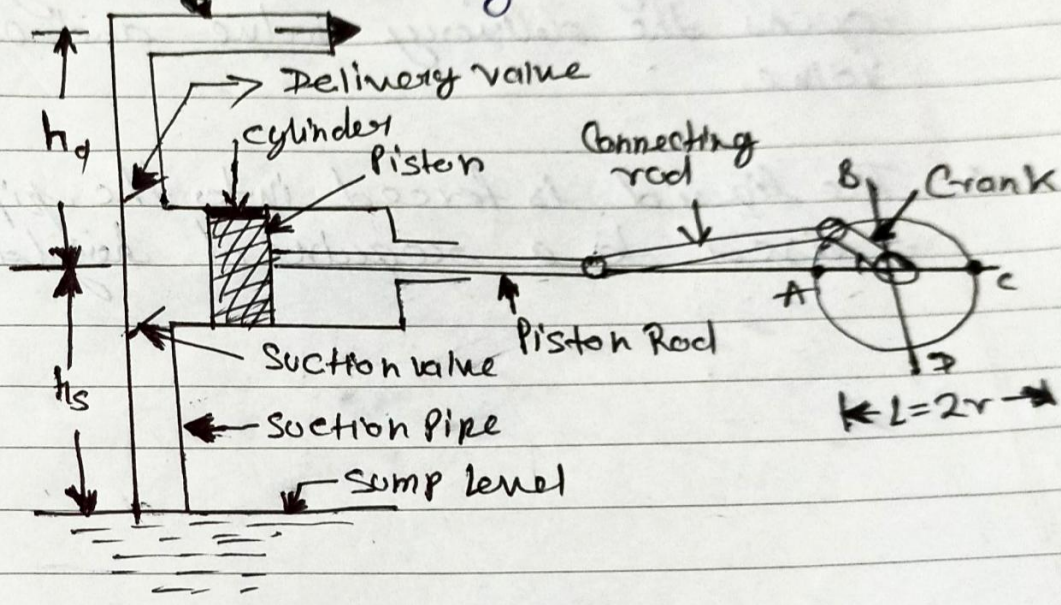
SECTION S-

Q1 Ans A. Reciprocating pump: If mechanical energy is converted into pressure energy by mean of a piston into a cylinder, then pump is known as reciprocating pump.

B Component: Main parts of a reciprocating pump are:

1 Cylinder with piston, piston rod, connecting rod & a Crank.

2. Suction pipe
3. Suction value
5. Delivery value.
6. Delivery pipe



Main parts of a reciprocating pump.

C. Working Principle:

1. A reciprocating pump consists of a piston or a plunger executing reciprocating motion inside a cylinder.

2. As the crank moves outward (from A to C), the piston moves towards right in the cylinder causing a vacuum in the cylinder.

3. Due to the pressure and the cylinder, liquid is drawn into the cylinder through the non-return suction (or inlet) valve.

4. During this outward stroke, the delivery valve, is remain closed.

5. During the return stroke of the crank (from C to A), the piston moves towards the left causing an increasing in pressure in the cylinder which opens the delivery valve and close the inlet valve.

6. The liquid is forced into the pipe and is raised to a required height.