Higher Set Theory - Classical and Ordinal Computability

Exercise Sheet 10
due on Tuesday, 28 June 2011

23. Prove in SO: The replacement scheme implies the separation scheme.

(2 points)

24. Define in SO:

    (a) Sequences of ordinals (coded as ordinals).

    (b) Functions and relations on ordinals.

    (c) The range of a function on an initial segment of the ordinals (coded as an ordinal).

(4 points)

25. Prove a recursion theorem for SO: Let G be a function on ordinals. Then there is a function F defined on all ordinals with $F(\alpha) = G(F \restriction \alpha)$.

(6 points)