



Junior Certificate Examination 2008

Materials Technology Wood

Ordinary Level

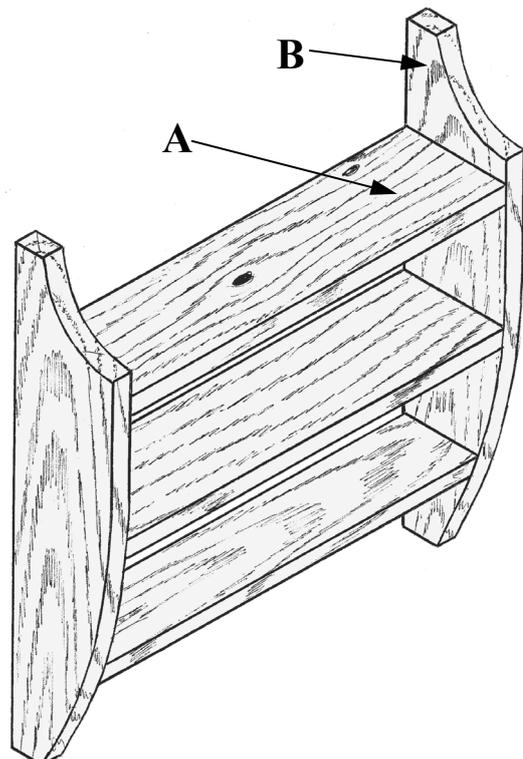
Section B (60 Marks)

Instructions

- (a) Answer any **three** questions. All questions carry equal marks.
- (b) Where sketches are required they may be done freehand or on the graph paper provided.
- (c) Write your examination number on the answer book and on all other pages used.

1. The diagram shows a bathroom shelf unit. The unit is made from solid wood.

- (i) Describe, using notes and sketches, a suitable method of jointing the shelf **A** to the side **B**.
- (ii) Using notes and sketches describe how the sides could be cut out and shaped.
- (iii) Suggest a suitable applied finish for the project after it has been sanded properly.
Give **two** reasons for your choice.

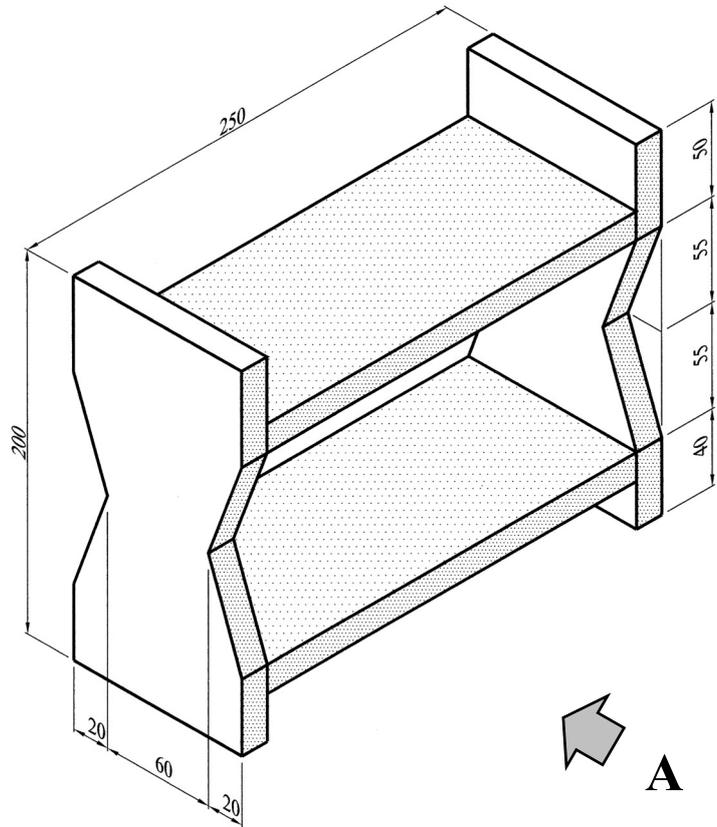


2. The diagram shows a pictorial drawing of a small display shelf. All material is **15mm** thick.

(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, showing clearly dimension lines and arrowheads.



3. The photograph shows a section of managed forest in Ireland.

(i) Describe the management of a forest under the following headings:

- (a) Planting of young trees
- (b) Thinning
- (c) Harvesting

(ii) Give two common uses for the thinnings.

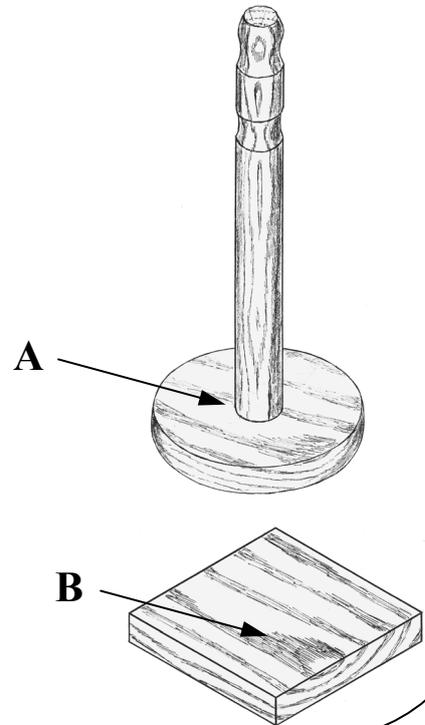


(iii) Give one reason why coniferous trees rather than deciduous trees are usually grown in these forests.

4. Answer either A or B

4A. The diagram shows a holder for a kitchen towel roll. It is made from two pieces of wood and is joined at A.

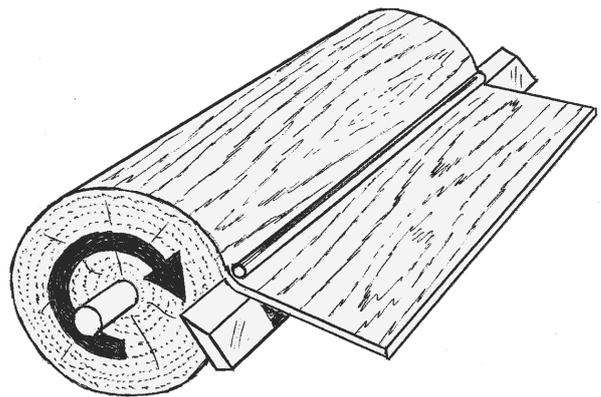
- (i) Make a neat diagram of each piece showing clearly how they could be joined at A.
- (ii) The base is to be made from a square of wood similar to that shown at B. Describe using notes and sketches the steps involved in shaping the wood and mounting it on a faceplate before turning begins.
- (iii) List **three** safety precautions that should be followed when using a lathe.



OR

4B. The diagram shows “rotary cutting” of veneers.

- (i) Explain what is happening in the diagram.
- (ii) Using notes and diagrams explain how veneers can be used to make pictures (marquetry).



- (iii) Plywood is made by gluing an odd number of veneers together. Draw a neat diagram showing the grain direction in each layer (veneer), in a piece of 3-ply plywood. Explain **one** advantage of this method of manufacture.

5. The diagram shows a book-stand designed to hold an open recipe book. The acrylic (Perspex) top is attached to the wooden stands using screws.

(i) Describe, using notes and sketches, how the acrylic sheet is formed to a 90° angle as shown at **A**.

(ii) It is found that when using the book-stand the pages flip over. Using notes and sketches, design a solution to this problem.

(iii) List **two** precautions that should be followed to help prevent the acrylic sheet from cracking when drilling the holes for the screws.

