Quiz 19.2 – Electrochemical Cells

Name: Key

Question 1

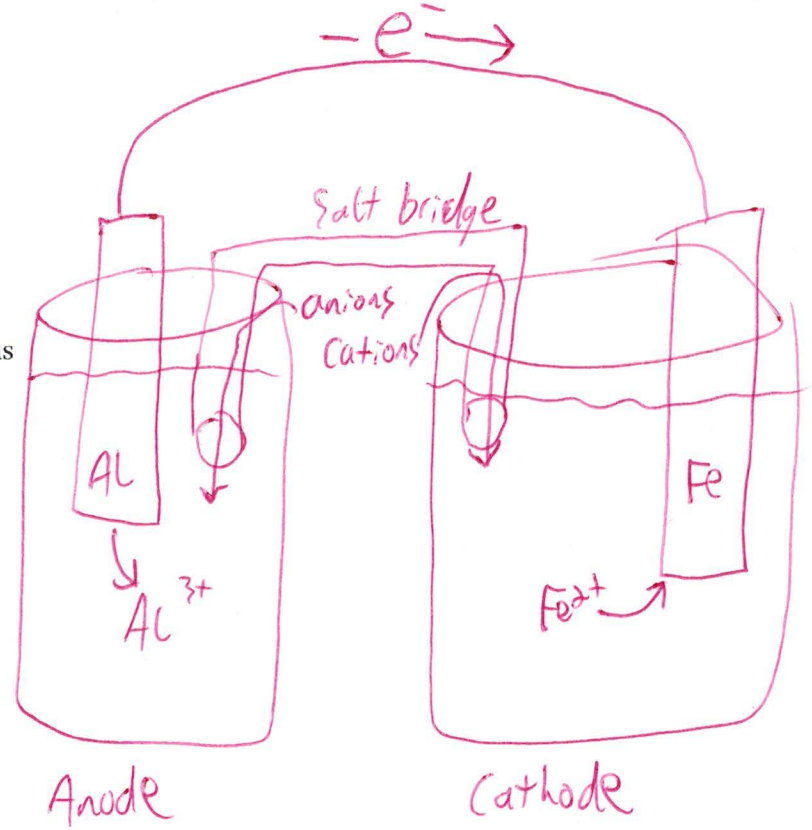
Write the cell notation for a voltaic cell made by reducing $Fe^{2+}(aq)$ to Fe(s) and oxidizing Al(s) to $Al^{3+}(aq)$

$Al(s) \mid Al^{3+}(aq) \parallel Fe^{2+}(aq) \mid Fe(s)$

Question 2

Sketch the cell, labeling:

- Anode
- Cathode
- Salt Bridge
- Direction of electron flow
- Direction of redox reactions
- Direction of ion flow



Question 3

Give the standard cell potential for this cell

$E_{cell} = E_{cathode} - E_{anode} = -0.44\ V - (-1.66\ V) = 1.22\ V$

Question 4

Is this a voltaic cell, or an electrolytic cell?

Voltaic