Local Rt Table @ router/node A (STEP-1)

Destⁿ	Dist/Cost	Next hop
A	0	—
B	5	B/-
C	2	C/-
D	3	D/-
E	∞	-

→ either you can write '-' for node B or node C/D

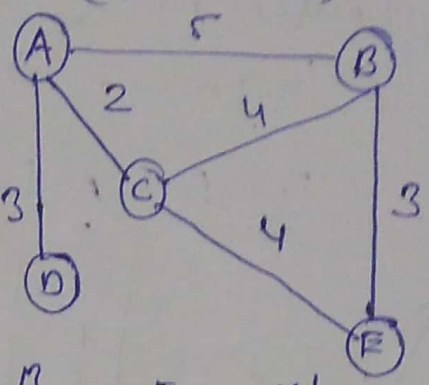


Fig. N/w Topology

Local Rt Table @ router/node B

Destⁿ	Dist/Cost	Next hop
A	5	B/-
B	0	—
C	4	C/-
D	∞	—
E	3	E/-

Local Rt Table @ router C/node C

Destⁿ	Dist/Cost	Next hop
A	2	A/-
B	4	B/-
C	0	—
D	∞	—
E	4	E/-

Local Rt Table @ router D

Destⁿ	Dist/Cost	Next hop
A	3	A/-
B	∞	—
C	∞	—
D	0	—
E	∞	—

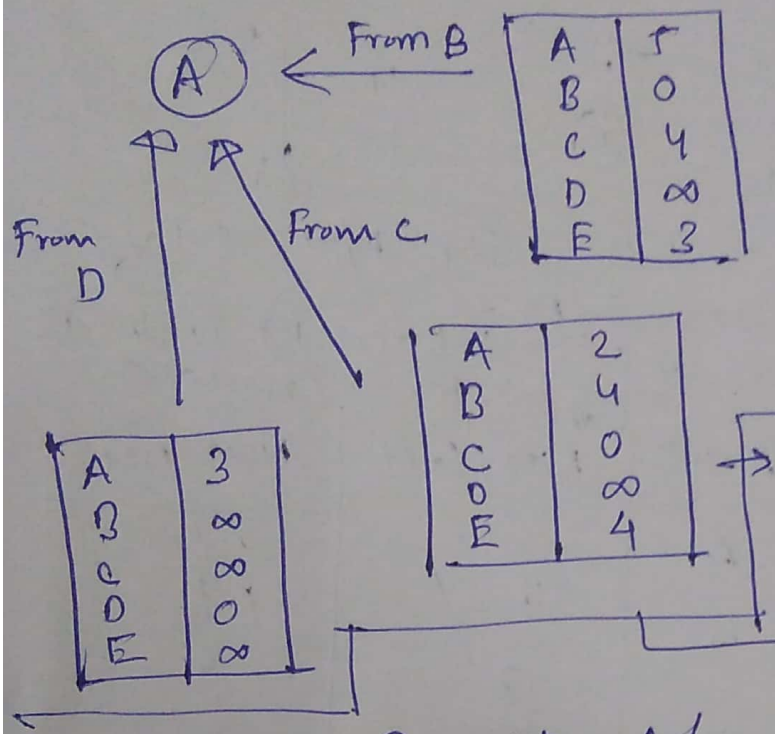
Local Rt table @ router E

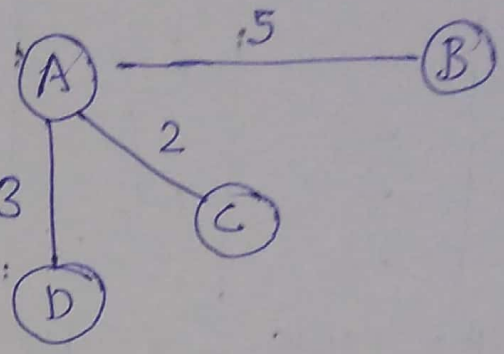
Destⁿ	Dist/cost	Next hop
A	∞	—
B	3	B/-
C	4	C/-
D	∞	—
E	0	—

STEP-2 : Create new routing table entries @ each nodes/routers by getting Distance Vector infoⁿ and destⁿ info from neighbors.

* you need to do it for every router @ each step/round.

Say, @ Router A (9f neighbours say B, C, D sends 2 'coloumn info^n (Dest^n/ cost) (2)





→ Router A will start creating its new Routing table/ entries

Router A

Dest^n	Dist/cost	NH
A	0	–
B	5	B/–
C	2	C/–
D	3	D/–
E	6	C

Calculation @ router A/ node A

Case-1: A ← B (get info^n)

Case-2: A ← C (get info^n)

Case-3: A ← D (get info^n)

A → B = min { A→B (5) + B⇝B (+0), A→C (2) + C⇝B (+4), A→D (4) + D⇝B }

Initially router A don't hv new info^n

First entries will get from local routing table entries (in step 1)

= A → B = 5 = 5
B ⇝ B = 0

A → C = 2 = 6
C ⇝ B = 4

A → D = 3 = ∞
D ⇝ B = ∞

Second entries will get from new info^n coming from neighbour nodes B, C, D.

min (5, 6, ∞) = 5

Put min value in table (see above)

$A \to C = \min$ { $A \to C^{(2)} + C \rightsquigarrow C^{(0)} = 2+0 = 2$; $A \to B^{(5)} + B \rightsquigarrow C^{(4)} = 5+4 = 9$; $A \to D^{(3)} + D \rightsquigarrow C^{\infty} = 3+\infty = \infty$

$A \to D = \min$ { $A \to B^{(5)} + B \overset{(\infty)}{\rightsquigarrow} D = 5+\infty = \infty$; $A \to C^{(2)} + C \overset{(\infty)}{\rightsquigarrow} D = 2+\infty = \infty$; $A \to D + D \rightsquigarrow D = 3+0 = 3$

$A \to E = \min$ { $A \to B^{(5)} + B \overset{(3)}{\rightsquigarrow} E = 5+3 = 8$; $A \to C^{(2)} + C \overset{(4)}{\rightsquigarrow} E = 2+4 = 6$; $A \to D^{(3)} + D \overset{+\infty}{\rightsquigarrow} E = 3+\infty = \infty$

Note: you need to do these steps for every node router in n/w:

Exercise: do it for B, C, D, E & create corresponding new routing table entries for those.