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Subject:- Digital image processing :-

## Question 1b

### :- Negative of Picture :-

The negative of an image is a total in which light areas appears dark. A negative colour image is additionally colour reserved image negative image has basically details in it but they are reserved in the film they are opened on the photographic page

The negative image usually have less contrast, but a wider dynamic Range than the final printed positive images. The contrast typically increase when they are printed on photographic page. when negative film are brought into digital rim, there contrast can be adjusted at the time of scanning and by other process which are easy to access.

## Question :- 1(a)

Ans) Gray level slid is equivalent to band pass filtering. As it manipulates group of intensity level is an image into specific range by diminishing rest or by leaving them alone.

This transformation is applicable in medical images and satellite images such as X-Rays, CT scan

Following are the approaches.

- 1) Grey level slicing with background
- 2) Grey level slicing without background.

As per example is required

1) It can brighten and darken the dusk and dawn and also cloudy images

2) If a picture is in grey and white so the grey area can be whiten by applying this technique.

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Question:- 2

Ans) In the given picture it is enhanced by the histogram equalizer technique.

In histogram equalizer technique the adjustment of constant contrast, of image takes place.

This technique improves the image appearance by scaling out the intensity range of the image, through the reassignment of pixel value the distribution on the histogram is stretched out to produce a more uniformly distribution

Question:- 3

find the following

$$(P = (6, 1)) \quad \& \quad Q = (3, 7)$$

$$\star ED = [(i-n)^2 + (j-m)^2]^{1/2}$$

$$\Rightarrow [(7-1)^2 + (3-6)^2]^{1/2}$$

$$\Rightarrow [(6)^2 + (-3)^2]^{1/2}$$

$$\Rightarrow \sqrt{36+9}$$

$$\Rightarrow 6+3$$

$$\Rightarrow 9 \quad \text{answer.}$$

formula :-

$$D_e(p, q) = [(x-s)^2 + (y-t)^2]^{1/2}$$

### Question : 4(a)

Ans) Histogram are very usefull tools that may cameras offer their uses to help them get a quick summary of the total range present in any given image.

The graph shows the tones in the image from black (on the left) to white (on the right).

The higher the graph at any point the more pixels of that tone that are present in an image

Histogram there are lots of dark pixels will be skewed to the left and one with lots of lighter tones will be skewed to the right.

### Question 4:b

Ans)

1) Pic a : Hgm 2

2) Pic b : Hgm 1

3) Pic C : Hgm 4

4) Pic d : Hgm 3