Gujarat Technological University

Government Engineering College, Modasa

B.E. – Computer Engineering (Semester – VI)

3160704 – Theory of Computation

ASSIGNMENT

#	Topic
1	Design finite automata for the following languages over alphabets {a, b}: • String starting with a and ending with b • Stings having sub string aba • Strings having a in count of multiple of 4 • Strings having odd number of a's and even number of b's
2	Derive regular expression for all above languages
3	Design a PDA to detect palindrome string of even length
4	Design a PDA to detect palindrome string of odd length
5	Design TM to detect palindrome of odd/even length
6	Design TM for the language $a^n b^{2n}$, where n > 0