

King Saud University
College of Computer and Information Sciences
Department of Computer Science
CSC453 – Parallel Processing – Tutorial No – Spring 2022

Question

1. Let's consider that we want to apply the odd-even sort algorithm on the following array:

5	3	18	12	6	10	14	4
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- a. How many iterations are required to sort an array of size N.
- b. How many steps are performed per iteration and describe every one of them.
- c. Show all changes made on the array during every *step i* of the algorithm in iteration 1.
- d. Which threads will be involved in every *step i* in case the algorithm is performed in parallel. Don't forget to specify, for every thread, the index of the cells it will process.
- e. Show all changes made on the array during every *step i* of the algorithm in iteration 2.