

COMPILER CONSTRUCTION

Program: BSCS

Major Assignment

Semester: Spring-2020

Maximum Marks: 30

EVEN ROLL NUMBERS

Time Allowed: 5 Days

- Q1. Construct regular expression defining each of the following language over the alphabet $\Sigma=\{a, b\}$.
- All words having even length
 - All words having at least three a and three b
 - All words having at least double a or triple b
 - All words starts with four a or triple b. (10)
- Q2. For figure 3 if q_0 is the initial state, the draw a transition table for it. (5)
- Q3. Define what is Finite Automaton. What can be the regular expression of the diagram given in figure 1. (5)
- Q4. Draw a transition table for the diagram given in figure 2. (0) is the starting state and (dotted lines) are the dead transition states which can be ignored. (10)

Figure 1:

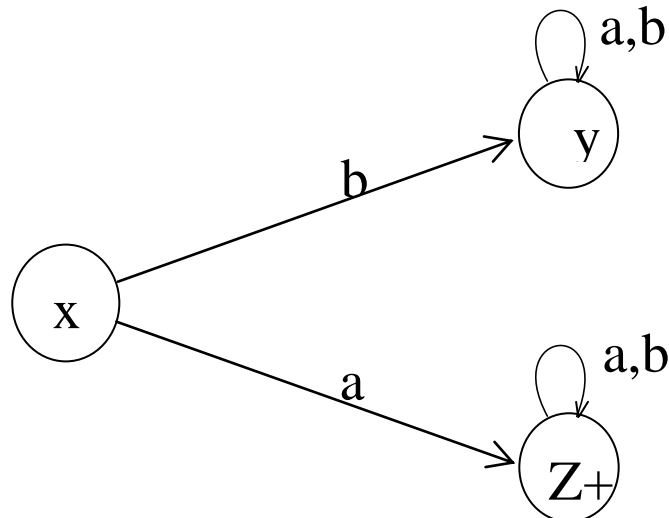


Figure 2:

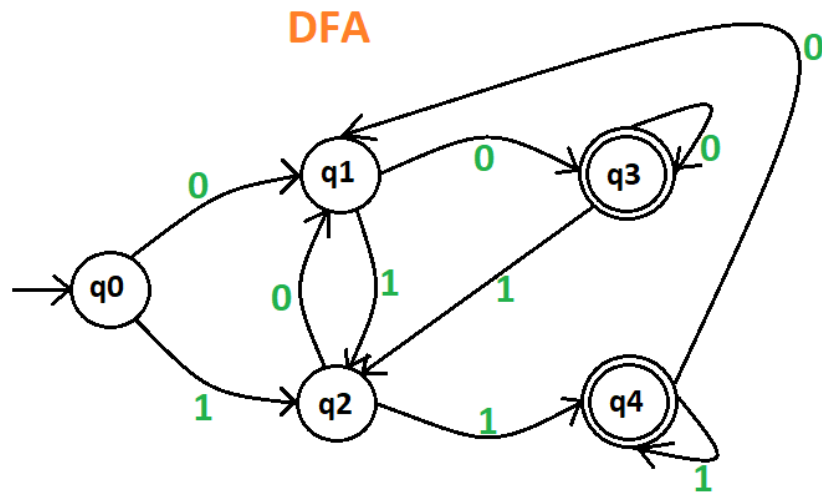
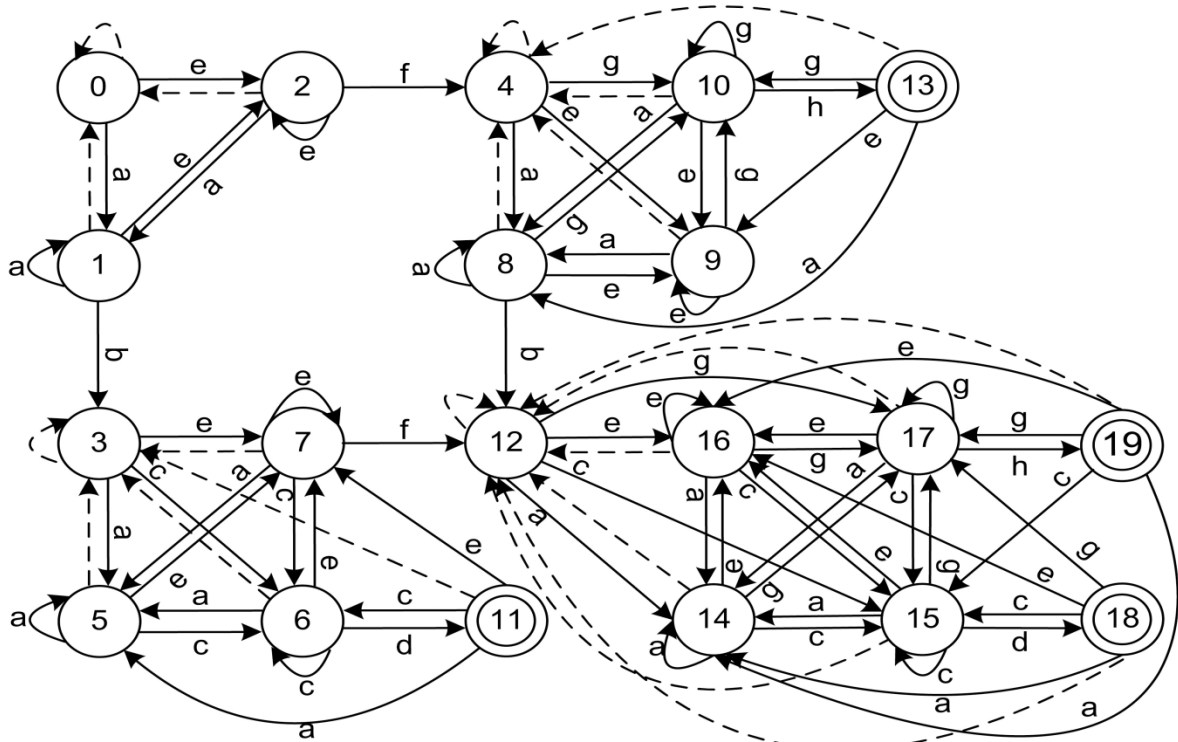


Figure 3