11	(V = 3 Co)*	
Mo.	00.1	-
Honey	2000	Q

Cud welite

letuen C

-> There are i'offerations to be done in the fol loop & while loop ends when i=1.

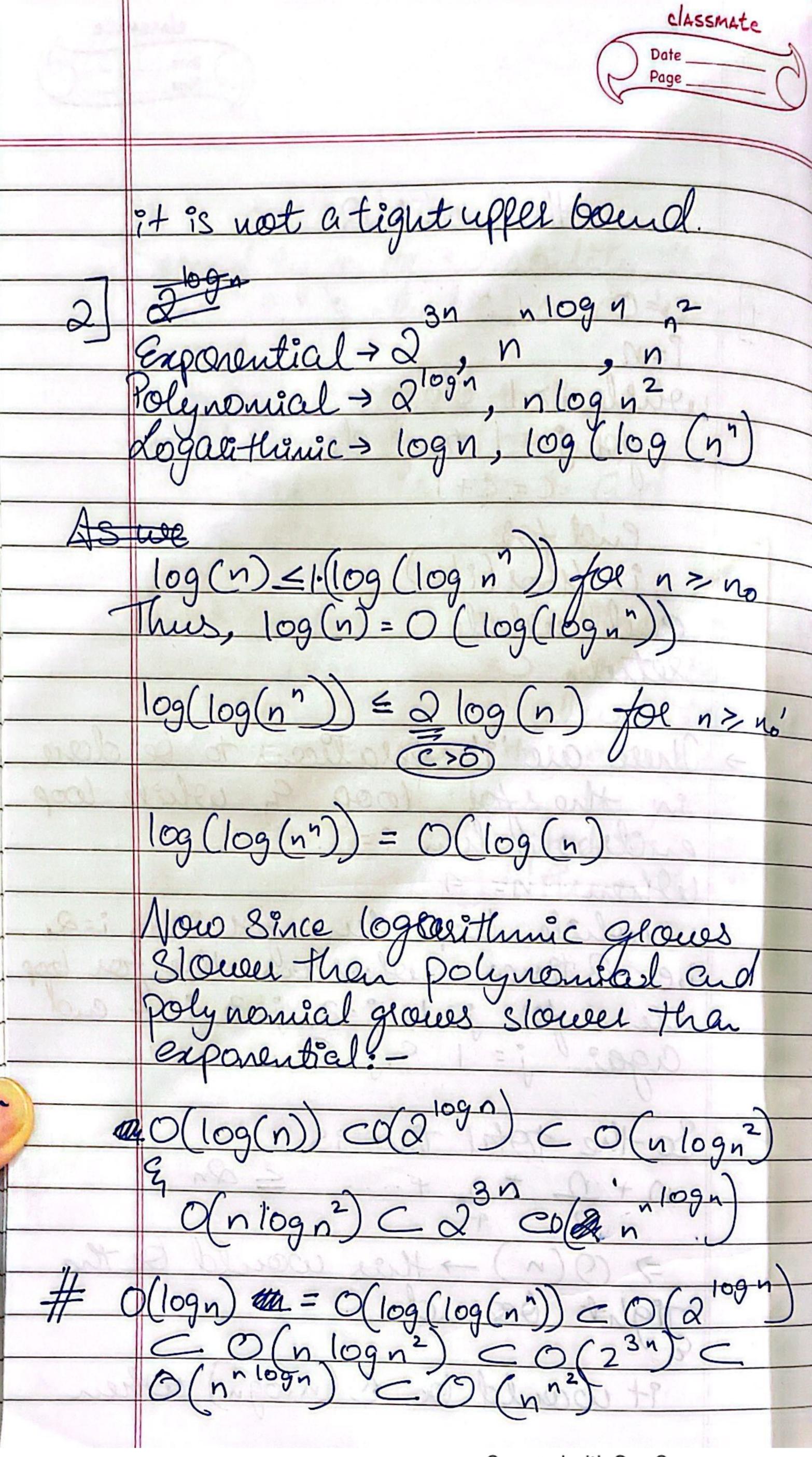
When: n= 4

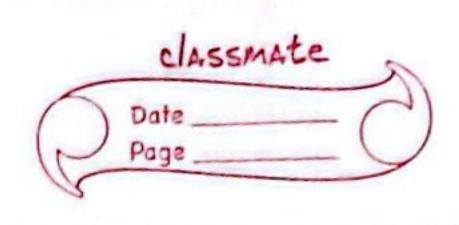
certile loops luns for i=4, i=2.

i.e 2 times volvelears the for loop leurs for j=1, j=2, j=3, j=4 and again j= 1 cyj=2.

so the total time is

(nlogn



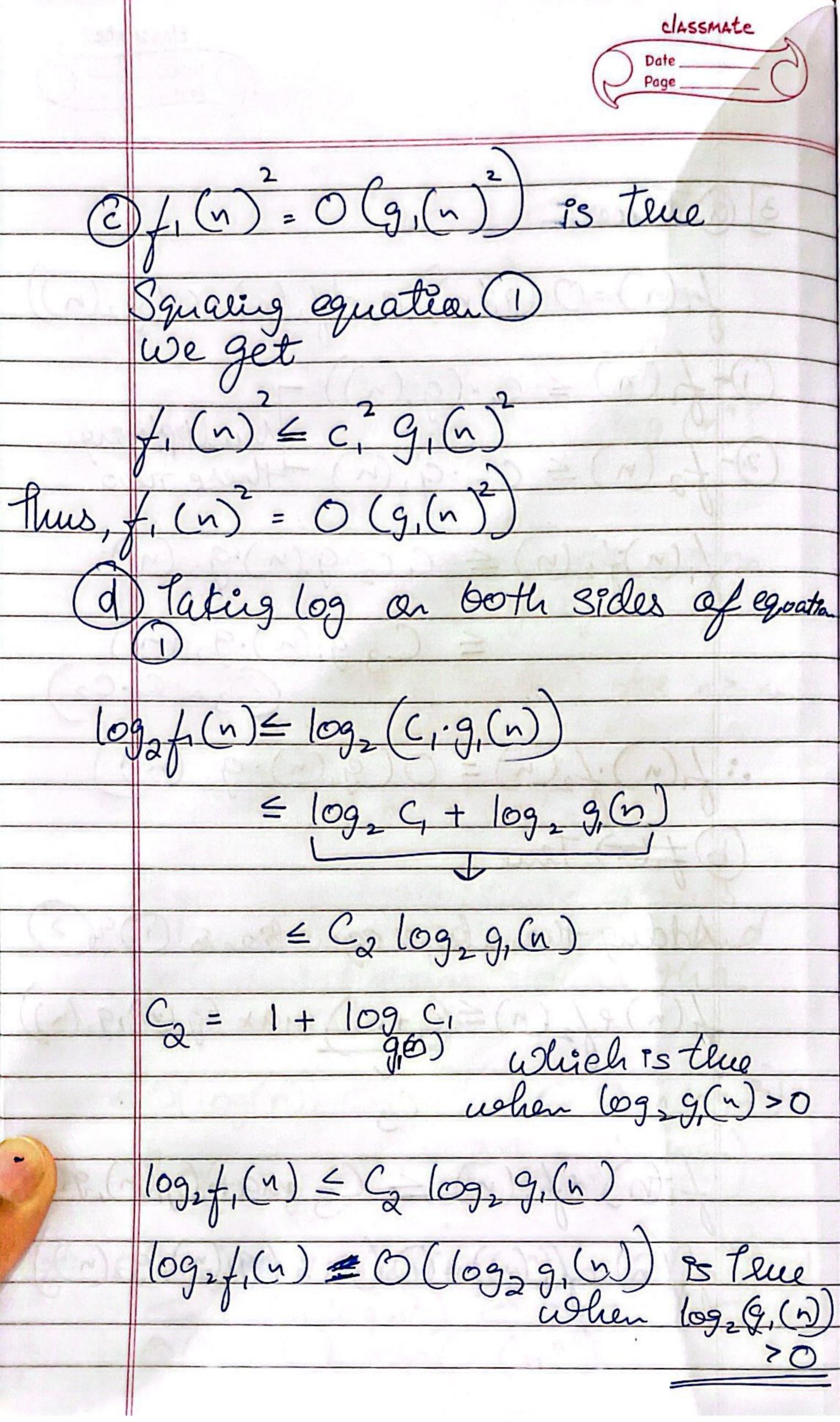


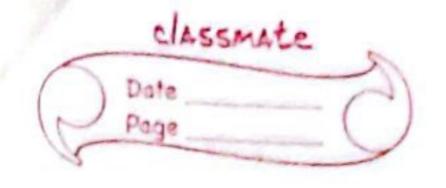
$$Off(n) \leq c_1 \cdot (g_1(n))$$

$$f_1(n) + f_2(n) \leq G_2 g_1(n) \cdot g_2(n)$$

$$\leq C_3 g, (n).9, (n)$$
 $= C_3 g, (n).9, (n)$ 
 $= C_3 z c_1.c_2$ 

$$f(n) P /_{2}(n) \leq (c, +c, ) max (g, (n), g_{2}(n))$$





4) Coursider Using DFS and teeping a track

Algo: -

Graph G (V,E) n nodes and medges.

May [1,...n] keep a track of whether a nocle as visited or not.

p stoles information about Plevious node when cultent node is taken ito consideration.

tot each & G V that's not visited

Mark & as visited and p=-1

Call a securive function Y & Gaid; (v)

until all nodes are visited.

if I was visited pleviously and Hus Cycle is Plesent so return The

V as vesited, then call the recuesive further for adjacent nodes to v.
Else ignore I and consider other adjacent nodes to u.

