Rough guide for review for MATH 2202 midterm, October 24, 2014

Chapters covered from Bartle -Sherbert : 1, 2, part of 3

DEFINITIONS:

1. One to one, onto functions; inverse images of functions; mathematical induction; finite, countable, uncountable sets.

2. Field axioms (negative; zero; identity; commutative, associative and distributive law); order axioms; absolute value; supremum and infimum; completeness;

3. Limit of a sequence; boundedness; monotonic sequence; subsequence; Cauchy sequence.

THEOREMS:

1. Well ordering property.

2. Archimedean thm. and corollaries; density thm.; Nested Intervals thm.

3. Uniqueness of limits of sequences; convergence and boundedness of sequences; theorem on operations on sequences and limits; squeeze theorem; theorem on monotonic bounded sequences; theorems on convergence of sequences and convergence of subsequences; Bolzano-Weierstrass; Cauchy criteria.