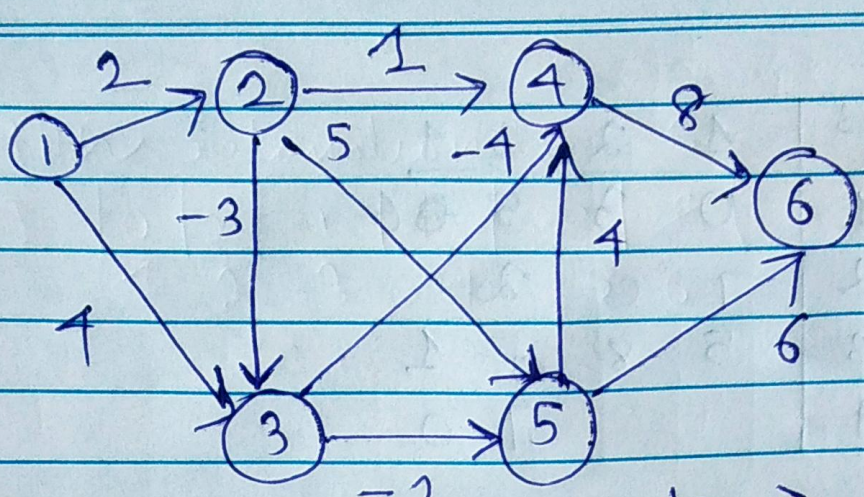
Bellman Ford

Prev Internal

Page No.....
Date.....

Qs)



Nodes →

	1	2	3	4	5	6
1	0	2	4	∞	∞	∞
2	0	2	-1	0	2	∞
3	0	2	-1	-5	-3	8
4	0	2	-1	-5	-3	3
5	0	2	-1	-5	-3	3

Relaxed ↓

Edges :-

u	v	wt
5	6	6
5	6	4
4	6	8
3	4	-4
3	5	-2
2	4	1
2	3	-3
2	5	5
1	2	2
1	3	4

Relax if dist[u]+wt < dist[v]

dist[v] = dist[u]+wt

Teacher's Signature .....

Page No.....

Date.....

Initially

1st relaxation

dist[ ] =

1	2	3	4	5	6
0	∞	∞	∞	∞	∞

Considering 1 as starting vertex.

2nd relaxation

dist[ ] =

1	2	3	4	5	6
0	2	-1	0 ∞	2 ∞	∞

2 → 1 < 0

2 → 3 = -1

2 → 7

3rd

dist =

1	2	3	4	5	6
0	2	-1	-5 ~~0~~	-3 ~~2~~	8 ~~∞~~

2 + 0 , 0 + 8 , -1 - 4

-1 - 2 , ~~2 + 3~~ , 2 + 1

2 + 3

Do not tear any page.

Teacher's Signature .....

Page No.....
Date.....

4th relaxation

dist[]	0	2	-1	-5	-3	~~8~~ 3
	1	2	3	4	5	6

-3 +6

-3 + 4 = -1

- 5 + 8

-5

-1 - 2

2 + 1

2 -

5th relaxation

dist[]	0	2	-1	-5	-3	3
	1	2	3	4	5	6