EE 575 INFORMATION THEORY

(15<u>2)</u>

Assignment #4

Write computer codes that compress any English text file using:

- 1. Binary Huffman Code with K = 1, 2 and 3.
- 2. Lempel-Ziv algorithm.

The code should provide the following outputs:

- (a) The compressed file.
- (b) A file that contains the list of distinct phrases and the corresponding addresses and codewords.
- (c) The rate and efficiency of the code. You need to compute the entropy of the source.
- (d) The compression ratio.

Each student should submit a hard-copy report on the above requirements along with the soft executable source files (via e-mail).

Note: Please copy this and sign on each H.W. assignment:

I testify that I will not refer to the solutions of the assignments of EE 575 by any means and in any form and from any source, before I submit the assignment to my instructor. For programming assignments, I testify that I will not use/refer to any ready code in any means or any form throughout and until the submission of the assignment.