

Instructions:

1. All questions are compulsory.
2. Marks are mentioned against each question.
3. Write down md5sum for each question(py file)on the given paper.
4. The Internet is allowed but talking or sharing files with each other is strictly prohibited. If found indulge, zero marks will be awarded for this test.
5. If you have any questions then raise your hand and ask only with TAs.
6. No mobile phones are allowed.(Otherwise zero)

1.Apply canny edge detection on image iiita1.jpg save as iiita1\_canny\_<roll number>.jpg  
(10 marks)

2.Convert iiita2.jpg image such that the first one-third column represents red channel, second one-third column represents green channel and remaining column represents blue channel.(a demo is shown in 'demo for question2' folder) output imageshould named as iiita2\_channel\_<roll number>.jpg.  
(5 marks)

3. ( n is the last two digit value of your roll number.)  
Convert color of circle(green part) of image round.jpeg into pixel intensity  $[n \% 255, (2 * n) \% 255, (3 * n) \% 255]$  corresponding to blue , green , red channels.  
Where % is modulus operator.  
(3 marks)

4.  $k = \frac{1}{9}[[1,1,1],[1,1,1],[1,1,1]]$   
convolve k on image iiita4.jpg (save as iiita\_conv\_<roll number>.jpg )  
(2 marks)