

Indian Institute of Engineering Science and Technology, Shibpur.
Department of Information Technology
Data Structure Laboratory 2020

BATCH- HY

Due Date: 12.11.2020

Assignment 7

1. You have to implement a k-ary max-heap, that is each node is allowed to have at most k children. However, the max-heap property is to be maintained, i.e., every parent has higher values than any of its children. Develop algorithms to perform heapify, insert, and deleteMax operations.
2. Given k number of sorted (ascending ordered) arrays each having n/k elements in it, your task is to merge all these arrays to form a n-element final sorted array (in ascending order). Can you propose an efficient algorithm (other than merge sort) to solve the problem? Implement that algorithm.