

# PES UNIVERSITY, Bangalore

(Established under Karnataka Act No. 16 of 2013)

## **Department of Computer Science & Engineering**

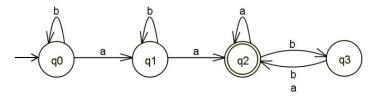
#### Automata Formal Languages & Logic

#### Q&A

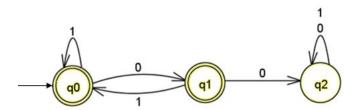
### **Deterministic Finite Acceptor**

11) Construct a DFA that accepts strings containing at least two a s and ending with an even number of b s.

Solution:



12) Construct a DFA that accepts Binary strings with no consecutive 0 s. Solution:



13) Construct a DFA that accepts strings over  $\{a, b\}$  in which either all even-numbered symbols are a or all odd-numbered symbols are b. Show the computation for the string  $w_1 = aababaa$  and for  $w_2 = babaab$ .

Solution:

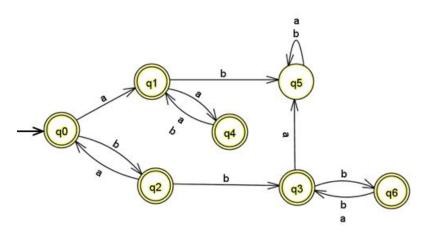


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### Automata Formal Languages & Logic



14) Construct a DFA that accepts the set of all strings that are palindromes of length 4. The alphabet is  $\{a, b, c\}$ .

Solution:

