$$E = E° - \frac{0.0592}{n} \log_{10} Q \qquad \text{at } 25°C$$

Calculate the potential for the following electrochemical cell at 25°C.

$Ag \mid Ag^{+}(0.025\ M) \parallel Cu^{2+}(2.0\ M) \mid Cu$

Ans = -0.3539 V

Calculate the potential for the following electrochemical cell at 25°C.

$Pt \mid Fe^{3+}(0.10\ M), Fe^{2+}(0.020\ M) \parallel Ni^{2+}(2.0\ M) \mid Ni$

Ans = -1.032 V

Calculate the potential for the following electrochemical cell at 25°C.

$Pb \mid Pb^{2+}(1.0\ M) \parallel OH^{-}(0.010\ M) \mid Cd(OH)_2 \mid Cd$

Ans = -0.568 V

Calculate the potential for the following electrochemical cell at 25°C.

$Ag \mid Ag^{+}(0.010\ M) \parallel OH^{-}(0.20\ M) \mid Ni(OH)_2 \mid NiO_2 \mid Pt$

Ans = -0.15 V

Calculate the potential for the following electrochemical cell at 25°C.

$Pt \mid O_2(1.5\ atm), OH^{-}(0.010\ M) \parallel H^{+}(1.0\ M)\ , H_2(0.50\ atm) \mid Pt$

Ans = -0.514 V

Calculate the potential for the following electrochemical cell at 25°C.

$Pb \mid PbSO_4 \mid SO_4^{2-}(1.2 \times 10^{-2}\ M) \parallel H^{+}(0.10\ M)\ , H_2(1\ atm) \parallel Pt$

Ans = +0.240 V

Calculate the potential for the following electrochemical cell at 25°C.

$Pb \mid PbSO_4 \mid H^{+}(1.0\ M), SO_4^{2-}(1.2 \times 10^{-2}\ M) \parallel H^{+}(1.0\ M)\ , O_2(1.0\ atm) \parallel Pt$

Ans = +1.528 V

Calculate the potential for the following electrochemical cell at 25°C.

$$Pb \mid Pb^{2+}(0.10\ M) \parallel Ag^{+}(1.5\ M) \mid Ag$$

Ans = +0.966 V