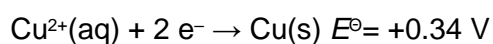
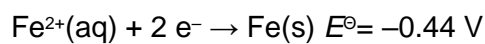


Q1.The E^\ominus values for two electrodes are shown.What is the EMF of the cell $\text{Fe}(\text{s})|\text{Fe}^{2+}(\text{aq})||\text{Cu}^{2+}(\text{aq})|\text{Cu}(\text{s})$?A +0.78 V B +0.10 V C -0.10 V D -0.78 V **(Total 1 mark)****Q2.**Which ion **cannot** catalyse the reaction between iodide (I^-) and peroxodisulfate ($\text{S}_2\text{O}_8^{2-}$)?

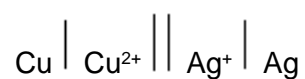
Use the data below to help you answer this question.

Half-equation	E^\ominus / V
$\text{S}_2\text{O}_8^{2-} + 2\text{e}^- \rightarrow 2\text{SO}_4^{2-}$	+2.01
$\text{Co}^{3+} + \text{e}^- \rightarrow \text{Co}^{2+}$	+1.82
$\text{Fe}^{3+} + \text{e}^- \rightarrow \text{Fe}^{2+}$	+0.77
$\text{I}_2 + 2\text{e}^- \rightarrow 2\text{I}^-$	+0.54
$\text{Cr}^{3+} + \text{e}^- \rightarrow \text{Cr}^{2+}$	-0.41

A Co^{2+} B Cr^{2+} C Fe^{2+} D Fe^{3+} **(Total 1 mark)**

Q3.

The following cell has an EMF of +0.46 V.



Which statement is correct about the operation of the cell?

- A** Metallic copper is oxidised by Ag^+ ions.
- B** The silver electrode has a negative polarity.
- C** The silver electrode gradually dissolves to form Ag^+ ions.
- D** Electrons flow from the silver electrode to the copper electrode via an external circuit.

(Total 1 mark)