

Design & Technology

AQA A-Level

Wood processes

Materials required for questions

- Pencil
- Rubber
- Calculator

Instructions

- Use black ink or ball-point pen
- Try answer all questions
- Use the space provided to answer questions
- Calculators can be used if necessary
- For the multiple choice questions, circle your answer

Advice

- Marks for each question are in brackets
- Read each question fully
- Try to answer every question
- Don't spend too much time on one question

Good luck!

Q1. What is a key advantage of steam bending timber?

- A** Requires no specialised equipment
- B** Allows for tight curves without weakening the wood
- C** Suitable for mass-producing flat panels

Q2. Which machine process is used to create cylindrical timber components like table legs?

- A** Milling
- B** Routering
- C** Turning

Q3. Which joint is quick to assemble and common in flat-pack furniture?

- A** Mortise and tenon
- B** Half-lap joint
- C** Knock-down (KD) fittings

Q4. What type of screw is designed to create its own thread in pre-drilled timber?

- A** Machine screw
- B** Coach bolt
- C** Wood screw

Q5. Name 2 wood joints that could have been used for the wooden chair below **(2 marks)**



1.

2.

Q6. Describe the process of forming a timber product using lamination **(6 marks)**

Answers

Q1. B

Q2. C

Q3. C

Q4. C

Q5.

- Dowel joint
- Mortise and tenon joint
- Butt joint
- Housing joint

Q6.

- Several thin layers of veneer or thin plywood (1.2 mm – 3 mm thickness) can successfully be combined to the required thickness
- Adhesive is placed between each layer
- A two part former is used and pressure applied with clamps or a press while the lamination dries
- Excess adhesive from the moulding process can be removed
- A bag press or vacuum bag could be used with a styrofoam mould or equivalent former
- Simple curved shapes can be achieved
- Cross linked adhesive or 'cascamite' can be used to create a stronger glued joint
- Lamination can be trimmed to size once formed
- Laminated products can also be achieved by combining several sheets of kerfed flexible MDF.