	Subject ADA
	Assignment #01
	A CONTRACTOR OF THE CONTRACTOR
	and the second s
	011
	Answer
	1 lascithmal An algorithm V
	a la lightion with some specific
	change tonitics that describes a frocess.
	An algorithm is a Set of steps of
	open tion
	e.g. Selection Sont (Algorithm)
	A list Lof integers of length n
nput of	A lute of entegers of economic
ently a	A sorted list 11 containing in L
(Steps
1)	Find the minimum value in the list L.
2)	Swap it with the value in the current
	Posttion
2	Depoted this Process for all the element
5/1	until the entire list is sorted.
(1)	Return the sooted list L1.
	Stop

Pseudocode is an informal and human Registe description of an also within leaving many details of it. Writing a pseudocode has no sestoiction of styles and its only objectives is to describe the highlevel steps of algorithm. Pseudocode: Selection Soxt for je 1 to n-1 Smallest = j. for it it ton if A[i] 2 A [Smallest] Smallest = i exchange A[]] <> > A[Smallert] Q#02 Ansi Big O! Big O notation is used to describe the complexity of an algorithm when measuring its efficiency, which in this case means how well the algorithm scales with the size of the data set. wass of Big O i) 0(1): Time complexity of a function is considered as O(1) if it does not contain loop, recursion

e. 31 del swar (\$51,52);	
neturn Sz, S1	100° X
ii) () (n): Time complexity of a loop i	
considered as O(n) if the loop variable	2
is increment/decrement by a consi	tant
amount.	
e-91	
fox i in range (1, n, c):	
print (i) = nac both a	onstant
iii) O(nc): - n variable	
Time complexity of nexted book	
is equal to the number of times the	
innermost statement is executed.	Principle of the Control of the Cont
$e.9:O(n^2)$	
for ea in stange (1, n, c):	
# enfression	
for in range (1, n, c):	
Henfression	Area Care
print (i, i)	
is) O (bon) : Time conflexity of a bop i	
considered as O(loon) if the loop vari	
is divided/multiplied by a constant amo	The second secon
e:51	
i=2	
while it =n: -; n variab	Ce
Print (1) -: Ciconst	· · · · · · · · · · · · · · · · · · ·
i=i*c	
THE RESIDENCE OF THE PROPERTY	(1) 10 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)

	la Carole	
V)	O (loglogn): Time complexity of a loop	
,	is considered as O (loglogn) if the loop	
	Variable is Reduced /incheares	
	by a Constant	Harri
	e-91 1=2	
	While ic=n:	
	Print(i)	
	i = i A C	
Q;	Algorithm of Selection Sort	TAT
	Also rithm of second length An.	
	input: A list L of integers length An.	
	output: A sosted list L1	
	Stepsi	
1)	Find the minimum value in list L Swap it with the value in the current poss	tion.
- 2)	Repeat this process for all the elements until	The second of
3)	the entire list is sorted.	24
	Return the softed list L1	
1 4)	Stop The soll of City	Water Control
]>/	Psendocodei	
ange est	fox j = 1 to n-1	
200	smallest ()	
	for it j+1 ton	- A - A
	if A[i] ~ A[smallest]	
	Smallet (i	147 7
1	enchange A[i] < > A [Smallest]	70.31
1	The Country of	

Otto4 Find Time Complexity
An: T-C= O(logn) Ami