		DATE / / PAGE No.	
	Tutacial-01	PAGE No.	
CO	Asymptotic natations		
	represent the time complexation al algorithm.		
	a al	goeuthm.	
	la llaudha ana the matatia de l		
	fallauing are the notations that are u	sed.	
	0 - 9t defines an upper bound are asse on an algo. it bounds a function only from about		
	algo. et bocuas a foundin	only from abou	
	-12 - Big omean natation browned the show		
	louier bourd of function.		
	Color Socray gavani		
	0- 2+ represent both upper and Lower bound		
1	herction,		
	(cachilos directions)		
	eg. for insertin sort		
	$\mathcal{O}(n^2)$	to the	
	0(n2)		
	2-(n)	to the little of the	
	linear time in best Case and quadratic	in wordt care	
	The contract of the contract o	( )	
(9)	o (Jogn)		
<u> </u>	C 37(n~1) 4 n>0		
\(O\)3	as $T(n) = $		
707	1 otherwise	H	
	T(n)= 3T(n-1)		
	= 3(3T(n-2))		
	= 32(7(h-22)10 = 21/2 A		
	$\frac{2}{2}3^{3}T(n-3)$		
	$= 3^h T(n-h) = 3^h$		
	2 5 ( \n-n/ 3		
- 11			

here T(n)= { 2T(n-1)-1, if n-16 T(n) = 27(n-1)-1 = 27 (27 (n-2)-1)-1 = 92 (7(1-2))-2-1 - 2 h - (2h-1) 2h-2h+1=1=) 7(n)=1, Ams here, S=S+3, if K is total no. a iteration taken by
the program then while doop terminates. 1+2+3+ ---+K=>K((K+1)/2)>h K= off). Ans6 (0 (Jh) has a factor to be factor to be a factor to be a factor to be a factor to be a fact Time Complexity: O(ndogn). Am 8 O(n2) Amog O(ndogn). here nk, ah K=1, 971 taking K= a= 2. here  $n^{k} = n^{2}$  and  $a^{n} = 2^{n}$ n2 = 0(2k) " n1 = 0(an)