

DATA STRUCTURES

1. List the nodes with only one child in the binary search tree for:

ACHRISTMASCAROL

2. Given an initially empty stack and the following sequence of operations, what would be the next POPPED element? PUSH(E), PUSH(B), PUSH(E), PUSH(N), POP(X), POP(X), POP(X), PUSH(E), PUSH(Z), PUSH(E), PUSH(R), POP(X), POP(X), PUSH(S), PUSH(C), POP(X), POP(X), POP(X), PUSH(R), PUSH(O), PUSH(O), POP(X), POP(X), POP(X), PUSH(G), PUSH(E), POP(X), POP(X)

3. List the nodes at depth 6 of the binary search tree of the following string?

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4. Given an initially empty queue and the following commands on the queue, what will the next popped item be? PUSH(D), PUSH(A), PUSH(R), POP(X), PUSH(T), PUSH(H), POP(X), PUSH(V), PUSH(A), PUSH(D), POP(X), POP(X), PUSH(E), PUSH(R), POP(X), POP(X), POP(X)