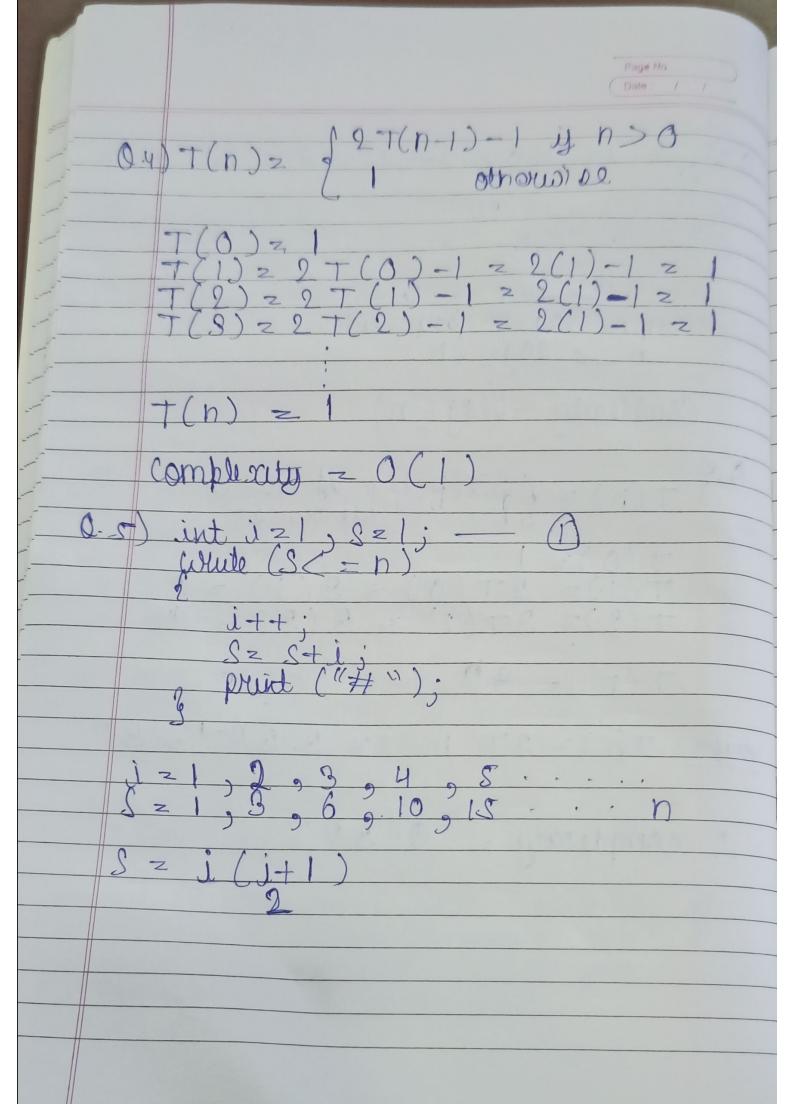
0.2) for (121 ton) - 1,2,4,8,16 2 n 2 1 = 1 米 2; taking log on both sides

k > loge (n) Complexity zolog 2 h)  $\frac{0.9}{T(n)} = \begin{cases} 3T(n-1) & \text{if } n > 0 \\ 0.9 & \text{otherwise} \end{cases}$ T(0) = 1 T(1) = 3T(0) = 3(1) = 3 T(2) = 3T(1) = 3(3) = 9T(n) = 3 n verising T(h) = 3T(h-1) = 3.3h-1=3h · complexity = O(3<sup>n</sup>)



 $J(J+1) \leq h$ i(i+1) < 2h  $i^{2}+i-2n \leq 0$ · i < - 1+ 11+8h complicates = 0 (In) 06) youd Junction ( wintn ) Jon (iz); 1xi(zn; i++)

£ count++ complexity = O(Vn)

0 7) joid junction ( int n) n/2 — Jon(Jz) J(x) J(xn x log2 (n) x log2 (n) complexity = O(n log (n)) Junction (n-2

T. C = O(n2) 0.9) yourd junction ( sint n ) Jon (iz 1-to n) {

Jon (jz 1; j < z n; j z j+1)

pruitt ("\*"); j ) n times  $1+\frac{n}{2}+\frac{n}{3}+\cdots+$ complaxity = o(nlogn) 0.10) nk (k), 1) ch (c>1) DKCn grows jaster than hk.