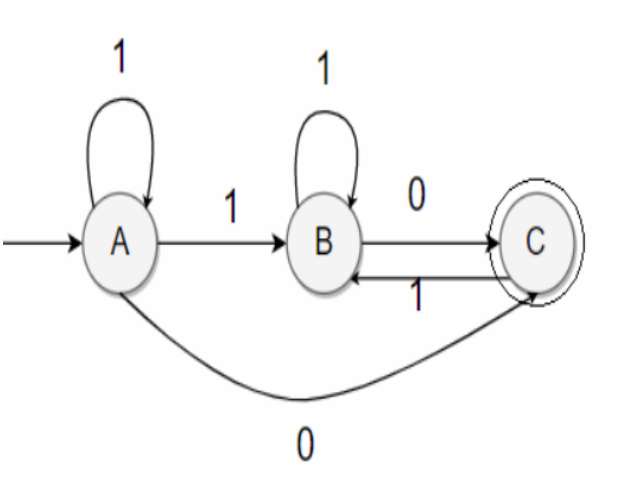
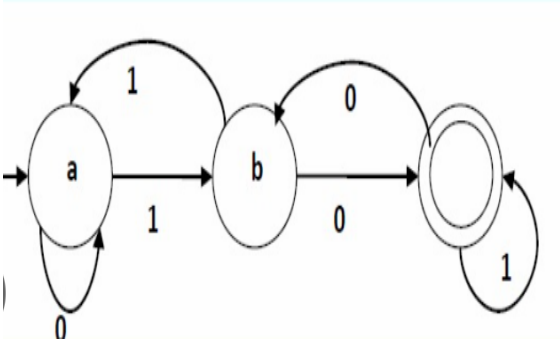
Kleene's Theorem

1. Find union, intersection and concatenation of given FA1 and FA2 (consider third state as c in FA2).

2. Closure of FA1 and FA2?





F1 FA2

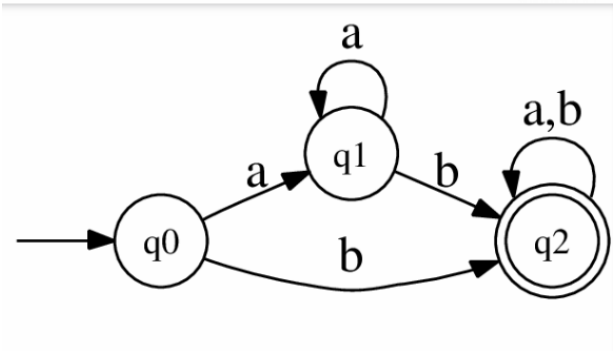
Kleene's Theorem

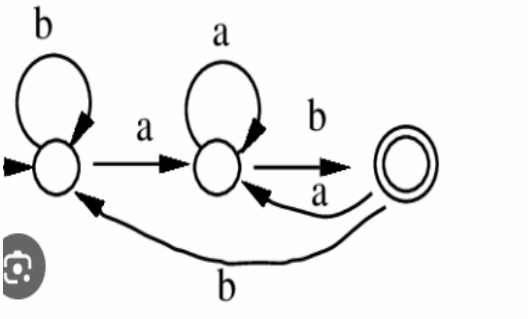
1. Find union, intersection and concatenation of given FA3 and FA4 .

2. Closure of FA1 and FA2?

q0

q1 q3

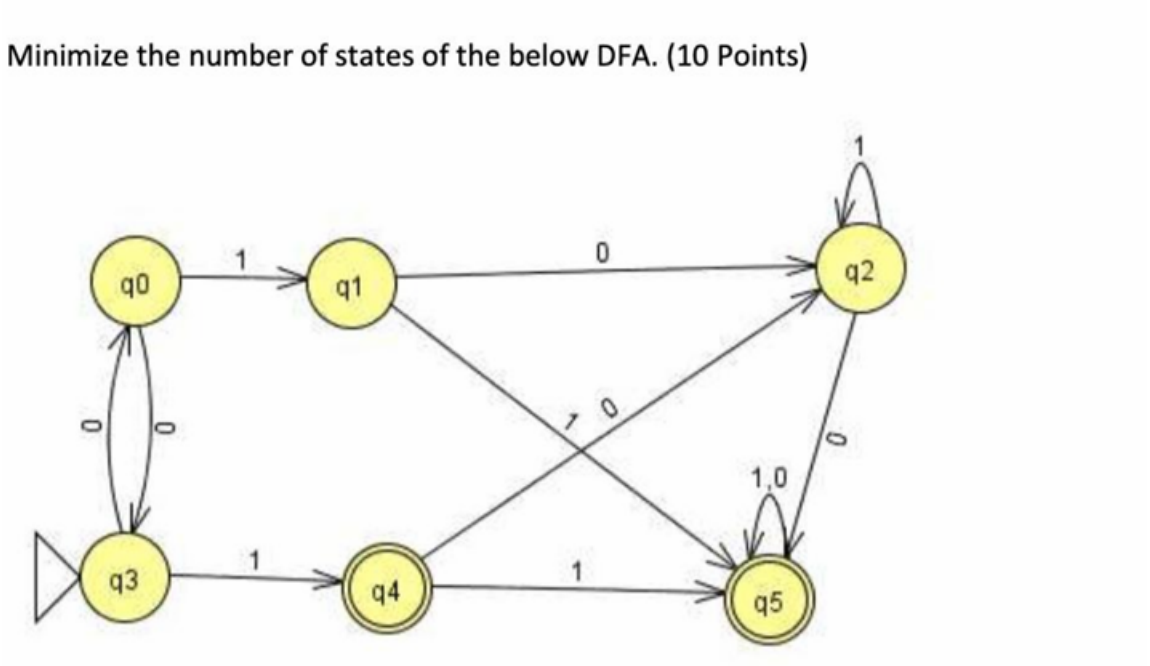




FA3 FA4

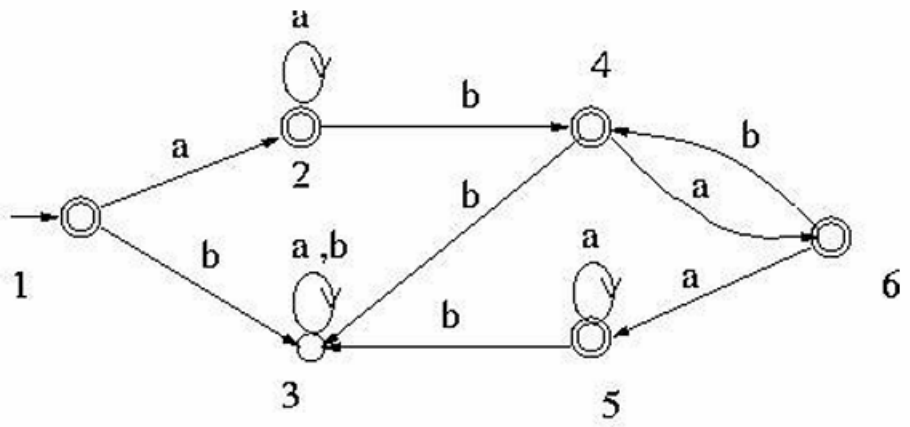
Example 1.

Minimize the number of states of the below DFA. (10 Points)



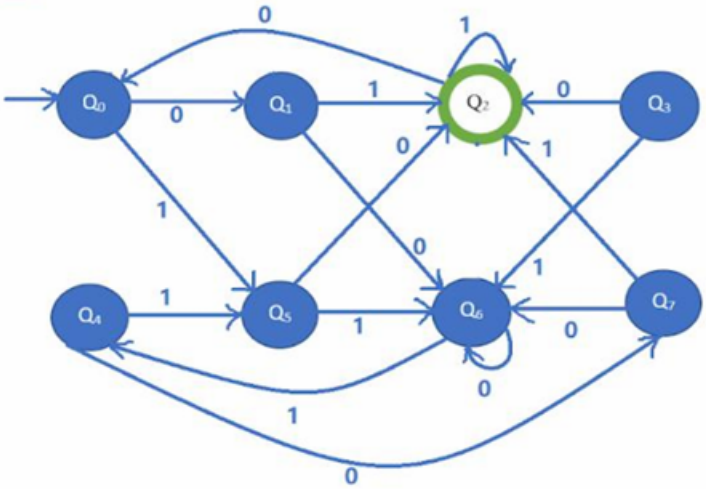
Example-2

Let us try to minimize the number of states of the following DFA.



Example-3

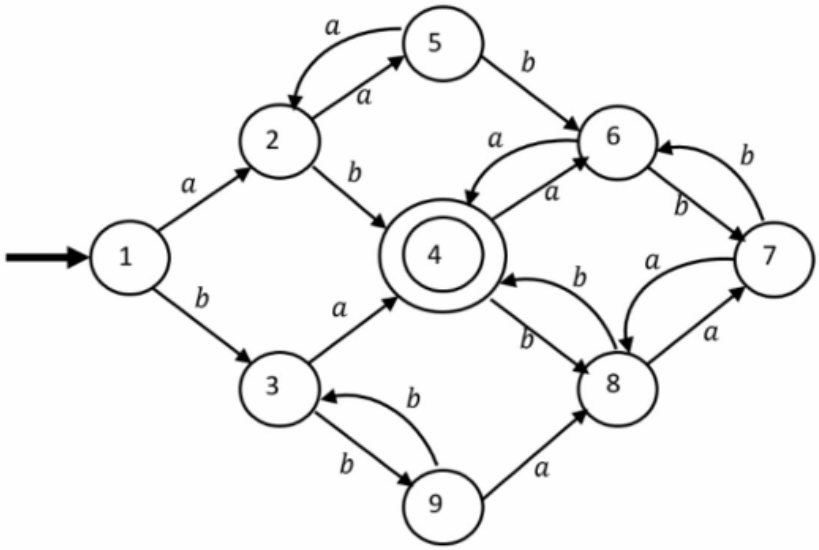
Example-2: Minimize the given DFA using partition method or construct minimized DFA using Equivalence method



Given DFA

Example-4

Apply the DFA minimization algorithm to the DFA shown below. Show the minimized DFA, and construct a matrix indicating, for each distinguishable pair of states, the iteration in which it is checked off.



Example-5

Given the following DFA M. apply the DFA minimization algorithm and show the resulting minimized DFA. Show your graph or table and label each state in your minimal DFA with the set of states of M it corresponds to.