

# UNIVERSITY OF CENTRAL PUNJAB

Faculty of Information Technology & Computer Science

Data Structures & Algorithms (SECP2043)

Assignment No. 4

Spring 2023 (Section P2 & P8)

Submission date: P8: Thursday 22<sup>th</sup> June, 2023, 01:00 pm and P2: Friday 23<sup>th</sup> June, 2023 12:00pm

Submission mode: Submission mode/instructions: Handwritten **A4** sheets individual assignment. Sheets other than **A4** size will not be accepted. Handwritten code should also be roughly indented. READ THE QUESTIONS VERY CAREFULLY. Bring **stapled** assignment from home. Marks will be deducted for stapling and managing assignments in class.

**Q. No. 1:** Draw Binary search tree for following key values:

[67, 38, 3, 94, 12, 29, 87, 76, 23, 45, 61, 85, 10, 99, 51]

**Q. No. 2:** Delete root node of BST drawn in Q. No. 1, then delete the new root node afterwards.

**Q. No. 3:** Draw AVL Tree for following key values:

[67, 38, 3, 94, 12, 29, 87, 76, 23, 45, 61, 85, 10, 99, 51]

**Q. No. 4:** Delete root node of AVL tree drawn in Q. No. 3.