uc3m Universidad Carlos III de Madrid

DEPARTMENT OF COMPUTER SCIENCE CARLOS III UNIVERSITY OF MADRID

Computer Science Language Processors

Rules

- The duration of the test is **30 minutes**
- Questions will not be answered during the test
- One cannot re-enter the classroom after leaving it
- The answers must be written using a pen (not a pencil)

1.- Describe the language denoted by the following regular expressions. The alphabet \sum is {x, y}.

- a) x(x|y)*y
- b) $((x|y)(x|y))^+$
- c) x*(yx+)*x*
- d) $(x|y)^{*}(xx|yy)^{*}y^{*}$

2.- Contruct a DFA given the language of all strings which do not contain the substring 01.



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