

Indian Institute of Information Technology, Allahabad

Department of Information Technology

Theory of Computation

Date: 26-08- 2022

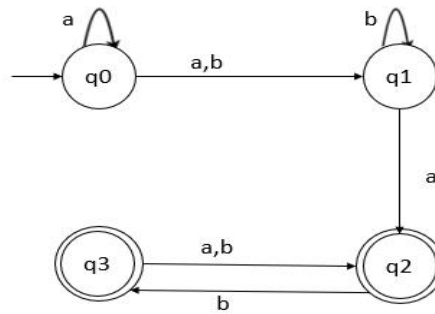
Marks: 10

Practical Questions: Set 2

Write a C or C++ programs for the following and check the acceptance and rejection of the strings:

- 1) Construct an equivalent DFA for the following NFA?

(a)



- (b) $L = \{abab^n : n \geq 0\}$ construct the NFA for the specified language

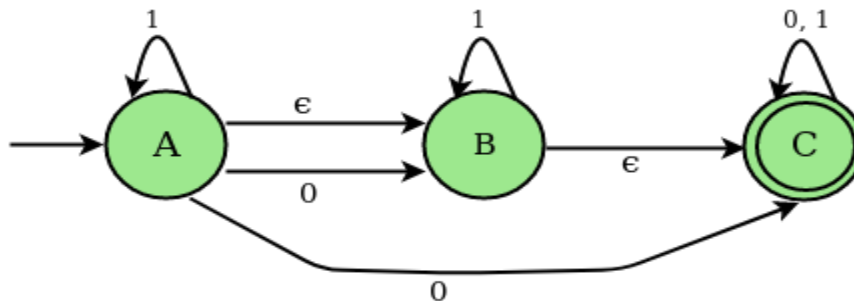
Input: Number of states -Q, Input Symbols - Σ and Transition Table with initial and final states.

Output: i) Equivalent DFA Transition Table

ii) Two set of strings which is accepted and rejected by the Automaton

- 2) Construct an equivalent DFA for the following NFA?

(a)



b)

	ϵ	a	b	c
$\rightarrow p$	$\{q, r\}$	\emptyset	$\{q\}$	$\{r\}$
q	\emptyset	$\{p\}$	$\{r\}$	$\{p, q\}$
$*r$	\emptyset	\emptyset	\emptyset	\emptyset

Input: Transition diagram with initial and final states.

Output: i) Equivalent DFA Transition diagram

ii) Two set of strings which is accepted and rejected by the DFA.

***** ALL the Best *****