

(a)

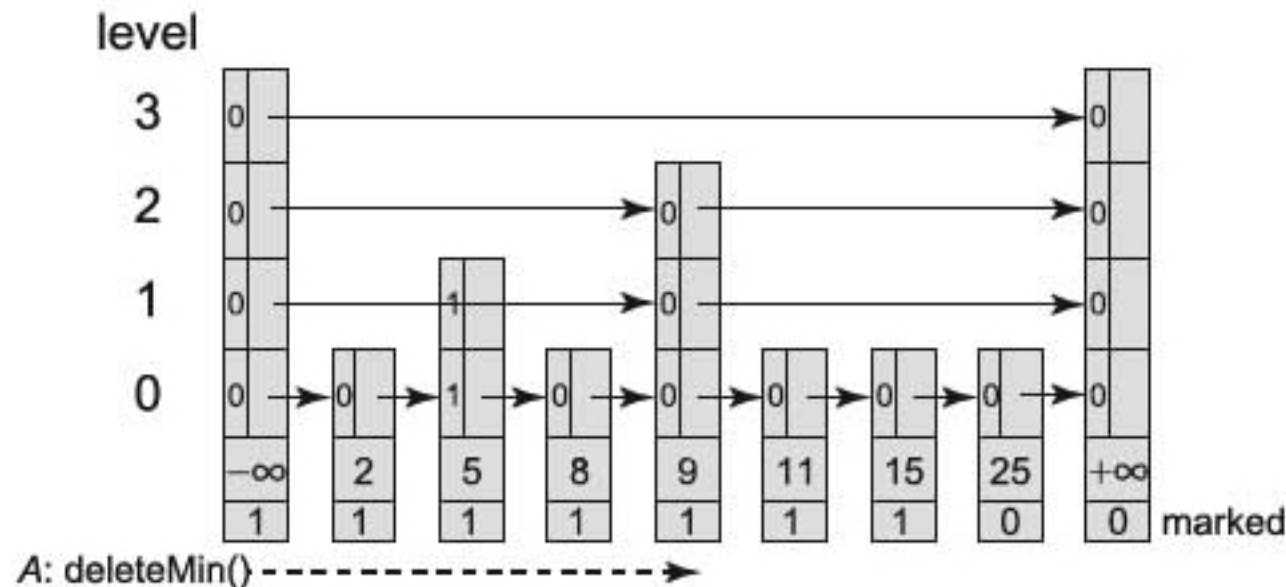


FIGURE 15.15A The SkipQueue priority queue: an execution that is quiescently consistent but not linearizable. In part (a), thread *A* starts a `removeMin()` method call. It traverses the lowest-level list in the `PrioritySkipList` to find and logically remove the first unmarked node. It traverses over all marked nodes, even ones like the node with score 5, which is in the process of being physically removed from the `SkipList`. In part (b), while *A* is visiting the node with score 9, thread *B* adds a node with score 3, and then adds a node with score 18. Thread *A* marks and returns the node with score 18. A linearizable execution could not return an item with score 18 before the item with score 3 is returned.