

## COMPILER CONSTRUCTION

Program: BSCS

Major Assignment

Semester: Spring-2020

Maximum Marks: 30

ODD 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 odd length
  - All words having at least two as and two bs
  - All words having at least triple a or double b
  - All words starts with double 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:

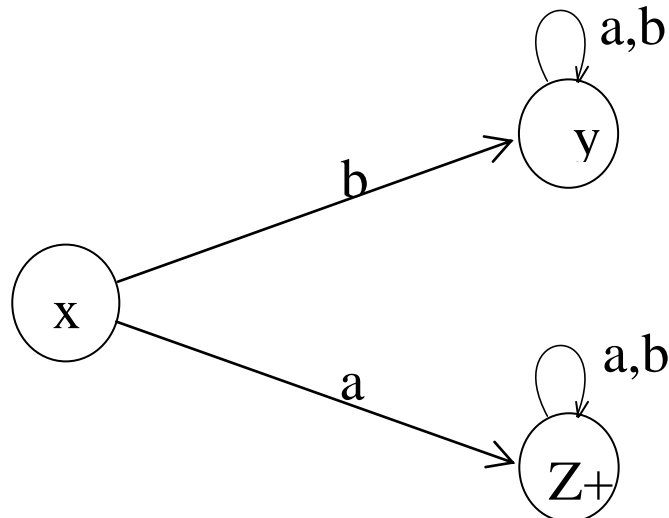


Figure 2:

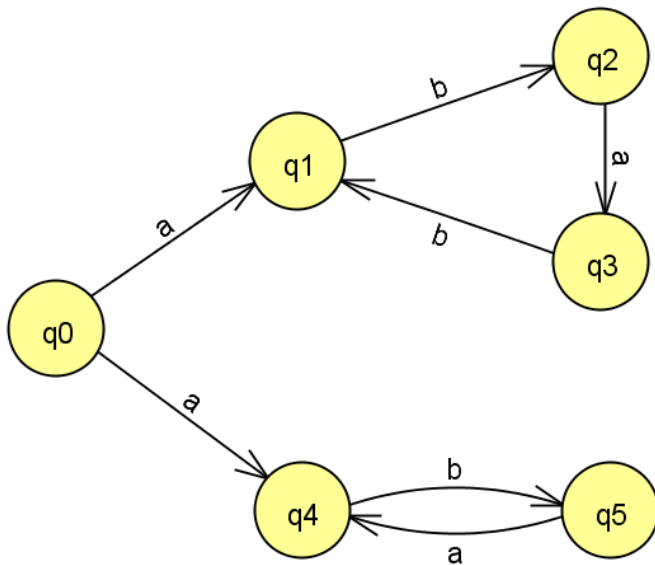
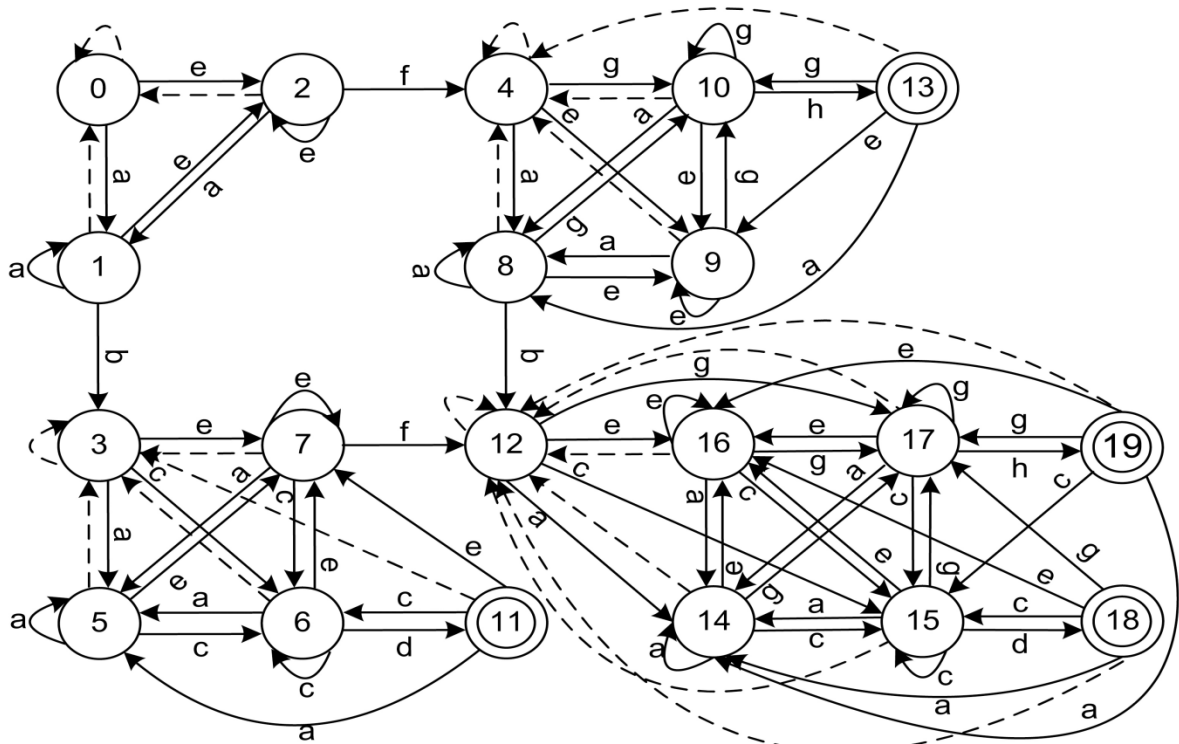


Figure 3