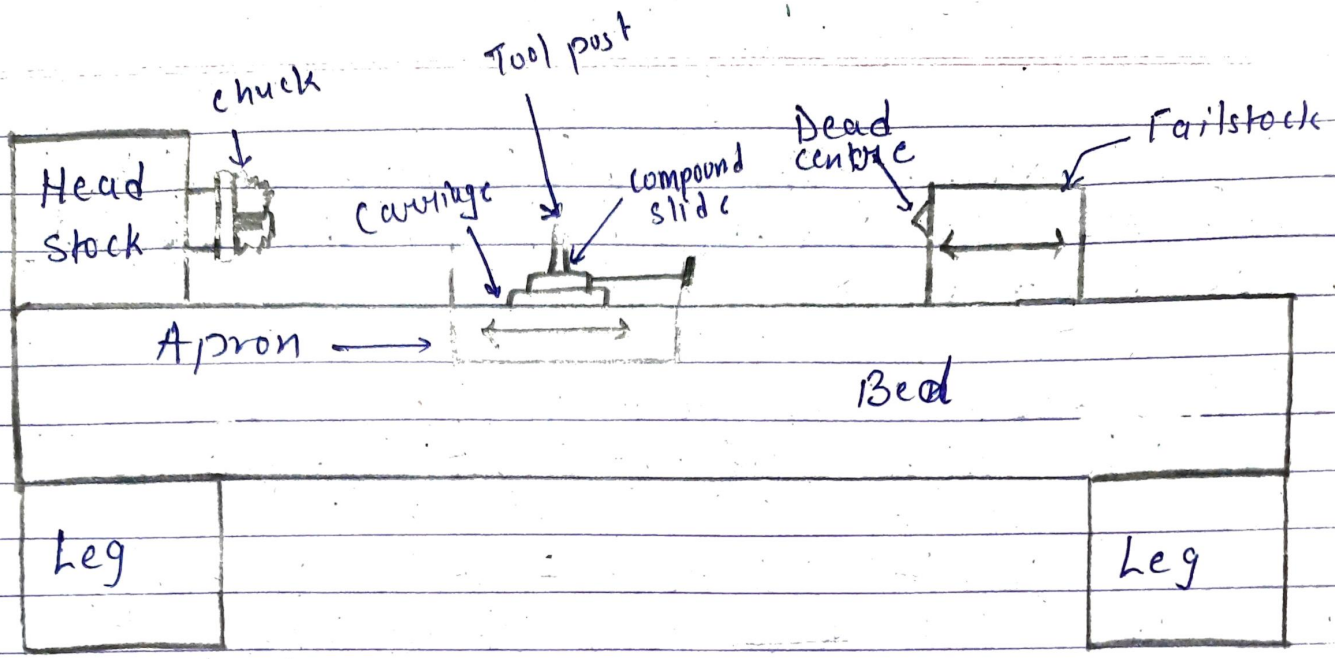
Ques:- What is the principle of lathe machine?
Ans:- Lathe machine is one of the most important machine tools which is used in the metalworking industry. It operates on the principle of a rotating work piece and a fixed cutting tool. The cutting tool is feed into the work piece which rotates about its own axis causing the workpiece to form the desired shape.

Ques:- What is machining process?
Ans:- The metal removed process is known as machining process. Machining is a manufacturing process in which a sharp cutting tool is used to cut away material to leave the desired part shape. Maching is most frequently applied to shape metals.

Ques:- Draw a block diagram of lathe machine.



Ans: Explain all the main parts of lathe machine.

Ans: ① Headstock :- The headstock is usually located on the left side of the lathe and is equipped with gears, spindlers, chucks, gear speed control levers.

② Tailstock :- Usually located on the right side of the lathe; the workpiece is supported at the end.

③ Bed :- The main parts of the lathe i all parts are bolted to the bed. It includes the headstock, tailstock carriage rails and other parts.

④ Carriage :- The carriage is located between the headstock and the tailstock and contains apron, saddle, compound rest, cross slide and tool post.

(5) Lead Screw :- The lead screw is used to move the carriage automatically during threading.

(6) Feed Rod :- It is used to move the carriage from left to right and vice-versa

(7) Chip Pan :- It is present at the bottom of the lathe. Chip ~~man~~ pan is used to collect the chips that are produced during the lathe operation.

(8) Hand Wheel :- It is the wheel that is operated by hand to moves a cross slide, carriage, tailstock and other parts that have handwheel.

Ques:- Explain :-

(1) Turning :- A turning machine is a mathematical model of computation that defines an abstract machine that manipulates symbols on a strip of tape according to a table of rules.

(2) Facing :- Facing is a common machining process that involves the use of a lathe or milling machine to remove material from end and should of a workpiece.

(3) Taper turning :- Taper turning as a machining operation is the gradual reduction in diameter from one part of a cylindrical workpiece to another part. Tapers can be either external or internal.

(4) Knurling :- Knurling is a manufacturing process, typically conducted on a lathe, whereby a pattern of straight, angled or crossed lines is rolled into the material.

(5) External Thread Cutting :- The piece can either be held in a chuck or mounted between two centers. ~~With~~ The tool moves across the piece linearly, taking chips off the workpiece with each pass.