Pre-Junior Certificate Examination, 2012

Materials Technology (Wood)
Higher Level
Section A (40 marks)

Time: 2 hours

STUDENT NAME ☞

SCHOOL ☞

TEACHER ☞

School Stamp	
Section A	
1	
2	
3	
4	
5(a) or 5(b)	
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 school's name and your teacher's name in the boxes provided and on all other pages used.*

SECTION A - 40 MARKS

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

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

NAME

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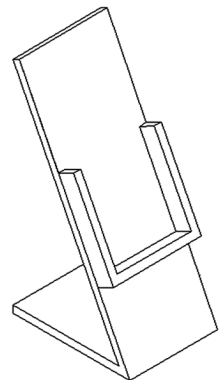
USE

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2. (i) Plastics are divided into two main categories.
Name these categories.

CATEGORY 1

CATEGORY 2

(ii) Shown in the diagram is an object formed in acrylic.
To which category does acrylic belong?

CATEGORY

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3. Name **TWO** metals that have good weathering qualities.

METAL 1

METAL 2

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4. State **TWO** specific safety precautions that should be
observed when using the sanding machine.

1

2

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

6. (i) Suggest a suitable clear finish that could be
applied to the wooden artefact shown in the diagram.

NAME

(ii) Name **TWO** methods of application for your
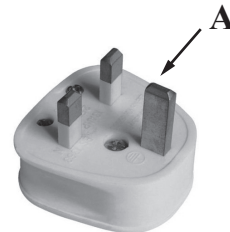chosen finish.

APPLICATION 1

APPLICATION 2

7. The diagram shows two different
electrical fittings.
State what voltage each fitting is suitable for.

A

B

VOLTAGE A

VOLTAGE B

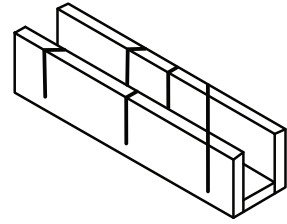**8.** (i) Name the tool shown in the diagram.

NAME

(ii) Name a suitable wood to manufacture the handle from.

NAME

9. (i) What is the correct name for the sawing aid shown?

NAME

(ii) For what purpose is it used?

PURPOSE

10. List **THREE** safety precautions that should be followed in the MTW school workshop when working with wood finishes.
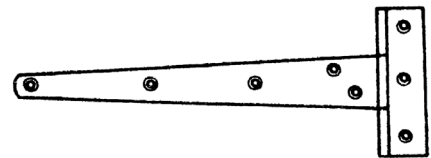
PRECAUTION 1

PRECAUTION 2

PRECAUTION 3

11. The diagram shows a common type of fitting.
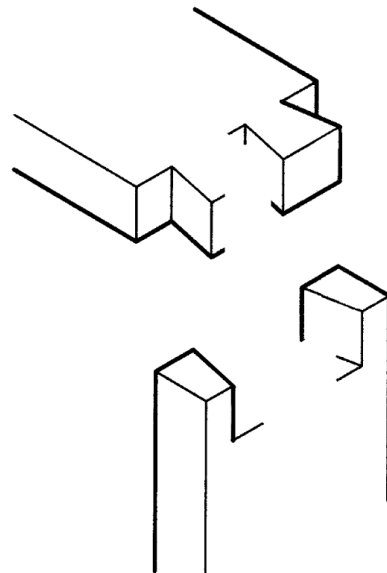
(i) Name this fitting.

NAME

(ii) Give **ONE** example of where this fitting can be used.

ANSWER

12. The diagram shows an incomplete exploded isometric sketch of a **Through Dovetail Joint**.

Complete the sketch of the joint.

13. Materials can be divided into two categories, low carbon footprint and high carbon footprint. Show, by means of a tick (✓), into which group each material fits.
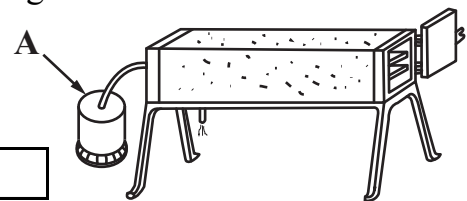
	Low Carbon Footprint	High Carbon Footprint
Mahogany		
Scots Pine		
Acrylic		
Irish Oak		
Teak		

14. An apparatus for bending wood is shown in the diagram.

(i) Name the apparatus.

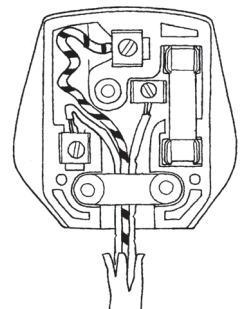**NAME**

(ii) What is the function of the part labelled **A**?

FUNCTION

15. Identify **THREE** separate safety hazards in this diagram.

HAZARD 1

HAZARD 2

HAZARD 3

16. List **THREE** appropriate uses that may be made of computers in the furniture industry.

USE 1

USE 2

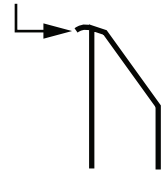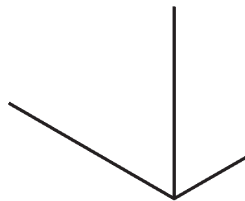**USE 3**

17. Describe **TWO** methods that are used to remove the wire edge/burr from the blade of a chisel.

METHOD 1

METHOD 2

18. Make a 3D sketch of a **Thumb Gauge** on the given isometric axes.
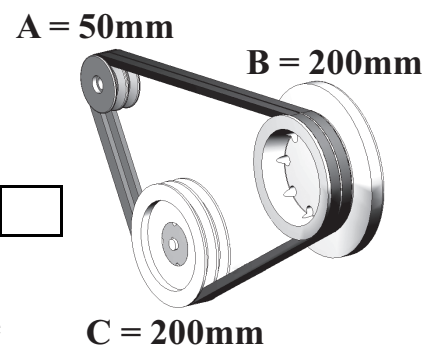
19. The diagram shows a series of three pulleys.

(i) If pulley **A** rotates clockwise, indicate, by ticking the box, the direction in which pulley **B** will rotate.
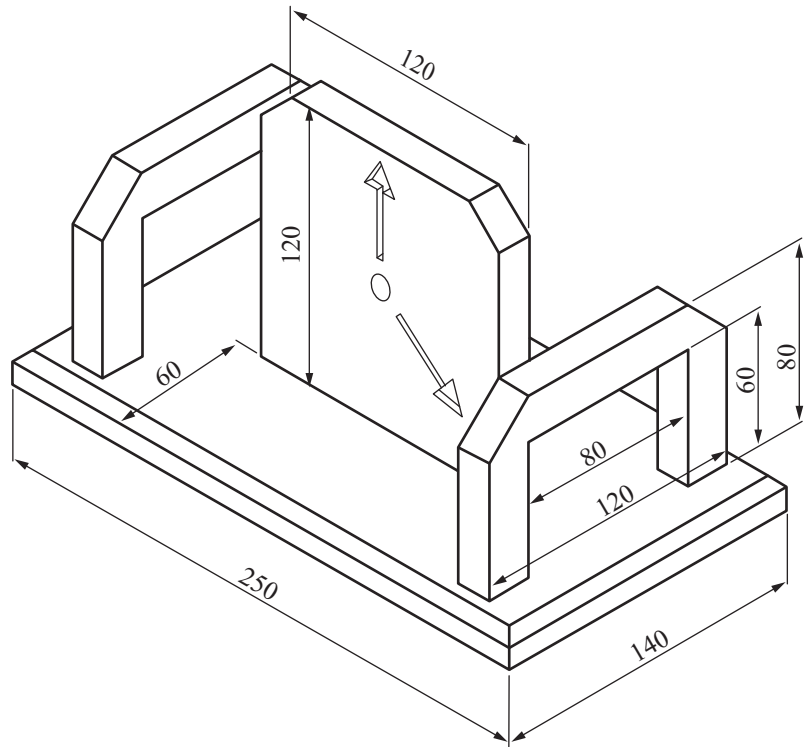
A = 50mm

B = 200mm

CLOCKWISE [ ]   ANTI-CLCOKWISE [ ]

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

C = 200mm

SPEED [ ] R.P.M.

20. The diagram shows a Clock made from wood.

Complete the cutting
list below.

Note: All material is
15mm thick.

Description	Quantity	Length	Width	Thickness
Base	1		140	
Side	2	120		15
Clock Face	1		120	

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