Indian Institute of Technology Mandi
February-June 2017 Semester

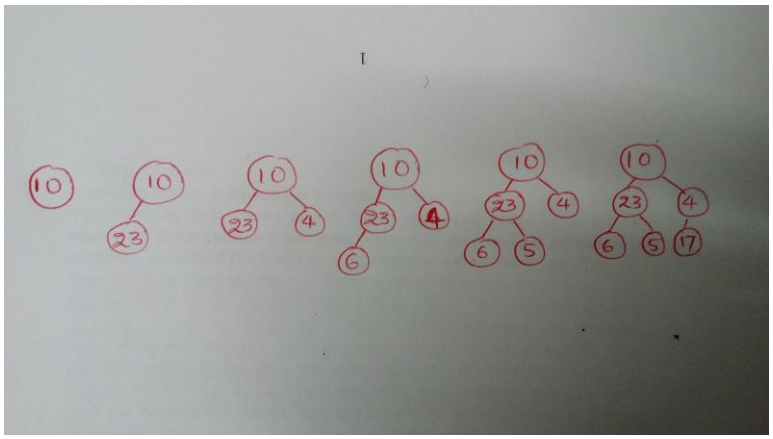
CS202: Data Structure and Algorithms

Programming Assignment 5 Problem Statements

Last date of submission of code: 10th April, 2017

Implement one of the following problems using C++ programing language.
Note:

1. Write a separate main programs to evaluate the functions in data structures binary tree, binary search tree (BST), balanced search trees such as AVL tree and red-black (RB) tree. The main functions should have the options to read inputs from user and display.
2. The 'put' function in BSTree.hpp is for inserting a node to binary tree. Follow the example to insert nodes to the binary tree.
   Example: Insert 10, 23, 4, 6, 5, 17



3. Implement BST (BSTree.hpp) by inheriting the functions and node structure (BinaryNode class) of binary tree (BinaryTree.hpp).
4. Implement AVL tree (AVL.hpp) by inheriting the BST (BSTree.hpp).
5. Implement the RB tree (RBTree.hpp) by inheriting BST (BSTree.hpp) also inherit BinaryNode class by creating RBTNode class.
6. Write a separate main programs to evaluate the scheduler problem (after uploading).

Problem:

Scheduler Problem as an application of RB tree data structure will be uploaded soon.

Reference: