Quiz – 4   Time allowed: 10 min
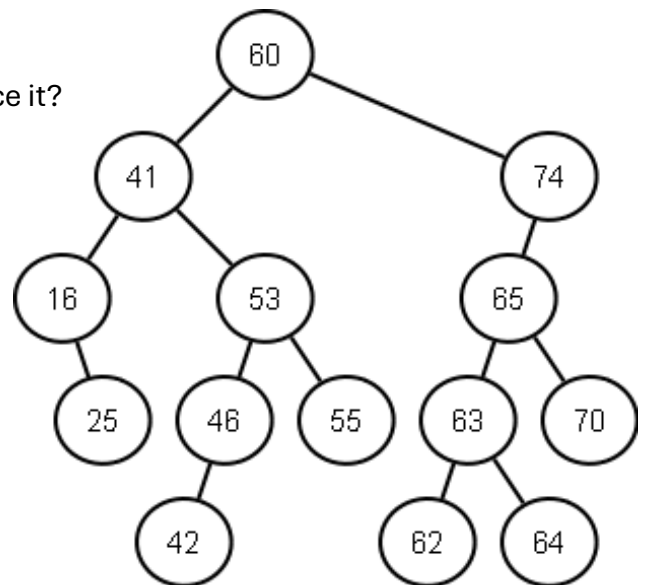
Binary Trees, Binary Search Trees

Name: _____   ID: _____

A. Select the correct option for the following question. Refer to the given Binary Search Tree (BST): [2 pts]

If the node '41' is deleted, which node will replace it?

A. 16
B. 25
C. 55
D. 42
E. Both A and C are valid replacements
F. Both B and D are valid replacements

B. In Big-Oh notation, what is the best-case time complexity of deletion in a BST? [1.5 pts]

C. Which tree traversal ensures that the root is always visited at the beginning? [1.5 pts]

D. Complete the following function to find the total number of nodes in a binary tree: [5 pts]

```
int get_total_nodes(Node* root) {
```