

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 Σ is $\{x, y\}$.

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

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