Assignment:	**4**	**Subject:**	**Data structures and algorithms**
Section:	**D12**	**Total Marks**	**30**
Submission Date:	**21 Jun 2023**		

INSTRUCTIONS

Note: Please read instruction before starting assignment and follow all the instructions. Only submission through portal is acceptable. Late submission or submission through email will not be accepted.

1. **Submit your solution in a word file, solution in any other format will not be acceptable.**
   a. **Write your Name and registration number in word file.**
   b. **Image of handwritten answer is acceptable but that images should be added in word document.**
2. **Submission is created, submit on portal before submission deadline.**

Q1. Create an AVL Tree from a given list. Show complete steps and rotations to get full marks. (Code Not Required). (10)

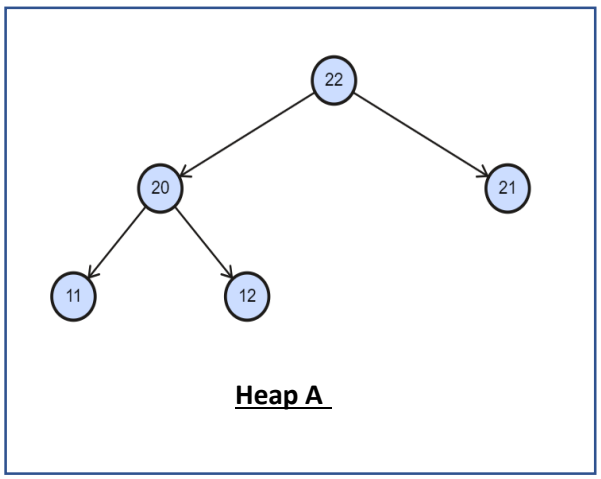
3, 7, 2, 15, 20, 1, 90, 92, 94

Q2. Create an AVL Tree from a given list. Show complete steps and rotations to get full marks. (Code Not Required). (10)

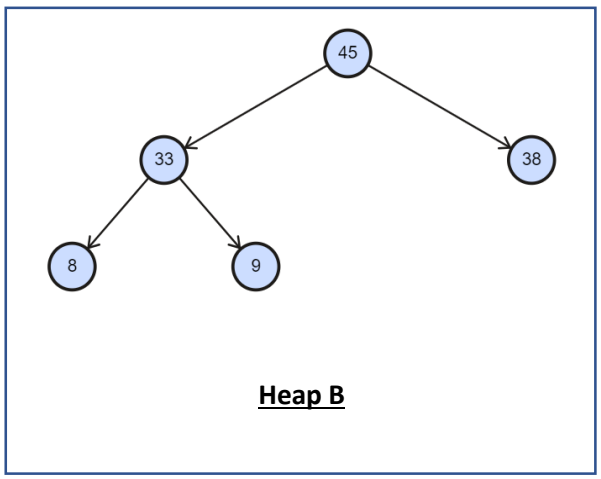
12, 7, 2, 3, 4, 1, 17, 19, 10, 11, 22, 26

Q 3. Write a C++ complete program for merge the given heaps. (Code Required). (10)

For example, suppose we have Heap A and Heap B. To merge these heaps, the resulting merged heap would be Heap C.

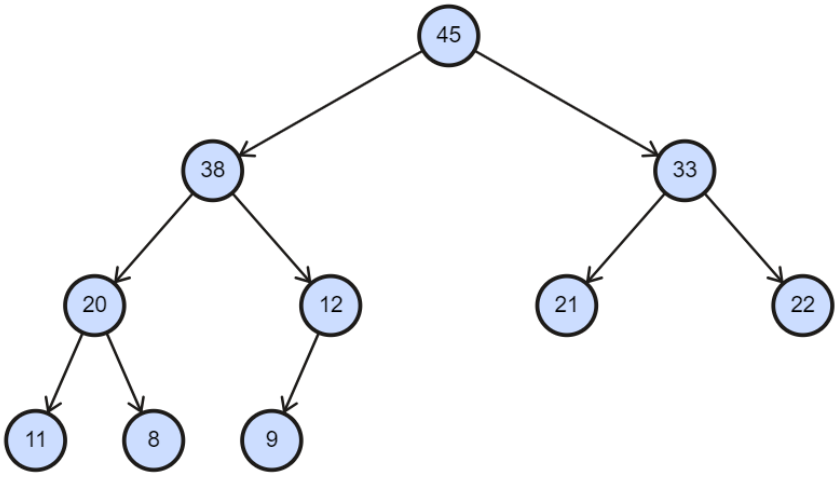


Heap A



Heap B

Output: Resulting Merged Heap



Heap C