Exam 3 Sample Test

Describe each string operation below:

Size( ):

Empty( ):

Operator[i]:

At(i):

Insert(i, B):

Append(B):

Erase(i, m):

Erase(i, m):

Substr(i, m):

Find(B):

C_str( ):

What is dynamic programming?

What is longest common subsequence?

What is set ADT?

What is test compression?

What is merge sort?

What is quick sort?

What is radix sort?

What is bucket sort?

What is Trie data structure?

What is divide and conquer?

What is binary search tree?

What is the problem about BST?

What is AVL tree?

How does a rotation in AVL tree work?

Use merge sort to sort the following array:

|38|27|43|3|9|82|10|

Use quick sort to sort the following array:

|10|80|30|90|40|50|70|

Use bucket sort to sort the following array:

7,d --> 1,c --> 3,a --> 7,g --> 3,b --> 7,e

Use Radix sort to sort the following array:

|170|45|75|90|802|24|2|66|

Use quick select to find the 2nd smallest element in the following array:

|3|1|2|7|5|6|