• Explain the following terms or concepts.

Marks 3

## a) Lipid bilayer

A 2-dimensional self-assembled structure consisting of two layers of lipids with their non-polar (hydrophobic) tails pointing inwards and their polar (hydrophilic) heads at the interface with the solution.

## b) Oxidation number

The charge an atom would have if all the electrons involved in covalent bonds were allocated to the more electronegative of the 2 atoms they are shared between.

## c) Electrolysis

The process of forcing a non-spontaneous redox reaction to occur by providing sufficient energy in the form of an applied electrical potential.