**PRACTICAL DSA EXAM (90 MINUTES)**

**INSTRUCTIONS:**

* This exam consists of two parts, each focusing on different data structures: Hash Table and Binary Search Tree (BST).
* You are required to write and execute Java code to solve each problem.
* Make sure to test your code with various inputs to ensure correctness.
* Comment your code to explain your logic and approach.
* You have 90 minutes to complete the exam. Allocate your time wisely between the two parts.

**Part 1: Hash Table (45 Minutes)**

Implement a Hash Table (using the code template **HashTable.java**) with the following functionalities:

* Insert a key-value pair.
* Delete a key.
* Retrieve a value by key.
* Handle collisions using separate chaining (linked lists).

**PART 2: BINARY SEARCH TREE (45 MINUTES)**

Implement a Binary Search Tree (BST) (using the code template **BST.java**) with the following functionalities:

* Insert a node.
* Find the height of the tree.
* Check if the tree is a valid BST.
* Level-order traversal (should return a list of values in level-order).