

CMSC 204
Huffman Lab

- 1) Create a Huffman Tree and generate the codes for each character of the following input:

create a huffman tree

For consistency:

1. If same frequency – put in priority queue alphabetically; put space before other characters of the same frequency
2. Add subtrees to end of group with same priority
3. Lower number has higher priority (goes to front)

see additional pages
uploaded.

Now encode "create a huffman tree"

see additional pages uploaded.

1 1 1 1 1 222 3 34
c h m n u f r t u a e

1 1 1 222 2 3 34
m n u f r t c h u a e

1 222 2 2 3 34
u f r t c h m n u a e

22 2 2 3 3 3 4
r t c h m n u f e

2 2 3 3 4 4
c h m n u f e r t

3 3 3 4 2 2
u a u f e c h m n

3 4
u f e

4 4
r t

2 2 2 2
c h m n

6 3 3
u a

4 4
r t

2 2 2 2
c h m n

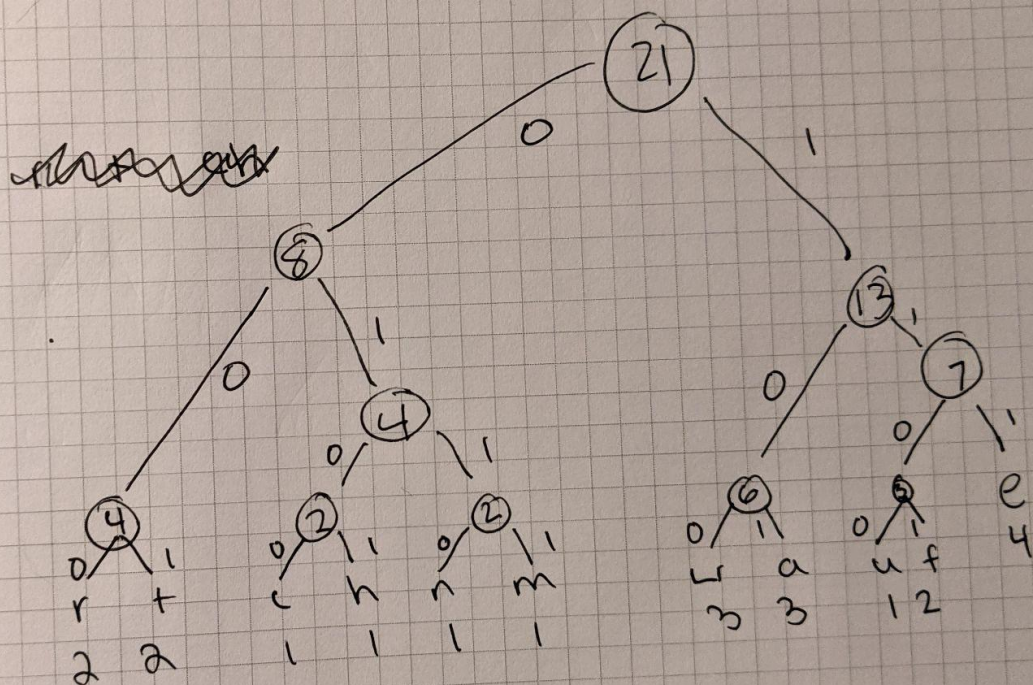
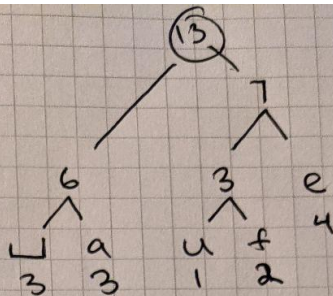
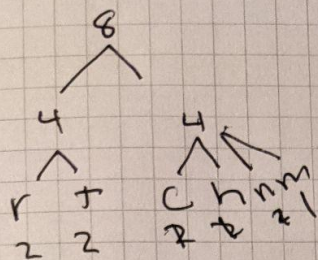
6 3 3
u a

3 3 4
u f e

6 3 3
u a

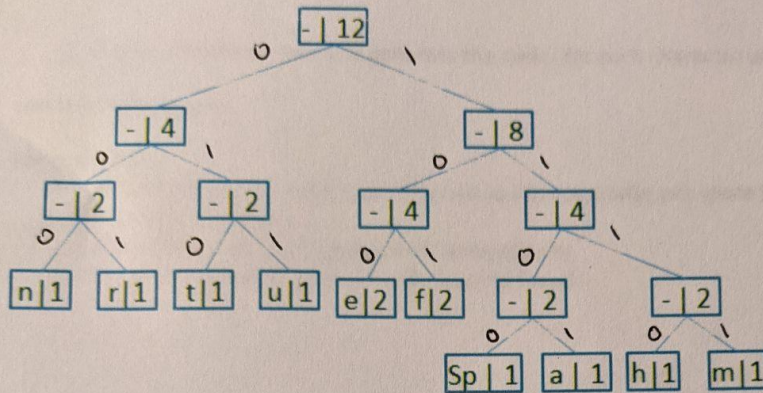
7 3 4
u f e

8 4 4
r t c h



c r e a t e l a h u f f e
 0100/000/111/101/001/111/100/101/100/0101/1100/1101/1101
 0111/101/0110/1001001/000/111/111
 m a n l t r e e

2) Based on the following Huffman tree and binary sequence, what is the text



111001110110111111011001100100100100
h u f f m a n " " t r e e

huffman tree