

## CARPENTARY SHOP

BOSS  
Page No. \_\_\_\_\_  
Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

NAME :- Meet Gala

Roll No :- 16010121051

BATCH :- A3

Q1) Write Carpentry Safety Precautions

- • Always wear safety shoes in the workshop.
- Always maintain discipline in the workshop.
- Always use safety glasses or face shield.
- Make sure the guard in position is in working conditions.
- Check and adjust all other safety devices.
- Don't operate any machine without knowledge and guidance.
- Don't carry sharp pointed objects in your pocket.
- Ensure that all cutting tools and blades are clean, sharp and in good working condition so that they will not cause any harm to yourself.
- Turn the power off and unplug the power cord before inspecting, charging, cleaning, adjusting a machine. Also turn the power off when machine not in use.
- Always keep the workshop clean.

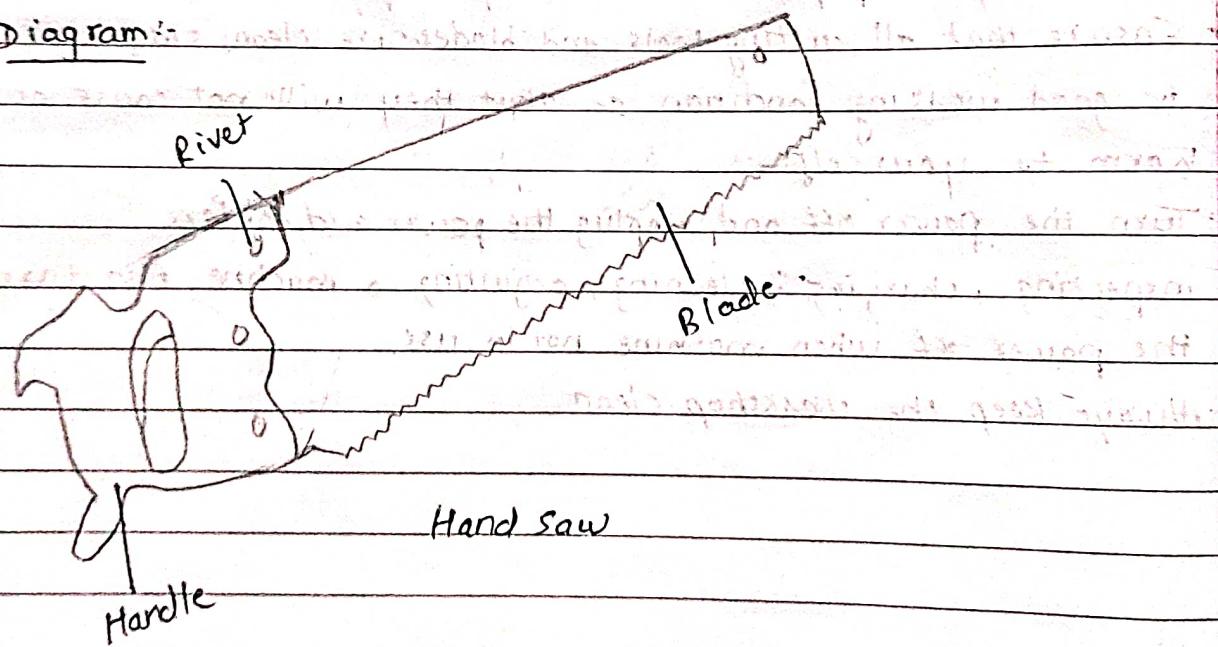
(Q2) Explain with neat sketch, following carpentry tools.

1) Hand saw

In wood working and carpentry hand saws are also known as "panel saws", "fish saws" and are used to cut pieces of wood into different shaped objects. It consists of blade, handle which are joint together by means of rivets.

Blade is of high carbon steel whereas the handle is made up of wood or plastic. They usually operate by having a series of sharp points or some substance that is harder than the wood.

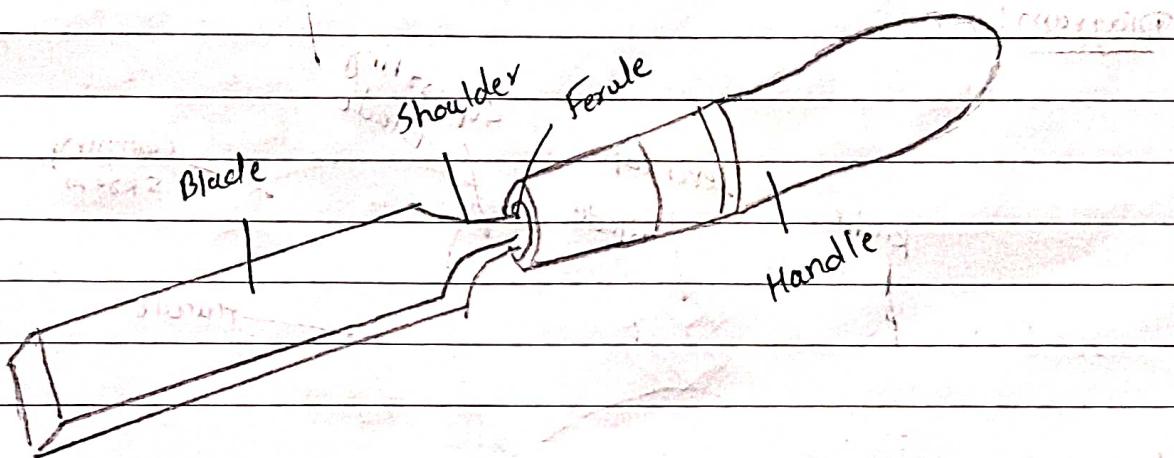
Diagram:



## 2) Firmer chisel

→ A firmer chisel is one of four main chisels used in wood working projects. It has thick, strong blade which allows removal of large pieces of wood in a single strike. In fact this chisel's 4-inch blade is strong enough to form deep large joints when the end is hit with a mallet. This type of chisel has a beveled edge and is a good choice for general wood working projects.

Diagram:

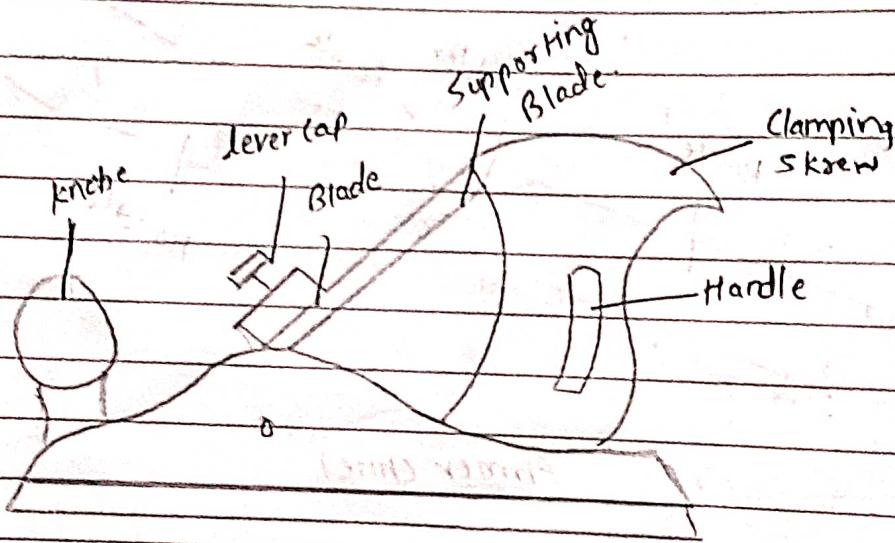


Firmer chisel

## 3) Iron Jack Plane

→ It consists of knob, handle, stock, clamping screw, lever cap, cutting blade, supporting blade and an adjustable screw. The stock is made from cast iron. The bottom face of the stock is sole which is perfectly machine flat. The thickness of shaving to be removed is governed by adjusting the blade at correct angles. This plane is used for smoothing operation and better finishing work. The blade used for cutting is made from high carbon steel.

Diagram:

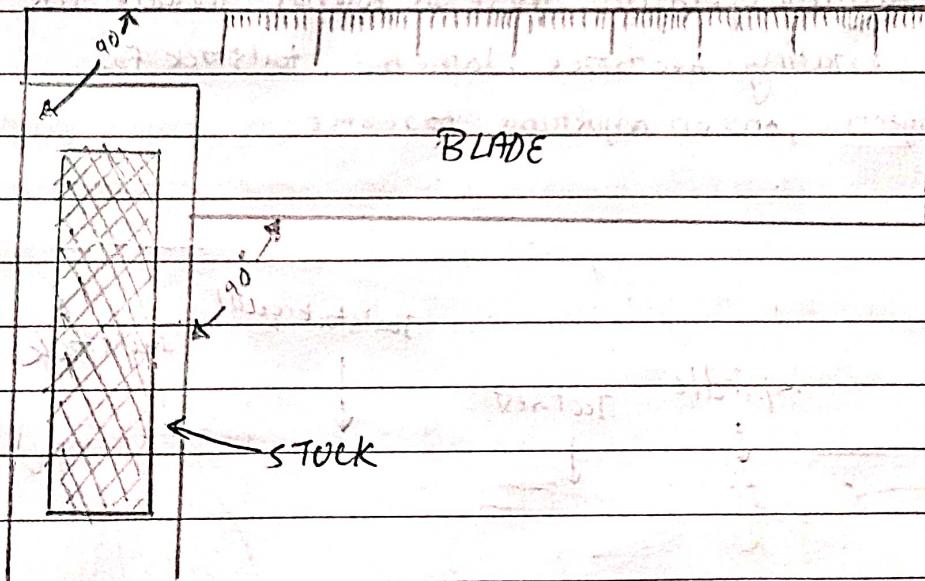


Iron Jack Plane

#### 4) Try Square

→ A try square is a ~~square~~ woodworking tool used for marking and checking  $90^\circ$  angles on pieces of wood. Though wood workers use many different types of squares, the try square is considered one of the essential tools for wood working. It consists of a blade and stock which are joined together by means of rivets at  $90^\circ$ . The stock has a clearance groove to take sharp edges while measuring  $90^\circ$ .

Diagram:



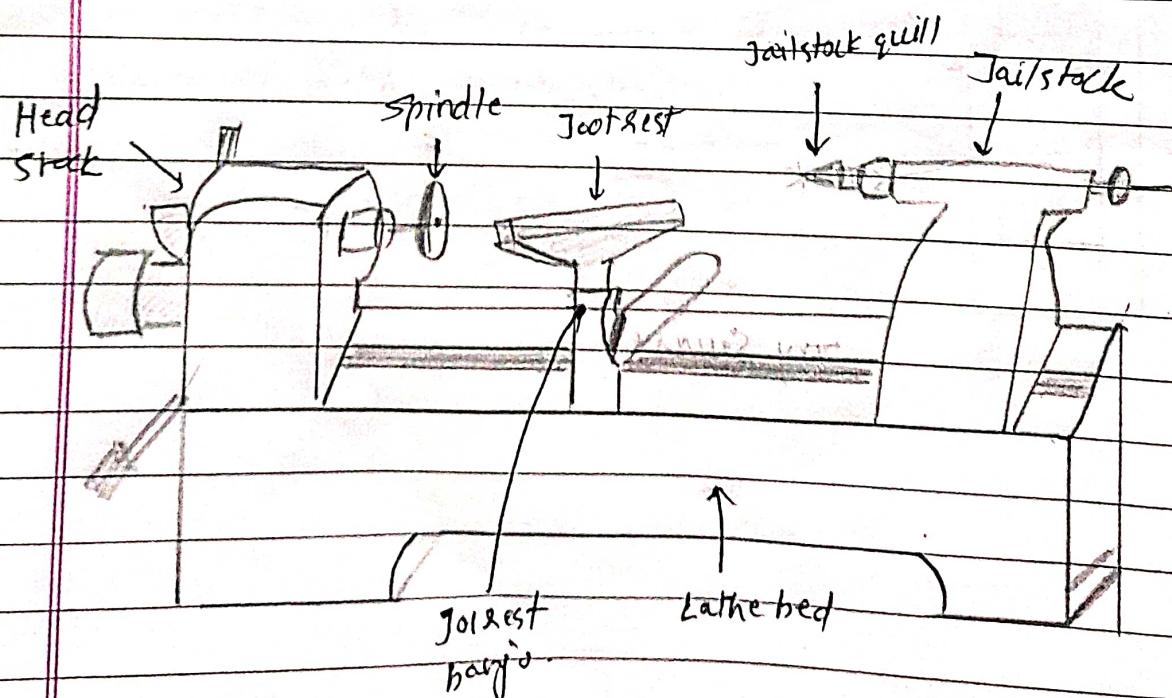
Try Square.

Q3) Explain with neat labelled diagram the use of Wood Turning Lathe Machine.

Wood turning lathes are typically used to shape wood into cylindrical profiles. Objects made on wood lathe include such items as furniture legs, lamp posts, baseball bats; bowls and other ornamental forms. Wood lathe tooling consists of fixturing and securing devices for the work piece; a moveable tool rest, and hand-held cutting tools in the form of long handled gauges, skew, scrapers, and parting tools. Speciality tooling is also available for internal shaping and surface development.

Although wood lathes can take many forms depending on the primary turning operation, those on campus include the driven or rotating headstock, lathe bed, tailstock for longer objects, and an adjustable tool rest.

Diagram:



Turning Lathe Machine

d9) Write process of making 'T' lap joint.

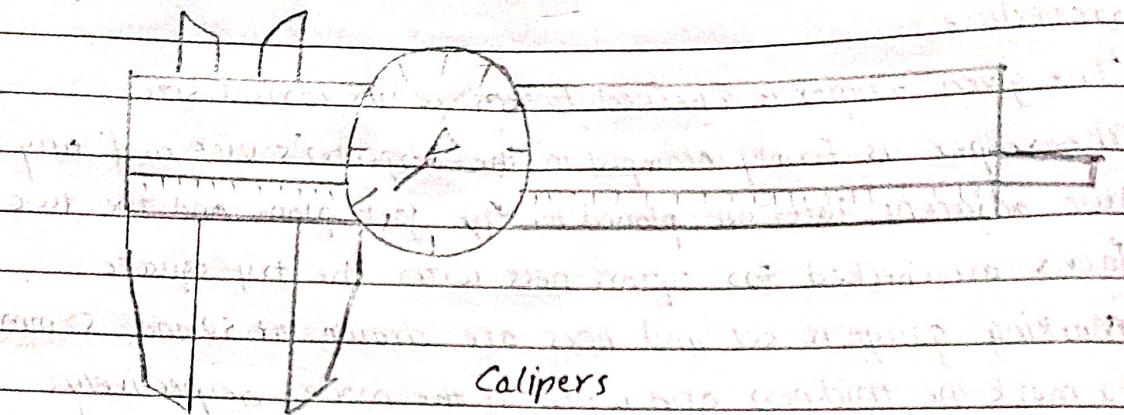
→ To make a T lap joint we would require carpenter's vice, steel rule, jack plane, try-square, marking gauge, 25 mm firmer chisel, cross-cut saw, tenon saw, scriber and mallet and wood.

After collecting all the materials we follow the following procedure

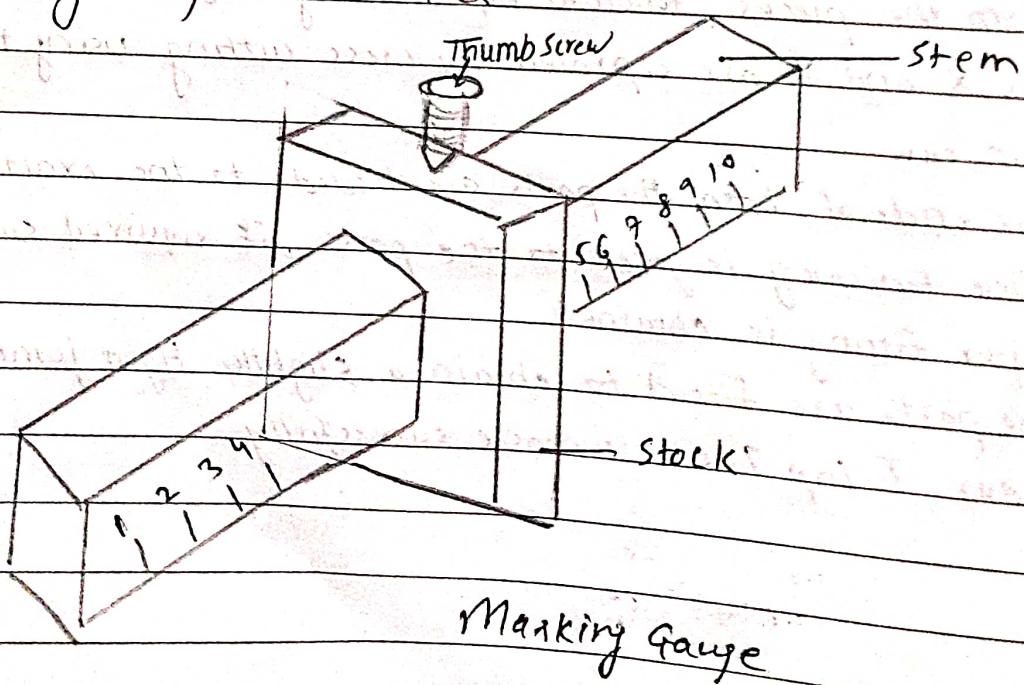
- The given reaper is checked to ensure its correct size
- The reaper is firmly clamped in the carpenter's vice and any two adjacent faces are planed by the jack plane and the two faces are checked for squareness with the try-square
- Marking gauge is set and lines are drawn at 50 and 50 mm to mark the thickness and width of the model respectively.
- The excess material is first chiseled out with firmer chisel and then planed to correct size.
- The mating dimensions of the parts X and Y are then marked using scale and marking gauge
- Using the cross-cut saw, the portions to be removed are cut in both the pieces, followed by chiseling and also the parts X and Y are separated by cross cutting using the tenon saw
- The ends of both the parts are chiseled to the exact lengths
- A fine finishing is given to the parts, if required so that proper fitting is obtained
- The parts are fitted to obtain a slightly tight joint.
- And our T lap Joint is made successfully.

Q5) Explain with neat sketch carpentry marking or measuring tools.

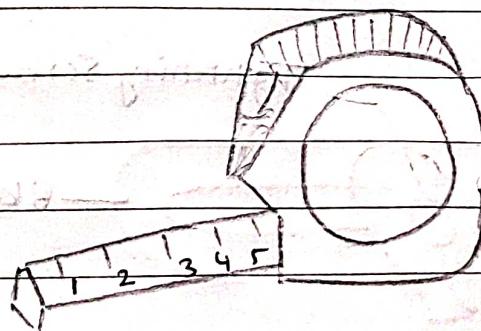
- a) Calipers:- They provide quick, accurate measurements of inside dimensions, outside dimensions, depth & thickness. Some calipers also do deliver measurements in increments of a thousandth of an inch.



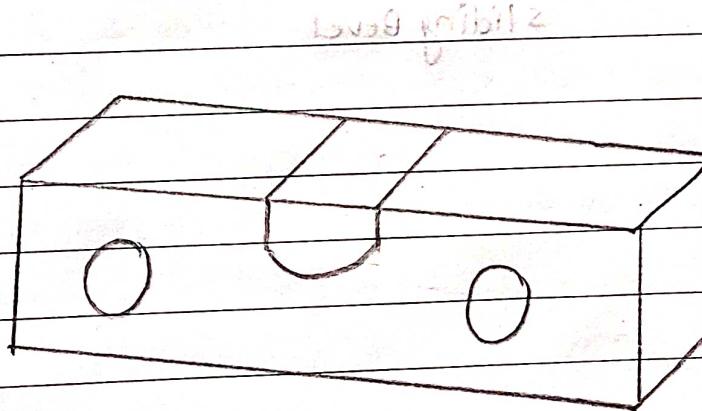
- b) Marking Gauge:- It is used for marking on parallel line at a time. It consists of stock, stem, thumb screw and spur. The stem slides in square slot of the stock. Graduations are made on stem. Thumb screw is used for loosening and tightening along with the stock.



c) Tape Measures: No other tool is used more often in wood working. Most tapes graduate in  $\frac{1}{16}$ -inch increments which is ideal for cutting plywood and lumber or measuring molding and trim. Many of them have decimal equivalents or other pertinent wood working related info printed on the back.



d) The level:- The level is a tool designed to measure and point out imperfections



The level

e) Sliding Bevel:- It is used for duplicating angle and for checking levels and angles. It consists of stock and blade. A sloped blade passes through a slot provided in the stock. It's also used for tightening screw.

