4)Implement histogram equalization on the given image and compare it with the original image using Open CV.

PROGRAM:

import cv2

import numpy as np

image = cv2.imread(r"C:\Users\harik\Downloads\CV LAB\MOUNTAIN.jpeg") # Replace with your image file

gray_image = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)

equalized_image = cv2.equalizeHist(gray_image)

cv2.imshow("Original Grayscale Image", gray_image)

cv2.imshow("Histogram Equalized Image", equalized_image)

cv2.waitKey(0)

cv2.destroyAllWindows()

OUTPUT: