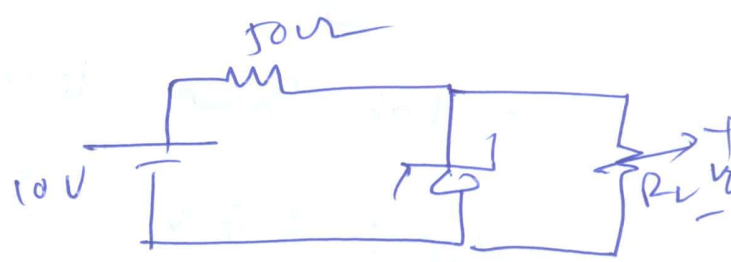


(4) In circuit shown, a Zener diode has breakdown voltage $6V$ and knee current of $5mA$. Calculate min. value of load resistance and min. power rating of the diode so that the o/p voltage remains constant at $6V$.



(5) In the amplifier shown, transistor has $\beta = 100$, $V_{BE} = 0.2V$, $I_{CO} = 5mA$ and it is operating at a collector current of $1amp$.
 Cal (1) R_B (2) the value of thermal resistance such that thermal runaway doesn't occur.

