1) A diode is biased so that $I_D = 10\text{mA}$. Using the diode characteristic below determine the dynamic (AC) resistance at that current level. Show your work.

$$R = (\text{from graph})$$
2) Using the diode characteristic and circuit given below determine $I_D$ and $V_D$ for the circuit.
3) Determine the current $I$ for the circuit below using the approximate equivalent model (0.7v when turn on) for the silicon diodes.
4) Determine the output voltage waveform, $v_o$, for the network and input shown below. Use the approximate equivalent model for the silicon diode. Sketch the waveform and give values of $v_o$ at the max and min levels of the waveform.
5) Determine the output voltage waveform, $v_o$, for the network and input shown below. Use the approximate equivalent model for the silicon diode. Sketch the waveform and give values of $v_o$ at the max and min levels of the waveform.

Scores
1. ______
2. ______
3. ______
4. ______
5. ______
Total ______