R-7.6

A worst-case sequence for insertion sort would be one that is in descending order of keys, e.g., 443629252215131093. With this sequence, each element will first be moved to the front and then moved back in the sequence incrementally, as every remaining is processed. Thus, each element will be moved n times. For n elements, this means at a total of n^2 times, which implies $\Omega(n^2)$ time overall.