



Junior Certificate Examination 2009

Materials Technology - Wood

Ordinary Level

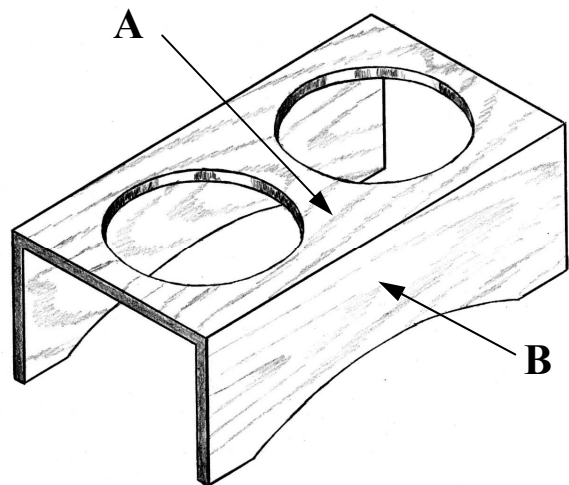
Section B (60 Marks)

Instructions

- (a) Answer any **three** questions. All questions carry equal marks.*
- (b) Write your examination number on the answer book and on all other pages used.*
- (c) Where sketches are required they may be done freehand or on the graph paper provided.*
- (d) **Question 2** from this section must be answered on drawing paper. All other written answers should be given on the answer book supplied.*

1. The diagram shows a plant stand. The flowerpots sit into the circular holes which are 120mm in diameter.

- (i) Describe, using notes and sketches, a suitable method of **jointing** the top **A** to the side **B**.
- (ii) Using notes and sketches describe how the two large holes could be cut out and shaped to a smooth finish.
- (iii) Name **one** of the tools used to shape the holes.
Make a neat sketch of this tool.



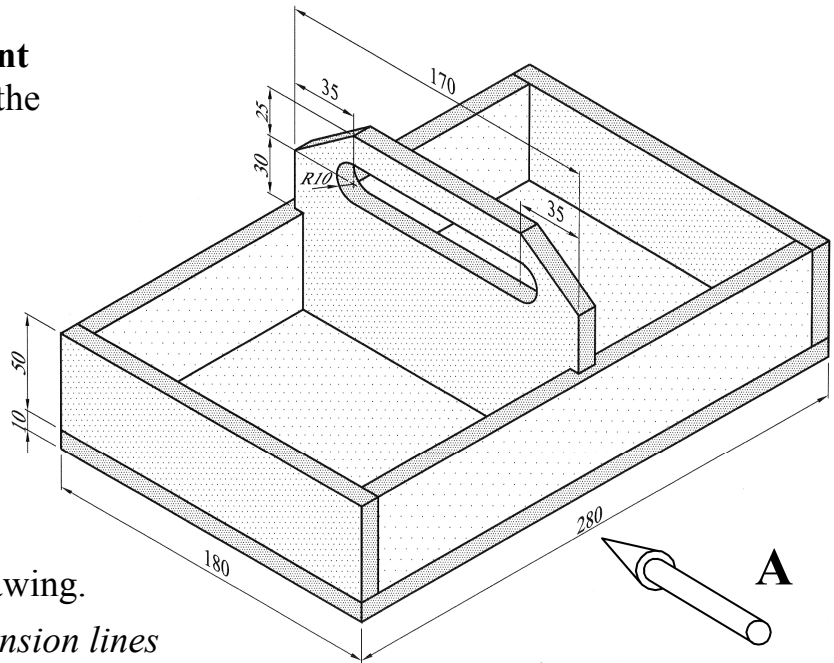
2. The diagram shows a pictorial drawing of a tray for carrying cleaning equipment (dusters, polish, etc.). The tray is made from **10mm M.D.F.**

(i) Draw, full size, a **Front Elevation** looking in the direction of arrow **A**.

(ii) Project an **End Elevation** from this view.

(iii) Include **four** main dimensions on the drawing.

Show clearly all dimension lines and arrowheads.

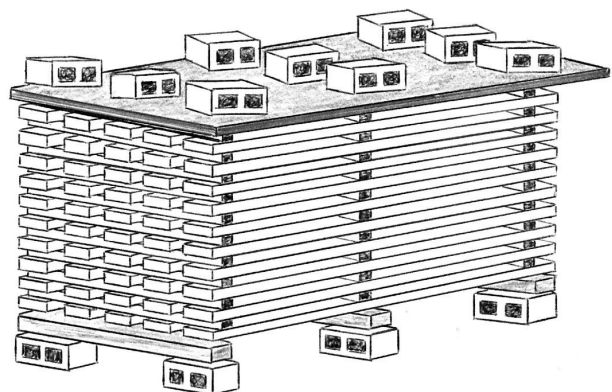


3. The diagram shows a stack of wood being air-seasoned.

(i) Describe **three** important steps to follow when building the stack.

(ii) List **three** advantages of seasoning wood.

(iii) The ends of the planks tend to split during seasoning. Describe **one** method that can be used to prevent this from happening.



4. Answer 4A or 4B

4A. The diagram shows a snooker cue which has been turned on a lathe. The cue is made in two halves with a screw-thread joint.

(i) Explain why it is easier to make the cue in two halves rather than in one full length.

(ii) Suggest a suitable applied finish for the cue.

Give **two** reasons for your choice.

Explain, in detail, how this finish would be applied.

(iii) List **three** specific safety precautions that should be followed when using a lathe.



OR

4B. The diagram shows a picture which is to be carved into a block of wood.

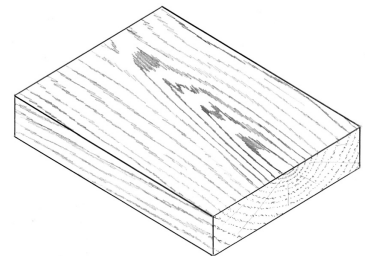
(i) Describe, using notes and sketches, how the picture could be transferred from the paper onto the wood.

(ii) Suggest a suitable carving tool for this project.

Make a neat sketch of the carving tool.

(iii) Three types of carving are: (a) Chip carving
(b) Relief carving
(c) Carving in the round.

Describe, using notes and sketches, any **one** of these types of carving.



5. The diagram shows a kennel for a small dog which is made from plywood. It has no door.

(i) The kennel lets the cold air in. Using notes and sketches design a solution to this problem that would still allow the dog get in and out by itself.

(ii) Using notes and sketches suggest **one** design change that would make the kennel easier to move from place to place.

(iii) Give **two** reasons why plywood is a good choice of material for this project.

