Data Structures Name -
Binary Tree Worksheet #1

1. Using the textbook or the Internet, define the following terms in the context of binary trees:

   root -

   child -

   leaf -

   parent -

   ancestor -

   depth -

2. What is the smallest number of levels required to store 10 nodes in a binary tree?

3. What is the smallest number of levels required to store 100 nodes in a binary tree?

4. What is the smallest number of levels required to store 100,000 nodes in a binary tree?

5. Fully explain how you arrived at your answers for #2 -4 above.

6. What is the smallest and the largest possible number of leafs in a binary tree containing exactly 6 non-leaf nodes?