EXAM FOR "MEASURE THEORY AND INTEGRATION" (TMAIN)
WINTER SEMESTER 2018/2019

QUESTIONS SET NO. 5

1. Prove the uniqueness of the Borel measure.

2. Compute $\int_0^1 f(x)\,\mathrm{d}x$, where $f(x) = 10$ if x belongs to the Cantor set, and on any interval thrown away in the construction process of the Cantor set, the graph of f is the upper semicircle built on this interval as a diameter.