Time Allowed: 1 hrs.   Max. Marks: 20

1.	Explain why the statement 'The running time of algorithm is at least $O(n^2)$' is meaningless.	(5)
2.	Write algorithm/pseudo code of selection sort. Also, prove that the algorithm is not stable.	(5)
3.	Explain stack and its operations. Also, justify whether the stack is a right data structure to check a palindrome string.	(5)
4.	Write an algorithm to find the first, second and third minimum elements in an unsorted array of n distinct elements. What is the time complexity of your algorithm?	(5)