

1.

In question one we have to do an odd even sort which is a variant of bubble sort with the help of threads and without threads. Without threads the complexity of this sorting is $O(N^2)$ so it takes a lot of time to sort large arrays. By threading we can reduce this time requirement. Now instead of going through the whole array we make threads so that each swap can occur parallelly. For example if size of array is 10 then instead of traversing through array make 5 threads which will swap each pair at same time thus this reduces the complexity to $O(N)$.

2.

In this question we have to make a binary tree with and without the help of threads from an array. Without threading traversal and creation of bst is a lengthy process but with threading it takes less time. Suppose we have an array of 10 elements so 2 threads will simultaneously create bst on each side thus reducing the time for creation and so multiple threads will make traversal through these trees easy thus reducing the time for the same.