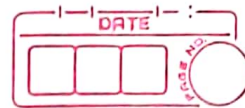
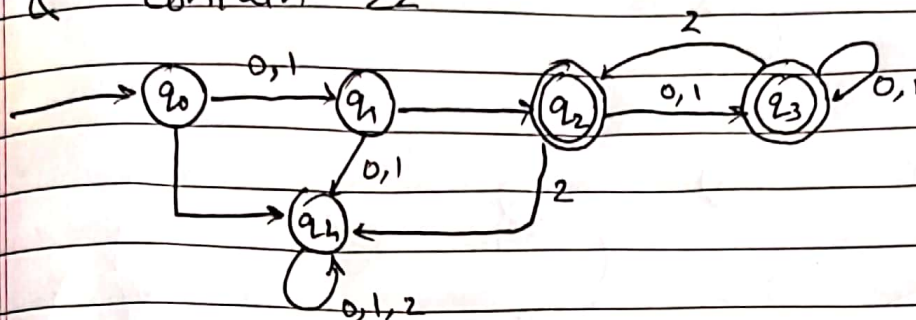


## Tutorial 4.2 B1

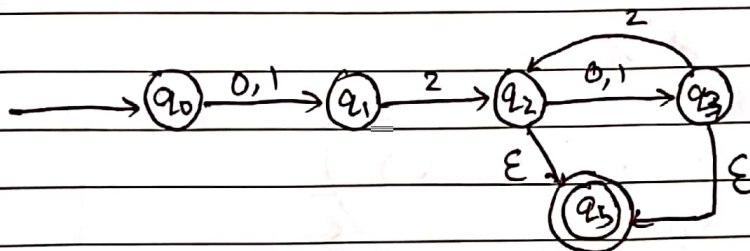


Ques) DFA over 0, 1, 2. Start with 02 or 12 & contain 22

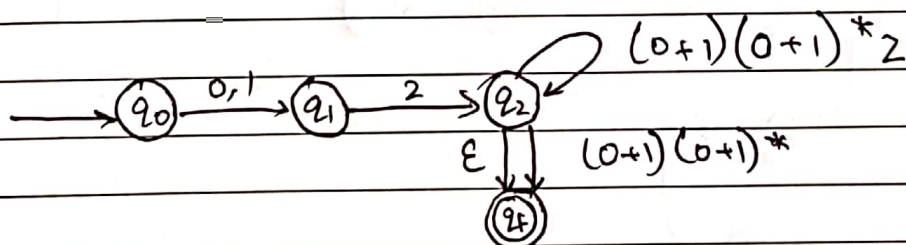


Now using state elimination method to convert DFA to regular expression.

Step 1: As above DFA contains multiple final states, we will create a new final state (we will also ignore dead state while converting to regex)



Step 2: Now eliminating  $q_3$  :-



∴ The regex is :-

$$(0+1)^2((0+1)(0+1)^*2)^*((0+1)(0+1)^* + \epsilon)$$