MTWTFSS Abhiram 6 30|9| 20 Lab ; 2:- Skip List 1BM18 CS127 int random Level () f float r = (Float) rand () / RAND-MAX; int |v| = 0; while (rep ex LY) < max LVL) { INI++; r = (float) rand() / RAND - MAK. y return Wi roid insert Elemen (int key) & Node * current: header: Node * update (MAX LV L+1) memset (updak, o, size of (Node +) + (MAXLVL + 1)); for (inti-level: i)= 0; [...) { while (corrent -> forward (i) != NULL = 2 current-storward (i) -s key < key) Corrent: current -> forward (i): update (i) = conent; 3 eurient = current > forward (0): if (current = = NULL | | current -> key ! = key) { int rlevel = random Level_ (); if (rlevel > level) { for (int i= level+1; icrlevel +1; i++) update Ci] = header; level = rlevel: 4 Node + n = (reate Node (key, revel): for (inti=0: iz=rlevel; itt) { n -> forward [i] = update (i] -> forward (i]; update [i] -> forward[i]:n; y Cout LC "Successfully Enserted by "LcheyCa" | " 3 3,

Void delete Element (int key) & Node + current = header : Node + updale (MAXLYL+1): memset (update, o, Size of (Node+) + (MAXLVL+1)); for (int i=level : i = 0; i =) f while (current -> forward (i) 1- NULL 24 (wirent -> forward (i) -> key e key) current = current -> forward [i]: update (i) = current ' } Current = current -> forward COJ: if (current != NULL and coment -> key = = ky) for (int 1=0; iz=level; i++) { if Cupdate Ci) -> Forward (i) 1 = current) updat (i) -> forward (i): current -> forward (i): while (level >0 2 ª header -> forward (level] == 0) 1evel --: cout ec " neleted " cckey ("In") y g: void search Ble (int key) Node * current = header: for (int i = level: i > = 0; i = -) { while (corrent -> Porward [i] RR corrent > forward (i) -> key chey) current = current => forward (i): 3 current = corrent > forward [0]. if Current and current -sky = - ky) cout ec "found:" << key << "In ":