

Thapar Institute of Engineering and Technology Patiala

Computer Science and Engineering Department (CSED)

1. Write down a R.E. over $\{0, 1\}$ such that no. of 1's are divisible by 4.
 2. Write down a regular expression for language L over $\{a, b, c\}$ such that every string in L contains a substring ccc.
 3. Write down a R.E. for the language $L = \{w : |w| \bmod 5 = 0\}, \Sigma$
 4. Write down a R.E. over alphabet Σ containing at least one a and at least one b .
 5. Write the Regular expression for the language of all even length strings defined over Σ
 6. Write the Regular expression for the language of all even length strings defined over Σ
 7. Write the Regular expression for the language Σ^* over Σ
 8. Write the Regular expression for the language Σ^* over Σ
 9. Write down a R.E. over $\{0, 1\}$ whose fifth symbol from the right end is 1.
9. Design the DFA for the problem given in Q1-8.