

Exercise 7. Answer Sheet

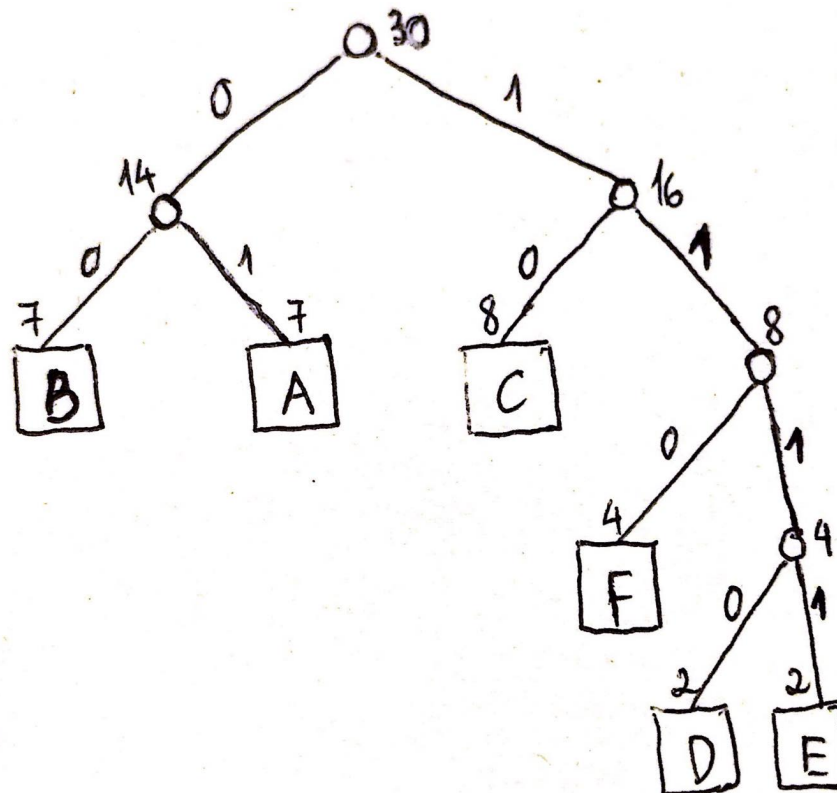
Student's Name: TRAN THI THOA

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Problem 1. (20 point) Consider following sequence of letters:

ABBCACCEACBCCFABCDAFEABFFADBBC

a) (10 points) Construct Huffman encoding tree for the above sequence and show it below



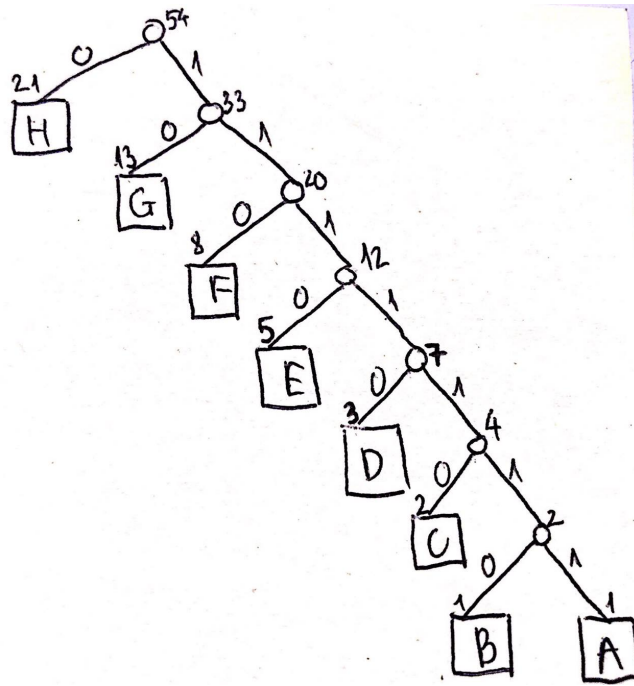
b) (10 points) What is the code for each letter:

A: 01
B: 00
C: 10
D: 1110
E: 1111
F: 110

Problem 2. (25 points) What is the Huffman code for the following set of frequencies, based on the first 8 Fibonacci numbers?

A: 1, B: 1, C: 2, D: 3, E: 5, F: 8, G: 13, H: 21

The Huffman Tree for the above input is:



Therefore, the Huffman code will be:

A: 1111111
B: 1111110
C: 111110
D: 11110
E: 1110
F: 110
G: 10
H: 0

Problem 3. (15 points) Write your name in English letters and construct Huffman tree and code for it. Show your tree and code below.

My name in English letters: TRAN THI THOA

The frequency of letters in the input text:

' ': 2. (space)

'A': 2

'H': 2

'T': 1

'N': 1

'O': 1

'R': 1

'T': 3

The Huffman tree for the input text will be:

