Student ID:
Name Surname:

Automata Theory course Quiz 3.b (2015-2016 Fall)
(Please use free space for draft and fit your answer to boxes.)

1. (50P) Prepare a Turing machine code so that it produce a string into the second tape including only "a"s as many as number of written "b"s in the first tape. ($\Sigma=\{a,b\}$)

2. (50P) According to satellite signals, we want to determine the position of an object. The object can be any position in the World. Present your comments about the problem of determining the position of the object at any instant in terms of decidability.