ADSA-2022 Lab Assignment – 06 **Date: 20-09-2022**

Instructions

1. This is an individual assignment.

2. Your code must completely be your own. You are not to take guidance from any general-purpose code or problem specific code meant to solve these or related problems. Remember, it is easy to detect this kind of plagiarism

3. First TWO PROBLEMS are COMPULSORY.

4. **Write only a single main function**. You can call the required functions from the main function.

4. Name the file as follows: S2021xxxxx_A06.c

5. DO NOT zip. **Upload a single .c file** directly to your submission in the common Google classroom.

Q1. In Last Lab Assignment No. 5 you inserted the keys 41, 38, 31, 12, 19, 8 into an initially empty red-black tree. Now show the red-black tree that results in successive deletion of the keys in the order 8, 12, 19, 31, 38, 41. Print the inorder traversal of the tree after each deletion. [6]

Q2 Write a program to find the ancestor of a given node using Binary Search tree. Your program should take the user input of a node and then print the respective ancestors of that node till root node. [4]
