Model for TSP Question

Dij = Distance between i and j

Xij = 1 If Car goes from I to j immediately ; 0 otherwise

Minimize

Constraints

1. Each node should have one incoming : i=0,1,2….n
2. Each node should have one outgoing : j=0,1,2….n
3. Sub-Tour Elimination Constraints : Ui –Uj +n\*Xij <= n-1 i=j=1,2….n

Model for VRP Question

Dij = Distance between i and j

Xij = 1 If Car goes from i to j immediately in tour 1 ; 0 otherwise

Yij = 1 If Car goes from i to j immediately in tour 2 ; 0 otherwise

Minimize +

Constraints

1. Each node (except office) should have one incoming : i=0,1,2….n-1
2. Each node (except office) should have one outgoing : j=0,1,2….n-1
3. Office Node must have 1 input in 1 tour : j=0,1,2….n-1
4. Office Node must have 1 output in 1 tour : i=0,1,2….n-1
5. Office Node must have 1 input in 1 tour : j=0,1,2….n-1
6. Office Node must have 1 output in 1 tour : i=0,1,2….n-1