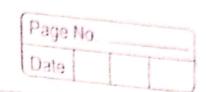
	Page No.
Tile .	Citeria per gralying of Sorting 49
The state of the s	Algorithm: of Sorting 49
	Time Complexity:
	1 NO OVALANT
	an algorithm to see which algorithm notices alsorithm notices
	efficiently for larger data sets and which algorithm mortes parter with smaller
	-) in general. O(1)
	than O(N2) and and
	algorithms? time complexity trevolus
-	The state of the s
	NOTE: Lever the time complexity, the better is the algorithm.
	our of the algorithm.
	> Space Complexity:
	-> The space complexity criteria helps
	- us compate the space the algorithm
Therefore	way to sport any data set. If an
	later inhite it is considered a hoor
-44	larger inputy, it is considered a poor algorithm for sorting large data sets.
أينا	In some coses, we might
	higher shall complexity algorithm
	it proposes exceptionally low time complexity, but not in general.
	complexity, but not in general
	Scanned with CamScanner

-) And when we talk about space Complexity, the term in place specting algorithm orcises. The algorithm which Hegulty in constant space complexity is called an in-place sorting algorithm Inplace sording algorithm mostly use Zuchhing and treavoiring techniques to good a data get. One example is The stability of an algorithm is judged by the part whether the sorder of the elements having equal glater when sorted on some prejetaved on mot. Suppose you have a get of numbers, , 2, 7, 6 and we want to got them in lying order by using an algorithm They the regult would bee 1, 2, But the key thing to look at is whether the 69 follow the same orders of the given the input on they have changed. That is, whether the first of still comes before the second 6 on not. If they do, then the algorithm we followed is called stable, otherwise unetable plesingal an External Sporting



into the algorithm looks the data get into the memory (RAM), we gay the algorithm follows intempl sorting methods. In contrast, we gay it follows the external sorting methods when the data dolynit get looked into the memory.

Adaptivity:

- Algorithms that adapt to the fact that
if the data are already sported and it
must take less time are called adaptive
algorithms. And algorithms which do not
adapt to this situation are not adaptive.