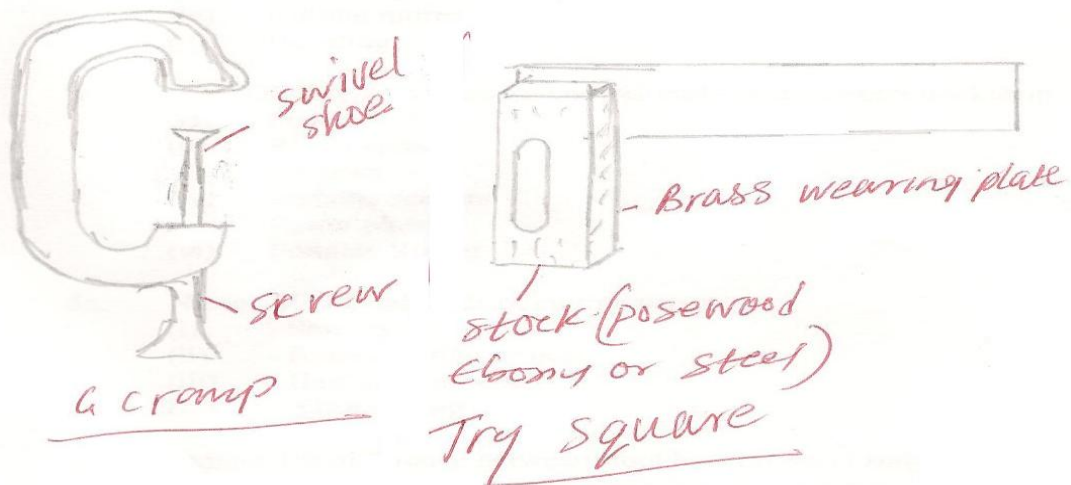
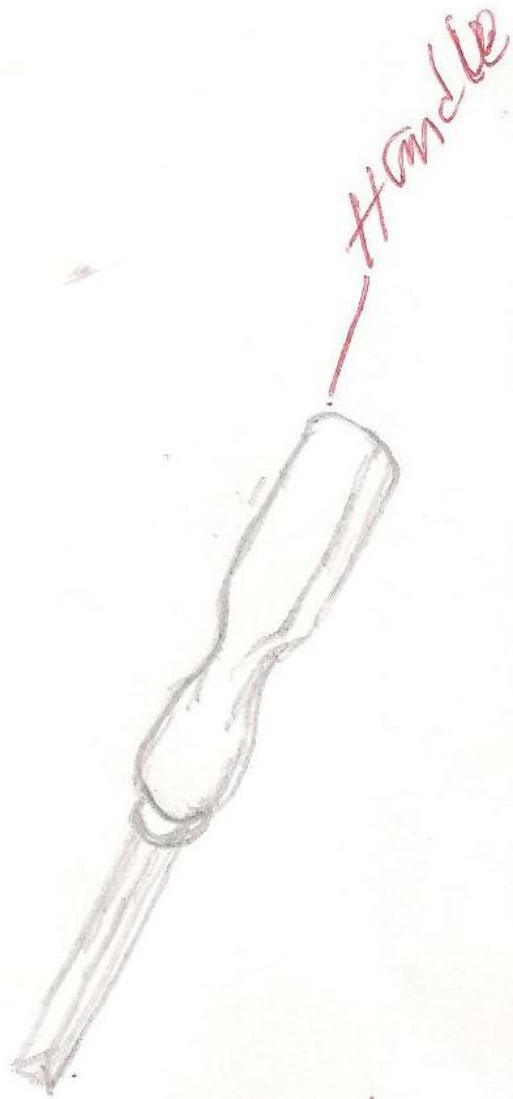


NATIONAL BUSINESS AND TECHNICAL EXAMINATIONS BOARD
NATIONAL CERTIFICATE EXAMINATION
GENERAL WOOD WORK
MAY/JUNE 2009

- 1a. Name two types of finishing materials
- (i) Oil finishing
 - (ii) Wax polishes or finishes
 - (iii) Varnishes
 - (iv) Cellulose Lacquers
 - (v) Plastic Lacquers
 - (vi) Opaque finishes
- 1b. Explain how you will prepare a wooden surface for the application of finishes.
- (i) Punch nails and panel pins slightly on the surface.
 - (ii) Remove setting-out marks and glue spots with smoothing plane.
 - (iii) Remove plan marks and smooth cross grained areas with a scraper.
 - (iv) Sand with the grain using appropriate sand paper.
 - (v) Raise the grain allow to dry and sand
 - (vi) Dust-off
 - (vii) Apply finishing materials
- 2a. Make neat sketches of the following hand tools





Morse chisel

- b. Name the appropriate hand tools to be used for the following operations
- (i) Punch nails and panel pins slightly below the surface
 - (ii) Remove
 - (iii) Planing end grain – Block plane
 - (iv) Grooving – plough plane
 - (i) Cramping of door frame-sash cramp
- 3a. Give FOUR examples of synthetic resin adhesives
- (i) Urea formaldehyde
 - (ii) Melamine formaldehyde
 - (iii) Phenol
 - (iv) Resarcinol
 - (v) Epoxy resin
 - (vi) Polyring/acetate (PVA)
- 3b. State THREE advantages of casein glue over animal glue
- (i) It is prepared cold
 - (ii) Used cold allowing longer assembling time
 - (iii) The pressure of the cramps need not be applied for about 20 minutes
 - (iv) Sets due to chemical action – heat accelerates drying while it will meet animal glue.
 - (v) Fairly water resistant.
- 4a. State THREE types of operation that can be performed on a radical arm saw.
- (i) Cross cutting
 - (ii) Grooving
 - (iii) Trenching
 - (iv) Cutting mitres
 - (v) Rebating
- b. List FOUR types of portable power tools used in wood workshop
- (i) Power drill
 - (ii) Power saws
 - (iii) Jig saws
 - (iv) Portable senders
 - (v) Power planes
 - (vi) Portable Router
- 5a. Name THREE methods of cutting veneer.
- (i) - Sawing
 - (ii) - Rotary cutting or peel
 - (iii) - Half or semi rotary
 - (iv) – Slice cutting
- b. Explain the difference between stout heat plywood and three ply.

The stout heart plywood is different from the ordinary three-ply in that the stout heart has its inner core thicker than the three ply.

6a. Define the term seasoning

Seasoning is the drying-out of most of the moisture from the wood, so that the timber is conditioned before use.

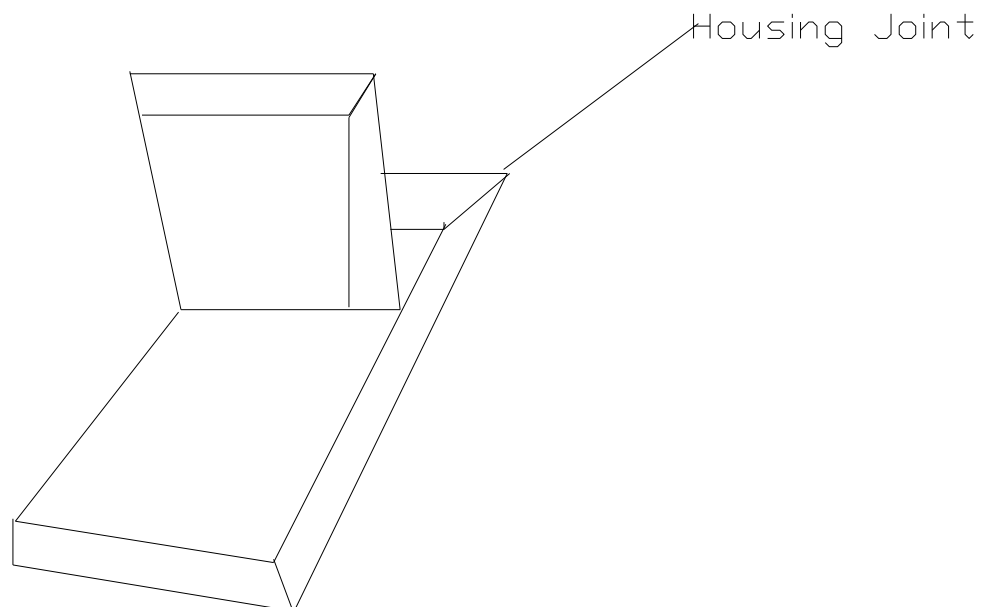
b. Give FOUR good reasons why timber must be seasoned.

Reasons why timber must be seasoned are:

- (i) Further shrinkage, checking and distortion are reduced to a minimum
- (ii) Conditions are less favourable for decay, mould stains and some insect attack,
- (iii) The timber is lighter in weight, more economical to handle transport and easier to handle.
- (iv) Most strength properties are improved with drying.
- (v) Dry surfaces will take paints, finishes and adhesives better.
- (vi) Penetration of preservatives is improved.
- (vii) Corrosion of ferrous metals is reduced.

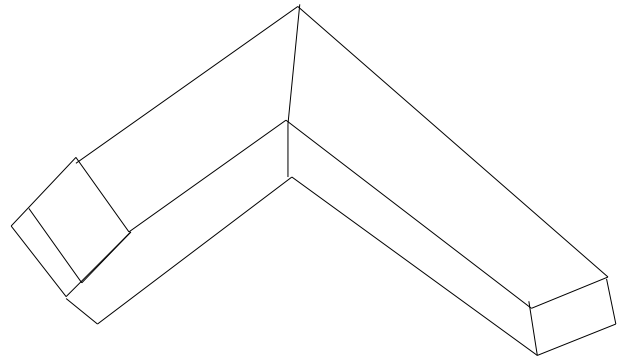
7. Sketch and state where each of the following could be used.

(i) Housing Joint



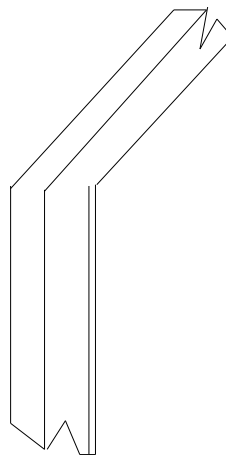
Mainly used for fixing shelves and partitions into cabinet, books case and boxes.

(ii) Mitre Joint



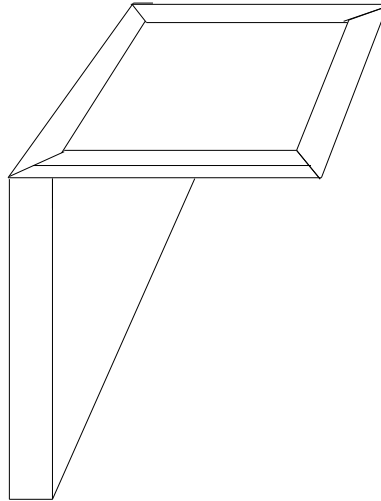
Used in corners of frame or carcasses where member meet at right angles.

(iii) Mortise and Tenon Joint



Used in panelled frames for doors framed carcass for cabinets for joining rails to legs of tables and chairs.

(iv) Dovetail Joint



Those are angle Joints used in box like constructions for cabinet work.