



UNIVERSIDAD CARLOS III DE MADRID
FORMAL LANGUAGES AND AUTOMATA THEORY
GRADO EN INGENIERÍA INFORMÁTICA
THIRD PARTIAL ASSESSMENT

Surname(s): _____

Name: _____

NIA: _____ Signature: _____

Duration: 45 minutes

Maximum Mark: 1.2 points

Problem (Maximum mark: 0.6 points)

Design a PDA_E to recognize the language $L = \{a^{3n+1}b^n \mid n \geq 0\}$. Include a brief explanation of the developed design, also detailing the different elements in the formal definition of the PDA.

n=0	a
n=1	aaaab
n=2	aaaaaabb
n=3	aaaaaaaaabbb