## 407 Comp Lab 4

# Dr. Hewayda Lotfy

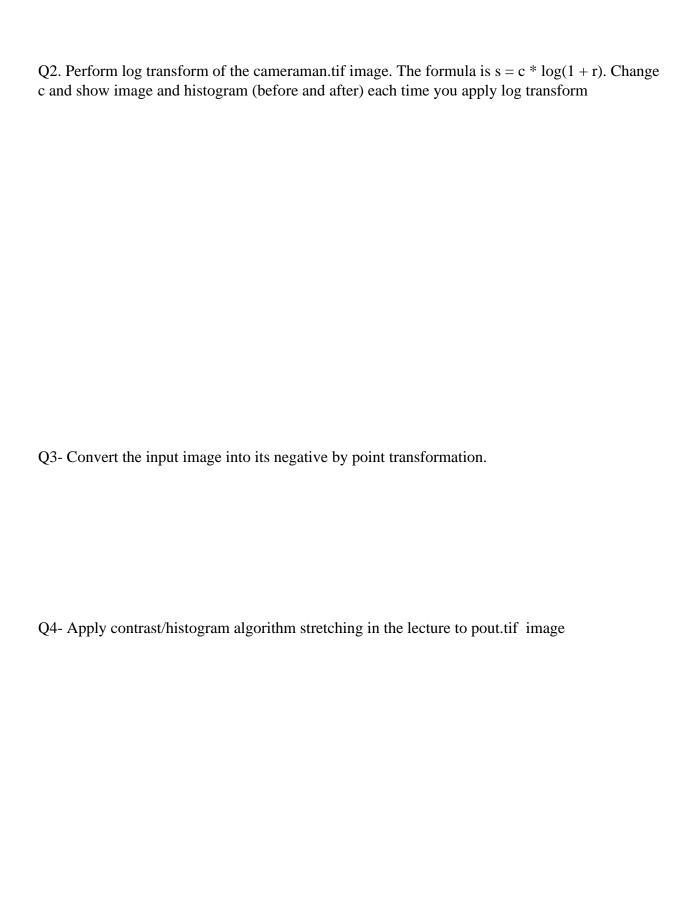
#### **Pixelwise Transform Functions**

# Note that MATLAB have the pointwise operation instead of using the for loop for accessing each pixel location

Q1: Try Gamma transformation with different values of gamma and c using the equation  $s = cr^{\gamma}$ , fix the value of c to one for example and then use p = 0.5 and 2,

fix the value of  $\gamma$  to 0.4 for example and then use c=0.5 and c=2,

show the image and the histogram before and after applying the gamma transform and explain the resulting images.



### Q5- Apply average filtering:

- 1. Add noise to image using the MATLAB function imnoise (choose salt&pepper and speckle noises), now you have two noisy images
- 2. Define the average filters
  - a. h1=1/9\*ones(3,3);
  - b. h2=1/25\*ones(5,5);
- 3. Apply these two filters to each of the noisy images using function conv2
- 4. Show the images before and after filtering

### Simple example:

```
b=imnoise(a,'salt & pepper');
h1=1/9*ones(3,3);
b1=conv2(b,h1,'same');
and so on
```