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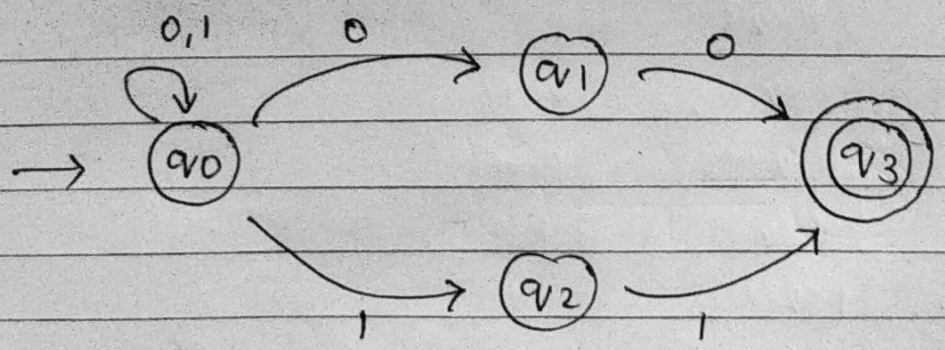
Q5. (i) All strings over {0,1} with the substring '0101'
→ $(0+1)^* 0101 (0+1)^*$

(ii) All strings beginning with '11' and ending with 'ab'
→ $11(1+a+b)^* ab$

(iii) Set of all strings over {a,b} with 3 consecutive b's.
→ $(a+b)^* bbb (a+b)^*$

(iv) Set of all strings that end with '1' and has no substring '00'
→ $(01+1)(01+1)^*$

Q4. NFA of a same string if input values reaches the final state then it is acceptable otherwise it is not acceptable



Here, q_0 shows initial state.
q_1, q_2 → transition states & q_3 → final state