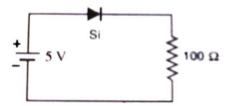
DELD

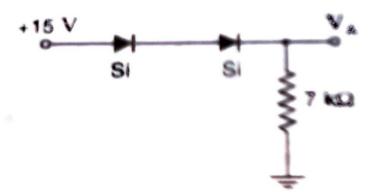
Tutorial 4 Numericals

Date: 03/09/2022

1). a). Determine diode voltage, diode current and voltage across 100 Ω resistor in series diode configuration shown in figure.



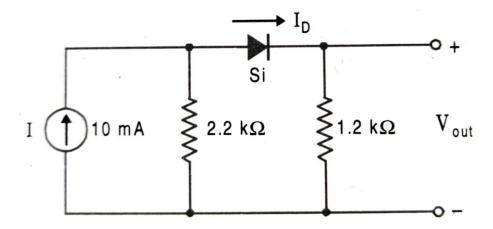
- b). Determine diode voltage, diode current and voltage across 100Ω resistor in series diode configuration shown in above figure with the diode polarity reversed.
- 2). Find the voltage V_A of the circuit given in figure.



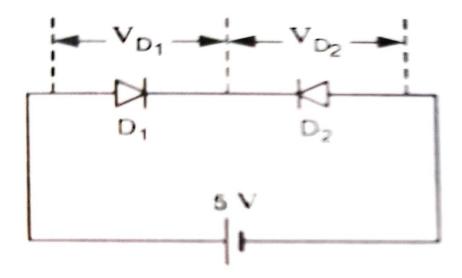
3). Determine I, V_1 , V_2 and V_0 for the series dc configuration of the following figure.

$$E_{1} = \underbrace{\begin{array}{c} 10 \text{ V} & + \text{ V}_{1} & - \text{ Si} \\ 4.7 \text{ k}\Omega \end{array}}_{\text{4.7 k}\Omega} V_{1} - \underbrace{\begin{array}{c} \text{Si} \\ \text{4.7 k}\Omega \end{array}}_{\text{4.7 k}\Omega} V_{2}$$

4). Calculate V_0 and I_D for the following figure.



5). Find the voltage drop across each of the silicon junction diodes shown in figure at room temperature. Assume that no reverse saturation current flows in the circuit and the magnitude of the reverse breakdown voltage is greater than 5 V.



6). Determine V_0 and I for the following circuit.

