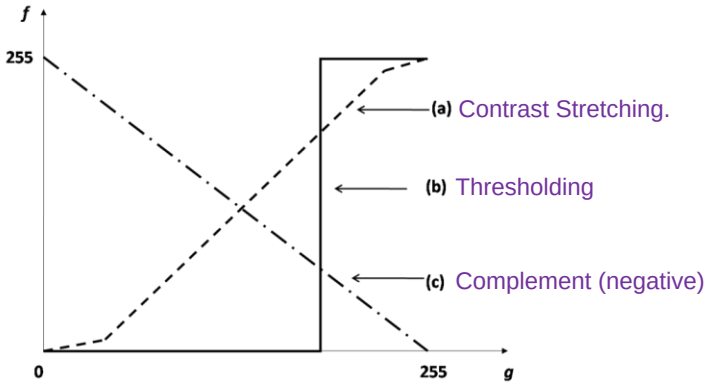
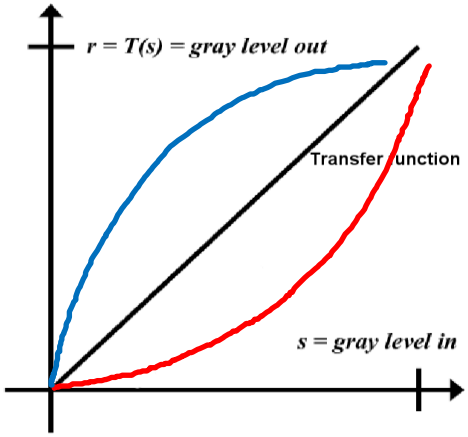
CS313 – Digital Image Processing – Assignment 01 S17355

1) State what each of the functions below refers to, considering the output image that will be obtained after performing the transformation.



2) Show how the neutral transfer function shown below can be modified to
   i. Increase contrast ==> Red Curve.
   ii. Decrease the brightness ==> Blue Curve.



3) i) What do you call the specific transformation represented by the two functions given below? Grey Level Slicing.

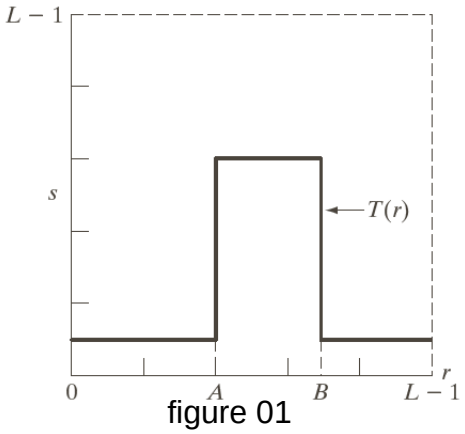


figure 01

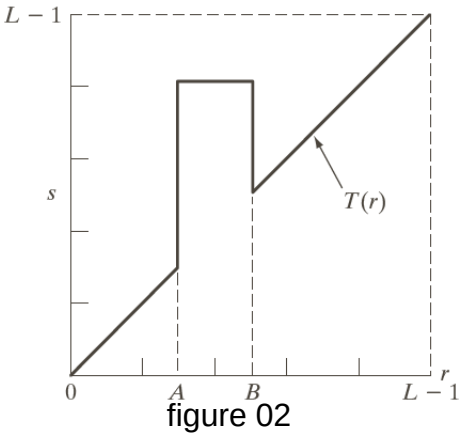


figure 02

ii) Explain the result obtained by applying the two functions above on a given grayscale image. It manipulate the group of intensity levels in the image in the range [A-B] while leaving the rest alone or diminishing them.(There are two techniques involved discussed in the next page.)

Figure 01

Grey level slicing without backgroud:

it display high(white) values in the range [A:B] and low values(black) to the other regions to ignore the background.

Figure 02

Grey level slicing with background:

In this approach we increase(highlight) the values in the range[A:B] while preserving the intensity levels at other regions. Displays high values in specific region of an image and original grey level to other region by preserving background.