GUC
German University in Cairo

DMET 1001 – Image Processing

Assignment #2
(Due on: September 17, 2020 at mid-night)
(No use of predefined functions is allowed)

Implement a function that applies the truncated Huffman coding compression to a gray-scale image. Your function should take the gray-scale image, K and J values as input and outputs the dictionary and the output code for the input image. Example: Consider an image in which the gray-levels 1, 2, 3 and 4 are encoded with the codes 0, 10, 110 and 111 respectively. If the first 5 pixels in the image are 1 1 2 3 4, the expected output code is the following binary string 0010110111. Apply your function to the image "cameraman.tif".

Deliverables:

- Your code.

- The output dictionary saved in a text file. Name the file "Dict.txt".

- The output binary string of the image. Name the file "BinCode.txt".