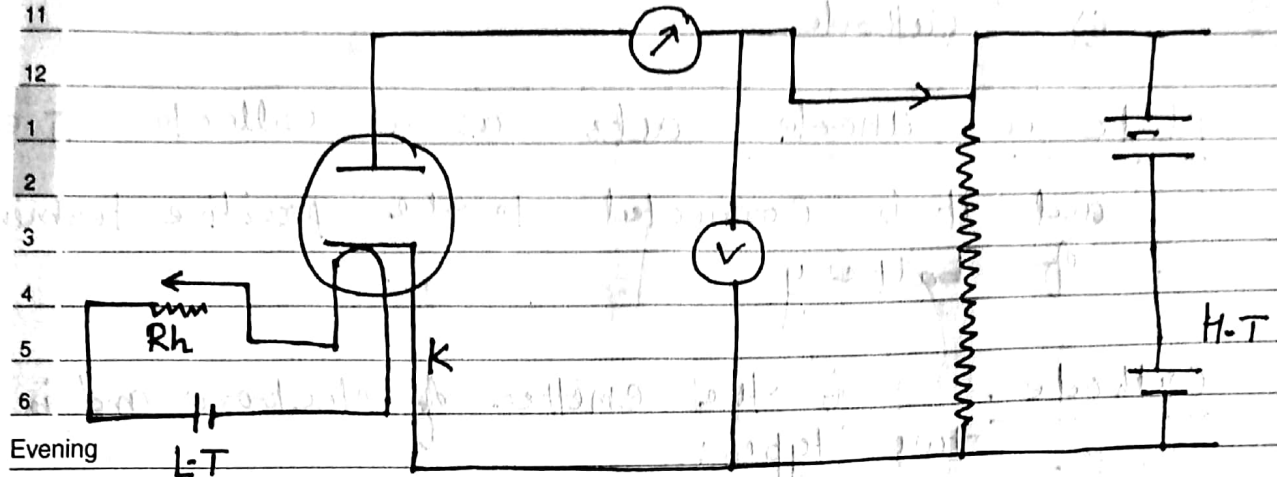
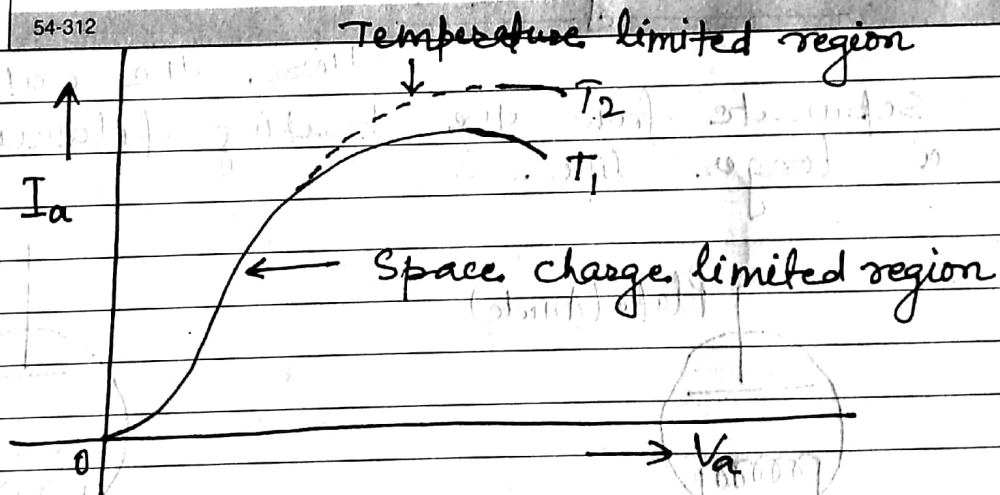


Characteristic curve of a Diode -

The circuit is as shown below :



Keeping the temperature constant say at February  $T_1$ , the voltage is gradually increased and current noted.



For low voltage values of plate potential, the curve has the same shape even at different temperature of the filament. It happens because initially current is limited by space charge. At sufficiently high values of potential all the electrons emitted by cathode are attracted by the plate and current attains its maximum value, i.e., saturation current which increases with an increase in the value of temperature of cathode.