



*Junior Certificate Examination 2009*

*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(a) or (b)   |  |
| 5             |  |
| <b>Total</b>  |  |

## SECTION A - 40 MARKS

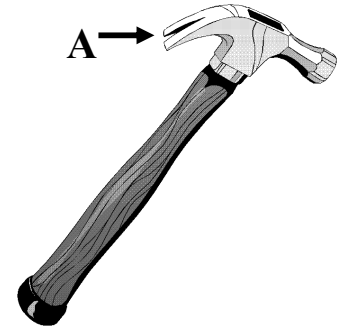
*Answer any 16 questions from this section. All questions carry equal marks.*

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

NAME

- (ii) State the function of the part **A** of this tool.

FUNCTION



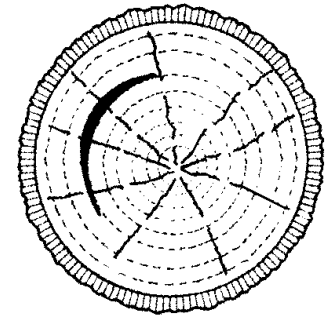
2. The diagram shows a common defect in timber.

- (i) Give the correct name for this defect.

NAME

- (ii) What is the most common cause of this defect?

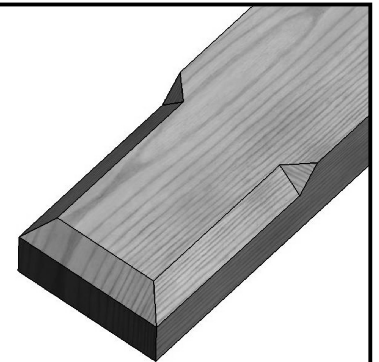
CAUSE



3. The edge of a piece of timber is finished with a common moulding as shown.

Name the moulding.

NAME



4. The diagram shows the interior of a three pin plug.

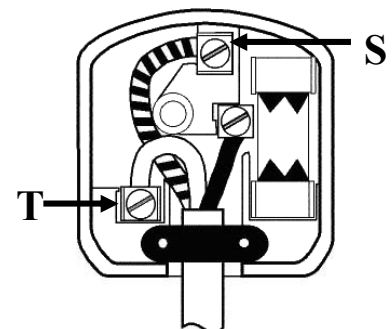
- (i) Name the plug terminals **S** and **T**.

**S**

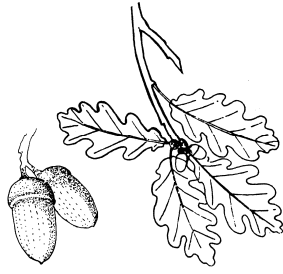
**T**

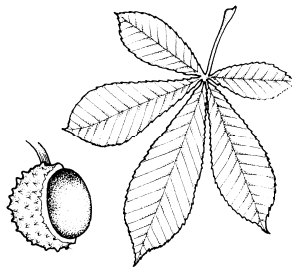
- (ii) What is the function of the **FUSE** in the plug?

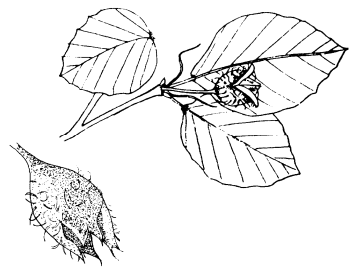
FUNCTION



5. The diagram shows the leaves and fruit of three common Irish trees. In the spaces provided, name the trees.








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

Skew Chisel

Gouge Chisel

Mortice Chisel



- (ii) State the correct use for this tool.

USE


7. (i) Plastics are divided into two main categories. Name the categories.

CATEGORY 1

CATEGORY 2

- (ii) Which category of plastic can be moulded and remoulded many times?

ANSWER



8. The diagram shows a wooden garden bench.

- (i) Suggest **TWO** suitable applied finishes for the bench.

FINISH 1

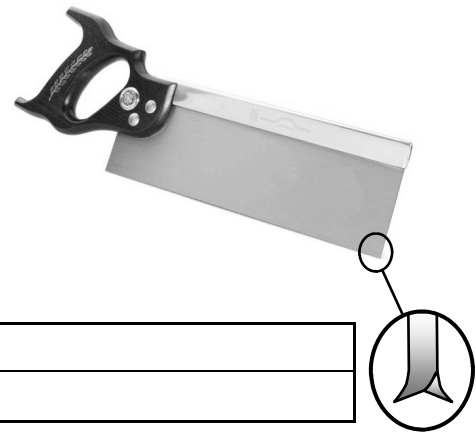
FINISH 2



- (ii) Give **ONE** reason why these finishes are suitable.

REASON

9. (i) The diagram shows a tenon saw and a close up view of its teeth. Every second tooth is bent left and right. What is this feature called?

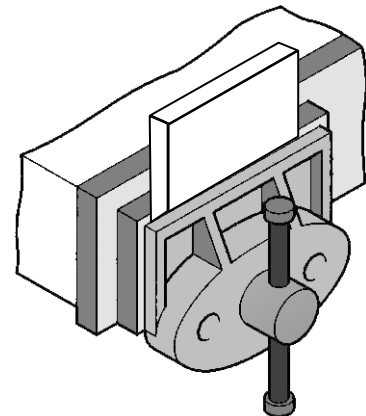


**FEATURE**

(ii) Why is this feature necessary?

**ANSWER**

10. The diagram shows a piece of wood securely held in a wood working vice. What is the correct name for the force applied to the piece of wood in the vice?



**TORSION**

**COMPRESSION**

**TENSION**

11. Identify, using a tick, whether the following metals are **Ferrous** or **Non Ferrous**.

| Metals    | Ferrous | Non Ferrous |
|-----------|---------|-------------|
| Brass     |         |             |
| Copper    |         |             |
| Steel     |         |             |
| Zinc      |         |             |
| Cast Iron |         |             |

12. Identify **THREE** safety features that are found in M.T.W. school workshops.

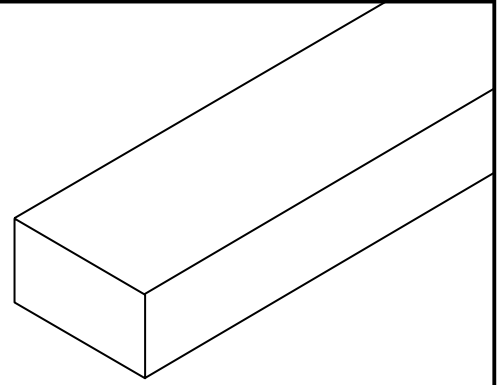
**FEATURE 1**

**FEATURE 2**

**FEATURE 3**

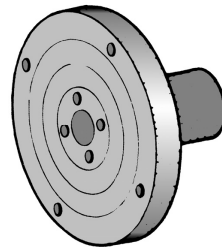
13. The diagram shows an unfinished 3D sketch.

- (i) Apply grain and shading to the sketch so that it resembles a piece of wood.
- (ii) On the sketch, show the face side and face edge using the appropriate symbols.



14. Shown are two pieces of equipment associated with woodturning.

- (i) Name the two pieces of equipment.



- (ii) State **ONE** safety precaution that should be observed when using the woodturning lathe.

**PRECAUTION**

15. The diagram shows a machine controlled by a computer.

State **TWO** advantages of controlling machines in this way.

1

2


- 16. (i) The diagram shows a common type of hinge. Name this hinge type.

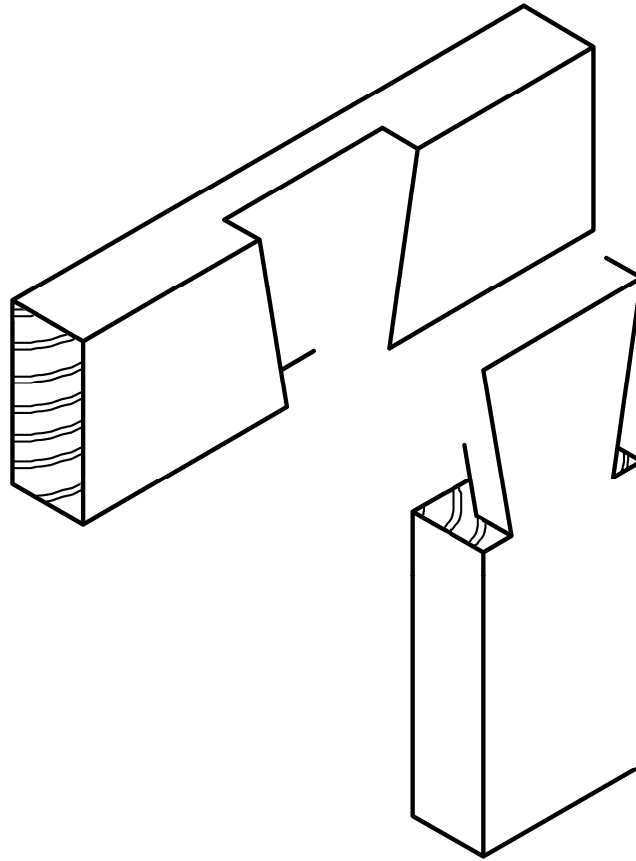
**TYPE**

- (ii) Where would this type of hinge normally be used?

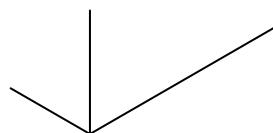
**USE**



17. The diagram shows an incomplete exploded isometric sketch of a **Dovetail Halving Joint**. Complete the sketch of this joint.



18. Make a 3D sketch of a **bench hook** on the given isometric axes.



19. The diagram shows a book shelf unit made from wood.

Identify **ONE** design defect in the unit and describe a possible remedy.

**DEFECT**

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|  |

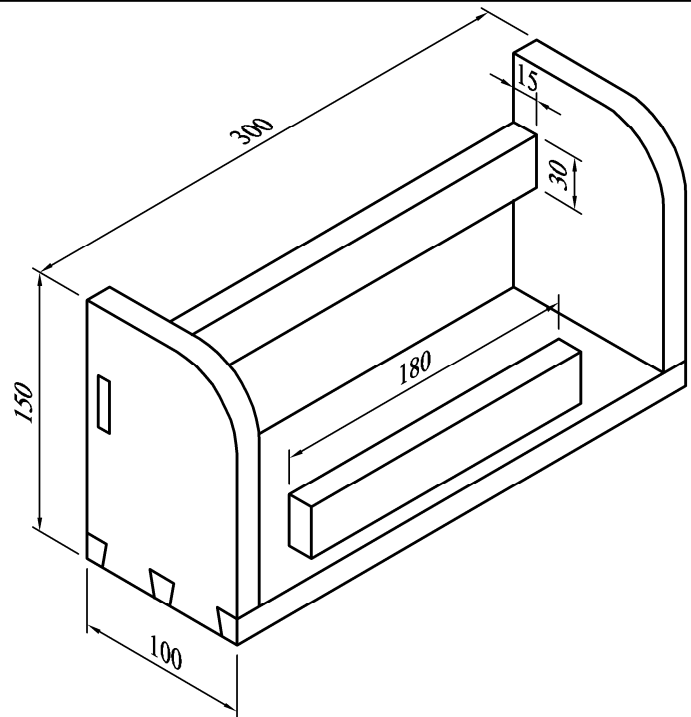
**REMEDY**

|  |
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|  |
|  |
|  |



20. The diagram shows a kitchen shelf made from wood.

Complete the cutting list below for the shelf.



| Description | Quantity | Length | Width | Thickness |
|-------------|----------|--------|-------|-----------|
| Base        | 1        |        | 100   | 15        |
| Sides       | 2        | 150    |       | 15        |
| Back Rail   | 1        | 300    |       |           |
| Front Rail  | 1        |        | 30    | 15        |

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