Algorithms and Data Structures (CS 203)

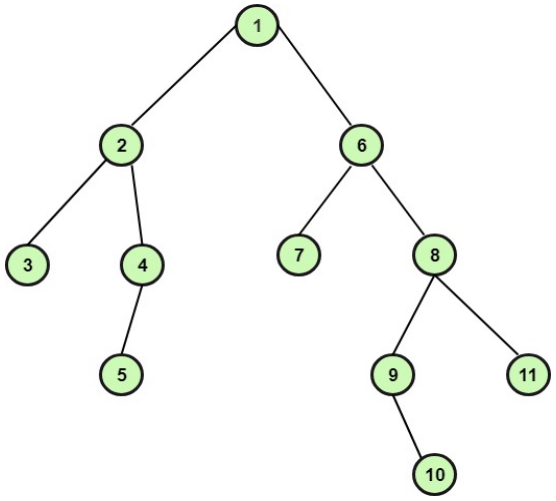
Time: 30 minutes Quiz-1 Marks: 15

Instructions: There is no partial marking for any of the following questions. Answers are either right or wrong. You will get full marks for entirely correct answers and zero marks for partial correct or incorrect answers. The marks of each question are shown on the right side of the question in bold letters.

Q1. Construct the AVL tree step by step for the following numbers. **(5 Marks)**

4, 2, 7, 11, 0, 12, 18, 1, 9, 3, 10, 14

Q2. Find the inorder, preorder, and postorder tree traversal of the following binary search tree. **(2+2+2 Marks**)



Q3. Draw the 11-entry hash table that results from using the hash function, h(*i*) = (2*i*+ 5) mod 11, to hash the keys 12, 44, 13, 88, 23, 94, 11, 39, 20, 16, and 5, assuming collisions are handled by linear probing. **(4 Marks)**