

- Q.1) For the circuit given below, Suppose that the JFET has the parameters $I_{DSS} = 8\text{mA}$ and $V_p = -4\text{V}$. Determine the value of R_D for which the JFET operates on the border between the active and the ohmic regions.

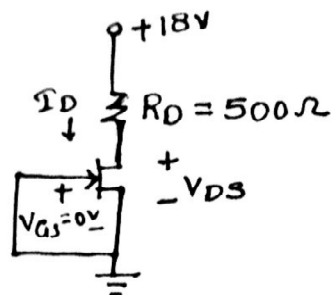
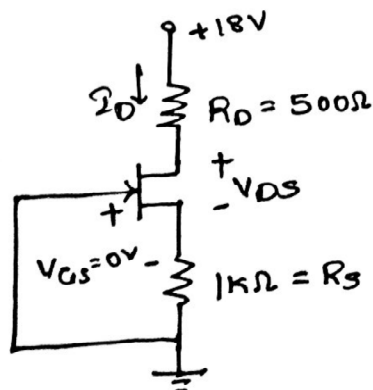


Fig.1 An n-channel JFET circuit

- Q.2) For the circuit shown below, find V_{GS} , i_D , and V_{DS} .
(assume $I_{DSS} = 8\text{mA}$ and $V_p = -4\text{V}$)



- Q.3) Consider the MOSFET circuit shown below, where the depletion NMOS transistor has $I_{DSS} = 8\text{mA}$ and $V_p = -2\text{V}$. ~~Let us~~ find V_{GS} , i_D , and V_{DS} .

