

Q1.

Push(S,4);

Push(S,3);

Push(S,1);

Pop(S);

Push(S,2);

Pop(S);

Pop(S);

Pop(S);

Push(S,6);

Push(S,5);

Pop(S);

Pop(S);

Q2.

(ai)

Hash Code	Input Data
0	
1	X
2	Queue
3	X
4	Table
5	Tree
6	Graph
7	Heap

(aii)

Hash Code	Input Data
0	
1	X
2	Queue
3	X
4	
5	Table
6	Tree

7	Heap
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(b)

Collision always happen. We can avoid the problem by having larger size of hashtable.