CSE 4228
Digital Image Processing

Final Assignment

Step 1:

- Take the Input image.
- Display it (Figure a).

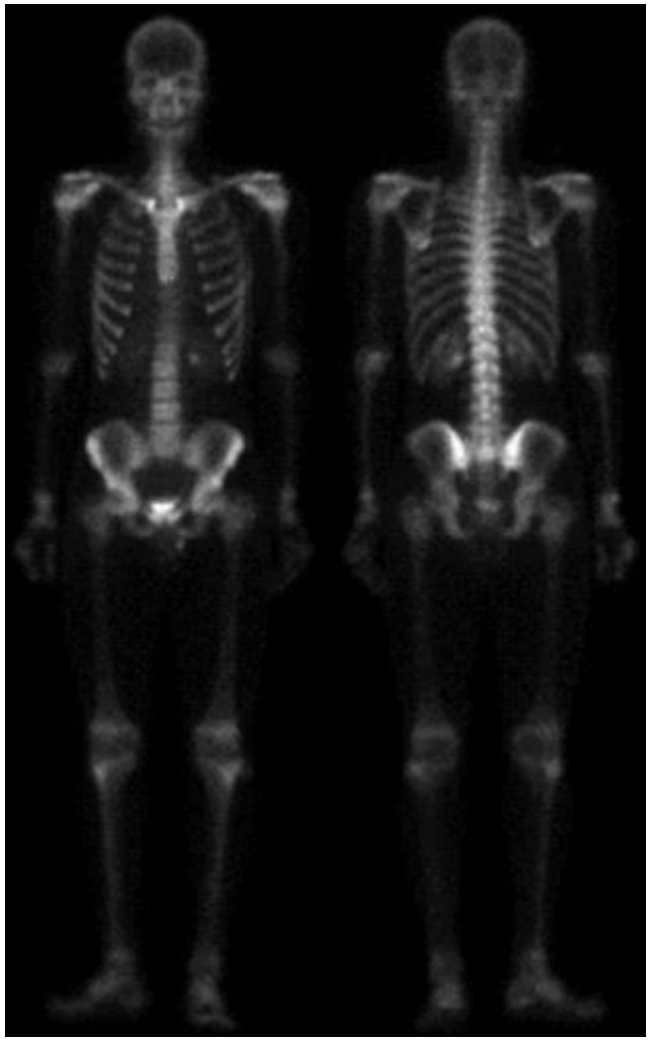


Figure (a)

Step 2:

- Apply Laplacian Filter in image (a).
- Take the **positive** Laplacian mask, where the **absolute value** of the central pixel is 4.
- Use imshow command in this step as follows:

  imshow(I,[ ]);
- The output image should look like figure (b).

Don’t forget to handle pixel boundaries where necessary in each step!!!

Figure (b)

Step 3:

- Do necessary Operations to get the Laplacian Enhanced Image (c).
- **Hint:** Try to remember how to get Laplacian enhanced image if we use a positive Laplacian Mask!!!

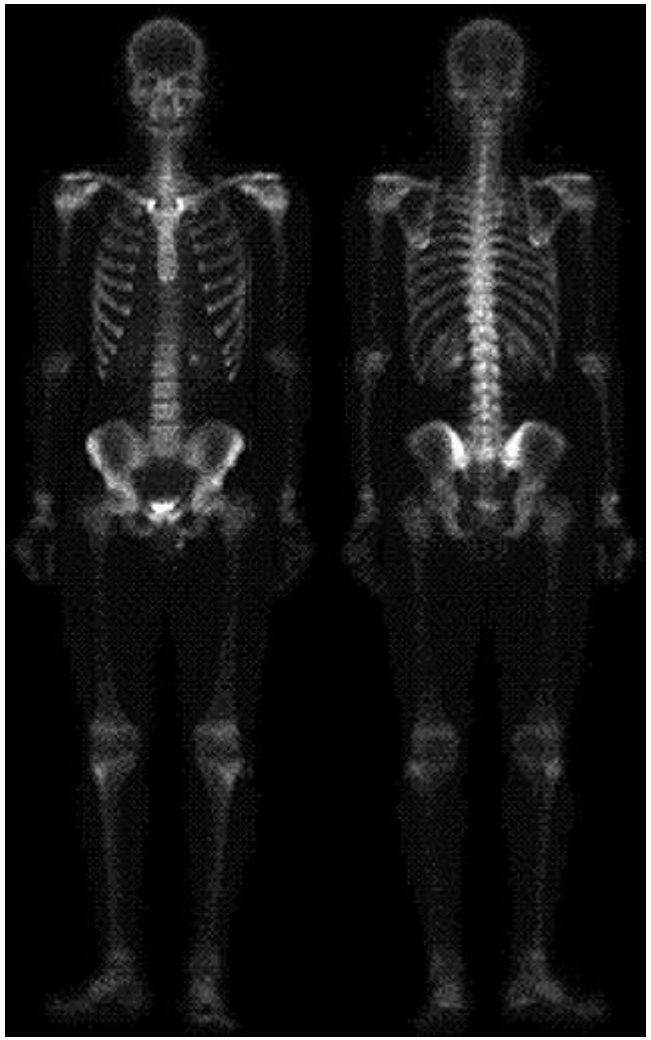


Figure (c)

Step 4:

- Apply **Sobel Filter** on Image **(a).**
- Your output (Sobel Filtered Image) should look like (d).

Figure (d)

Step 5:

- Design a 5X5 average filter mask.
- Apply it to image (d).
- Your output should look like (e).

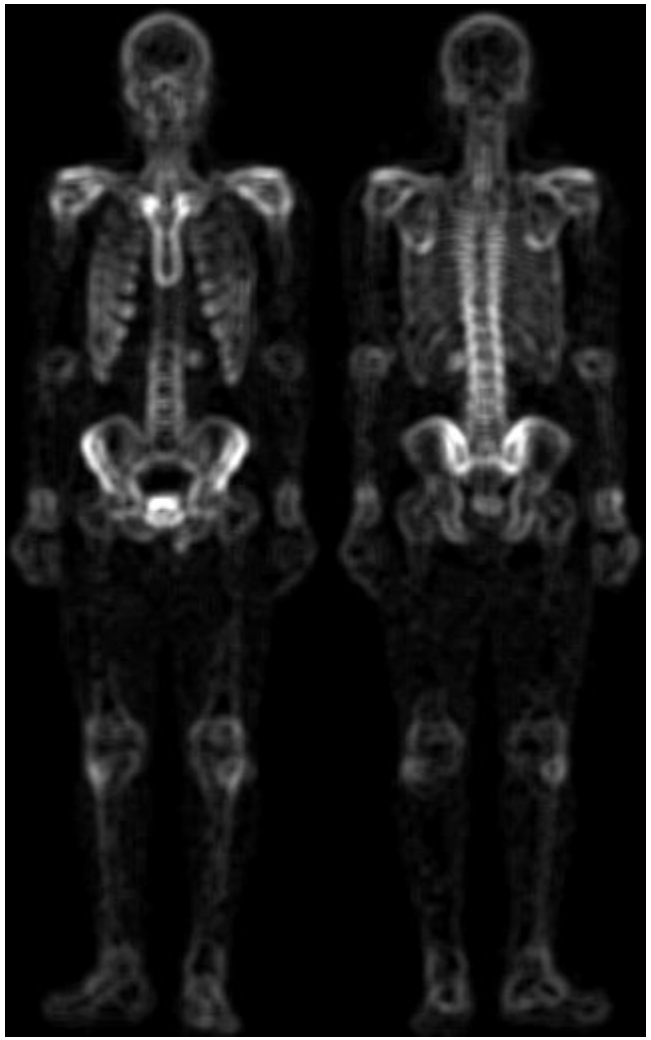


Figure (e)

Step 6:

- Get the product of **(c) and (e).**
- **Your output should look like (f).**

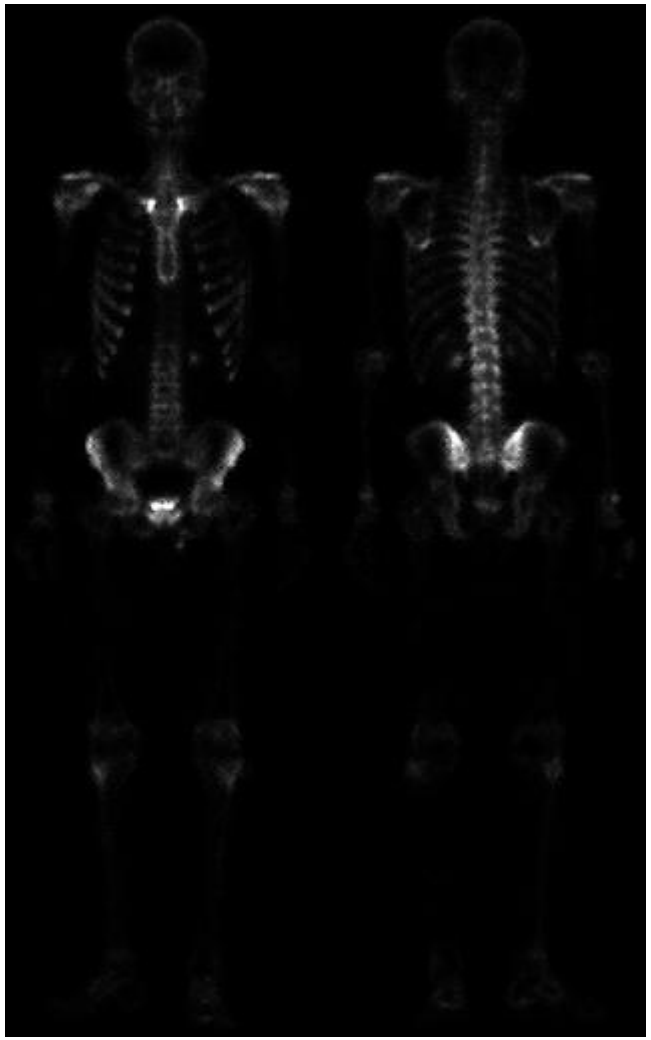


Figure (f)

Step 7:

- Add (a) and (f).
- Your output should look like (g).

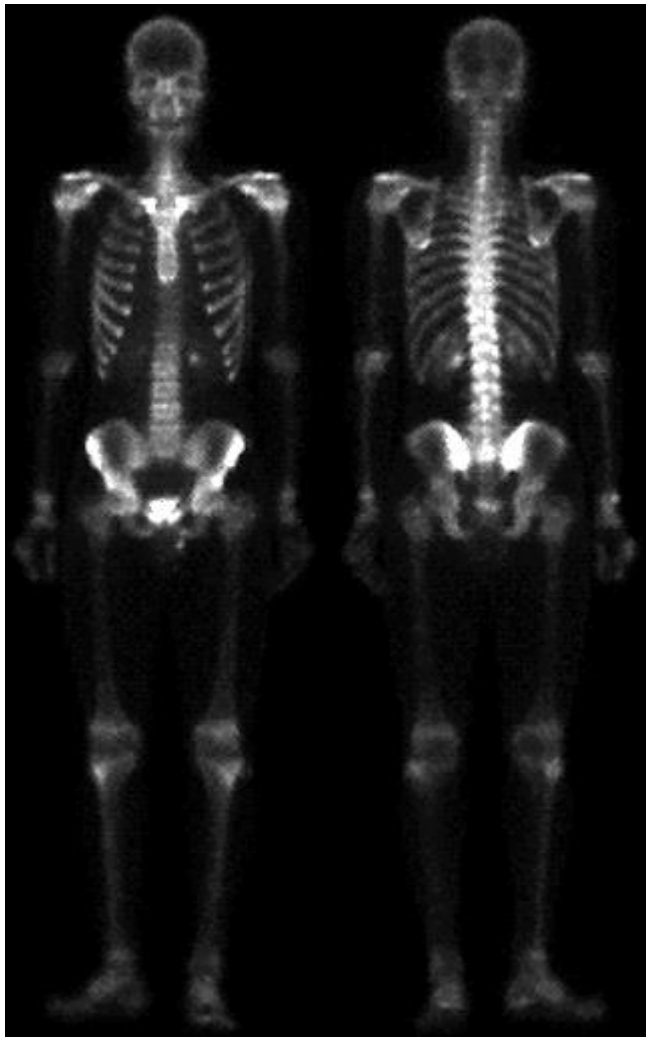
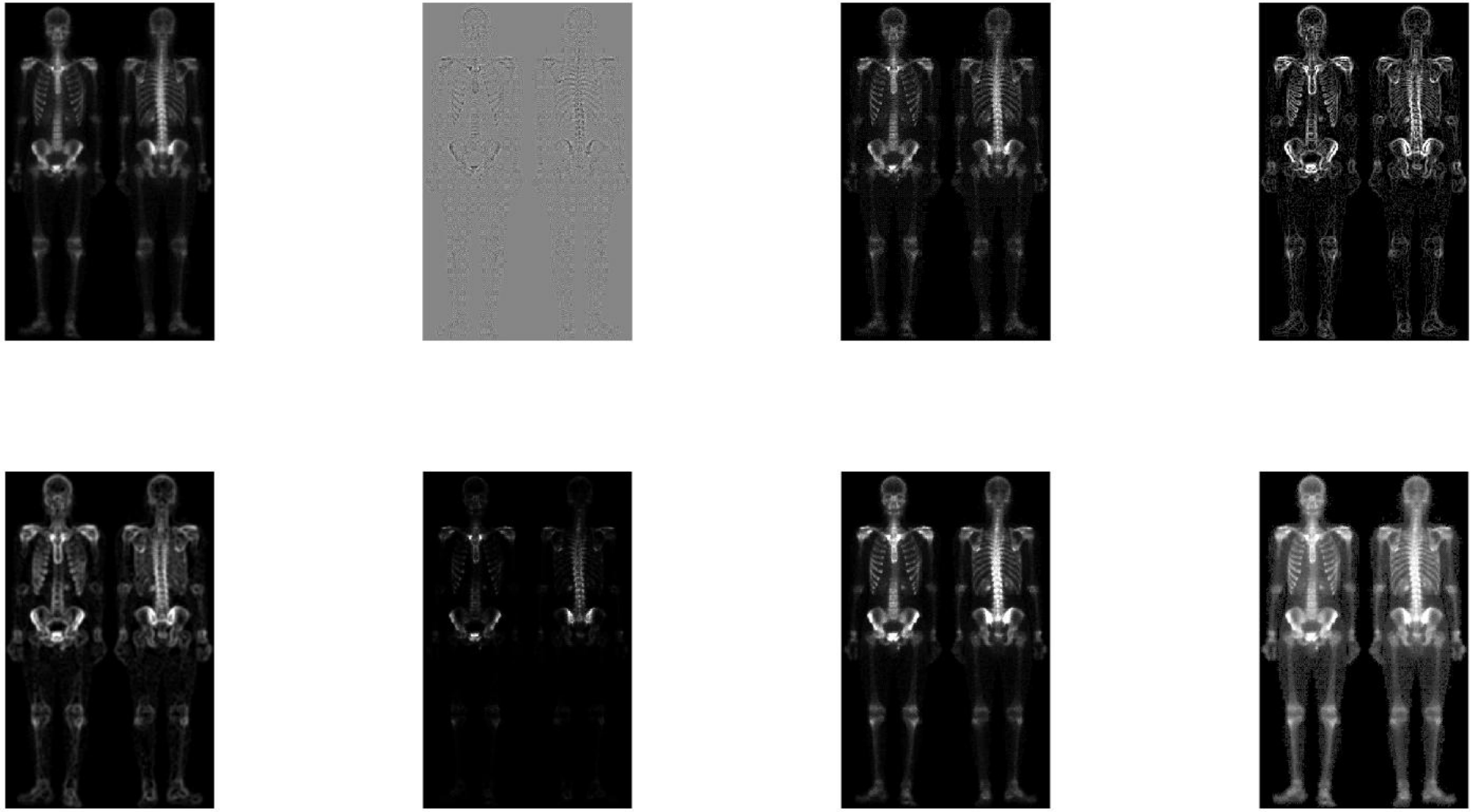


Figure (g)

Step 8:

- Apply Power Law Transform.
- Use **c=1** and **Gamma=0.5**.
- Your output should look like (h).

Figure (h)



Now Subplot them and Submit Your Code !!!