## ASSIGNMENT 11

## MTH101 (2014)

(1) Define supremum and infimum (greatest lower bound) of a non empty subset of $\mathbb{R}$.
(2) What is the difference between minimum and infimum? Explain with the help of an example.
(3) Prove that an increasing sequence of real numbers $\left\{x_{n}\right\}$ which is bounded above, converges to its supremum.

