

Find the quickest route for emergency vehicle to reach their destination 1) Intialize

O Pick up the starting node (let assume its a A).

Stop-I. start a node A.

Distance to A: 0.

Neibhours: B (Weight 1), C (weight 3)

Update distance: B-1, C-3.

Step. 2: Move to node B (Smallest distance) Distance to B: 1 Neibhours: C(w=1), B(w=5), G(w=2)

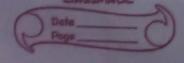
Update distance: C - (1+1=2), D(1+5=6), G(1+2=3) C(2), D(6), G(3).

Step-3: Move to node c. Distance to G: 2 Neibhour - E (u=9) Update distance (9+2) E(11)

Step-4: Move to node G (smallest distance)
Distance to G: 3

Neibhour: F (m=12)

update distance: F- 15 (3+12)



5tep-5: Move to D.

Distance to D: 6. Neibhoux: E(u=3), F(u=2). Update distance: E(6+3=9), F(6+2)=8E(9), F(8).

Step 6: Move to node F.

Distance to F: 8.

F is the final destination

The shortest path from A to F based on the algorithem is A -> B -> D-> F uith a total weight of 8.