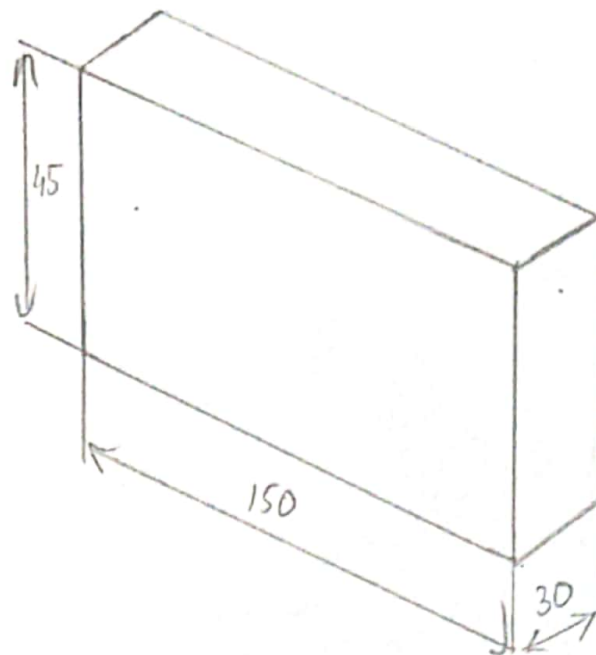
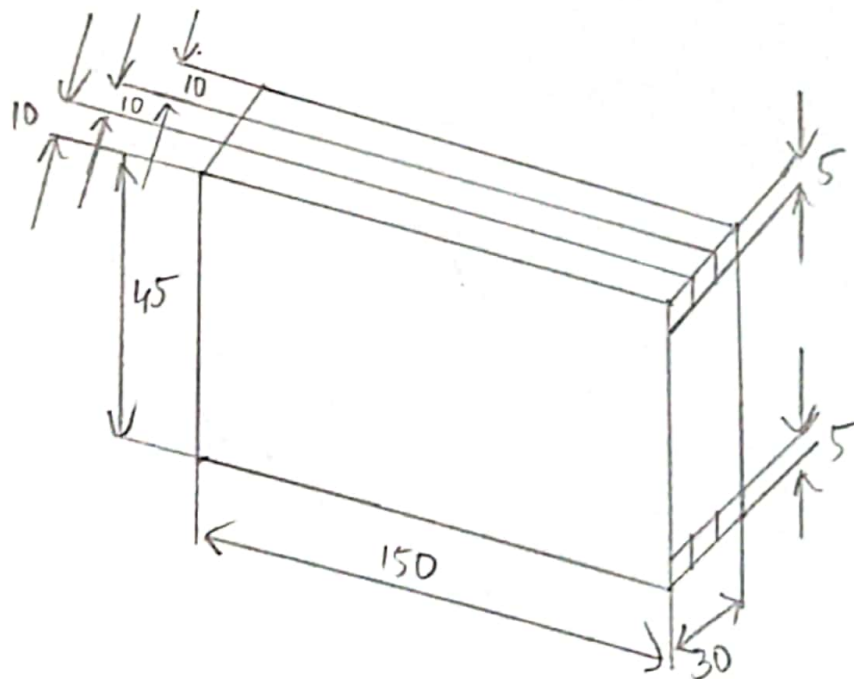


(1) Work Piece

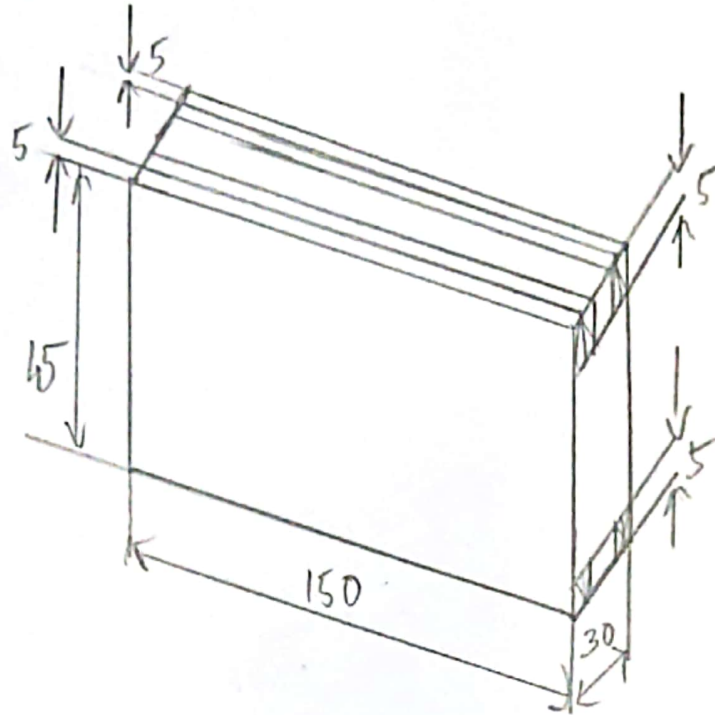


(2) Marking Step-1

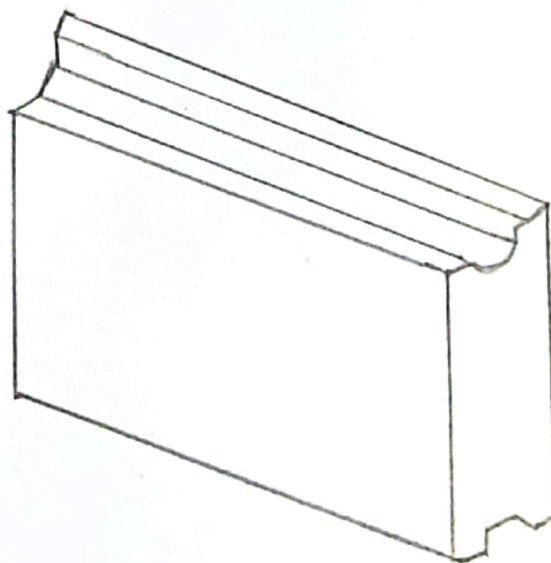


→
P.T.O

(3) Marking Step-2



(4) Finished Duster



ALL DIMENSIONS ARE IN MM.

★ AIM:

To construct a duster from the given work piece.

★ APPLICATION:

Cross bars in a cot, Shelves.

★ MATERIAL SPECIFICATIONS:

Venteek wood of size $150 \times 45 \times 30$ mm

★ TOOLS REQUIRED:

(1) Pencil (2) Steel rule (3) Try Square (4) Marking gauge (5) Hand saw (6) Firmer chisel (7) Mortise chisel (8) Rasp (9) Wooden mallet.

★ SEQUENCE OF OPERATION:

(1) Preparing (2) Marking (3) Cutting/Sawing/Chiseling (4) Finishing

★ WORKING STEPS:

(1) Preparing:

→ Prepare the work piece as per the specifications in a length of 150 mm, width 45 mm and thickness 30 mm.

★ Marking:

- Adjust the marking gauge to 10 mm and set out the distance from the same along all the four sides of the piece on the 30 mm thickness side from both ends.
- Again, adjust the marking gauge to 5 mm and set out distance along all the four side of the piece.
- Now mark a distance of 5 mm perpendicular to these lines on the 30 mm \times 45 mm side from both ends.
- Mark a diagonal line on at the inner square thus formed.

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P.T.O

* Cutting / Sawing / Chiseling :

- Hold the piece horizontally in away such that the portion to be cut is just above the jaw. Use a hand saw to cut along the required line marking but slightly inside the line as shown in figure to the required 5mm.
- Now using a firmer chisel take a series of cuts to remove the wood up to this 5mm depth.
- Hold the piece again a firmer chisel slantly chip off the wood from the along the material diagonal side.

* Finishing :

- Take a series of small cuts delicately on both the side piece to remove to the excess wood. Obtain a fine finish of the socket and shoulder assembly joint and clear off the waste by rasp.

* PRE AND POST LAB QUESTIONS :

Q1. Which is the weakest wood joint ?

Ans = Butt Joint is the Weakest Wood Joint.

Q2. List out 3 types of chisels.

Ans = 1) Flat Chisel (2) Firmer Chisel (3) Mortise Chisel.

Q3. How many types of rasp and mention any two?

Ans = There are 6 types of rasp.
Any two rasps are: 1) Cabinet rasp (2) Cranked rasp.

Q4. Mention any four types of timber.

Ans = (1) Bamboo (2) Birch (3) Cane (4) Cedar

Q5. What is the function of chisel?

Ans = Chisel is a cutting tool with a sharpened edge at end of metal blade, used along with a mallet or hammer in dressing, shaping curve materials like wood.

→
P.T.O

Q6. What is vice and name various types of vice?

Ans= The mechanical device used for holding jobs is called vice.
Types of vice are:

- (1) Bench Vice (2) Simple Bench Vice (3) Quick Release Vice
- (4) Combination Vice (5) Machine Vice (6) Hand Vice (7) Drill Vice
- (8) Pin Vice (9) Carpenter Vice (10) Leg Vice.

Q7. How many types of joints are there in carpentry?

Ans= There are more than 10 joints in carpentry. Some of them are:

- (1) Butt Joint.
- (2) Half-Joint.
- (3) Tongue & Groove Joint.
- (4) Dovetail Joint.
- (5) Rabbit Joint
- (6) Box Joint
- (7) Finger Joint
- (8) Mitered Butt Joint.

Q8. Classify the chisels and their applications.

Ans= (1) Most chisels are divisible into two classes:

- (i) Tang chisels, in which a portion of the blade, called the tang, fits into the handle.
- (ii) Socket chisels, in which a portion of the handle fits into the blade.

(2) Chisels are widely used in woodworking, wood carving and shaping.

Q9. List out the types of hand saw.

Ans= There are more than 10 types of hand saw. Some of them are:

- (1) Hack saw (2) Back saw (3) Pruning saw (4) Jab saw
- (5) Crosscut saw (6) Table saw (7) Dovetail saw (8) Tooth saw.

Q10. What is the main purpose of the table saw?

Ans= Table saw helps in making accurate and precise cuts on wood and reduce effort needed to make a straight cut.

★ RESULT:

→ The Duster was produced from the given work piece and submitted for evaluation.

————— X —————