Q1. Design an DFA for the regular language L={baaa} defined over Σ = {a,b}.

Q2. Design an DFA for the regular language L={w ϵ Σ* | w ≠ ϵ and the first and the last character is same} defined over Σ = {p,q}.

Q3. Design an DFA for the regular language L={w ϵ Σ* | w ≠ ϵ and the first and the last character is not same} defined over Σ = {p,q}.

Q4. Design an DFA for the regular language L={w ϵ Σ* | w ≠ ϵ and w characters alternate between 0's and 1's } defined over Σ = {0,1} (Square Wave).

Q5. Design an NFA (that is surely not an DFA) for the regular language L={w ϵ Σ* | w ends in cab} defined over Σ = {p,q,r}.

Q6. Design an NFA (that is surely not an DFA) for the regular language L={w ϵ Σ* | some character in Σ appears at most twice in w} defined over Σ = {p,q,r}.

Q7. Design an NFA (that is surely not an DFA) for the regular language L={w ϵ Σ* | the third last character of w is p} defined over Σ = {p,q}. Your NFA should use at most four states.

Q8. Transform the NFA obtain by solving Q7 in to an DFA using subset construction method with lazy expansion.