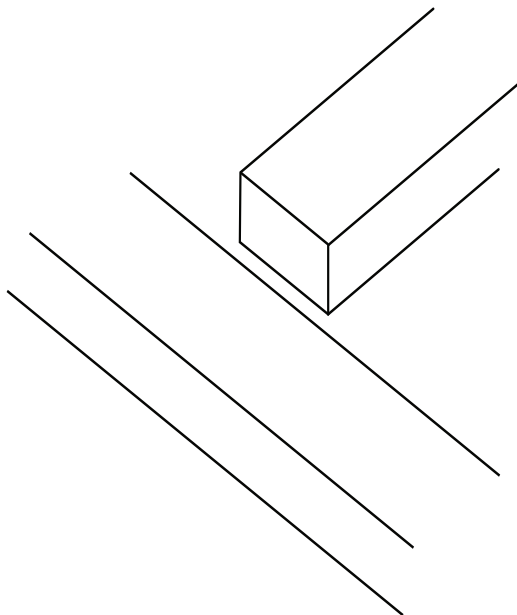
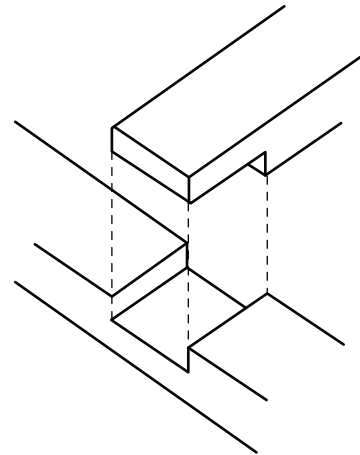
18. The diagram shows a cross-section of a tree.
Name the parts labelled **A** and **B**.

A

B



19. The diagram shows an exploded view of a **T-Halving Joint**.
Sketch the marking out of the joint on the diagram below.



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