# Data Structures and Algorithms <br> Summer-2020 Final-Semester <br> Faculty: Muhammad Adil $_{\text {Asst: Prof. }}$ <br> Total Marks: 50 

- Attempt All Tasks.

Q\#1. (a) Sort the given list using Insertion Sort.

$$
\begin{equation*}
65,70,56,51,54,66 \tag{10}
\end{equation*}
$$

Q\#2. Construct Binary Trees from given list of numbers and then verify the tree.

$$
\begin{equation*}
36,26,46,28,44,47,36,24,26,51,39,53,31 \tag{10}
\end{equation*}
$$

Q\#3. Construct Binary Trees from given Mathematical Expressions
i. $\quad \mathrm{M}-\mathrm{T} / \mathrm{Y}+(\mathrm{A} / \mathrm{B})$
ii. $\quad A * B+R^{\wedge} K$

Q\#4. Apply Binary Tree Traversal Techniques on Binary Tree constructed in Q\#3.

