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COURSE CODE: CSC304

COURSE TITLE: Theory of Computing

Revision 4

1. What is Automata theory? How can it be represented?

1. Construct a DFA that accepts set of all string over {a,b} such that:
2. Length of the string is 3
3. That accepts substrings of three consecutive b’s

iii. That accepts strings beginning with aa. Draw the transition table for (ii).

1. Draw a transition table for the DFA that accepts any string over {a,b} that does not contain the string aab in it.

1. Construct the DFA that accepts a language over: i. all strings {0,1} that ends with 101; and ii. all strings {a,b} that contains the string {baba} in it
2. Construct the DFA accepting the Language of strings over {a,b} ending with bb.
3. Let L\_1 be the set of all strings over {a, b} ending in ba. Create the DFA and find the transition table
4. Construct a DFA for all set of strings over {a,b} such that
5. The string containing only 2a’s.
6. w∈{a,b}| |w|≅1 mod 2

iii. w∈{a,b}| |w|≅1 mod 3

iv. Length of string is at most 2

1. Construct a DFA that accepts a language over all string {0,1} i. that begins with 111 ii. that ends with 100 iii. that contains 101

SOLN

