

## Sample Questions

### Automata-Fix

1.  $L$  and  $\sim L$  are recursive enumerable then  $L$  is
  - a. Regular
  - b. Context free
  - c. Context sensitive
  - d. Recursive
2. Regular grammar is
  - a. context free grammar
  - b. non context free grammar
  - c. English grammar
  - d. none of the mentioned
3. Regular expression are
  - a. Type 0 language
  - b. Type 1 language
  - c. Type 2 language
  - d. Type 3 language
4. A language is regular if and only if
  - a. accepted by DFA
  - b. accepted by PDA
  - c. accepted by LBA
  - d. accepted by Turing machine default access
5. Complement of  $(a + b)^*$  will be
  - a.  $\phi$
  - b. null
  - c.  $a$
  - d.  $b$
6. Which of the following is true?
  - a. Every subset of a regular set is regular
  - b. Every finite subset of non-regular set is regular
  - c. The union of two non-regular set is not regular
  - d. Infinite union of finite set is regular

7. Which of these constructors is used to create an empty String object?
- a. String()
  - b. String(void)
  - c. String(0)
  - d. None of the mentioned
8. Which of these is a type of stream in Java?
- a. Integer stream
  - b. Short stream
  - c. Byte stream
  - d. Long stream
9. Transition function maps.
- a.  $\Sigma * Q \rightarrow \Sigma$
  - b.  $Q * Q \rightarrow \Sigma$
  - c.  $\Sigma * \Sigma \rightarrow Q$
  - d.  $Q * \Sigma \rightarrow Q$
10. Number of final state require to accept  $\Phi$  in minimal finite automata.
- a. 1
  - b. 2
  - c. 3
  - d. None of the mentioned