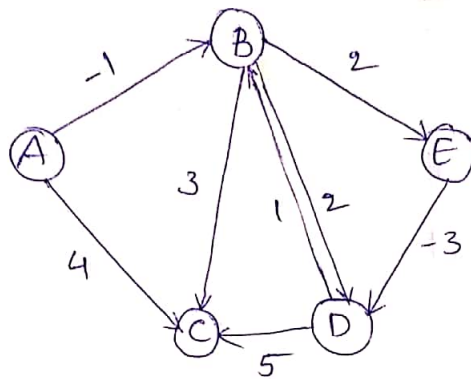


190031187

MP-2 Tutorial-4

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1.



No. of vertices = 5

let source vertex = A

Iteration to be done (atmost) = vertices - 1  
= 4Initially

A	B	C	D	E
0	$\infty$	$\infty$	$\infty$	$\infty$

Edges - (A,B) (A,C) (B,C) (B,D) (D,C) (D,B) (B,E) (E,D)

Note - Need not be in same orderIteration - 1After (A,B)

A	B	C	D	E
0	-1	$\infty$	$\infty$	$\infty$

After (A,C)

A	B	C	D	E
0	-1	4	$\infty$	$\infty$

After (B,C)

A	B	C	D	E
0	-1	2	$\infty$	$\infty$

After (B,D)

A	B	C	D	E
0	-1	2	1	$\infty$

After (D,C)

A	B	C	D	E
0	-1	2	1	$\infty$

pass (D, B)

A	B	C	D	E
0	-1	2	1	$\infty$

pass (B, E)

A	B	C	D	E
0	-1	2	1	1

pass (E, D)

A	B	C	D	E
0	-1	2	-2	1

Iteration - 2

pass (A, B)

A	B	C	D	E
0	-1	2	-2	1

pass (A, C)

A	B	C	D	E
0	-1	2	-2	1

pass (B, C)

A	B	C	D	E
0	-1	2	-2	1

pass (B, D)

A	B	C	D	E
0	-1	2	-2	1

pass (D, C)

A	B	C	D	E
0	-1	2	-2	1

pass (D, B)

A	B	C	D	E
0	-1	2	-2	1

pass (B, E)

A	B	C	D	E
0	-1	2	-2	1

pass (E, D)

A	B	C	D	E
0	-1	2	-2	1

we can observe that there is no change in this <sup>whole</sup> iteration. so we can stop here

Note:- While coding we cannot find out these things. so we will do atmost of (Vertices - 1) iterations

So Final Values of Vertices are

$$A - 0$$

$$B - (-1)$$

$$C - 2$$

$$D - (-2)$$

$$E - 1$$