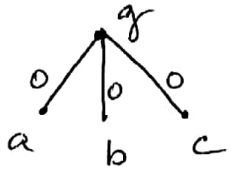
N=4, t=0



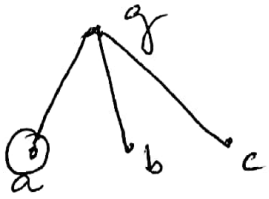
General decides 0.
a, b, c decide 0.

II a) N=4, t=1 Two cases

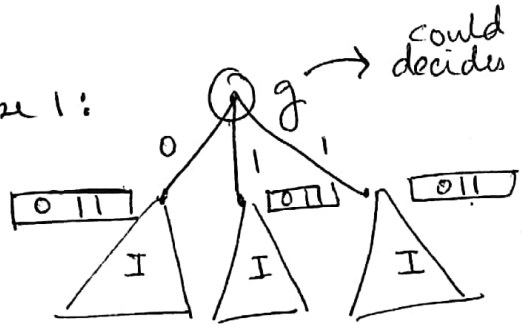
Case 1

OR

Case 2

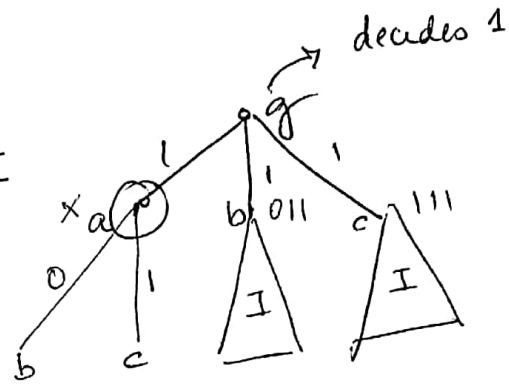


Case 1:



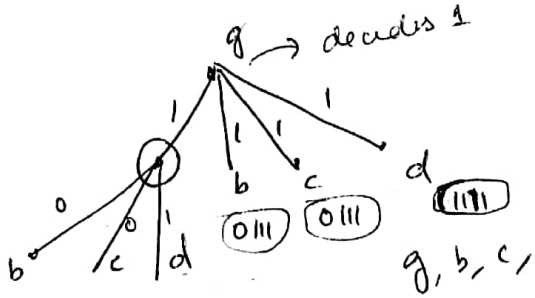
Loyal a, b, c decide 1

Case 2



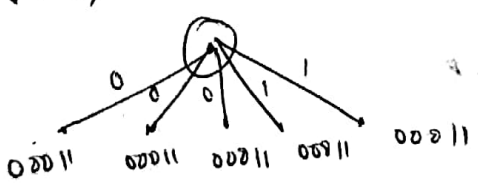
g, b, c decide 1

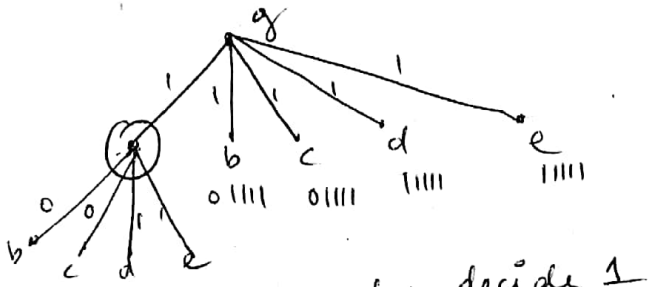
II b) N=5, t=1



g, b, c, d decides 1

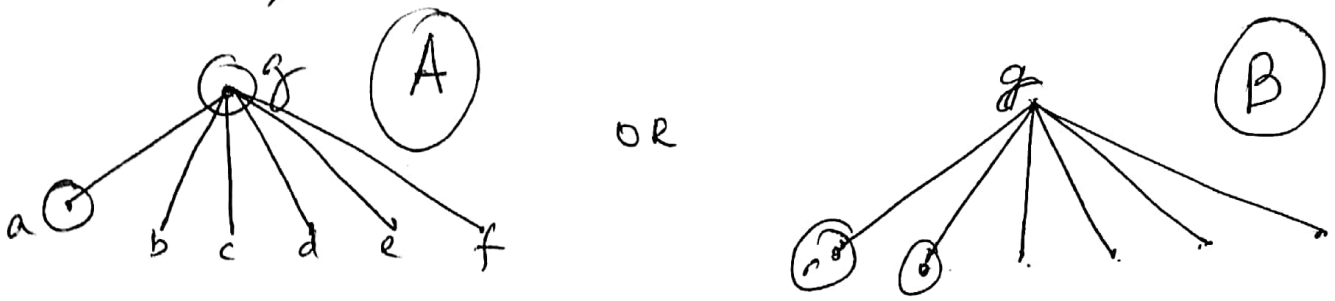
II c) N=6, t=1





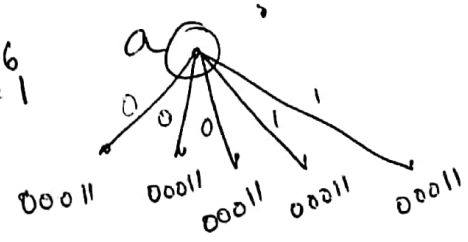
g, b, c, d, e decide 1

III $N = 7,\ t = 2$



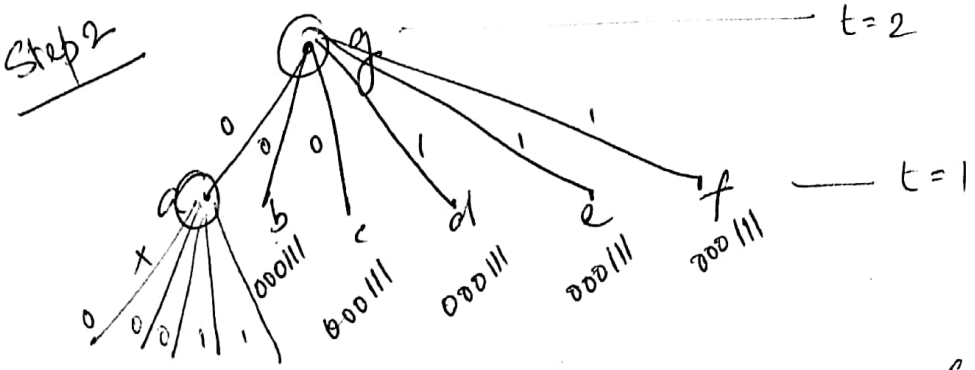
(A) Consider subtree of $N=7, t=2$ at 'a' which is same as II c.

Step 1 $N=6$, $t=1$



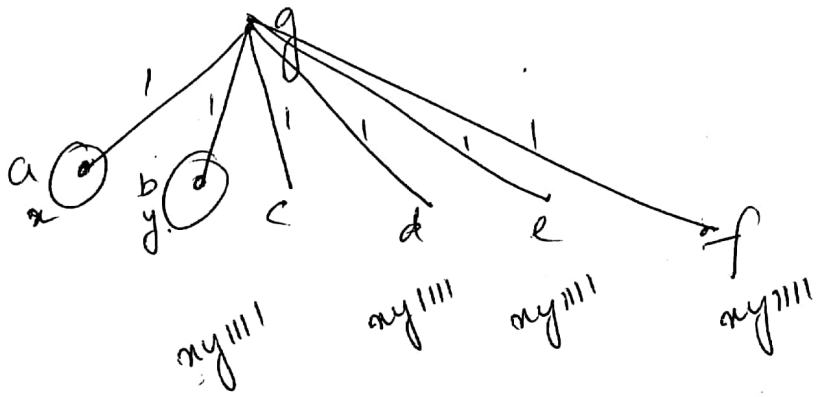
Thus b, c, d, e, f all understand the same values in their vectors. Hence all know what is the majority and thus what a would decide (assuming a is loyal)

Step 2



Thus b, c, d, e, f decide on $f(000111)$ where f is some function applied.

(B)



∴ c, d, e, f, g decide on func(xy 1111)