Problem T6 – updated

Figure 1 shows a common source JFET amplifier.

a) Using the JFET characteristics of Figure 2, find the resistor values that would put the working point of the amplifier at $V_{GS} = -1.5\,\text{V}$ for $V_{DD} = 15\,\text{V}$ and $R_D + R_S = 1.5\,\text{k}\Omega$.

b) What is the AC voltage gain $\Delta V_{out}/\Delta V_{in}$ for your choice of components?

c) What bypass capacitor $C_S$ should be placed in parallel with $R_s$ if the amplifier is to amplify signals down to $30\,\text{Hz}$?